UNIVERSITY FOR DEVELOPMENT STUDIES

DEPARTMENT OF ADMINISTRATION AND

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SCHOOL OF BUSINESS AND LAW

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ADOPTION OF HUMAN RESOURCE INFORMATION SYSTEM IN THE GHANA EDUCATION SERVICE: A CASE STUDY OF MION AND YENDI DISTRICTS

BY

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THESIS PRESENTED TO THE SCHOOL OF BUSINESS AND LAW, DEPARTMENT OF MANAGEMENT STUDIES OF THE UNIVERSITY FOR DEVELOPMENT

DECLARATION

I hereby declare that the thesis is my own work towards the Master of Commerce Human Resource Management and that no part of it has been accepted for the award of any other degree anywhere, except where due acknowledgements have been made in the text.

Student: **20-10-2022**

ADAM AHMED …………………………….   ………………..

                          Signature   **Date**

Supervisor:

I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines on supervision of thesis laid down by the University for Development Studies.

                                                                                    20-10-2022

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                          Signature   **Date**

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LISTS OF ABBREVIATIONS

HRM	Human resource management
HRIS	Human Resource Information System
G.E.S	Ghana Education Service
IT	Information Technology
HR	Human Resource
ICT	Information Communication Technology
MIS	Management Information System
B.P.R	Business Process-Reengineering (BPR)
O.B	Organizational Behaviour
SMS	Short Message Service
PSC	Public Service Commission
TAM	Technological Acceptance Model
TOE	Technological Organization-Environment
COVID-19	Corona virus Disease 2019

ABSTRACT

The main objective of the study was to assess factors affecting the adoption of human resource information system (HRIS) in Ghana education service in the study area. The study used four specific objectives. The study applied the theories of HRIS such as Technology Acceptance Model and Technology- Organization – Environment. The idea for the study is as result of researcher personal observation and the review of important literatures in the area of the study. Also, majority of human resource staff of Ghana education service in the study area are still relying on manual way of managing HR activities. The study used the mixed method with support of thematic. Purposive sampling use to select respondents who were directly involved in human resource management activities in GES. The study used sample size of 40 respondents. The data was organized and analyzed using Descriptive Statistics and aided by thematic analysis. Questionnaires were used to collect data**. The major findings indicated that the following variables affect the adoption of HRIS: On technological factors such as computer network availability, inadequate basic technology, technology preparedness of the employee, inadequate expertise knowledge in IT. On Organizational factors such as attitude of employee in an institution, lack of IT expertise, and employee readiness. Environmental factors such as government policies and regulation, Organizational structure, Technology vendors and comparative pressure, government support and inadequate IT infrastructure. Financial cost factor, such as cost of technological system, cost of technological infrastructure and the cost of software installation. This research finding will inform the stakeholders in

educational sector to put appropriate measures to ensure smooth adoption of HRIS in

Ghana education service

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.O INTRODUCTION

This chapter presents the background information on Human Resource Information Systems and human resource management (HRIS) and factors influencing the adoption of HRIS in the Mion and Yendi districts in the northern region of Ghana. It also includes the statement of the research problem and the purpose of the study, the research objectives, research questions, and the scope of the study and limitation of the study.

1.1 Study Background

The emergence of information technology has inspired most firms and institutions in the world to resort to the use of human resource information systems HRIS(Tambe *et al*, 2019). Human resource information is assumed to enhance the efficacy of manual activities by personnel, such as human resource forecasting in an organizations (Karikariet al 2015). In a rapidly changing world driven largely by technology, it takes more than just traditional know how to perform effectively in an organization.

The adoption of human resource information system is modest symbolized to firms that have used computer hardware and software applications for the organization human resource management activities. Again, the adoption of human resource information system is associated in relation to the implementation of human resource information system software. The implementation is essentially expected to challenge the subject of doubt in people, technological and corporation settings (Tesha,2020).

Furthermore, study in the adoption of HRIS is still known to few organizations more especially in the African continent. A developing country like Ghana is gradually adopting technological novelty, which includes human resource information system (Nyame & Boateng, 2015). Human resource information system is simply an effective application of hardware and software aimed at linking the human resource information with Information system. It has been stated that a greater number of key activities of human resource management such as human resource planning, proper records keeping and forecasting can be done efficiently through human resource information system (Afrida *et al* 2020).

A research conducted by Bartai (2014) on the implementation of human resources information system in Hong Kong organizations, he found out that the greatest benefits to the implementation of human resource information system was the quick response and access to information that it brought while the greatest barrier was the inadequate financial support. Again, Bartai again explored the issues and barriers faced by nine Indian organizations in implementing and managing human resource information system. In this, the main human resource information system challenges were lack of knowledge of human resource department about human resource information system and lack of importance attached to human resource department in those organizations. Furthermore, collaboration is required through the various function and divisions of the organization for proper implementation of human resource information. He also stated that, emergence of information technology to the human resource industry has reformed the modern-day work place Bartai(2014).

The human resource information system adoption is associated with the implementation of human resource information system, this involves a process such as the legal

framework and related decision required inputs in the adoption of human resource information system. The adoption is obviously required to resolve the issue of doubt in people, as well as technological and organization settings (Aaron, 2015). A lot of literature had shown that, technological interference in Africa is limiting human resource information system adoption.

Furthermore, research have shown that, as a result of the emergences of computer science and technology, the application of human resource information system has been established and used by most organization in the world but little has been done in Africa, specifically West Africa. Human resource information system is intended to improve manual record keeping of data with the support of enhanced human resource system.

According to Quaosar (2017) in his study, identified three main group of people who interact mostly with HRIS in an organization, this group are human resource experts who depend on HRIS to perform basic human resource management task, functional managers also depend on HRIS to achieve at each unit and managers also hinge on the HRIS for larger data collection and analysis. In addition, each employeegets other awareness of HRIS application because of the desires to control category selection as employee benefits option turn out to be complex.

In the opinion of Priota (2020) HRIS is explained as an instrument that is used to collect information, manipulate, analyzed and implement to realize the organization long time objectives, as a result all activities of the organization are carried out based on information system. The human resource information system used the information technology to manage human resource, the system is made up of an electronic system.

The electronic human resource information system used hardware and software which is more useful than non-computerized system in terms of human resource activities

management. In recent times, human resource management functions are far more, broad and challenging. Indeed, it is a fact that, human resource information system can support the organization to build a satisfactory environment for sustainable performance.

Also, information management in human resource management used to be limited to only records keeping in an organization. In the past there were no systematic ways to information management using information technology but rather the use of the manual method. After the second World War, organizations turn out to be much aware of human resource difficulties particularly in the area of information management.

A study conducted in Ivory Coast that dwelt on the success factors in the adoption of HRIS by Madali, (2004) found that most workers in the public institutions in developing countries were poorly equipped to deal with the change that comes with dealing with technological innovations. In addition, Roanaldhomanana(2001) had similar findings in his study that focused on manpower needs in the implementation of HRIS in Madagascar. According to Lone, (2016)failure to prepare workers for the change that comes with the use of computer systems was found to be one of the factors that made it difficult for most public organizations in Liberia to adopt HRIS. This was in a study on the successes and failures of HRIS in the developing world. In a study in Korea by Wu Sung (2010) that sought to assess success factors in the adoption of HRIS in public hospitals, it was found that the successful adoption of HRIS requires the presence of skilled HRIS professionals in the organization.

According to (Sokro and Akrah, 2012; Neema Ejau 2018) in Ghana the use of human resources information systems is drive by powerful technological growth in an organization where Ghana education service is inclusive. Human resources information system is explained as a system that allows the human resource personnel to keep track

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of all employee information in a form of a database. The system keeps the employee names and contacts, salary history, position history, promotion, pay raise, qualification, date of birth of employees and among others. Human resources information help employee to lessen the volume of paper work and probable labor-intensive record keeping and timely recovery of information.

However critical looked at existing literature on the adoption of human resource information system, the topic has not been fully investigated by researchers and scholars, most of the researchers and scholars focused more on benefits and disadvantages with the neglect of major factors that influence the adoption of HRIS also only few studies have used established conceptual framework that will inform the direction of the adoption of the system. In the case of literature on the adoption of HRIS there in no empirically study of human resource information system in Ghana education service especially at the district level.

The network providers in Ghana are rendering poor service to the people and this could also affect adoption of HRIS in Ghana especially in Ghana education service since most schools and educational offices are located at areas that have poor network coverage.

This research will emphasis on assessment of various factors that affects the adoption of human resource information system in Ghana education service in the study area, this because the adoption of HRIS in most public and private organizations in Ghana are still facing challenges in adoption of various technology such HRIS.

1.2 Problem statement

In Ghana some organizations and institution have implemented human resource information system on their human resource activities, however little has been done in Ghana education service with regards to adoption of HRIS to manage the activities of human resources in Ghana education service directories and the various institutions more especially in Mion and Yendi districts.

Ghana education service specifically Mion district and Yendi Municipality are among the less usage of human resources information system in facilitating their human resource activities and have prompt messages delivering to the current employees, past employees and management, and due to the large number of teaching and non-teaching staff in the districts which have a population of about1, 259 according the secondary data of the study area. In this, looking at this figure manual human resource system is impossible to manage the teaching and non-teaching staff effectively for good performance based on initial observation by the researcher. Teaching and non-teaching staff needs to have regular communication with the management of district education offices and the heads of the educational institution; this could be about performance appraisal, monitoring and evaluation and promotions.

The human resource units in Mion and Yendi district education directories are still relying on manual forms of data collection, and delivery of information using hard copies by its employees. As a result, there is no accurate data for current and past employees in the district. This problem is as a result of absents of proper technology system in the districts education directories and other educational institutions to address HR issues. In this regard, this research is carried out to assess factors affecting adoption of a technology or human resource information system in Ghana education service with specific reference

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to Mion district and Yendi municipality in the northern Region. Also, almost all human resource staff of Ghana education service are still relaying on manual way of managing human resource activities in their units and the educational institution. Furthermore, data and other records are still kept in a hard copy in files just because most of human resource units and other units are not familiar with the system, in addition most of the staffs are satisfied with the manual system though it does not make HR activities very fast GES(2021).Public service commission (PSC) Newsletter (2015) has established that in the year (2012), the commission has introduced human resource information system project to build a vibrant human resource database for public sector organization in Ghana. The project was aimed at strengthening controls on, entrance, exit, promotion and position through the various groups. Again, on the 31st August 2016 the following institution were made to adopt Human resources management information system except Ghana education service. The institutions that adopted the system are public service commission, Ghana statistical service, Ghana prison service, Ministry of food and agriculture and local government service.

Again, research carried out on adoption of human resource information system focused on few factors that influence the adoption of the system. This study focused on the major factors such as technology factors, organizational factors, poor computer network availability and financial factors and how they influence or affect the adoption of human resource information system in Ghana education service in the study area.

According to Tesha (2020) who concluded that, the usage of human resource information in Ghana depend greatly on technological advancement within an organization and institution. This is simply an indication for further study on many factors that would motivate the adopting of such information and management systems in organizations and

information systems. However, review of literatures and theories still indicated that, adoption of HRIS is still unknown to most organizations and institution in Ghana, and for that matter there are still existing gaps on main factors that influence the adoption of human resource information system.

1.3 Objectives of the study

The main objective of the study was to assess factors affecting the adoption of human resource information system in Ghana education service in Mion and Yendi districts in Northern region.

1.3.1 Specific objectives

1.To assess the influence of technological factors on the adoption of human resource information system.

2. To examine the influence of organizational factors on the adoption of human resource information system.

3. To evaluate the current environmental factors in adoption of human resource information system in Ghana education service.

4. To find out the financial cost on the adoption of human resource information system.

1.4 Research questions

1. What are the technological factors that influence the adoption of human resource information system?

2. What are the main organizational factors that influence the adoption of human resource information system in Ghana education service?

3. What are the current environmental factors that, effect the adoption of human resource information system in Ghana education service?

4. How does financial cost affect the adoption of human resource information system in Ghana education service?

1.5 Purpose of the study.

The study will be important source of existing knowledge and information and useful to government for policy formulation and academic researchers in the information systems and human resource management practitioners. The study will also fill the existing gap on the factors that affect the adoption of human resource information system in Ghana education service. The research is also intended to assess the possible factors that are affecting the adoption of human resource information in the Ghana education Service particularly Mion and Yendi district. The study also looked at importance of HRIS.

The empirical research which conducted in HRIS adoption is Limited especially in a developing country. Ghana Education Service still used manual system in their human resource activities, in addition Ghana Education Service which is the focused of the study have a large number of staff and information dissemination is always not effective due to the size of the districts in terms of land, number of schools, population of teaching and non-teaching staff.

This research will also provide an understanding of HRIS adoption behavior of Ghana education service in Mion district and Yendi municipality by observing the human resource information system activities in the district among human resource managers, Education directors, the lower staff and teachers. There are a lot of research conducted on

the adoption of human resources information system in the developed and some developing countries and unfortunately little has been done in many of developing countries more especially Ghana.

In all, Mion district has about eight hundred and fifty one(851) teaching and nonteaching staff and Yendi has about one thousand two hundred and fifty nine (1,259) teaching and non-teaching staff(GES,2020) across the districts and because of these huge numbers managers of Ghana education Service find it extremely difficult to manage the employees effectively for monitoring, evaluation for effective performance management. In this situation, manual HR management systems are entirely insufficient.

Also, the real significance of this study will explain through helping human resource directors and the topmost management to understand the interaction of factors that influence the adoption level of HRIS in the organizational environment, which could eventually help with influencing the decision-making processes in an organization (Hodzic,2019). This finding will actually go a long path to ensure effective adoption of human resource information system that could improve performance and proper record keeping in Ghana education service.

1.6 Scope of the Study

The study is conducted in Mion and Yendi District Education Directories and the two public senior high schools. The choice of the area is purposively selected from a list of districts in the northern region. The main concentration areas are District Education Offices in both Mion and Yendi District precisely. The two districts are a joining district in the eastern corridor of the northern region. The study will ensure that, all the important

information to support this research will be gotten from the two districts in the northern region.

1.7 Limitations of the Study

Certainly, in every research there must be an expectation of numerous challenges which a researcher can come across during the period of carrying a very important study such as this study. Nonetheless substantive actions have been taken to possibly reduce those challenges. The possible challenges could be difficulty in retrieving questionnaire and data from respondents, inadequate time for the study, the will and commitments of respondents to give accurate information. The study area that is Mion and Yendi districts has large size population of teaching and non-teaching staff. All this have informed a careful selection of target population and a sample size for the study. This actual informed the selection of 40 respondents for the study as sample size.

1.8 Organization of the Study.

The study is structured into the following chapters. The chapter one contained introduction, which includes the study background, problem statement, objectives of the study which comprised main and specific objectives, research questions, significant of the study, the research scope and the study limitations. The chapter two is comprised literature review, Evolution of HRIS and HRM, Definition of terms, theoretical foundation review and logical framework. Also, the chapter three contained the methodology of the study which made up of research design, sampling techniques and sample size, methods of data collection, instruments and tool for analysis, presentation

and discussion of the findings. The last chapter is chapter five which contained the following, summary, recommendations and conclusion of the study.

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CHAPTER TWO

RELEVANT LITERATURE

2.0. INTRODUCTION

This chapter looked at the evolution of human resource information system and human resource management in a period of 19th to 21stcentury, definition of concepts and various possible factors that hinder the adoption of human resource information system and its importance in an organization. The chapter also discussed the various theories and conceptual framework of the study.

2.1. EVOLUTION OF HRIS AND HRM

Human resource management is explained as an organizational function that emphases on designing, selection, orientation, training, development, retention, appraisal, remuneration, and utilization of labor resource for achieving both individual and organizational objectives (Ahmer, 2016). According to Kavanagh *et al* (2012) they stated that just before 1990s, human resource management become aware of technological advancement, this was as a result of hostile and due to active business environment. Human resource information system in 19th Century begins with information system and human resource management this emerged to give us human resource information systems.

According to Qusaosar*et al*(2018) as early as 1945, organizations around the world recognized the importance of human resource, in 1969 there was a significant changes which gave opportunity for the expansion in the area of human resource information system. Management of human resource in any organization cannot work effectively if the human resource information system is not properly adopted (Raka, *et al*

2013).Under the colonial administration the paper- based system was made known to organization, this lasted for before and after independent. In this stage information communication technology was at its early stage, at this phase papers were used for employee records keeping in public and private organization. The system was challenge by slowness, inaccuracy and incompleteness in the output(Ishijima *et al*2015). The second phase was the transition phase that moved from paper-based to webbased system (HRIS) taking place in 1990s and partially ended in 2010. During this period, electronic human resource management became an important principle in the Public Sector.

It is an established fact that, most emerging economies and developing states like Tanzania, has resolved to use human resource information system to substitute the paper-based record system (Kassim,*et al*, 2012). The practice of HRIS in Tanzania started in 2011 when the Government of Tanzania final introduced human resource information system in the civil and public service such as ministries, departments and Agencies and Local Government authorities. The main reason for introducing HRIS in the ministries as well as departments were intended to reduce physical performance of administrative activities and enable human resources personnel to uphold complete, accurate and up to date employees' information by using electronic application software (Jorojick2015).

According to DeSanctis (1986) at the middle of 1980s human resource information systems became the key management information system as an aspect within the personnel areas of many large corporations. It is a fact that, human resource information system has turn out to be necessary tool in promoting organizational effectiveness and this is considered as being integral part of every organization.

According to Kavanagh *et al* (1990) information around employee in the past were generally restricted to employee names, addresses and more especially employment

history, which used to be documented manually in files in a form of hard copy. It has been established that the earliest automated employee information systems appeared in the 1940s and up to 1950s were process on categorization and the use of tabulating tools. In the past the computer system used to have a limited use, it was concern basically for monitoring employee records and payroll activities in an organization.

Armstrong (2006) stated in a study that, human resources information system considered employee personal data to be complex which needs to be safeguarded when moving information within and outside the organization. The system has a duty to improve communication between employers and employees in an organization and strengthen the unions and management committee relations. Public service commission (PSC) Newsletter (2015) has stated that in the year (2012), the commission has introduced human resource information system project to build a vibrant human resource database for public sector organization in Ghana.

The project aims at strengthening controls on, entrance, exit, promotion and position through the various groups. In addition, on the 31st August 2016 the following institution were made to adopt human resources management information system except Ghana education service. The institutions that adopted the system are public service commission, Ghana statistical service, Ghana prison service, Ministry of food and agriculture and local government service.

Furthermore, several studies have revealed that, adoption of HRIS in most developing countries is largely connected to technological advancement. For instances in Thailand and India, organizations have been able to work with technologically progressed and ready to implement human resource information systems. The advanced countries in the world have significantly invested in developing of human resource information system

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for the purpose of effective performance management in an organization. Furthermore, the enhanced system of human resource is connected with the growth of human resource information through taking record and technological requirement (Reddic, 2009).

Furthermore, a study conducted by DeSanctis (1986) on human resource information system assessment stated that human resource information system combines human resource management as a field of study and in making demand on basic human resource activities with the information technology setting. In Bangladesh, human resource information system is mostly used for recruitment, selection and performance evaluation (Bhuiyan *et al* 2014). However, the system had some strategic benefits that are derived from implementing HRIS which includes the following, faster process of information with greater accuracy, reduced cost to HRM activities, superior employee communication as well as quality planning and enhanced program improvement (Bhuiyan, *etal*, 2014;Ferdous, *et al,* 2015). In recent time, organizations will prefer using information generated from HRIS applications for further strategic purposes stated by (Bhuiyan*et al* 2014)

According to French (1990), human resources management as an administrative viewpoint, procedures, strategies, and practices which concerned proper management of employees to ensures the achievement of performance of an organization.

A human resources management policy framework established by public service Commission of Ghana, the Framework became effective on 30th April, 2015 and applies to the public services of Ghana which is clearly stated by article 190 of the 1992 Constitution of Ghana in which Ghana education service is no exception. The framework looked at organizational design and human resource planning. The framework also stated that there is a need for the employer recognizes the need for comprehensive organizational

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strategy and human resource management to make effective use of the country human resources for sustainable service provision to the employee of organization in Ghana.

The main reasons for the policy framework were to offer reliability, consistency and fairness in the organizational strategy, human resource management planning and classification. In conclusion the policy framework, pursues to effectively offer guidelines to departmental heads, other agencies, policy makers and human resource practitioners on establishment and changes in organizational design and size, classification of positions and the need for HRM planning, (Public Service Commission2019).

According to Ahmer(2016) the efficacy and effectiveness of human resource units in all organization, both private and public including Ghana Education Service will soon commence the organization critical activities centered on the adoption of information technology. Human resource information system can be applicable in all human resource to perform series of activities, which includes operational support in collecting data, store of data and preparing data for reports, and controlling the available data, reducing costs of labor for human resource units, and providing appropriate and different information to the management and employee of the organization, in which it is possible to make quality tactical conclusions related to human capital in an

organization.

According to Shmueli*et al*(2010), in Germany HRIS is rest on the availability of network system as well as its accessibility in the organizations. The adoption of human resource information system is basically linked with the technological advancement in most developing countries. Study have established that, India and Thailand in the Asia continent have managed to operate with technological preparedness to implement human

resource information system. Whiles in Africa technological progress and organization interference is limiting human resource information system (Aaron, 2015).

According to Troshani *et al* (2011) in their study in Australia's organizations, found out that key factors that are influencing the adoption of human resource information system includes organizational factors such as top management commitment and human capability as well as the broader environmental factors such as regulatory compliance which can have a deep impact by creating firmness in adoption.

Research has shown that many organizations also used human resource information system as an automated system through interactive employee information internet-based web application. Consequently, information is always updated automatically and HR personnel have more time to do other human resource activities (Kovach, K.*et al* 2002). A study of Al-Mobaideen *et al*.. (2013) stated that, technological development is required to established a robust HRIS. The effective implementation of human resource information system can be viable when organization develop a strong technological structure.

According to (Piabuo *et al* 2017;Tambe *et al*, 2019) they stated that computerized human resource information system can be used to collect data, keep data, process the data, present and transmit data through which information can be sent to management and employee. It has been established that human resource information system is not only limited to electronic system but complete and strategic view of employee information. The outbreak of the Corona Virus Disease 2019 pandemic increases the use of information communication technology in firms. As a result of COVID-19 pandemic some business ensure greater process of flexibility in their human resource management activities, by adopting modern technology such as HRIS(Alabbadi*et al*2020).

Human resource information system by Becker*et al*(2006) they advocated that, the organizational performance gets directly affected by human resources as they are now recognized as a strategic asset for benefit under the resources-based view of an organization. It is a fact that the emergence of new technologies has improved human resource management functions well adding significant ideals to the organization service within human resource units a tactical business partner. Recent technology saves as medicine to human resource management for given critical technical support for practicing human resource management more strategically.

In opinion of Paper et al. (2021) most agricultural farm are monitored using Information Technology system in the employee personal data, also while the small portion agricultural assets is monitored using software for monitoring education and knowledge transfer. In addition, the factor analysis was used to identify factors that describe agricultural firms according to the use of information and communication technologies in human resource management. The outcome shows that, in terms of the current shift of the entire agriculture towards digitization, the use of information communication technology in employee management of firms cannot be abandoned.

A research conducted by Kanyanjua,(2017) cited in Madali,(2004) stated that, in Ivory Coast there is an emphasis on the successful factors of HRIS which has been established by most public institution employee in developing countries were not well equip in dealing with technology innovation. The findings of Roanaldhomanana(2001) in his research which concentrated on manpower needs in the implementation of human resource information system in Madagascar.

A study carried out by Lone(2016) found out that, when employee are not well prepare for the innovation that come as a result of computer system appeared to be among various

challenges that made it difficult for most public institution in Liberia to adopt human resource information system.

2.2. Management Information System (MIS)

Management information system is simply the study of employee, technology, organization and the key relationship between them. The system provides information to management to carry out their day to day HR activities to enhance institutional performance.

As stated by Abdul Gafaru, (2019) Management Information System (MIS) is made up of different components integrated to improve data collection, process the data to information, keep and circulate the information for the purpose for effective decision making in an organization. Management Information System helps HR staff to do so many activities such as planning, controlling, coordinating and analyzing. Management information system is a very vital in any organization and has been in existence for long before the current system such as HRIS. Furthermore, MIS is made up of a number of components such as transaction processing system, management reporting system and decision support system.

2.3. DEFINITION OF CONCEPTS.

A finding by Hendrickson (2004) revealed that the concept of HRIS is example of any multi-dimensional organizational information system. He added that human resource information system is not only for computer hardware and for software applications that embrace the technical part of the system; it also included persons, strategies and data needed in managing the human resource function. In the study of Lam(2007) explained that human resource information system as a technology-based system used to obtain, store, analyze, recover, and deal with appropriate information regarding an organization human resources. Human resource information system usage application aids organizations to work much faster in the organization to use electronic system. Most firms use employee self-service system in which employees put in information such as address update, planning for retirement, health-plan update, birth of a child on their own (Kovach, K. A. & Cathcart, 1999).

Reddic (2009)stated strongly that, advancement in technology is significantly linked with the amount of financial resource in the development of HRIS. It is further stated that, advancement in technology within a particular organization is necessary related to the information records and technological requirements. It is a fact that, Technology is a necessary criterion to succeed in the adoption process.

A computer is simply defined as advice which is electronic that receives input, process it into information as an output. A computer as a device has the capacity to keep the information and has the power to transfer the information among different computers on a network in an organization. A computer program is a comprehensive group of information that directs the computer system as how to perform a particular function to produce a prefer outcome for example computer software.

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Computer software is explained as the set of instructions that in form a computer to perform an activity. The software simply refers to the various programs that are installed and enable the hardware of a computer to function well. Computer software is further defined as program which give instructions to the computer to do a work and possible how to do it. This implied that the computer cannot work without software and so their human resource information system cannot be implemented without a computer.

The term software is basically referring to particular computer programs that are constructed within the computer and also installed. Computer software can be classified into two thus, system software and application software, Abdul Gafaru (2019). Computer Hardware is the physical components of the computer system, these includes tangibly component that are connected to your computer to function well. The tangibly component can easily be felt, for instance, the keyboard, and the monitor which are all output device. Also, computer device cannot operate without hardware and software to run HR activities.

Information is simply explained as a processed data that has meaning. Again it is a process data that has meaning and understood by personnel in an organization, information that has characteristics such as accuracy and timely presented for decision making in an organization needs to be accurate, reliable, proved of relevance, timely and above all cost effective,(Abdul Gafaru2019).

Communication according to Appleby(2004) is a method by which employee in an established organization passes information about the operations of the organization. Appleby in a study highlighted on why communication must take the vital area in an organization because structure comprehensiveness and the scope of the organization are mostly determined by the process of communication. It has been confirmed that, bases on the proposed reforms in Kenya, information system is supposed to be able to continue

with a more formal reporting relationship within the organization. It is important to give support to information system in other to provide the required services. In the work of Kotler, (2007) stated that efficient communication contributes significantly in the adoption of human resource information system.

A research conducted by Mulweke (2009) on private and public sector adoption of human resource information system in Zambia organizations confirmed that efficient communication in an organization contribute significantly in making employees be aware of the outcome of the use of human resource information system. This opinion is also reinforced by Abdul (2000) in his study on readiness of developing countries with regards to the usage of human resource information system, established that many organizations failed to educate their staff efficiently on the use of new technology. The study of Kagwiria(2013) which carried out to assess the relationship between effective communication and the application of human resource information system in public institutions in Kenya confirmed the work of other researchers on the issue of adoption HRIS.

Information technology is defined as a system in which computer system, software and computer networks are use in processing information and sending out information in an organization. The idea of technological advancement itself is a vital issue in making decision to adopt information technology. In the opinion of Anderson(1990), information technology simple consists of designing development, implementation and management of computer-based information system, especially software applications and computer hardware.

Furthermore, Information technology is made up all material which are connected to the maintenance of computer science and technology as well as the designing, setting up as well as implementation of information system and some compute application. According

to Kovach *et al (*1999) despite the technical bond of Information Technology with Human Resource, professionals are of the view that computers are not the solution in human resource information system, than the information.

According to Abdul Gafaru (2015) in his work defined technology as the collection of techniques, skill, and process applied in the production of services. According to him there are so many effects of technology on organizations. Technology again has supported in developing more advanced economies. Study has proved that technology and innovations in all the time have changed the standards of a society and raised up new questions in the beliefs of technology. Also, the use of technology in an organization is a key to have a very strong and effective human resources management system.

The attention of a comprehensive human resource information system remains complete on information, validity and reliability and lastly it usefulness for various employees. In the work of Kovach *et al* (2002) they highlighted on the strategic need of human resource information system is well reflected in the research works of Tansley & Watson,(2000) which they explained that any human resource information system project cannot be successfully completed until all the stakeholders in the HRIS project such human resource, software vendors, and information technology come together to support top management in an organization.

Research have shown that, Implementing human resource information system in an Institution is purely a tactical decision for instance selection of vendors, managing change and careful design and application of human resource information turn out to be main responsibilities of an human resource units, Mohanty,*et al*(2007). A study carried by Gautam *et al*(2011)stated that human resource information system plays vital role to support society for human resource management activities such as developing human

resource communication, getting education at place of work, career management and decision making.

According to Tesha (2020) who concluded that, the usage of human resource information in Ghana depend greatly on technological advancement within an organization and institution. This is simply an indication for further study on many factors that would inspire the adopting of such information and management systems in organizations and information systems. Human resource information system adoption refers to the use of information systems in human resource management. Adoption is categorized under the following level, that is technological adoption by each employee, and technology adoption by organizational level (Osei *et al*2015).

Furthermore, on the field of health, human resource information system makes medical practitioners feel insecure with their job as they are required to use the system in their work,(Faizah *et al*2015).According to Quaosar*et al* (2018) labor-intensive human resource management systems are completely needed in the hospitals. Human resource and information service serve as a light to different organization as human resource information system facilitates the key management with vital information connected to their issues. Information systems consequently ensure organizational output and improve management decision making skills.

According Abdulai, (2000) in his work stated that, human resource management matters is well grounded in the 1992 constitution of Ghana, this can be found in the provisions in the various articles and chapters in the1992constitution of Ghana. The constitution recognized some human resource management activities such as, human resource management policy, recruitment and selection, equal employment opportunity, employee rights and welfare compensation and benefits, human resource development.

Anitha & Aruna, (1986) sought to argue that, technology has the willpower to determine how work can do easily and how human resources management is specifically practice. This went ahead to indicate that the emergence of human resource information was as a result of integration of information technology.

The explanation above has given a simple understanding of prominent emergence of human resource information system. The advantages of HRIS and its importance gives a good picture that implementing HRIS is a vital phenomenon. Human resource information system acts as a reputed platform with objectives of reduction of costs, quality satisfaction, customer satisfaction and innovation.

According to Ulrich (1997) in his study, stated that, the usefulness of human resource information system ensures an opportunity for organizations efficiency and give some authority to human resource manager's performance in the organization. In the opinion Tessa,(1997) he stated that, there are various information technology tools which is being used in human resource applications since the beginning of electronic human resource management, this comprises, Advanced Scanners, Internet, Computer telephony integration, and new programming languages such as Java and distribution

devices.

In recent times, Information technology has supported organizations to adopt specific HRIS Software such as People soft, cloud HR, HCM, Bamboo HR, Workday, In-houses creations. The basic purpose of human resources management software is to provide a fundamental database comprising employee records for past and presents workers. The human resource information system is a staff main record which provides a system of record for employee data.

HRIS in 21ˢᵗ Century also introduced cloud technology, which is a component that has found huge application in information system and therefore adds innovation for human resource information system. In human resource information system cloud, computing is simply explained as a technology that keeps data and applications by using internet and remote servers. Again, cloud computing enables the industry workers and the various managers of organizations and institution to use this technology without installation and access their personal data at their personal computers.

In the opinion of Anitha & Aruna (1986), cloud computing explained as a type of computing application service such as office software, Email and enterprise resource planning software and the use of universal resources that can easily be shared by the business employee and trading partners. In this, the user is connected to internet and communicates with several servers at the same time, the server's exchange information among themselves in an organization. The application of human resource information system in an organization ensures sustainable development.

Anitha & Aruna (1986) claimed that, the human resource experts must update themselves to be conformed to the standard requirements of the international business world competency very soon as human resource experts ought to turn out to a data analyst. In all, human Resource information system aids human resource managers to make a noticeable friendly relation with the staff and line managers which contributes to the proactive role in formulation of objective and its implementation.

The literature on human resource information application sort to suggests that, every organization faces challenges once they implement new technology(Rahman *et al*2017). A research established that, hindrances in the implementation of human resource information system is attributed to the cost in maintaining system said by Beckers,et al,

(2002). In addition to this (Ngai *et al,* 2006 andBatool2012), they stated that, inadequate finance and the untrained employees are key types of obstacles in human resource information implementation.

In the work of Azmal*et al* (2018) indicated that, the implementation of human resource information system in the public sector depends on the organization, technology and environmental perspective factors. Research has shown that, some variables and factors that have influence the implementation of human resource information system, based on this a number of variables were recognized based on the a previous works on human resource information systems by some people base on the users of Human Resource Information System. In the work of Dixon *et al* (2002) stated that, the structure of organizations will also have negative effects on the adoption HRIS.

In the opinions of Cavaye*et al* (2007) characteristics of leaders of organization have negative influence on the adoption of human resource information system. According to Mirchandani*et al*(2001) environmental conditions affects the adoption of HRIS. According to Deng *et al* (2005)they revealed that aside the above variables, other factors involving personnel also affected adoption of Information System, this depends on user satisfaction.

Indeed, human resource experts have increased their capacity not only for information gathering, but for a purpose to keep and retrieve information in a timely and effective way. Also, the human resource information system is not purposely to increase the effectiveness of the organization but also the success of management functions will lead to improve in an organizational performance. It has been established that organizational level adoption behavior of human resource information system has been investigated in developed countries but very little researches have been conducted in developing

countries, particularly within Sri Lanka and in Ghana. Studies have shown that human resource information system adoption conduct in Sri Lankan organizations to examining the occurrence in a new environment in an organization. It has been established that recent studies provide some level of vision into the application of human resource information system by Sri Lankan companies, which should help human resource experts to acquire a better understanding of the current human resource information system adoption status and applications. It has been confirmed that, the evolution and usage of HRIS in Tanzania has been classified into three different forms in the human resource management (HRM), such as paper-based form, transition phase to web-based (HRIS), and web-based system (HRIS). In every stage in an organization and institution, HRIS is determined by accessibility of suitable Information Communication Technology (ICT) and capacity of an organization to acquire such technology.

According to Teo*el al* (2001) they defined non-adopters of human resource information system as those organizations which do not use computer hardware and software applications for their human resource management activities. A study has shown that a survey carried on 110 organizations in Singapore, 47 represented (42.7%) are said to be non-adopters of human resource information system. Of these, 29 representing (61.7%) organizations showed that they would not adopt human resource information system in their organizations within the next one to two years, based on reason such as the size of an organization.

It is stated that the fewer the employee in an organization, the lesser the need for human resource information system. Also, the research finding by Teo on reasons for non adoption of HRIS based on Percentage of an organization which is too small in this,

62.1% do not see the need to adopt HRIS. 34.5% of the respondents see it be too costly, 17.2% attributed to lack of knowledge in human resource information system, 10.3% also attributed lack top management support, 10.3% lack of human resource

information system expertise.

A research conducted by Tigari(2017) have shown how an organization is using the applications that they intend to adopt human resource information systems in percentage terms. In this, 94.4% organization proposed to use the HRIS for employee record-keeping, (83.3%) was agreed to use HRIS for training and development and (83.3%) for performance appraisal. According to Tigari (2017) a research conducted by him, stated that a normal human resource information system has these applications and functions, which includes people administration, payroll, compensation and benefit, leave and absence, performance evaluation, recruitment, training & development, improve procedures and cut HR costs. With planning, you can have a painless conversion and, as an end result, a more efficient, more accurate HRIS. Examining the transitions that HRIS brings in HR processes, (Qadir & Agrawal, 2017).

In the study of Kassim*et al* (2012) they upheld the view that, when organization has a good HRIS the probability of making a better human resource decision is always great. They are of the view that, HRIS should be allowed to be use by both human resource managers and assistant managers to help in decision making. It is a fact that, planned value can be moved by human resource information system tools that support an organizations in making decision in line with important human resource functions (Farndale, *et al*2010). In the opinion of Anthony, *et al (*2002) human resource information system makes human resource functions to become well organized and also provide better information for decision making in an organization. Some of the best human resource

function is support in collecting and analyzing data necessary for HRM department to perform their work in an organization very well.

Previous study on human resource information system in an organizations have shown so many organizational characteristics as a possible factors of the adoption process which include the business size, Information technology planning, organizational culture and organizational change. A research by Kagehi*et al* (2015)opined that, Organization culture is simple defined as a behavior that add to unique social and psychological environment of an organization. These include the organization's expectations, experiences, philosophy, and significant values that hold it together; also, it is expressed in its inner workings, its own image, communication with the international world, and future anticipations. It is again based on shared attitudes, custom and norms, beliefs and values. Again, Salwa & Ziad(2006) added that organizational culture also paved way for maintaining the identity group, cohesion of members and the survival of the respective group. According to Abeer, *et al*(2011), organizational culture plays a very vital role in the application and spreading of electronic management in an organization.

According to Tesha (2020) business sought to be ensure human resource information system is adopted into their day to day management. This is because is easier for managers to access timely and accurate information for making decision due to the single database available to the manager as a result of human resource information system. Study has shown that, enhancing the technology literacy of citizens has been identified as a major driver for the adoption of various technologies argued that the education and training of citizens on the use of various Information Communication Technology will enhance their adoption forms (Caaum, et al2013; Hashim, 2015; Lazarevic & Lukic, 2016; Srivastava et al, 2010).

In recent times, in competitive business world, organizations are expanding the utilization of HRIS outside their own Network to jump in to the world of Internet and Intranet. Reliable Internet has brought radical changes in today business. The world is now considered as global village and this new idea of doing business without having geographical borders has increased the importance of information systems. It has been said that the main purposes of HRIS are giving better service, information access and cost saving. The automated human resource functions has benefits such as, it improved data accuracy, advanced processing speed, and enhancement of productivity (Ceriello, *et al*, 1991).

Also, other benefits are accuracy of information generated, availability of required information on time and ultimately saving the costs of the organizations ((Tetz, 1973; Lederer, 1984). The data given by human resource information system comprises the following such as compensation programs having information on salary forecasting, budgeting as well as negotiations base on each requirements of the organizations.

According to Kernaghan,*et al* (2007) in their research on adoption of integrated human resource management information system showed that the use of management

information technology, positions public organizations to acquire particular skills and considerable human capital investment. Departments and agencies in the various organization must work with their government for financial support to invest into Information Technology as well as private sector to technological skilled employees to achieve the targeted objective for adoption of the system. In the work of Aggarwal *et al* (2012)stated that, HRIS has a lot of benefits to management and human resource departments in an organization. It helps the organization in many ways such as, it ensures a total effective decision making of the organization, it also assists to generate a specific

data base for employee in the organization. It is also stated that, human resource information system does not only help the management and human resource units but also assists the employees in many forms. Human resource information system is also ensured removal of manual form, which actual makes the organization work slower and likelihood of removing possible mistakes by employee.

The HRIS makes it possible for employee to have independence right to use organizational files which regularly means using specific software as well as keeping automatic tracking and reminder to firm responsibilities and events. Again, in most organization HRIS makes it possible for employee to attend in service training courses using the web in order to improve their individual skills and knowledge. This will end up by encouraging employee to make decision and initiatives on the basis of information obtained in the HRIS system.

2.4 Components of HRIS.

In the opinion of Kovach*et al (*2002*)* the main functional components of human resource information system are stated as input, data maintenance and output. They also added that, personnel information is entered into HRIS through input function. Previously data entry was one way however, modern technologies used for scanning enabled scanning and storing actual image of original documents. When information is entered into the database of information system through input function, the data maintenance function updates the database. It has been confirmed that the most visible purpose of human resource information system is the output of an organization. According to Hendrickson, (2004) management of an organization embraces the following, such as employees,

policies made to run organization effectively, data and information technology comprises computer hardware and software in an organization.

2.5. Theoretical Foundation

In this section, the interconnected concepts, factors, interpretations which sets out a relationship between the independent variables in the adoption HRIS. As Soliman *et al* (2000) indicates, the existing theoretical foundation plays a vital role in ensuring the free flow of knowledge aimed at facilitating the fulfillment of the organizational goals in the educational human resource information systems. Some of the theories adopted included, Technology-organization Environment, Technological Adoption Model (TAM) and theory of planned Behavior (TPB)..

2.5.1. The Technology-Organization Environment (TOE) on technological factors In this particular study, the Technology-Organization-Environment (TOE) framework (DePietro et al..,1990) is used as my research theoretical lens. The Technology-Organization Environment framework uses few elements that impact the technology adoption of firms. These elements include the technological setting such as vital internal and external technologies of an organization, the organizational setting such as characteristics and resources of an organization, and the environmental setting which consist organization competitors, controlling environment etc. TOE has a direct bearing on the component of technology such as compatibility, IT infrastructure among others.

The TOE framework has been a useful instrument in interpreting how firms adopt technological innovations. The framework has been applied in areas that includes, electronic business according to Soto-Acosta,et al (,2015); Srivastava, et al, 2010). But, in spite of the framework general applicability in the area of information systems (IS)

previous research have failed to rely on the TOE framework to study the effects of its elements on human resource information system achievement either at the country or global level.

Furthermore, the mediating role of human resource (HR) quality for instant organizational context on human resource information system achievement at the global level is lacking. This study, therefore, comes at a time when these existing gaps in literature need to be addressed. In contrast with further theories like Technology Acceptance Model (TAM) and the Diffusion of Innovations (DOI), the TOE framework integrates the technology, organization and the environmental elements and ranks higher in showing both inter and intra firm partnership in the adoption and use of technology. Furthermore, the TOE framework is more comprehensive than other models as it brings together technology and organizational emphasis, something unique among competing models (Adam, Nana, & Simpson, 2020).

According to Grant (1999) most researchers face a lot of challenges in identifying the resource basis for particular organizations because of the fact that the two key sources of data and information which are information technology and financial statements and all these factors fail to provide adequate information about intangible resources and people-based skills and only provide a disjointed image of resource bases. In order to find a method to identify resources a classification approach is produced that consist of six categories of resources that are financial resources, physical resources, human resources, technological resources, reputation and organizational resources.

2.5.2. Technology Acceptance Model (TAM)on Human factors

The Technological Acceptance model (TAM) also suggested that, the usage of information system behavior is mostly connected with behavioral intent that is created because mindful decision-making processes in an organization. The behavioural intent, thus resulted into two certainty issues that is supposed effectiveness and supposed ease of use.

This technological Acceptance Model seeks to offer some clarification why individuals accept information technologies. In the opinion of Davis (1989) the Technological Acceptance Model supposed to describes how easily users can use the system and supposed usefulness are the essential issues in enlightening acceptance of information technologies by each employee in an organization. Technological Acceptance Model indicates that, a side supposed description of how easily users can use the system and supposed effectiveness, particular norm in addition is a vital issue influencing adoption decisions of employees.

Indeed, anytime personnel are informed by their top management on the benefits of the important of information technology given a green light from their senior management about the importance of the information technology application to do well as well as to receive substantial support in terms of essential training and also required changes needed for business process, the employee readiness to accept that information technology are increased according to (Sum et al 1995).

According to Zhang, *et al*, (2003) training helps personnel in two forms, in the first training aids in the transfer of knowledge from vendor's consultants to employees on why there is need for information technology system and how it should be used improve employees work in an organization. Training again helps employee to understand more

about information technology system and continuous training also supports employees to know about the characteristics of the software and therefore aids in developing an expertise with the system. In addition, employer and employee training is vital to make employee acceptance of any information technology system.

In addition, when employees are involved in the development and implementation level of technology system, it reduces the refusal to all information technology system, the reason is that, the employee feels part of the process and such recognized as significant stakeholders in decision making in the organization. In this, the stakeholders are capable of making decision on how the system should be work for them in an organization. In the view of the above theory, the application of a technology system is actual influenced directly or indirectly by the employee's behavioral intentions, attitude, perceived usefulness of the system, and perceived ease of the system. TAM again suggested that external factors affect intention and actual use through mediated effects on perceived usefulness and perceived ease of use.

The technology Acceptance Model has been developed by Davis (1989), the theory is one of the most popular research models to predict use and acceptance of information system and technology by individual users. TAM has been widely studied and verified by different studies that examined the individual technology acceptance behaviour in different information system constructs. In TAM model there are two factors perceived usefulness and perceived ease of use is relevant in computer use behaviours. According to Davis perceived usefulness as the prospective users subjective probability that using a specific application system will enhance employee job performance, perceived ease of use is explained as the degree to which the prospective users expects the target system to

be free of effort. TAM hold the view that ease of use and perceived usefulness are the most important determinants of actual system use. These two factors are influence by external variables. The main external factor that are usually manifested are cultural factors, social factors and political factors. Furthermore, social factors include language, skill and facilitating condition. The political factors are the impact of using technology in politics and political crisis.

2.5.3 Theory of Planned Behavior(TPB) on Human factors.

The theory of planned behavior is a theory used to predict and understand behaviors. It is stated that behaviors are immediately determined by behavioral intention, which in turn are determined by combination of three factors such as attitude towards the behavior, subjective norms and perceived behavioral control.

Theory of Planned Behavior helps to recognize how the behavior of people can be changed. TPB suggests that human action is guided by three factors which are behavioral, normative and control beliefs.TPB includes some factors that are part of TAM. However, TPB is not specific Information systems usage (IS).

2.6. THE EMPIRICAL LITERATURE REVIEW

2.6.1. Technological factor and human resource information system.

Anitha & Aruna, (1986) sought to argue that, technology has the willpower to determine how work can do easily and how human resources management is specifically practice. This went ahead to indicate that the emergence of human resource information was as a result of integration of information technology. Technological factors should basically streamline on the ability to be competitive to gain its relevant need, information system is directly implemented to the organization with several problems in the organization. The technology allows the use of human resource information system based on the system and respective installation, preparedness among users, the technology require proper training, the users are basically needed to be well prepared for instance to use based on the security. The system is basically affected by the failure of relevant authority to follow proper technological requirements. It has been established by Andrew (2001) lack of appropriate Information Technology systems and infrastructure was found to be among some of the factors that affect the adoption of HRIS of most public organizations in Ghana in his study on the inhibitors of adopting HRIS in the University of Ghana. Andrew findings support a study in Nigeria with a topic, the challenges affecting the implementation of Information Technology systems in the private sector in Nigeria.

According to Fransis, (2018) the computer network availability is much needed to facilitate technological infrastructure, particularly in the use of human resource information system. The network is needed to be available to access the use of human resource information system across various departments and units. It is based on this, Paul (2015) argued that technological preparedness and development is the key for easy adoption of human resource information system. The organization needs to establish a

learning mechanism in technological development and preparedness, due to tools demanded to control human resource information system. The ability to adopt human resource information system is highly attached to the existing technology in an organization. The different storage capacity is built in the technological innovation; the human resource information system needs the respective advancement and innovation. This is necessary in order to cope with different innovated capacities.

2.6.2. Organizational factors and human resource information system.

It was found out that organizational size and attitude of employee are significant factors which influence the realization of an information system in an organization. The size of an organization being small or large is the important act that has a major effect on human resource information system adoption. It has been established that the larger the organization, the larger the need for its technological systems (Midida,*et al* 2013). Study has found out that, bigger organizations have benefited from the vigorous growth of IT application. Armstrong stated in a study that, human resources information system considered employee personal data to be complex which needs to be safeguarded when moving information within and outside the organization. The system has a duty to improve communication between employers and employees in an organization and strengthen the unions and management committee relations.

The human resource information system is needed to be applied based on the technological innovation. The human resource information system implementation is based on the organizational factors such as human resource readiness and technological awareness(URT, 2010). The human resource information system implementation was a collaborative effort from other development agencies, but barriers become evident in

human resource information system infrastructure, content and less interest of human resource to be well equipped with current work force (Shibly, 2011)

Furthermore, a case study conducted by Mwanyika (2009) on assessment of the role and performance of HRIS revealed a pure administrative use of HRIS and its strategic use. In all the goal of both is to increase the organizational value. Human resource information system is used in the daily operations and it is usually in the form of record that holds employee information. A study by Paul (2011)on the availability, access, and use of the computerized human resources information system in public organization in Tanzania, the case of public pension fund headquarters, the findings revealed that, organizations used information systems in desperate function such as pay slips, pay roll reports, maintain personnel records and analyze the use in the organizations. However, most of the organizations have gone beyond these traditional functions to include other functions such as recruitment as well as the selection and hiring of job placement, others included performance management, employee benefit analysis, and training and development.

In addition Rosenblatt, (2011), argued that organizational factors are streamlining to the performance of employees through the adoption of the improved human resource information system. This could continue to affects the current and future plan, so the improvement of human resource information system is highly attached to the demand of the organizations. The information system is needed to provide basis towards the improvement of the performance.

2.6.3. Environmental factors and HRIS adoption.

The organizational factors such as competitive, technology venders, government regulation and support. In this study therefore seeks to identify factors that affect the

adoption of HRIS in public institutions with specific reference to Mion and Yendi district in Ghana. Environmental factors such as government policies, external pressure and competitiveness from the global world which plays direct influence on the adoption of human resource information system. Naturally, State government play a very important role in encouraging the adoption of technology by creating awareness, providing training and support includes funding (Chong et al. 2008).A lot of research has shown that, the existing regulatory environment, government support and commitment are the key factors that determine the electronic ecommerce adoption by small and medium enterprises SMEs according to (Chang, *et al*, (2001).

2.6.4. Financial cost and the adoption of HRIS

According to Otieno (2002) availability of financial resources is important in the adoption of new technology in an organization. Furthermore, access to finances or failure to, can be constraining to the adoption of HRIS (Rusell, 2003). It is an established fact that, getting the technology from vendors is always costly, in addition finances are needed for the purchase of the hardware and software and the sustenance of human resource information system. Indeed, it an established fact that, finances control alot in the adoption human resource information system. This is because of the substantial costs involved in buying the technology. According to Ofonokwo, (2013) lack of financial resources in an organization presents a serious obstacle in the adoption of HRIS. In the study of Mulweke, (2009) on private-public sector adoption of HRIS in Zambia state organizations found that the adoption of HRIS in the public sector is much of a problem than in the private sector. Furthermore, Wu Sung (2010) cited in

(Kanyanjua, 2017) in a study that sought to assess success factors in the adoption of HRIS in public hospitals, it was found that the successful adoption of HRIS requires adequate finances and infrastructure. However Kangondi, (2011) had different view, kangondi stated that availing finances alone may not be the automatic success factor in the adoption of human resource information system in the organizations. Several studies of(Ofonokwo,2013)concluded that availability of resources has a positive influence on human resource information system adoption. The more available the resources, the easier for the HRIS to be availed and thus enhances implementation. Also, Ofonokwo (2013) found that the lack of financial resources in an organization puts a serious obstacle in the adoption of HRIS.

According to Wu Sung (2010) in a study that sought to assess successful factors in the adoption of HRIS in public hospitals, it was found that the successful adoption of HRIS requires adequate finances and infrastructure. This conforms to another study on the commitment of Top management support on the adoption of HRIS (Mohammad,2017) cited in (Kanyanjua, 2017) whose findings indicated that top management support includes availing of the required resources to support HRIS.

2.7. Conceptual framework

The **figure.**1 provides the conceptual framework for this study. In this study some important variables have been identified which included technological factors, environmental factors, organizational factors, financial cost and Adoption of human resource information system. The variables have been categories as independent and dependent variables.

INDEPENDENTS VARIABLE.   **DEPENDENT VARIABLE.**
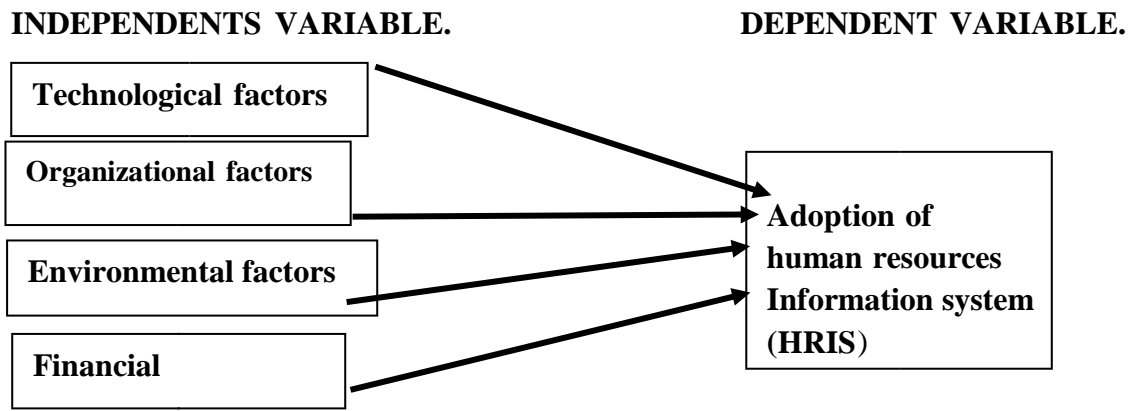
Source: researcher (2021)

Figure 1: conceptual framework establishing a connection between dependent and independents variables

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The methodology for this study illustrated the research methods and procedures that were followed to conduct the research. The research design for this research use is qualitative and quantitative approach. The first part of this section discussed the profile of the study area and research design followed by the study population. Also, methodology is next section of the research which deliberated the sample techniques and the sample size which is employed in this research. The fourth section explained data collection instrument, followed by the research procedure which was used to gather data and how the data was analyzed in the study.

3.2 Profile of the study area

Yendi and Mion districts are among the sixteen districts and municipalities in northern region of Ghana. The Yendi municipality has education Directories, the district has about 279 public basic schools, two public senior and one teacher training collage. The district has teaching and non-teaching staff population of about 708 GES (2020).Also, Mion district has an Educational Directories known as District Education Office, 105 public basic schools and one senior high school. Mion district has teaching and nonteaching staff population of about 551 G.E.S (2020).

3.3 The Research Design

A research design according to Zikmund (2010) is the blue print of the study. The research design is a plan to be followed in order to realize the research objectives or hypothesis. It embodies the main plan that states the methods and procedures for collecting and analyzing the required information. The purpose of the design is to provide a plan of study that permits accurate assessment of causes and effect relationship between independent and dependent variables. This study used both qualitative and quantitative methods to solicit responds from a sample population in the study area.

The research adopted a descriptive research design that confirmed collection and descriptive analysis of data from the study population. According to Kagehi(2015) a descriptive research design is a research design that decides and report exact and tries to describe such things as possible behaviour such as attitudes, values and characteristics. A descriptive case study was adopted for this study. The descriptive statistics include types of variables such as nominal, ordinal and interval as well as measures of frequency, central tendency and position.

The descriptive statistics is used to summarize and analysis data in a prepared manner by describing the relationship between variables in a sample or population. In Calculating descriptive statistics, it represents a vital major step when conducting research and should always happen before making inferential statistical comparisons. The descriptive statistics include types of variables such as nominal, ordinal and interval as well as measures of frequency, central tendency and position.

3.4 Target Population

Population according to Kagehi(2015) is a research population which is generally refers to a large collection of individual or object that is the main focus of a scientific interrogation. The target population according to Williamson (2008) is the collection of individuals that are of interest to the study within an organization. The target population for this study constituted the employee of Ghana Education Service of the study area: Human resource unit, IT and planning unit, Supervision unit, Finance and

administration and Registry and teachers. The targeted population is 1,259 employee of Ghana education service.

3.5.2 Sample size.

The study used Yamane (1967) which provides a simplified formula to calculate sample sizes. This formula was used to calculate the sample sizes of the study. A 95% confidence level and5% of margin of error are assumed for the below Equation(Israel, 1992).

Where n is the sample size, N is the population size, and e is the level of precision. When this formula is applied to the below sample, we get the following Equation. The aim of using this formula is to determine an adequate sample size for the study. Yamane (1967) formula is given below:

Where; n = samples size (for the target

population) N=population of the study e=

acceptable margin of error/precision

Initial sample size (n) will then be calculated as

$$= \frac{1259}{1 + 1259(0.05)^2}$$

$$= \frac{1259}{1 + 1259(0.025)}$$

$$= 39.5$$

NB: target population of the study is estimated to be 1,259 staff of GES. Therefore, sample size used for the study is 40of staff of GES in the study area.

This gives the following sample size for each of the Six strata in Table 2 below

Table 1: Simple size and sample composition of the study

Unit/Department	Sample Size
Human Resource	16
IT and planning	06
Supervision	08
Finance and Administration	04
Registry.	04
Administrators (SHS)	02
Totals	**40**

Source: Field 2021

Table 2: Simple size of Mion district and Yendi municipality G.E.S

Department/Unit	Yendi	Mion
Human Resource.	09	07
IT and planning	04	02
Supervision	03	04
Finance and Administration.	03	02
Registry	03	01
Administrators	2	0
Totals	**24**	**16**

Source: Field (2021)

3.6.5 Sources of Data

To get the needed information for this study, the researcher relied on both primary and secondary data sources in the study area.

3.6.6 Primary Data Sources

The primary data is simply a data collected over and for the first time and therefore happen to be original in nature. Again, primary data can be explained as real information gotten from the field using different methods such as questionnaires and interviews guides. The primary source of data in this research was HR unit and other units of Ghana Education Service in Mion and Yendi Education Directories.

3.6.7 Secondary Data Source

Secondary data are various data that have been collected by other researchers which have already passed through statistical processes (Kothari, 1990). According to

Gerkowitz (1994) secondary data are simple the facts and figures that have already been recorded before this particular research is conducted. In this study secondary data was gotten from published thesis, books and papers as well as documents within Ghana education service directories in both Mion and Yendi districts and other parts of the World.

3.6 Data Collection Techniques and Analysis

3.6.1 Data collection Techniques

The study collected both primary and secondary data. Primary data were collected through questionnaires while secondary data were collected through documents from the district educational directories in the study area, published thesis, books, journals and papers.

3.6.2 Questionnaire

Questionnaire is simple a written set of questions that can be posted or give out directly to respondents in the study area. Dillon et al. (1990) describes a questionnaire as a formal way, in which questions are designed to elicit the desired information from respondents in a particular study. The questionnaire was developed from the research questions. Also, with this study closed and open-ended questions questionnaire were given to a group of employees at Ghana Education Service in Mion and Yendi district respectively. A number of questionnaires were distributed to HR Staff and other staffs, 40 questionnaires were received by the researcher. The respondents in this study were expected to present their views and opinions regarding the adoption of human resource information system, factors affecting the adoption of human resource information system in Ghana Education Service more specially Mion and Yendi districts.

3.6.3 Data Analysis.

According to Kothari, (2004) data analysis is defined as a calculation of confident measures along with searching for patterns of relationship that exist among data group. Also, data was analyzed using qualitative and quantitative methods in the study because the study involved both qualitative and quantitative data. In addition, Creswell, (2012) explained that mixed methods give details understanding of data collected particularly dealing with qualitative data and also broaden the understanding of research problems. In this particular study, structured questionnaires were used to collect data. The data was presented using a descriptive statistics and aided by thematic analysis with the support of data analysis instruments or tools such as Statistical Package for Social Sciences version 2010 (SPSS) and Microsoft Office Excel 2010.

3.6.4. Reliability test

According to Peil (1995), a reliability test measures the extent at which the assessments in a questionnaire are regular. Based on this the developed questionnaires were sent to some selected sample respondents and then the information acquired is evaluated to ascertain how reliable the questionnaires were. In reliability test, the questionnaire is consistent over time and provides similar results each time it is put into use, and then it is considered reliable. The researcher administered the questionnaire to ten (10) respondents from the target population on a random basis.

The researcher repeated the trial test after two weeks using the same respondents.

CHAPTER FOUR

PRESENTATION OF DATA AND ANALYSIS OF RESULTS

4.1 Introduction

This chapter presents analysis of data and findings in line with the objectives of the study. The findings have been presented systematically starting with the Sociodemographic characteristics of the various respondents.

A number of questionnaires were sent to the field. The researcher received 40 questionnaires from the respondents from the study area. With this, 19 respondents representing 47.5% responded in the Mion district and 21 respondents representing 52.5% responded in Yendi municipality.

4.2 Socio-democratic characteristics of respondents representing sex, age and educational distribution of the sample.

Sex: The study indicates that males constituted 67.5% of the respondents and 32.5% constituted Female. From the findings the male were the majority and the women were the minority and this implies that men will benefit more in the adoption of HRIS in those institutions.

Age: It has been established that 2.5% of the respondents were within the age brackets of 18-25, 40.5% of the respondents were between age of 25-30, 22.5% of them were between the ages of 30- 40, while 20.0% of the respondents were between 40- 50 age brackets, while 14% respondents were within the age between50 -60. From the findings more staff in the study area are between the ages of 25-30 years and this could make the adoption of HRIS easier due to the youthful age.

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Educational status: The study finding revealed that, 40.0% of the respondents have a Bachelor degree and 15.0% have a Master degree, 35.0% have Diploma in education certificate, 10% of the respondents have 'A' levels. The finding indicated that, with this strong academic background, the respondents are believed to be capable of analyzing, critically identifying and responding appropriately to questions on the adoption of human resource information systems in Ghana Education Service.

Table 3: Socio-demographic characteristics of studied areas

Variable	Category	Percentage
Sex	Female	32.5
	Male	67.5
Age	18-25	2.5
	25-30	22.5
	30-40	40.5
	40-50	20.0
	50-60	14.5
Educational level		
	Cert 'A'	0
	A level	10.0
	Diploma	35.0
	Degree	40.0
	Master's Degree	15.0

Source: Field Data, 2021

4.3. Level of Computer literacy and Knowledge of Respondents in Microsoft Suite

The study revealed that 40% of respondents representing 100% are computer literates that will make adoption of HRIS easier in the study areas. The basic knowledge in computer programs or software such as Microsoft word, Microsoft Access and Excel are the common knowledge among respondents in the two studied areas. 21 respondents representing 52.5% confirmed their knowledge in Microsoft word, 4 respondents representing 10% also confirmed their knowledge in Excel while 15 respondents representing 37.5% said to have knowledge in both Microsoft word, Microsoft Access and Microsoft Excel. The finding point to fact that adoption of human resource information system can possible based on the respondents basic knowledge in Microsoft Suite.

Table 4: Respondent's level of Knowledge in Microsoft Suite.

Microsoft Suite	Frequency	Percent	Valid Percent	Cumulative Percent
Microsoft word	21	52.5	52.5	52.5
Excel	4	10	10	62.5
MS Access	15	37.5	37.5	100
Total	**40**	**100**	**100**	

Source: Field Data, 2021

4.4. Data storage

It was confirmed from the study that, data was stored in softcopy and hardcopy. From the study 65.5% of respondents attested to the fact that, they stored data on hardcopies, 7.5% of the respondents also stored data in softcopies and30% of the respondent agreed to be storing data in both hard and softcopies. This implies that majority of the respondents stored data on Hardcopies and therefore needs a proper system such as human resource information system to improve data storage in Ghana education service

Figure 2: Data keeping methods
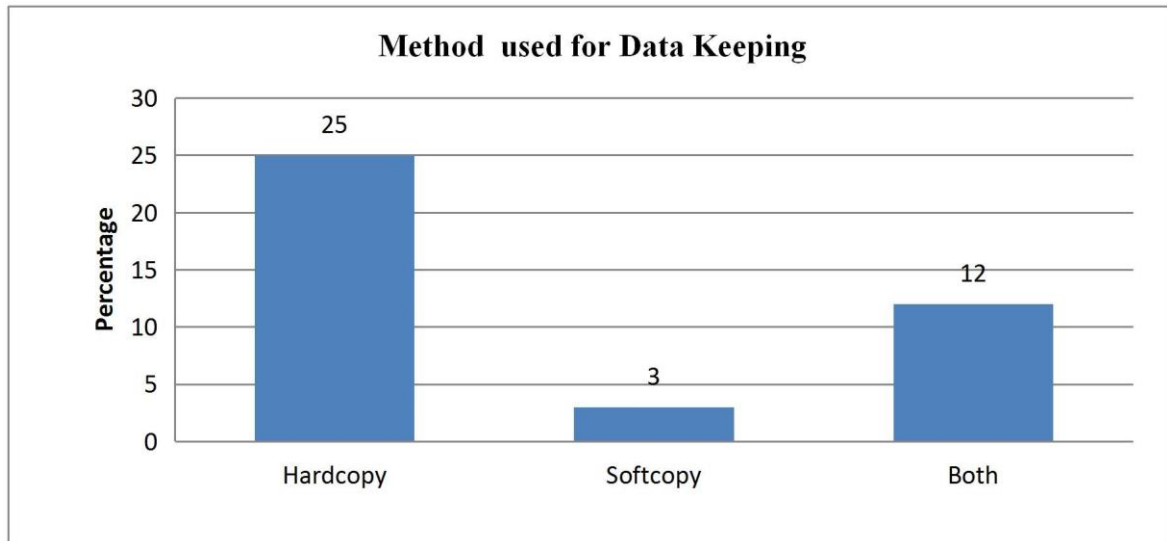
Source: Field Data, 2021

The above findings are in line with that of Boateng *et al*., (2015) where there found out that 95% of respondents in HRM indicated that they use the manual system, such us file system to store data.

4.5. Technological Influence in Ghana Education Service.

The study wanted to know if Technology has influence on the activities of HR in Ghana Education service. Based on the responses collected, 33 respondents representing 82% agreed that technology can influence the activities of HR, 7 respondents representing 17% said that technology cannot influence the activities of HR in Ghana education. This is represented in the below figure.

Figure 3: Influence of technology in GES.
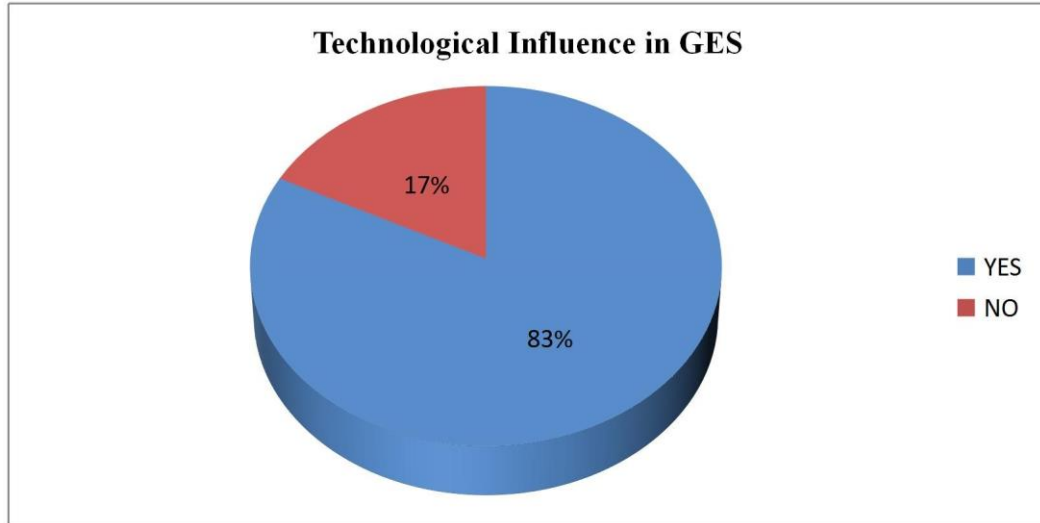
Source: Field Data, 2021

4.6 Findings of Major factors influencing the Adoption of Human Resource Information System.

4.6.1 Technological factors on the Adoption of HRIS in Ghana Education Service

The table 4.5 indicated the various responds of technological factors that affect the adoption of human resource information system in Ghana education service in the study area. The adoption was based on the variables such as computer network availability in the study area, inadequate basic technology system, Difficult to get reliable HRIS software vendors in Ghana, Technological preparedness of the employees were examined as follow;

Table.5

VARIABLES	Frequency	SA	A	DA	SD
Computer network availability	40	65.2	30	2.5	5
HRIS is costly to implement and installed	40	25	30	35	5
Inadequate basic technology system	40	50	27.5	12.5	10
Difficult to get reliable HRIS software vendors in Ghana	40	30	52.5	7.5	10
Technological preparedness of the employees	40	57.5	25.5	10	7.5
Inadequate expertise knowledge in IT in GES.	40	47.5	30	12	10

Source: Field Data, 2021

4.6.2 Computer network availability.

Using the Likert scale on the test level of effects on the adoption of HRIS, the finding revealed the following, 62.2% of the respondents strongly agreed that poor computer network availability is one of variable under technological factors that affect the adoption of HRIS, also 30% of the respondents agreed that poor computer network availability affects that the adoption of human resource information system. This means that poor computer network availability is significant as one the technological factors that affect the adoption of human resource information system in Mion and Yendi district. This further implied that poor computer network availability is vital factor in the adoption of human resource information system. Also, 5% of the respondents strongly disagreed that poor computer network availability in the study area have influence in the adoption of human resource information system, in addition 2.5% of the respondents disagreed that poor computer network availability affects that adoption of human resource information system, this does not have significant impact the adoption of HRIS.

The study findings is supported by the finding of Fransis, (2018) on factors influence the adoption of HRIS in parastatal organization. This is again supported by the findings of other researcher such as Kalikawe,(2010) In a study argued equally that, the availability of electronic network is required for the fruitful technological interface, more significantly in the use of information system in an organization, the availability of network is used as a facilitator to support the capability of the organization to succeed such interaction. The network for the use of information system brought much of the challenges since the traditional use of information system up to its current state. It has been stated that there is a direct relationship between the use of human resource information system and network stability.

It has been established that, Network is the back born of every human resource information system in a sense that accessibility and permanence of network will aid effective use of the system and minimize time taken to serve customers and employees in an organizations. In Tanzania, since 2011, the government chose to use reliable and inter-operable ICT infrastructure achieved through deployment of the National ICT

Broadband Backbone and landing of two submarine cables in Dare Salaam, namely Eastern Africa Submarine cables System and Southern and Eastern Africa Communication Network. Furthermore, in this regards the availability of network is necessary to be in place to make good use of human resource information system within several departments and sections in an organization (Fransis, 2018).

An HR officer had this to say on the unavailability of computer network:

'*Since we don't have a reliable computer network in the district, we don't even think of using such applications in our line of duty as HR officers' for now. He added that access to computer network coverage is just about 10% of the entire district.*

4.6.3. The software is costly to implement and installed

The research findings have shown that the cost of installation is HRIS software is costly. On the part of the respondents, 25% of the respondents strongly agreed that the cost of installation is very high and this affect the adoption of HRIS, also 30% of the respondents agreed the cost of the software installation have some level of influence in the adoption of HRIS, this means that these have significant effect on the adoption of HRIS. This again suggested that the cost to installed the software is among the technological factors that

affect the adoption of HRIS. From the study 35% of the respondent agreed and 5% of the respondent strongly disagreed that the cost on software installation has influence on the adoption of human resource information system.

4.6.4 Inadequate basic technology system

From this the findings shows that 50% of the respondents strongly agreed that inadequate basic technology stem really affect the adoption of HRIS, 27.5% also agreed that the variable affect the effective adoption of human resource information system and this have significant effect on the adoption of HRIS in Ghana education service. On the other hand 12.5% of the respondents disagreed and 7.5% of the respondents strongly disagreed as a variable in technological factors that influence that adoption of HRIS. This means that the respondents did not consider the variable to affect the adoption of human resource information system. This again implies that inadequate basic technology is not necessary in the adoption of HRIS in Ghana education service.

4.6.5.Technological preparedness of the employees

The study revealed that 57.5% of the respondents strongly agreed that the technological preparedness as a technological have influence on the adoption of HRIS, 25.5% agreed that technology preparedness has influence on the adoption of HRIS. In this, while 10% strongly disagreed to have influence in adoption of HRIS. These two groups of respondents did not believed that adopting human resources information system needs technological preparedness. This further implies that institution does not to prepare technologically before adopting human resource information system. The finding

revealed that majority of the respondents total agreed that technological preparedness of technological factors affect the adoption of human resource information system in Ghana education service in Mion and Yendi districts.

4.6.6. Difficult to get reliable HRIS software vendors in Ghana

The study revealed that getting reliable HRIS software vendors in Ghana is difficult this is based on respondents' response on the issue. In the study 30% of the respondents strongly agreed getting human resource software vendors is not easy, 52% of the respondents also agreed that getting human resources vendors in Ghana is difficult. This means that majority of the respondents believed that difficult to get reliable software vendors in Ghana of a technological factor affect the adoption human resource information system. In addition, 7.5% of the respondents strongly disagreed getting reliable software vendors in Ghana is difficult influence adoption of human resource information system, 10% of the respondents also disagreed that difficult in getting a reliable HRIS software vendors affect the adoption of human resource information system. To support the above finding a respondent had this to say:

'Who will not like to do things in an easy manner. Our difficulty is with the availability of these HR software's. When the software is made available, we will apply them where necessary' he added that 'we don't even know where to get technology vendors as I sit here'

4.6.6Inadequate expertise knowledge in IT in GES

It has been established that, having basic knowledge in an area of work ensure effective performance and make the employee to accept innovation. The finding revealed that 47.5% of the strongly agreed that inadequate expertise knowledge in IT in Ghana education service of a technological factor affects adoption of human resource information system, 30% of the respondents also agreed that inadequate expertise knowledge in IT affect the adoption of human resource information system. This implies that a significant number of respondents agreed that inadequate expertise knowledge in IT of technological factors affect the adoption of human resource information system. Also, 12.5% of the respondents strongly disagreed that inadequate expertise in IT affect the adoption of human resource information system, 10% of the respondents also disagreed that inadequate expertise in IT of technological factors affect the adoption of human resource information system. To buttress this finding an HR officer had this to say:

'*How many of us even have basic knowledge in information technology? most of us don't take IT serious in this office we don't even have qualify IT person, most of us are road side IT persons' how can you support something you don't have knowledge in'*

4.7.0. Influence of Organizational factors on adoption of HRIS.

The figure 4.6.4 Indicate the response on Organizational factors that affect the adoption of human resource information system. The organizational factors such as attitude of employee in an institution, lack of IT expertise, technological awareness, employee

readiness to adopt the technology and employee resistance to changes. The figure summaries the various variables in percentage terms.

Figure 4.

Source: Field Data, 2021.

4.7.1Attitude of employee in an organization

Shows how they accept new innovation in their respective units. The finding revealed that 30% of the respondents agreed to that fact attitude of employees affects the adoption of human resource information system, 25% of the respondents support lack of IT expertise of technological factor affects the adoption of HRIS in the study area, 20% of the respondents indicated that technological awareness of the employee also affect the adoption of human resource information system, also 15% of the respondents agreed that employee readiness to technology affects the adoption of the technology and 10% of the respondents agreed that employee resistance to new technology affects the adoption of human resource information system. From the findings organizational factors had influence on the adoption of human resource information system.

To the claim in the graph above on the attitude of employee, one of the respondents had this to say:

'*Many of our colleagues don't see the need to change their ways of doing things. They feel satisfied with their current HRM methods'*

An HR director in GES directories in Mion had this to add:

'*The difficulty with us is the skill to use the application. If there is expertise to use it, why not'.*

4.8.The current Environment factors on the adoption of HRIS

The table.8. Present objective three of the study, the current environmental factors on the adoption of HRIS. The environmental factors that affect the adoption of the human resource information system, such government policies and regulation, Organizational structure, Technology vendors and comparative pressure, government support and inadequate IT infrastructure were tested on what level they affect the adoption of human resource information system.

Table 6: Environmental factors on HRIS in GES

Factors Government Policies	Frequency		Percentage	
	Agree	**Disagree**	**Agree**	**Disagree**
	25	15	62.5	37.5
Organizational structure	15	25	37.5	62.5
Technology vendors	35	5	95.0	5.0
Comparative pressure	25	15	62.5	37.5
Government support	11	29	27.5	72.5
Inadequate IT Infrastructure	25	15	62.5	37.5

Source: Field Data, 2021

4.8.1 Government policies and regulation

The finding of the research revealed that 62.5% of the respondent agreed government policies and regulations of environmental factors affect the adoption of Human resource information system, 37.5% of the respondents disagreed that government policies and regulations affect the adoption of human resource information system. This imply that on government policies and regulation does not affect the adoption of human resource information system.

4.8.2 Organizational structure

The study indicated that, 36.5% of the respondents agreed to the fact that organizational structure affect the adoption of human resource information system, 62.5% of the respondent disagreed that organizational structure affect the adoption of human resource information system. In this majority of the respondents disagreed that organizational structure affects the adoption of human resource information system.

4.8.3 Technology vendors

The finding in the table 8. Show that, 95% of the respondents agreed that lack of technology vendors influence adoption of human resource information system and 5.0% of the respondent disagreed that lack of technology vendors affect adoption of human resource information system. On lack of technology vendors majority of the respondents agreed that, it has effects on the adoption of human resource information system.

4.8.4 Government support

The findings show that 72.5% of the respondents agreed that government support affect adoption of human resource information system in the study area, 27.5% of the respondents disagreed that, government support of environmental factors affect the adoption of human resource information system. This imply that majority of the respondents agreed based on the percentages.

4.8.5 Inadequate IT infrastructure

In table 8, the findings revealed that 62.5% of the respondents agreed that inadequate IT infrastructure in Ghana education service affect the adoption of human resource information system, 37.5% of the respondents disagreed that inadequate IT infrastructure does not affect the adoption of human resource information system. The study is seconded the works other the following, according to Mulweke, (2009)lack of proper IT systems and infrastructure made it difficult for most public organizations to adopt HRIS. In addition Katunzi,(2017) found that it was important of having the appropriate systems before the implementation of HRIS.

A respondent   had this to support the claims in the table above on Information technology infrastructure:

'*looking at our current location, it is not possible to have the needed logistics to support the use of application. When those in metropolis don't have it how can we those in remote districts have it'*

An HR officer in Yendi municipality had this to say:

'*when people need portable water to drink you cannot be demanding for IT support. The government finds it difficult to support us in that respect.'*

One of the respondents said:

'*We don't even know where to get technology vendors as I sit here. If we can get some of the vendors we will try the software and see'*

On government policies and regulations one of the district directors of GES had this to say:

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'*Politicians do make policies they think that will give them votes but not policies that will ensure effective academic performance and sustainable programs for quality education in Ghana'*

The table 7. Indicates financial cost on adoption of human resource information system. The table financial cost on the following variables such as technology system, technology infrastructure and software installation.

Table 1. The effect of financial cost on adoption of HRIS.

Variables	Frequency	SA	A	DA	SD
Technology system	40	75.2	20	2.5	5
Technology infrastructure	40	35	30	25	5
Software installation	40	56	21.5	12.5	10

Source: Field Data, 2021.

4.9.0 The effects of Financial Cost On human resources information system

4.9.1 Technology System

The findings on table 7 indicated that 75.2% of the respondents strongly agreed that the financial cost for Technology system affect the adoption of human resource information system,20% of the respondents agreed that cost of technology system affect adoption of human resource information system. This imply that there is significant of cost of technology system affects the adoption of HRIS. Also, 2,5% of the respondents disagreed and 5% of the respondent strongly disagreed that the cost of technology system affects

the adoption of human resource system. On the above variable one of the accountants had this to say:

'*The few information communication technology logistics we even have we cannot even maintain them not to talk of procuring new ones for the office, we don't even have money to buy tonner for our* printers in the office. *if we can get development partners to support us to procure those system why not*'

4.9.2 Technology Infrastructure:

Table 7. shows financial cost for adopting human resource information system. From the table 35% of the respondents strongly agreed that cost of technology infrastructure affects the adoption of human resource information system in Ghana education service, 30% of the respondents agreed that technology infrastructure cost affect adoption of human resource information system. The finding also revealed that, 25% of the respondents disagreed that cost of technology infrastructure affects the adoption of human resource information system and 5% of the respondents strongly disagreed that Technology infrastructure cost affect adoption of human resource information system.

On financial cost of infrastructure such as hardware, software and networking one of the respondents had this to say:

'*getting software like HRIS I believed will be too costly and it will be difficult for us to buy such a system due to our poor financial standard as a district. For networking if not government support, I don't think we can do it as a poor district like Mion district'*.

4.9.3 Software Installation

The finding of the study on cost of software installation indicated that 56% of the respondents strongly agreed that financial cost of software installation affects the adoption of human resource information system, 21.5% of the respondents also agreed that cost of software installations affect adoption of adoption of human resource information system in Ghana education service. In the contrary 12.5% of the respondents disagreed with the cost of software installation affecting adoption of human resource information system, also 10% of the respondents strongly disagreed that cost of software installation affects human resource adoption. In all the following findings supported the finding of this study on effects of financial cost of adoption of human resource information system.

This finding is supported by the study of Kanyanjua, (2017) which found that the ability of an organization to adopt new technology is highly determined by the quality of the software and other support systems and this as result of how expensive it is. The study found that the availability of financial resource to ensure high quality software and support systems greatly determined the adoption of HRIS in Kakamega county Government. The study established that the availability of financial resources is much needed in the adoption of new technology in the organization and therefore determines a lot in the adoption HRIS.

The findings of Ofonokwo, (2013) which stated that, lack of financial resources in an organization presents a thoughtful hindrances in the adoption of HRIS supported the findings of this study. Wu Sung (2010) in a study that sought to assess success factors in the adoption of HRIS in public hospitals, the study revealed that, successful adoption of

HRIS requires adequate finances and infrastructure. Also 14 and 2 respondents representing 35.0% and 5.0% disagreed and strongly disagreed respectively.

A study of William(2006) confirmed this study where he started that one of the major test facing firms to use HRIS is the cost to buy and application of the system. It is also confirmed by the study that inadequate knowledge in computing by HR officials and other staffs 20 respondents agreed to that. Similarly Reddic(2009)stated strongly that, advancement in technology is significantly linked with the amount of financial resource in the development of human resource information system.

The variable cost of software installation, one of IT officers had this to say: '*An installation of any technology needs financial resources to enable them install software effectively but unfortunately the district education directors don't have that financial capacity to provide the needed resources to install the software'*.

4.10. Respondent knowledge in HRIS Software.

In table 9 when asked respondents were asked to indicate whether they are familiar with these HRIS software to manage their HR from a list of HRIS software, the respondents provided the following responses. As conformation from the below table results, 95.0% of the respondent's stated that they are not familiar with ABRA SUIT software, again 95.0% of the respondent say no being familiar with ABS SOFT, and 5.0% of the respondents affirmed being familiar with ABS SOFTWARE and 95.0% stated otherwise. On the part CORT-HRMS 2.5% of the respondents yes while 97.5% of the respondents responded no. It also confirmed from the above table that 5.0% of respondents responded yes and 95.0% of them responded no in relation to whether they are familiar with ZOHOPEOPLE. Lastly, EMPLOYEE-CONNECT, 2.5% of the respondents yes being

familiar with the system whiles 97.5% of the respondents responded have knowledge in the software. Japan as one of the developed economies manages to develop human resource information system to control information system of the organization which is needed to administrative and human resource activities.

Furthermore, application of human resource information system is directly associated to the control of relevant software. These software in human resource are needed to control and manage existing human resource (Marcia, 2012).The human resource information system is applicable because of a good software package (Reddic, 2009).

From this experience, the organizations that accept various software are at risk in the adoption of human resource information system. The study findings indicated that

Ghana education service Directories HR is not even aware of various HRIS software.

Table 8:Common HRIS software.

HRIS Software	Frequency	Yes	No
		Percentage (%)	Percentage (%)
Abra suit	40	5.0	95.0
Abs software	40	5.0	95.0
Aort-hrms	40	2.5	97.5
Zohopeople	40	5.0	95.0
Employee-connect	40	2.5	97.5

Source: Field Data, 2021.

On the knowledge of human resources software in the system a respondent had this to say: '*This is my first time knowing the various types of HRIS software, I have never seen*

it anyway, I don't think an office here will even be aware of these types of software, any way I stand to be corrected'

4.11. Importance of HRIS in Ghana education service

The importance of HRIS in the education sector cannot be over looked. The following needs were supposed to be addressed by the use of HRIS in this sector. These include identifying training needs at all levels, identifying educational training needs in the long term and, records keeping were some of the areas that respondents said HRIS contribute the activities of HR in Ghana education service. The study reveals that, identifying training needs, identify individual training needs and proper employee records keeping were seen to be statistical importance as presented by the chi-square test below.

Table 9: Chi-square test on Importance of HRIS

Variables	Mion/Yendi Districts	
	χ^2	P-value
HRIS help in identifying training needs at all levels	36.250[b]	0.000*
HRIS help in identifying educational training needs at long term	7.750[b]	0.101
HRIS help in identify individual training needs	15.750[b]	0.003*
HRIS ensure proper employee records keeping	10.250[b]	0.036*

Field survey (2021) * = significant at 0.01

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSION.

5.1 Introduction

This chapter presents the purpose of the study, objectives, brief methods, major findings of the study, recommendation, further study and draws conclusion based on the findings revealed by the study.

Recommendations for sustainable adoption aimed at improving on the HRIS in Ghana education service and other public organizations in Ghana constitute the main focus of this chapter. The purpose of the study was to assess factors affecting the adoption of human resource information system in Ghana Education Service. The objectives of the study were to assess the influence of technological factors on the adoption of human resource information system, to examine the influence of organizational factors on the adoption of human resource information system, to evaluate the current environmental factors on the adoption of human resource information system, and to find out the influence of financial cost on the adoption of human resource information system.

The study used probability and non-probability sampling techniques. The study used simple random sampling, stratified sampling, purposive sampling. The respondents were comprised of human resource personnel, IT units, planning unit, accounts unit, supervision unit and registry, HR directors, heads of senior schools in Yendi and Mion.

5.2 Summary of the major Findings.

This section deals with the main headings indicated below:

5.2.1 Socio-Demographic Characteristics

The case study focused on two districts that are Mion and Yendi Districts. The total questionnaire retrieve from respondents was 40 which is the sample size of the study. On Sex of respondents, the study revealed that Male constituted 65.5% of the respondents and Female constituted 32.5% of the respondents. The studies revealed that, majority of the staff were aged between the ages of 30-40 years which indicates youthful workforce at the Ghana education service in Mion and Yendi districts. Educational status, with higher qualification 40.0% of the respondents have Bachelor degree and 15.0% of the respondents have Masters degrees. With lower qualification 35.0% of the respondents have Diploma in basic education, 10% of the respondents have "A" levels certificate.

5.3. Level of Computer Literacy and knowledge of the respondents on Microsoft Suite.

The study confirmed that, the staffs of the Ghana Education Service directories are computer literates, 40 respondents representing 100% are computer literate in Microsoft Suite. Almost all the employees in the sample have some form of computer literacy or knowledge. The respondents have basic knowledge in Microsoft Suite such as Microsoft word, Excel and Microsoft access. are the common knowledge among respondents in the study areas. It is largely confirmed that 52.5% of respondents confirmed their knowledge in Microsoft word, 10% of the respondents also confirmed their knowledge in Excel and 37.5% of the respondents also have knowledge in Microsoft Access. The above results

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indicated that respondent were ready to adopt human resource information system based on the findings.

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5.4. Forms of Storing Data in Ghana Education Services, Mion and Yendi On the issue of data storage in Ghana education service it has revealed from the study that, data was stored in both soft and, hardcopies. Respondents agreed to the fact that majority of data was kept in hardcopies, this means that the storage of the data was in manual form. The study again disclosed that only 7.5% agreed to be storing data in softcopies and 12 respondents representing 30% agreed to be storing data in both hard and softcopies.

5.5. The Influence of Technology on the activities of HR in GES

With the technological influence on the activities of HR in Ghana education Service, the study has revealed that Technology has major influence in the activities on the human resource activities. From the study respondents representing 82% agreed entirely to the fact that technology enhances transfer of information from the top management to the lower management. In only 18% of the respondents disagreed to the fact.

5.6 Technological factors on the Adoption of Human Resource Information system in Ghana Education Service

The study found that technological factors such as availability of computer network, HRIS is costly to installed, inadequate basic technology system, difficult to get reliable HRIS software vendors in Ghana, technological preparedness of the respondent and inadequate expertise knowledge of IT in GES.

On availability of computer network the finding revealed that, 62.5% of the respondents strongly agreed that poor computer network availability affect the adoption of HRIS, also 30% of the respondents agreed that poor computer network availability affects the adoption of human resource information system. This finding is supported by the finding of Njau (2018) on factors that influence the adoption of HRIS in parastatal organization in Dares Salaam, which found out that computer network unavailability is significant as one of the technological factors to influence adoption of human resource information system. Also, 5% of the respondents strongly disagree that poor computer network availability affects adoption of human resource information system, 2.5% of the respondents also disagreed that poor computer network unavailability affects the adoption of HRIS.

The cost to installed HRIS software of technology factor, 25% of the respondents strongly agreed and 30% of the respondents agreed that influence the adoption of human resource information system. Also 35% of the respondents strongly disagreed and 5% of the respondents disagreed.

Inadequate basic technology system, in the study majority of the respondents representing 50% strongly agreed and 27.5% of the respondents agreed that, inadequate basic technology system influence the adoption of HRIS, however 12.5% of the respondents

disagree and 7.5% of the respondents strongly disagreed that inadequate basic technology system influence the adoption of HRIS.

Technological preparedness of the respondents, the study shows that 57.5% of the respondents strongly agreed and 25.5% of the respondents agreed respectively that, technological preparedness of the employee affect the adoption of HRIS significantly. However,10% of the respondents strongly disagreed to it. This finding back by the finding of Njau(2018) base on the coefficient of technological preparedness on adoption of HRIS on his study which appeared to be 0.295 which is greater 0.090.

5.7 Influence of Organizational factors on adoption of HRIS in Ghana Education Service.

The attitude of the employee in an organization, the study revealed that, 30% of the respondents agreed that attitude of the employee in an organization influence the adoption of human resource information system, on lack of IT expertise in Ghana Education, 25% of the respondents agreed to the fact it influence the adoption of human resource information system, 20% of the respondents also believed that lack of technological awareness also affect the adoption of human resource information system. On the employee readiness, 15% of the respondents agreed that it affect the adoption of human resource information system and lastly employee resistance, 10% of the respondents accepted it affect the adoption of human resource information system.

5.8 The Current Environmental Factors on the Adoption of Human Resource System in Ghana Education Service.

Government policies is one of the environmental factors that affect the adoption of HRIS in Ghana Education Service in the study area, from the finding 62,5% of the respondents agreed that government policies affect the adoption of human resource information system and 37.5 disagreed to that. On organizational structure 47.5% of the respondents agreed that organizational structure affect the adoption of HRIS and 55.5% of the respondents disagreed on that. Also, on technology vendors, 95% of the respondents agreed that it affect the adoption of the system whiles 5.o% of the respondents disagreed. Inadequate IT infrastructure, 62.5% of the respondents agreed that Information Technology infrastructure affect the adoption of HRIS.

5.9. The Effects of Financial Cost on Adoption of HRIS.

The study indicated that 75.2% of the respondents strongly agreed that there was high cost of technology system of financial cost on adoption of human resource information system, 20% of the respondents also agreed to that. However, 2.5% of respondents disagreed and 5% of the respondents strongly disagreed on that. The finding also shows that high cost of technology infrastructure affects the adoption human resource information system with 35% of the respondent strongly agreed it, also 30% of the respondents agreed on that. According to the research finding the cost of software installation also affect the adoption of human resource information system with 56% of

the respondents strongly agreed to it, 21.5% of the respondents agreed to that claimed. However, 12.5% of the respondents disagreed and 10% of the respondents also strongly disagreed to that.

5.10. Importance of Adoption of HRIS to Ghana Education Service, Mion and Yendi

On the issue of importance of adoption of HRIS, the study has revealed that HRIS has a lot of benefits to organizations and institution when successfully implemented. HRIS assists the HR department in making the HRM process easier. The respondents mentioned the importance of adopting which includes, identifying training needs of the employee, identify individual training needs and proper employee records keeping were seen to be statistical importance. Employee Training, under this employee are giving opportunity to required information and skills, that is vital to handle the task. The skill aids the employee to improve on their productivity.

5.11. Testing Respondent Knowledge in Human Resource Information System Software.

The study revealed that majority of the respondents were not aware of existence of HRIS software such as ABRA SUIT, ABS Software, CORT-HRMS, ZOHOPEOPLE and EMPLOYEE-CONNECT.

5.12 Recommendations of the study

In a rapidly changing World driven largely by technology organization and institution needs to adopt technology to reduce traditional know-how human resource activities. The findings from the study inform on recommendations to be put forward. Technology adoption to facilitate human resource activities and system should be adopted by State own and private organization in Ghana and other African countries. The outbreak of Corona virus 2019 in the world has affected organizational performance and this served as a call for organizations to adopt HR technology such as human resource information system against similar future pandemic.

In light of the research finding the following recommendations are further suggested based on each objective.

5.12.1 Technological factors on HRIS

➢ Computer network available, the finding indicated poor computer network affect the adoption human resources information system. The study recommends that, Ghana government should work closely with the big telecom industry such as MTN, VODAFONE AND ITEL GHANA to provide reliable and sustainable network to study area. The Ministry of communication and national communication authority should ensure that telecommunication masks should be erected in the various communities in the study area and Ghana as whole.

➢ The cost of implementing and installing HRIS, the research revealed that implementing and installing HRIS costly due to the prices and procedures involved in implementing the system, the study recommended that government

should formulate policies and programs that will support the educational institutions to implements those technologies to aid them to improve on the HR activities.

➤ Technological preparedness of organizations, the study revealed that the organizational technological preparedness affects the adoption of HRIS. The study therefore recommended that the institutions and organizations should put in place various structures needed for adoption of technology, for instance the employees should be given training and education on the intended technology to be adopted.

➤ Inadequate expertise knowledge in IT in Ghana education service in the study area, the findings have shown that, there were inadequate expertise knowledge in Information Technology. The study recommended that the employees of Ghana education service must be given the opportunity to upgrade their knowledge IT especially the HR units and other important units of the education directories.

5.12.2. Influence of organizational factors on adoption of HRIS

➤ Attitude of employees towards the adoption of a new technology, the finding indicated that the attitude of the employees affects the adoption of the human resource information system. The study commended that institutions should encourage their staff to develop good attitude toward innovations and also let the understand the importance of the new system.

➤ Employee readiness of technology in an organization, the study indicated that employee readiness for adoption of technology influence the adoption

of technology. The study recommended that staff of Ghana education service especially the education directory should be given opportunities to upgrade themselves in information technology. The ministry of education should design programs for Ghana education service staff to equip with current IT systems.

5.13.0 The current environment factor on the adoption of HRIS.

➢ Government policies is found to be one of the environmental factors that affect the adoption human resource information systems in the study area. The study recommended government and parliament should enact policies that will make adoption of technology easier. Government should provide enable environment for people have access to technological infrastructure, available network and free computers to institution to aid them in their human resource activities.

Authors (2006), observed that, most institutions and establishments both public and private in Ghana is not given the needed attention to HRM matters. This is as a result of policy maker's failure to guide activities in this regard. There is substantive provision in the 1992 constitution with number of provisions which has shown prove of basis for sound human resource management policies in Ghanaian public organizations. For instances the Directive Principle of State Policy (DPSP), covered in chapter six of the Constitution, enjoins citizens, the three organs of government, among others to implement policy decisions to benefit the

citizens

➢ Availability of technology vendors, this was one of the environmental factors affect the adoption human resource information system according to the study. The study recommended that government should create enable environment for software vendors to reach out to all public institution and organization at a low cost. Government should also sign contracts with Vendors to installed HRIS software in the

public institutions more especially educational institution.

➢ Inadequate IT infrastructure is among the environmental factors that affect the adoption of human resource information system in this study. The study recommended that government and non-government organizations should provide the needed Information Technology infrastructure such hardware and software to the various educational institution Ghana.

➢ Public and private organizations in Ghana should adopt the human resource information system to facilitate their human resource activities. Ghana education service, heads of departments should consider the training needs of human resource staffs and identify individual training needs more specially employee who are directly involved in the HR and IT process in order to equip them with the technical knowledge on the human resource information system.

➢ The district Directors of Education and heads of senior high schools should commit resource for the training of HR personnel and other staffs. Also, there is a need for management of Ghana education service and

heads of institution to avail themselves of various opportunities to fill the resource gap of HR units in other for them to be more productive. The research is commended that the numerous challenges revealed from the studies needs the attention of policy makers and Ghana Educations Service to facilitate the activities HR in Ghana education service and other public and private institutions.

➢ The study general recommended that, the organization and institutions in Ghana especially Ghana education Service should incorporate the use of IT with the strategies and plans to ensure proper use of technology in achieving organizational objectives such as monitoring and evaluation, performance appraisal rather than using HRIS for only administrative applications such as payroll and employees' record keeping. Furthermore, an improved understanding of the organizational adoption of HRIS could be useful to HR managers and staff, IT experts in the GES directories..

5.14. Conclusions

In conclusion, the finding noted that, the study used various theories from the technological innovation literature and the various variables in coming out with the findings. The study used quantitative and qualitative data to validate the adoption of HRIS in Ghana Education Service. The study identified factors that affect the adoption of human resource information system in the study areas. Some of the major factors such as technological factor, Organizational factors, Environmental factors and financial factors. This is supported by the work of Azmal*et al* (2018) which indicated that, the

implementation of human resource information system in the public sector depends on the organization, technology and environmental perspective factors

The findings indicated that, technological factors on the adoption of Human Resource Information System are basically influenced by computer network availability, HRIS costly to stalled and implemented, inadequate basic technology system, technological preparedness of the employee and inadequate expertise knowledge in IT in Ghana education service. From technological factors, it has been established that network availability is highly needed in the technological factors to influence the adoption of HRIS in Ghana education service. Again, computer network is like human head to body, this is because without network and its availability human resource information system will not work effectively in an organization. The network is needed to be available to access the use of human resource information system across various departments and

sections.

The finding again noted that, technological factors on HRIS is influence by inadequate technology system. The technology systems are interconnected systems that support human resource activities, the technology system is needed in the technological factors to influence the adoption of HRIS. The finding of the study stated that technology system affects the adoption of human resource information system. Based on the above, government and teacher unions should collaborate with the big telecom companies for find lasting solution to the poor computer network availability identify by this study in Mion and Yendi districts of northern Ghana.

 On organizational factors, the study revealed the various factors such as attitude of employee in an institution, lack of IT expertise in the study area, the employee should be given basic explanation the need for technological innovation. There is a need to make

the institutional vision known to the employee and also empathize with them before adoption of any Technology in Ghana education Service. Also, lack of IT expertise in GES in Mion and Yendi is found to one of the organizational factors that affect the adoption of HRIS. In this staff are not allow to further their education in information technology to become experts there will always be drawback in adoption of human resource information system in Ghana education service in Mion and Yendi

districts.

The finding indicated that, environmental factors on human resource information system is been influenced by government policies, inadequate IT infrastructure and government support. Government should make policy to ensure direct government funding towards the adoption of new technology in Ghana education service, also tax incentives to business who are into technological products, when these is not done by government the adoption of human resource information system in Ghana education service will still face a lot of challenges.

Financial cost on human resource information system is influence purchase of technology system, software installation and technology infrastructure. The finding shows the cost of these variable have a lot of influence on the adoption of human resource information system. The expenses associated with the development, acquisition, implementation and maintenance of assets of technology have significant influence on the adoption of technology in Ghana education service in Mion and Yendi. The adoption of HRIS will be possible if government include technology budget in the national budget support institution with technology system and HRIS software

installation.

On the importance of adoption of Human Resource Information System, the study revealed that HRIS adoption is associated with a lot of benefits to every organization and institution in Ghana. The study identified the following importance in adoption of HRIS such as identifying training needs of the employee, identify individual training needs and proper employee records keeping were seen to be statistical importance.

The importance of HRIS to organizations is confirmed by researchers such as Teo et al (2007) and Hussain *et a*l(2007) recommended that, human resource information system has an ability in ensuring the incorporation between human resource management and IT by supporting administration, and planning for human resources. Also, major researchers such as Ball(2001) maintained that human resource information system supports most of human resource systems and applications which includes record keeping. Again, Chapman*et al* (2003) mentioned that HRIS supports recruitment, Kathawongs (2004)stated that HRIS supports selection and Compensation and Training and Development were mentioned as factors that are supported HRIS by (Chan *et al*(2007).The research aimed to identify Challenges that affects the adoption of HRIS in Ghana Education Service in Mion and Yendi as a case Study which could be useful to various stakeholders in education such as government researchers and academicians.

5.15 Suggestions for Further Research

Furthermore, similar study should be conducted in more districts with focus on Ghana Education Directories and educational Institutions in the northern region of Ghana, this is because the factors for the adoption of HRIS are quite challenging. It is very important because the adoption is not the same in all institution and organization also from

districts to districts. This could provoke an institutional framework that directly guides the organizations to adopt human resource information system.

A further study could also be conducted mainly focusing on comparing human resource information system adoption in private and public organizations in northern region to see those factors and their basis of different level of adoption of HRIS. Also, future studies should address the status of HRIS adoption process in Ghana education service and other organization. It is important to cope with adoption process that could directly associate with organization demand hence there is a need for much work to be conducted in the area of HRIS.

Another study should be directly focused on other factors that this study could not identify, such human factors among others in an organization that affect the adoption of HRIS.

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APPENDICES

UNIVERSITY FOR DEVELOPMENTSTUDIES

DEPARTMENTOF ADMINISTRATION AND MANAGEMENT STUDIES

QUESTIONNAIRE

Adoption of Human Resource Information Systems in Ghana education service. A case study of Mion district and Yendi municipality in the Northern Region.

The researcher is a final year Masters of Commerce Degree Student in **Human resource Management** of University For Development Studies. This questionnaire has been designed to carry out a research on the above topic for academic purposes only.

Respondents are assured of privacy and confidentiality on any answer(s) given. Put **(√)** marks in space provided for closed ended questions and write your response on space provided for open ended question.

SECTION A: Questions on respondents Characteristics.

1. Name of district------------------------------------

2. Gender of respondent: Male [ ] Female [ ]

3. Age of respondents .18-25[ ] b. 30-40[ ] c. 40-50[ ] d.50-60[ ]

4. Educational level of respondents: SHS [ ], 3year post-secondary (Cert'A') [ ], A level [ ], Diploma [ ], Degree [ ], master's degree [ ],

5. Rank of respondent: (1) Director[ ]   (2)deputy director[ ] (3) AD1[   ], (4) AD11[ ] (5)PS [ ] (6) sup 1 (7) sup11.

6. A trained or non-trained teacher: (1) trained [ ], (2) non-trained [ ]

SECTION B: Questions on Computer literacy and knowledge of the staff of Ghana Education Service

7. Are you a computer literate (1) Yes [ ] (2) No [ ]

8. Which of the following Microsoft Suite do you used for your HR activities (1) Microsoft word [ ] (2) Microsoft excel [ ] 3. Microsoft Access [ ]

9. Does technology has a role in influencing the quality of work in Ghana Education Service? (1) Yes [ ] (2) No [ ]

10. Which of the following devices do you use? A. Smartphone [ ] B.'Yam' [ ] C. Both [ ]

11. Which of the following method is used for keeping data of employees in Ghana Education Service. (A) Hardcopy, (B) Softcopy (C) Both

12. Will you recommend the use of HRIS a mandatory in the GES offices? (1) Yes [ ], (0) No [ ]

Section C. The influence of technological factors on adoption of human resource information system.

13. Please state the extent to which you agree or disagree with the following statements regarding technological factors on the Adoption of Human Resource Information System. (1 **Strongly Disagree, 2 Disagree, 3 Neutral, 4 Agree and 5 Strongly Agree)**

N	Technological factors	SA(5)	A(4)	D(3)	SD(2)	U(1)
1	Computer network availability					
2	Cost of implementing and installing HRIS					
3	Inadequate basically technological system					
4	Difficult to reliable HRIS software vendors in Ghana					
5	Technology preparedness of the employee					
6	Inadequate expertise knowledge in IT in GES.					

Section D. **Influence of environmental factors on adoption human resource information system**

14. Did the following organizational factors affect the adoption of human resource information system by ticking Yes or No, in this section.

Response (√).

N	ORGANIZATIONAL FACTORS	Yes	No
1	Attitude of employee towards change		
2	Lack of IT expertise in GES		
3	Technological awareness of the employee		
4	Employee readiness		
5	Employee resistance to change		

15. Please explain your answers in question ……………………………………………

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SECTION D: The influence of current Environmental factors on HRIS.

16. Please state the extent to which you agree or disagree with the following statements

    regarding the current Environmental factors on Adoption of Human Resource

Information System in GES (**1 Strongly Disagree, 2 Disagree, 3 Neutral, 4 Agree and 5 Strongly Agree)**

N	Environmental Factors	SD(1)	D(2)	N(3)	A(4)	SA(5)
1	Government Policies					
2	Organizational structure					
3	Technology vendors					
4	Comparative Pressure					
5	Government support					
6	Inadequate IT Infrastructure					

SECTION E. The effects of financial cost factors on the adoption of human resource

information system.

17. Using likert scale tick at the extend you are agreed or disagreed financial cost factors on adoption of human resource information system in Ghana education service?

N	Financial cost factors	SA(1)	A(2)	SD(3)	D(4)
1.	Technology system				
2.	Technological Infrastructure				
3.	HRIS software installation				
4	Cost of implementation of HRIS software				

Section F: Human resource information software

18. Which of the following HRIS Software do you used in your institution in managing your employees?   **Tick Yes or No**

N	Human Resources Information System SOFTWARE	Yes(√)	NO (√)
1	**Abra Suite**: for human resources and payroll management		
2	**ABS (Atlas Business Solutions**): General Information, Wages, emergency information, Reminders, Evaluators,		
3	**CORT: HRMS**: applicant tracking, Attendance tracking and, Wage information, Skills tracking, Reports-to information, Status tracking, and job history tracking		
4	**HRSOFT**: Identify and track senior managers, Assess management skills and talents, Generate a wide range of reports, employee profiles, replacement tables and succession analysis reports, career development,		
5	**Zohopeople:** is a cloud base HR management software use to help organization manage and organize employee data, manage performance appraisal		
6	**Employee-connect**: it provides a reliable and secure way to manage employee personal information		
7	**Human Resource Microsystems**: sophisticated data collection and reporting, compensation, employment history, time off, qualifications, Applicant/Requisition Tracking, Position, Training		

Section G.Importance of human resource management systems adoption in Ghana Education Service.

19. Please state the extent to which you agree or disagree with the following statements regarding importance of Adoption of Human Resource Information System. (1

Strongly Disagree, 2 Disagree, 3 Neutral, 4 Agree and 5 Strongly Agree)

N	Importance of HRIS in Ghana education service.	SA(5)	A(4)	D(3)	SD(2)	U(1)
1	Human resources information system helps in identifying training needs at the unit level					
2	Human resources information system helps in identifying educational training needs in the long term					
3	Human resources information system helps in identifying individual needs at all levels					
4	Human resources information system helps in identifying training requirements according to the job description					
5	Human resources information system provides training requirements					
6	Human resources information system ensures proper employee record keeping in the organization					

20. Comment on various factors that are likely to influence adoption of Human resource information system in your institution**. _____**

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