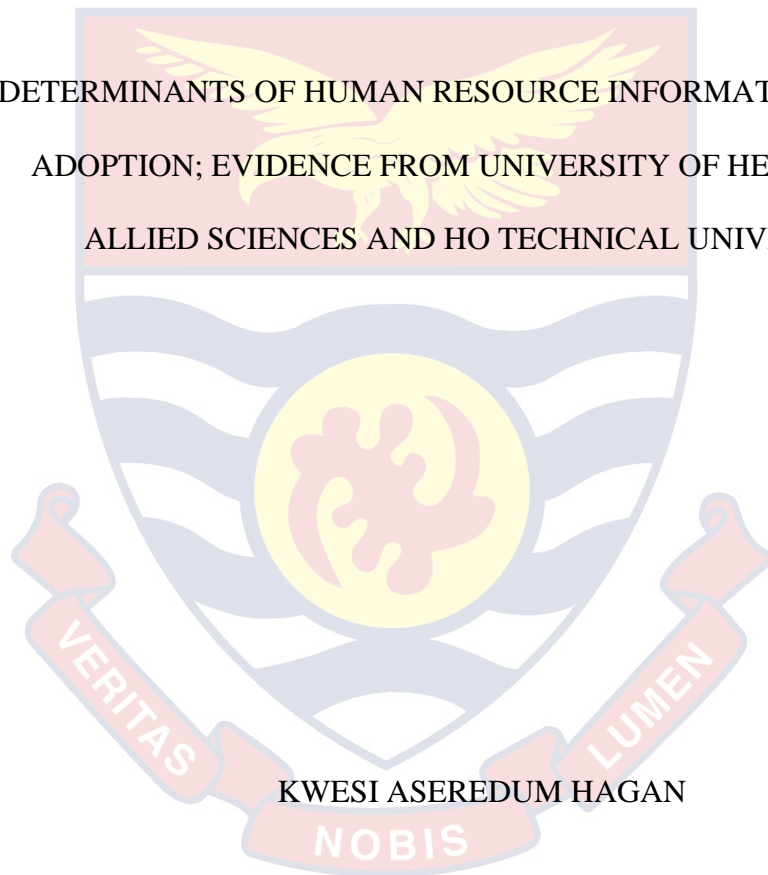UNIVERSITY OF CAPE COAST

DETERMINANTS OF HUMAN RESOURCE INFORMATION SYSTEM

ADOPTION; EVIDENCE FROM UNIVERSITY OF HEALTH AND

ALLIED SCIENCES AND HO TECHNICAL UNIVERSITY

KWESI ASEREDUM HAGAN

2021

UNIVERSITY OF CAPE COAST

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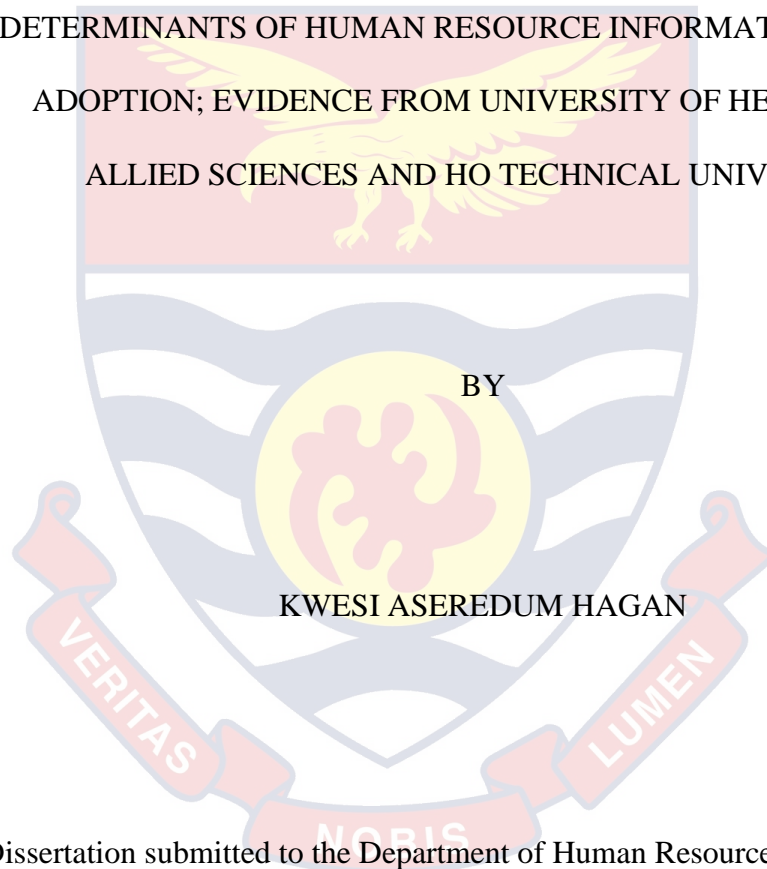
BY

KWESI ASEREDUM HAGAN

Dissertation submitted to the Department of Human Resource Management of

the School of Business, College of Humanities and Legal Studies,

University of Cape Coast, in partial fulfilment of the requirements

for the award of Master of Business Administration

degree in Human Resource Management

FEBRUARY 2021

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that

no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature …………………………Date ……………………..

Name: Kwesi Aseredum Hagan

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were

supervised in accordance with the guidelines on supervision of dissertation laid

down by the University of Cape Coast.

Supervisor's Signature ………………………. Date ……………………….

Name: Dr Nicodemus Osei Owusu

ABSTRACT

The purpose of this study was assessing the determinants of HRIS adoption in tertiary institutions and also to identify the challenges associated with the process. The study was conducted within UHAS and HTU. The specific objectives that guided the study were to assess effect of organisational characteristics on HRIS adoption UHAS and HTU. In addition, the study sought to assess the effect of top management involvement on HRIS adoption UHAS and HTU. Also, the study sought to assess the effect human resource characteristics and HRIS adoption UHAS and HTU and finally assess challenges associated with HRIS adoption UHAS and HTU. The study was a descriptive study which adopted a quantitative methodology. The population size was 75 staffs from HTU and UHAS HR and ICT staffs and the entire population (census) was used with a response rate of 84%. With respect to the first objective, the result showed that organisational characteristics has a positive influence on HRIS adoption. The second research objective showed that top management involvement had a positive effect on HRIS adoption. The third objective also showed that human resource characteristics has a positive influence on HRIS adoption. The results showed that comparatively, top level management involvement had a positive influence on HRIS adoption larger than the two other determinants. The results also showed that lack of management support is the most common challenge associated with HRIS and the least challenge is resistance by employees. This study recommends that management practices in the institutions concerning HRIS should facilitate adoption of information system among employees using the HRIS.

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I would like to express my heartfelt gratitude to my supervisor Dr N. Osei Owusu and his assistant for their guidance and directions. I am also grateful to my colleagues at UHAS and friends at HTU
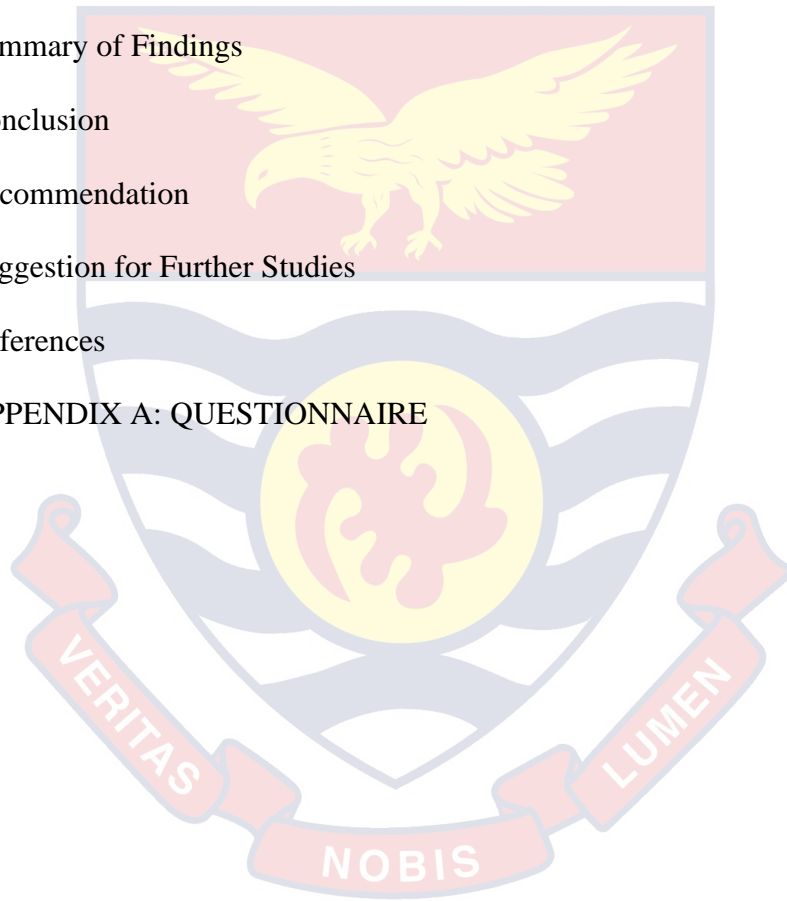
DEDICATION

To my family

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CHAPTER ONE

INTRODUCTION

One of the most common problem associated with the increase of tertiary institutions globally and particularly in Ghana has been the management of a wide variety of staffs. Typical tertiary institutions in Ghana employ staffs in thousands and this range from academic to non-academic staffs, both full time and part time. The need to manage the records of these staffs always poses a lot of challenges, with the advance in technology human resource information system (HRIS) management software are set up to accomplish this task. Given the nature of HRIS and the fact that it brings about change and disruption in the way traditional things are done, most times there are resistance to its successful use and implementation. As a result, there are key factors that determine the extent to which this software can be adopted and used within tertiary institutions. The focus of this study is to determine the extent to which these key determinants affect the adoption of HRIS in two new tertiary institutions at Ho within the Volta Region of Ghana. In addition, the study identifies the challenges associated with the adoption of HRIS.

Background to the Study

Human Resource Information System (HRIS) is one of the most important Management Information Systems (MIS) which contribute to human resource service delivery of an organization. HRIS is described as a computer system used to acquire, store, manipulate, analyze, retrieve, and distribute information related to human resources (Nagrenda, 2014). HRIS helps organisations by automating most of the human resource planning functions. The system has become an

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important strategic tool since it collects, manages and reports information for decision-making.

Fully integrated HRIS ought to interface with other systems to enhance the communication between departments such as payroll system with accounting system. Since the system deals with employees' personal data, which are sensitive, it should ensure data security while transferring information from one place to another (Alhazemi, 2017). HRIS improves communication between employers and employees and builds strong relationship with unions and management committees (Marlene & Carlos, 2017). Therefore, the use of a HRIS would cut down HR costs by automating information and reducing the need for large numbers of HR employees; by helping employees to control their own personal information; and by allowing managers to access relevant information and data, conduct analysis, make decisions and communicate with others without consulting an HR professional (Hosain, Arefin, & Hossin, 2020).

Despite the widespread application of HRIS over the years, the implementation of HRIS continues to be faced with problems. As noted by Strohmeier (2001), the main factors that cause failure of information technology systems are mainly human as opposed to materialistic or malfunction of the actual systems. Ngai and Wat (2006) in a study on HRIS implementation found out that many organizations have problems when implementing new technologies including HRIS due to many barriers. These barriers include lack of sufficient capital and skills, cost of setting up and maintaining the system, lack top management support

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and commitment, lack of human resource knowledge by system designers and lack of applications for human resource users (Alhazemi, 2017).

An effective human resources information system (HRIS) can be an invaluable tool to help administration effectively responds to economic challenges and to comply with the many reporting requirements from outside agencies. For example, there is an increasing demand from governmental agencies to supply information on organizational efforts in the areas of affirmative action, veteran status of employees, and equal employment opportunity compliance. In order to meet these needs, it is now more important than ever for Human Resource departments to maintain an efficient information system. Although the initial design of a good system that works well within a University's organisational structure can be challenging to establish, once in place, a well-run HRIS can be effectively used in almost every specialty area of Human Resources (Pynes, 2008). .

From compensation to employee relations to benefits and beyond, Human Resource managers in Higher Educational Institutions should learn to make the most of their information systems. Human Resource Information is key to making effective strategic decisions. Therefore, the use of HRIS has been advocated as an opportunity for Human Resource (HR) professionals to contribute to organizational strategy. According to Lengnick-Hall, Mark and Moritz (2003), HRIS is a system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information about an organization's human resources. It is often regarded as a service provided to an organization in the form of information. Human Resources (HR) and Information Technology (IT) are the two elements that many firms are

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learning to use as strategic weapons to compete (Ball, 2001). HRIS are expected to make the HR function more efficient. HRIS are designed to support the planning, administration, decision making and control activities of human resources management (Alhazemi, 2017).

Successful organizations have the capacity to absorb innovation into their organizational culture and management processes, furthering the argument that the success of organizational adoption behavior is based, to some extent, on the culture of the organization (Naqshbandi & Kamel, 2017). Corporate culture lies at the heart of organization innovation (Tian, et al., 2018). Adopting HRIS can be challenging as it can be costly and it can take long periods of time before espoused pre-adoption benefits become available after HRIS are fully assimilated (Ashbaugh and Miranda, 2002). In particular, HRIS adoption in the public sector may be even more challenging than the private sector for several reasons.

Following from the technology acceptance theory, this study proposes that there are key factors that influence the extent to which HRIS will become and integrated part of decision making within an organization. Niisha and Mona, (2012) identifies these key factors as determinants of HRIS. As proposed by Kagehi (2015) Organisational characteristics, Top management involvement and Human resource characteristics determines the level of adoption and if the new HRIS is accepted and adopted by users. According to previous researchers such as Bader (2012) and Ahmer (2013) organizational characteristics include organizational size, information systems, organizational culture and organizational change have potential determinants of the adoption process. Whiles others (Dennis 2015, Riffat

& Yazzan, 2014) indicate that top management participation and involvement in any innovation is key for adoption. Niisha and Mona (2012) also add that in an organization where there is HR-department function fully in place, there is the likelihood of a firm adopting HRIS, this is because the HR office will act as an internal promoter in getting the HRIS.

There is an abundance of challenges to HRIS adoption by organizations worldwide stemming from both internal and external factors. Lack of internal capabilities, high cost of HRIS acquisition, and lack of information about suitable HRIS solutions and implementation are some of the factors. Heeks (2002) also noted that an important challenge with HRIS adoption at the HR departments is that they do not allocate much money to the department. The HR department is considered to be a cost center, therefore has no income of its own. Thus, its cost has to be allocated to other production departments thereby it reduces the profit that the departments. Langbert and Friedman (2002) also adds that a key problem of HRIS adoption stems from the low level of importance credited to HR functions in general. HR managers are typically powerless and so they may not be able to push through a proposal for HRIS with the management

Even in the face of these challenges, it is worth noting that the wave of technological advancement has revolutionized each and every space of life today, and HR in its entirety was not left untouched by it (Alireza & Payvand, 2012). What started off with a simple software to help improve the payroll processing of an organization, or a software to track the employee work timings has grown to become the Human Resources systems that helps improve the process efficiency,

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reduces the cost and time spent on mundane tasks and at the same time improved the overall experience of the employees and the HR professionals. In short, as the role of Human Resources function evolved, HR technology systems also changed the role they were playing (Randi & Steve, 2013).

An HRIS uses a systemic procedure for maintaining, collecting, storing, retrieving, and validating data needed by an organization regarding their human resources, personnel activities and organizational characteristics. It can be said that HRIS is the link between Human Resource Management (HRM) activities and Information Technology (Kovach & Cathcart, 1999). Recent developments in technology have made it possible to create a real-time information based, self-service, and interactive work environment (Boateng, 2007). Personnel information systems have evolved from the automated employee record keeping from the 1960s into more complex reporting and decision systems of late (Boateng, 2007). Hence, HRIS is the integration of software, hardware, support functions and system policies and procedures into an automated process formulated to harness the strategic and operational activities of the human resources department and managers in the organization (Chauhan, Sharma & Tyagi, 2011).

The HRIS removes work duplication and various work processes are streamlined thus leading to efficiency. Thus, the HRIS can lead to incremental leaps in efficiency and response time of traditionally labour intensive HR activities (Dery, Grant & Wiblen, 2006; Targowski & Deshpande, 2001). Furthermore, researchers believe that when the HR functions was computerised into HRIS, faster decision making was carried out on the development, planning and administration

of HR because data became much easier to store, update, classify and analyze (Sergio, Pez, Sebasti & Ugarte, 2010; Shani & Tesone, 2010; Riffat & Yazzan, 2014; Randi & Steve, 2013; Dennis 2015)

Statement of the Problem

Absence of a well-established HRIS has led to poor record keeping, delayed personal data aggregation, poor talent management and poor staff files management which in turn has continued to hinder human resource service delivery in the Universities. The undependable HR manual systems may explain why significant decisions are not based on accurate and timely information which compromises performance of these institutions. This has also led to loss of personnel information as well as loss of millions of money in paying non existing employees. (Kanake & Micah, 2016).

For any organization to be successful, administration needs to be able to make quality decisions based on accurate data. Too often in higher education, decisions are made without the benefit of a comprehensive analysis of the current state of the university (Hooten, 2013). These decisions can lead to misusing existing funds, continuation of ineffective programs, or overlooking ways to create positive change for the Universities. Studies have focused on the status of HRIS and its uses, benefit, implementation and barriers in most parts of the world. However, there is inadequate literature available concerning the utilization of HRIS in Ghana.

According to Sanjay (2009) the implementation of computerized human resources functions is a great challenge for organizations. The macro and micro-factors influencing a business are very dynamic and this leads to requirement of

continuous monitoring and accommodating the changes in the implementation strategy accordingly. Implementation of HRIS practices bears linkage to organizational performance; and focusing on the alignment of human resources with organization's information technology strategy as a means of gaining competitive advantage (Mao, et al., 2016).

Ball (2001) observes that the emphasis of transforming the human resource element from being merely a tool within the work environment to being an important asset in the achievement of the organization's goals lies on the shoulders of the management. Similarly, Bowen and Oestroff (2004) observes that the notion of implementing relevant human systems, including HRIS, has become the key driver to changes in human resource management in all organizations particularly the public sector where quick implementation has led to failure and less effectiveness in the expensive systems installed.

Despite a great effort by the management and the heavy investments that has been made on the information technology-based reforms at the various universities, implementation of HRIS still appears to be a serious challenge (Nagrenda, 2014). Even though studies have been done on HRIS (Nagrenda, 2014; Alhazemi, 2017; Marlene & Carlos, 2017), no such studies have investigated HRIS within the Ghana public educational sector. Specifically, no attention has been given to establish the factors contributing to the sluggish adoption of the system at the University of Health and Allied Sciences and the Ho Technical University. This study therefore, plans to address this gap in knowledge by establishing perceived

factors influencing the adoption of HRIS at the stated universities and challenges associated with the process.

Purpose of the Study

The purpose of this study is assessing the determinants of HRIS adoption in Higher Educational Institutions and also to identify the challenges associated with the process.

Research Objectives

Specifically, the study seeks to assess the:

1. effect of organizational characteristics on HRIS adoption UHAS and HTU

2. effect of top management involvement on HRIS adoption UHAS and HTU

3. effect human resource characteristics and HRIS adoption UHAS and HTU

4. challenges associated with HRIS adoption UHAS and HTU

Research Questions

1. What is the effect of organizational characteristics on HRIS adoption at UHAS and HTU?

2. What is the effect of top management involvement on HRIS adoption at UHAS and HTU?

3. What is the effect of human resource characteristics on HRIS adoption at UHAS and HTU?

4. What are the challenges associated with HRIS adoption at UHAS and HTU?

Significance of the Study

This study will be useful to both current and future reform initiatives that Higher Educational Institutions will implement, particularly in the area of HRIS and its proper implementation. It will provide a basis of consistent and quality information to support management decisions. It will also provide a reference point for similar or related studies in the higher educational system. To academicians and students of human resource management, the study will contribute to the existing body of knowledge in the area of the factors that affect the implementation of the HRIS in higher educational Institutions in the country.

The findings of the study will also benefit future researchers as well as fill the existing gaps in terms of literature in this field and part of scholarly work for private and public higher educational institutions. For the general Human Resource Management professional bodies, institutions and organizations, human resources information system plays a central role in the implementation and administration of technology within the organization. This study will provide immense knowledge on the challenges in the implementation of HRISs which will greatly inform management on how best to implement HRIS to achieve efficient and effective performance within the institution.

Delimitation

The main variables of this study are Organisational characteristics, human resource characteristics, Top management involvement and HRIS adoption. The area covered by this study is the University of Health and Allied Sciences and the

Ho Technical University in the Volta region. As such all other universities in the country are excluded from this study.

Limitations of the Study

The study uses a single primary data source (HR and IT department). Since the study employed the use of questionnaire in collecting data and it was a cross sectional, employees did not have the opportunity of indicating other contextual factors that could influence turnover intentions. This notwithstanding, studies of this nature have evolved in the literature where some dimensions are investigated and recommendations are made. Due to the use of questionnaire in collecting data, some respondents failed to answer in which case the study could not capture the response of the entire sample. However, since respondents were randomly sampled, this will not affect the results of the study.

Definition of Terms

Human Resource Information System: Qadir and Agrawal (2017) defined HRIS as a system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information about an organisation's human resources.

Organisational Characteristics: Organizational characteristics are the demographic characteristics of the organization. It includes business size, IT experience and planning of the firm, organizational culture and organizational change have potential determinants of the adoption process (Vincent, 2007).

Top Management Support: The support of the top hierarchy within the organisation in decision making (Riffat & Yazzan, 2014).

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Human Resource Characteristics: The quality of human resource structures and systems (Murat & Nihat, 2014)

Organisation of the Study

The study is organised into five main chapters. Chapter one introduces the topic by outlining the background of the study. The background of the study emphasises the theoretical importance and practical importance of the topic. The background of the study is followed by the problem statement; the objective of the study follows, again the research questions are developed around the specific objectives with a view to consolidating the findings. Following the objective and research questions is the limitation and delimitation of the study. This section addresses the extent of coverage of the study and the potential weakness associated with the outcome of the study. Finally, chapter one ends with the organisation of the study, which explains the layout of the work. Chapter two focuses on literature review; with a theoretical section followed by empirical section and devoted to the review of theories and concepts.

Chapter three discusses the methodology employed in the study. This chapter was devoted to the research design, population, sampling technique, sample size, sources and methods of data collection as well as the instrument of data analysis. Chapter four presents the findings of the research and discussions within the theoretical, comparative and empirical literature. Chapter five is committed to the summary of findings, conclusion and recommendations

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CHAPTER TWO

LITERATURE REVIEW

Introduction

The purpose of this study is to look at the determinant of HRIS Adoption at UHAS. This chapter focuses on reviewing relevant literature related to the study. The chapter looked at thematic areas such a theory underpinning the study, conceptual review, empirical findings and conceptual framework for the study. The theory supporting this study is first reviewed.

Theoretical Framework

This study made use of the Unified theory of acceptance and use of technology. The study used the theory to interpret the determinants of HRIS adoption.

Unified Theory of Acceptance and Use of Technology

The Unified Theory of Acceptance and Use of Technology (UTAUT) was developed by Venkatesh, Morris, Davis, and Davis (2003). This is a technology acceptance model that aims at defining the intentions of users to use an information system. UTAUT is derived from eight leading models relating to how people accept technology when it is introduced. These models were Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB), Technology Acceptance Model (TAM), Motivational Model (MM), combined TAM and TPB, Model of PC Utilization (MPTU), Social Cognitive Theory (SCT) and Innovation Diffusion Theory (IDT). The main aim of UTAUT is to explain user goals to use an information system and consequent usage behavior (Venkatesh et al., 2003). The

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theory holds that there are four key constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions act as the determinants of behavioral intention and use behavior.

Venkatesh et al. (2003) described Performance expectancy as "the degree to which an individual believes that using the system will help him or her to attain advantages in job performance". UTAUT speculated that performance expectancy is derived from essential information like perceived usefulness (TAM/TAM2), extrinsic motivates (MM), result expectations (SCT), relative advantage (IDT), and job-fit (MPCU). The construct performance expectancy has the explanatory power regarding the intention to use technology as well as HRIS adoption (Bandyopadhyay & Fraccastoro, 2007).

Venkatesh et al. (2003) defined effort expectancy as "the degree of ease associated with the use of the information system". It is framed from three different ideas: perceived ease of use (TAM/TAM2), ease of use (IDT), and complexity (MPCU). Effort expectancy is an important predictor of the purpose to use an information system. It is foretold from the features of the information system, such as social presence, proximity, and concurrency along with individual as well as group characteristics, such as technology experience, computer self-efficacy, and familiarity with others (Brown, Dennis, & Venkatesh, 2010). A study by Aggelidis and Chatzoglou (2009), shows that effort expectancy is a significant determinant of users' intention to use IT.

Social influence is well-defined as "the degree to which an individual perceives that important others believe he or she should use the new system"

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(Venkatesh et al., 2003). It is derived from three other ideas of earlier studies: subjective norm (TRA, TAM2, TPB/DTPB and C-TAM-TPB), image (IDT) and social factors in MPCU. The aim of people to use new technology usually influenced by the thoughts and observations of his/her immediate environment. Venkatesh and Davis, (2000) and Venkatesh et al., (2003) posited that this construct is more useful when the users are less involved with the technology that is being rolled out. Lu, Yao, and Yu (2005), also indicated that this construct has a significant influence on the behavioural intention at the early stage of technology adoption.

Facilitating conditions is the last of the four construct Venkatesh et al. (2003) posited. In their study, they defined facilitating conditions as "the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system." It is driven by perceived behavioral control (TPB, C-TAM-TPB), facilitating conditions (MPCU), and compatibility (IDT). Venkatesh et al. (2003), noted that facilitating conditions would be measured directly with actual usage rather than behavioral intention, as it has a direct effect on the usage. Yia, Jackson, Park, and Probst (2006), also indicated facilitating conditions as a direct construct of the use information system. If the facilitating conditions are not sufficient, they may act as an inhibitor (Venkatesh, James, Thong, Frank, Chan, Paul, & Brown, 2011).

The UTAUT theory is used in this study to examine the determinants of HRIS adoption within the context of the universities. It describes the role of the facilitating conditions, in terms organisational characteristics, top management

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involvement and human resource characteristics. The theory is used to support how each of these variables determine HRIS adoption and its success within the institutions of interest.

Human Resource Management (HRM)

In today's competitive environment, it is important that all organizations create a work environment which fosters growth and development in their human resource. It is obvious this can be done by implementing proper human resource management. Human resources are the individuals working for an organization, employed on a variety of contracts; some as "core" long-term staff, some as temporary staff, some as contracted staff but collectively making up the most important of an organization's resources (Cowling, 1998 cited in Sefakor, 2013). Human resource is the human assets of every organization and they are the most important factor providing flexibility and adaptability to organizations (Tiwari, 2012)

Therefore, human resource management is the process of managing the human resource or the human assets in an organization in a structured and thorough manner or through a detailed laid down procedure. This involves staffing (hiring people), retention of people, pay and perks setting and management, performance management, change management and taking care of exits from the company to round off the activities. Every effective and efficient HRM team also serves well as a primary liaison with the labor union (Wali, 2010). According to Sefakor (2013), the only resource that can help one to have a competitive advantage over one's

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competitors is human resources which are unique and cannot be imitated unlike other resources like technology and capital.

According to Sefakor (2013), firms' ability to adapt to the competitive and changing environment in other to gain competitive advantage is based on the human resource in the organization not the firm. However, several scholars such as wali (2010) and Beulen (2009) have noted that managing people is more difficult than managing technology or capital. Yet still, Dessler, (2013) assert that organisations that have cultured how to manage their human resources well would have an advantage over their competitors in the long run since acquiring and deploying human resources effectively is difficult and takes much longer.

A human resource manager performs different functions that make up human resource management. These functions are human resource planning, staff development and regulatory compliance, benefits administration, performance appraisal, and recruitment and selection. Human Resource Planning is the process of making a decision about what positions inside the firm to fill and how to fill them (Martinsons, 1997). It is also the process of identifying current and future HR needs for an organization to achieve its goals as well as forecasting a firm's future demand and supply (Beulen, 2009). Human resource planning is a continuous process that works in both the long-term and short term.

Staff development is the process of developing existing staff needs to be maintained as different industries and sectors continue to implement new ways and technologies in performing their duties. Supporting employees in identifying their professional development skills and targets is the purpose of education and training

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tools (Beulen, 2009). As such, it contributes radically to retention management. HRIS can be used in staff development and facilitating employee's identification and enrolment of adequate or required training courses that are related to their current job or to develop their skills and abilities that enable them to carry out new jobs (Martinsons, 1997; Beulen, 2009).

Benefits administration is considered an important function for human resource management, since; it is part of retention management and can be used to motivate employees. It involves the creation and management of employee benefits, as well as providing means for employees to be trained in understanding how the benefits work (Dessler, 2013). Performance Appraisal is also called employee rating, employee evaluation, performance review, or result appraisal. It is used to assess an employee's performance and provide feedback about past, current, and future performance expectations (Beulen, 2009).

Human Resource Information System (HRIS)

Qadir and Agrawal (2017) defined HRIS as a system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information about an organisation's human resources. The definition qualifies for the real need and development of an information system which could cater to the requirements of HR. Rapid changes in the operation level and dynamic business environment have paved the path for treating HR as strategic business partner in organisation. Recent developments in the technology world have made it possible for the use of technology in aiding in the duties of human resource managers in the organization. Hendrickson (2003) stated that HRIS is the case with any multifaceted

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organizational information system, HRIS is not restricted to the computer hardware and software applications that encompass that technical part of the system, it also has the people, policies, producers and data required to manage the HR function.

According to Kovach, Hughes, Fagan and Maggitt (2002) HRIS is a systematic process for collecting, storing, maintaining, retrieving and validating data needed by organization about its human resources, personnel activities, and organization between human resource management and information technology. Also, Tannenbaum (2007), defines HRIS information as a technology-based system used to obtain store, treat, analyze, retrieve, and deal out pertinent information concerning an organization's human resources. Consequently, for the purpose of this study the researcher assumes HRIS as all forms of an information system that assist the managers in performing his or her functions as the human resource manager of the organization.

Components of HRIS

Laudon and Laudon (2007) posited Human resources information systems are used in maintaining employee records, track employee skills, job performance and training, and support planning for employee compensation and career development. According to the study of Mittal and Kumar (2012), the Human Resource Management System (HRMS) which is also a form of HRIS is an internet-based enterprise solution developed internally for better corporate governance. It is a suite of twenty-five (25) applications, which aids in decision from orientation till the final settlement and even post-retirement assistance of an employee. It also has a vacancy generation, selection process placement which

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comes before the recruitment stage. HRIS can be used in succession planning and organizational chart review by using business rules and processes that are built-in in this software and each change in this software is centralized. Each application covered in Human Resource Information System is safely integrated with other information systems in the organization.

Laudon and Laudon (2007) further state that there are four (4) main categories of information systems from a constituency perspective. The first is the Transaction processing systems (TPS). These are information systems at the basic business systems that serve the operational level of the organization by recording the daily routine transactions required to conduct business, such as payroll and sales receipts. The second one which is the Management information systems (MIS) serves middle managements' interests by providing current and historical performance information to aid in planning, controlling, and decision making at the management level. MIS converts TPS data into summarized information.

The third system is the Decision support systems (DSS). It help managers with non-routine decisions that are unique, rapidly changing, and not easily specified in advance. It assists in tactical management. DSS is more analytical than MIS, using a variety of models to analyze internal and external data or condense large amounts of data for analysis. The final system is the Executive support systems (ESS), it provides a generalized computing and communications environment that helps top-level managers address strategic issues and identify long-term trends in the firm and its environment. ESS reports non-routine decisions requiring judgment, evaluation, and insight because there is no agreed-on procedure

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for arriving at a solution. ESS presents graphs and data from many internal and external sources through an interface that is easy for senior managers to use. Often the information is delivered to senior executives through a portal, which uses a Web interface to present integrated personalized business content.

Benefits of the HRIS

Agreeably, we can say from the discussion above that almost all HR functions can be done using HRIS. This can benefit the organization in several ways, for example, an implication of HRIS the automation of tasks and process reduces the use of resources in these three ways financial, material and human. According to Hendrickson (2003), HRIS benefits an organization in its HR functions by improving efficiency and effectiveness which is the main aim of every manager and provides self-service HR. A study that was done in the late 90s by Beckers and Bsat (1996) revealed five reasons why companies should use HRIS. These are to increase competitiveness by improving HR practices; to create a greater number and diversity of HR operations; to transfer the focus of HR from the processing of transactions to strategic HRM; to make the employees part of HRIS, and to re-engineer the entire HR role.

Again, using HRIS enables faster decision making in the development, planning and benefits administration of HR because data is much easier to store, update, classify and analyzed. Beyond cost reduction and productivity improvements, HRIS possibly and basically affects revenue channels. Ideally, with appropriate use of HRIS, fewer people should be needed to perform benefits

administrative tasks such as record keeping and more time will be made available for HR managers to assist by providing data at the strategic level.

Furthermore, Aggarwal and Kapoor (2012) mentioned in his study that HRIS benefit is not only enjoyed by the management and HR department but also assists the employees in several ways. It helps the HR department to keep a single database of all employees in the company with all necessary information and opportunities of different reports plus, HRIS eradicates the paper forms that are much slower and has a higher likelihood of errors caused by human factors. For the employees, HRIS provides the likelihood of autonomous access to data, which often means working in one software window as well as keeps automatic tracking and reminder to business obligations and events.

Concisely, HRIS assists the processing of information relating to human resource management and has become a key element to all organizations because of the delicate matter of human resources. Thus, the importance of HRIS can be seen all-around, such as operational assistance in collecting, storing and preparing data for reports, simplifying and accelerating the processes and controlling the available data, reducing labor costs for human resource departments, and providing timely and diverse information to the management of the organization, based on which it is possible to make quality strategic decisions related to human capital (Aggarwal & Kapoor, 2012).

Adoption of Human Resources Information System (HRIS)

Human Resources Information System (HRIS) has become an essential component in many firms be it small or large. Recent articles (Virdyananto, et al., 2016; Njau, 2018) on adoption of HRIS by firms and HR department has mainly based their decision by focusing on Organisational characteristics, Top management participation and Human resource characteristics that influence the level of adoption and if the new IT is accepted and adopted by users, the chances of system and investments success seriously increase (Kagehi 2015). Easy access to critical information will become an integrated part of much strategic decision-making process, thereby they base their adoption of HRIS decisions on performance expectancy, effort expectancy, social influence and facilitating conditions (Njau, 2018). HRIS is being used extensively in organizations of all sizes. There are several factors affecting the successful application of information systems, therefore this study conducted to identify the determinants adoption of HRIS.

The effectiveness and efficiency of HR department in higher educational institutions to undertake its critical activities depends upon the adoption of IT technology. However, the adoption and implementation has been characterized by many shortcomings due to a number of limitations, such as the cost of adoption and maintenance, culture of institutions, availability of consultants and IT experts, management willingness and organization or institution size. Previous studies indicate that factors hindering adoption of HRIS includes; organisational

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characteristics, top management involvement and the nature of the human resource (Kinanga, 2012).

Determinants of HRIS Adoption

For this research purpose, with the determinants of HRIS adoption the study focuses on Organisational characteristics, Top management participation, and Human resource characteristics.

Organizational characteristics as a Determinants of HRIS Adoption

According to previous researchers such as Bader, (2012), Ahmer, (2013), Niisha and Mona, (2012), and Vincent, (2007) organizational characteristics include business size, IT experience and planning of the firm, organizational culture and organizational change have potential determinants of the adoption process. These characteristics are the demographic characteristics of the organization. These characteristics have very important roles to play when it comes to understanding organization characteristics within the context of HRIS adoption.

Organization Business Size

According to Naser (2014) organization business size is defined as an organization's resources, transaction volumes, or total workforce. The size of a firm is being considered under organizational characteristics because when the size of a firm is enlarged, it creates what is called critical mass which justifies the acquisition of particular innovation and necessitates adoption behaviour of which HRIS is not exception. In the same view with previous studies, studies by Hausdorf and Duncan, (2004); Florkowski and Olivas-Lujan, (2006); Bakker, (2010) shows that organization size should constitute a central adoption. The significance of firm size

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is partly due to its role as the source of the firm's capabilities. In the study of Light, Idisemi, Craig and Hanifa (2013) within Singaporean small businesses opinions out that business size is the most important discriminator between adopters and non-adopters of IT.

The findings of the previous study were reinforced by Kamel and Abdullah, (2014) Organization size, supporting organization settings including a skilled workforce are important factors in successful innovation adoption. Organization business size in determining HRIS adoption is mainly from the benefits of HRIS is higher for larger firms; the availability of funds for these firms is greater; and many IT innovations, like the Internet, are scale enhancing and therefore larger firms adopted them sooner – and more intensively - because they enjoy economies of scale more quickly (Dennis 2015).

Organisation's IT Experience and Planning

According to Teo, Lim and Fedric (2007) an organization's IT experience over time in the HR department has been found to have a strong effect on the overall success of HRIS adoption in an organization. In a study by (Virginia et al., 2007) IT planning is the process whereby organizations determine why and how IT can advance their business procedures and profitability, and then develop a means to obtain the estimated results. The organization should allocate the resources and dedicate important time and devotion to manage the adoption process in other to reap its full benefit.

Firms learn from experience or through planning that IT involves long term commitment and substantial investment and can have a substantial influence over

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organizational capacity, strength, and existence. Planning of IT is perceived to be even more essential with regard to the advancement of technological innovations day by day, along with the continuous efforts required by the Organization's' internal environments to absorb them. Therefore, organizations' can fully benefit from the adoption of IT through IT planning to evaluate the threats and opportunities created by IT (Ahmer, 2013).

Organizational Culture

Organization culture is the actions and behaviors that contribute to extraordinary social and psychological environment of an organization. It includes the organization's expectations, experiences, philosophy, and values that hold it together. It can also be said as the way the organisation goes about its activities. The culture of the organization is expressed in its internal and external workings, its self-image, and future expectations. It is based on shared attitudes, customs and norms, beliefs and values of the organization (Salwa & AZiad, 2006). It also assists in maintaining the identity group, cohesion of members and the survival of the individual group. It defines how things are going to be done in different situations in a whole organization through a set of rules and regulations.

Abeer, et al. (2011) suggest that organizational culture is necessary since culture is key to the success of HRIS projects. Several authors have identified the need to view organizational cultural and behavioral issues as key areas that need to be addressed for the successful implementation of information systems (Niisha & Mona, 2012). A study by Dennis (2015) found that organizations whose cultures are seen as being flexible or open and having a long-term orientation had a greater

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tendency in adopting manufacturing technology. Organizational culture continues to be cited as an important factor in the success or failure of information.

Organizational Change

Organizational change is another important influencing factor under organizational characteristics of HRIS adoption. Business growth forces SMEs to adopt novel and more effective technological solutions. The use of ICTs in small firms is the result of many internal factors such as business expansion, downsizing or relocation, and finding and capturing new markets that bring about change in organizations. Since in SMEs the concept of business growth requires and is associated with deployment of a total quality system and professionalization processes as well, IT adoption might be regarded as a rational response to these alterations from managers (Syeda, Sajid, & Syed, 2012). Another important factor is resistance to change, as employees may feel safer with the old paper system (Bader, 2012).

Top Management Participation

Previous studies of different researchers posited that top management involvement and participation of innovation play a large role in the adoption or early adoption of that HRIS (Riffat & Yazzan, 2014; Kamal & Abudallah, 2014; Dennis, 2015). Niisha and Mona (2012) also reinforced it by arguing that top managers are the people who make the final decision to adopt HRIS based on the internal needs of the organization or environmental changes. Top management can use verbal support and personally utilizing the HRIS software themselves. Their frequent personal HRIS usage may result in sufficient delegation of resources and

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increased pressure for HRIS success. In the study of Ang, Davies, and Finlay, (2001), they examined 47 Malaysian public sector agencies on IT usage to support total quality management (TQM). Among the organizational factors explored, the researchers found top management support for IT applications as the highest predictor of IT usage.

Top management support has also been known as vital for creating a supportive environment and providing adequate resources for the adoption and implementation of new technologies (Niisha & Mona 2012). According to Niisha and Mona (2012), top management who have a wider perspective toward HRIS is better able to identify business chances for the exploitation of IT and provide appropriate strategic vision and direction for the adoption and implementation of new innovations or technologies. Visible top management support also sends signals about the importance of innovation, helping to overcome organizational resistance to HRIS. Top management as the leadership of the organization is also able to ensure that adequate resources will be allocated if the innovation is adopted Muhhamad et al., 2014).

Kamel and Abdullah, (2014) posited that successful innovation adoption with an organization can also be associated with an open management style, stating that this can be reinforced by means of communication-related IT. Naser (2014) also made it known that transformational leader; that is a leader who is a visionary, supporting and encouraging leader, who pushes for HRIS implementation was found to contribute to the acceptance of new systems. Razali and Vrontis (2010) specified that top management involvement and organizational commitment give

the idea as the two largest factors for the impact on the acceptance level of employees toward the new HRIS implemented in the Malaysian Airlines System.

Nagai and Watt (2004) also indicated that support of top management was one of the most important factors in the successful implementation of HRIS in Hong Kong. It is also worth noting that the adoption of an innovation process may vary across cultures in the rate of innovation activity and in the importance placed on top management decisions (Murphy & Southey, 2003). In the words of Ananya and Nur (2013), if the top management does not view HRIS favorably, it will simply not occur no matter how beneficial the HRIS will be.

Human Resource Characteristics

In an organization where there is HR-department function fully in place, there is the likelihood of a firm adopting HRIS, this is because the HR office will act as an internal promoter in getting the HRIS (Niisha & Mona, 2012). As the HR administrative burden grows, the need for automation becomes more imperative. In effect, the advantages of HRIS adoption are advantageous for the organization as a whole, advantages such as easing of administrative burdens via HRIS are most beneficial for the HR department. Motivation, capacity, and skill to adopt HRIS are considerably higher when there is an institutionalized HR department to make use of the software. Additionally, the recognition of the HR department as a "change agent" or "strategic partner" is more likely to inspire the adoption and operation of HRIS applications and practices (Murat and Nihat, 2014). Studies from other researchers show that the HR department can determine the adoption of HRIS

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through collaboration with the IT department, they standing as a change agent and HRM expertise (Ahmer, 2013, Murat and Nihat, 2014).

According to Kamel and Abdullah 2014, a collaboration of HRM and IT departments can ensure successful adoption of HRIS into an organization. To these trends, we would add to the increasing adoption of HRIS by smaller organizations. More employees, HR professionals, and organizations are now affected by HRIS than ever before. In response to these changes, additional roles are emerging for HR professionals (Randi and Steve, 2013). Expertise is a crucial factor in innovation adoption. HR expertise could be explained as the knowledge of employees in HRIS. HRIS staff should be knowledge of more than one functional area; at least IS and HR functions. The availability of skilled HRIS professionals was essential in ensuring success. HR expertise could be achieved through user training. Training enhances technology competency which could affect the speed and coverage of adoption of innovation (Murat and Nihat, 2014).

Challenges associated with HRIS adoption

HRIS may have advantages to offer to organizations, because it can quickly align the workforces in these organizations with their strategic objectives, thereby providing significant advantages over their less sophisticated rivals in local markets. On the other hand, the adoption of HRIS could be more troublesome for many reasons. The key problem of HRIS adoption stems from the low level of importance credited to HR functions in general. This ascription of a low level of importance to HR functions causes one major problem. HR managers are typically

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powerless and so they may not be able to push through a proposal for HRIS with the management (Langbert & Friedman, 2002).

Another problem with HRIS adoption at the HR departments is that they do not allocate much money to the department (Heeks, 2002). The HR department is considered to be a cost center, therefore has no income of its own. Thus, its cost has to be allocated to other production departments thereby it reduces the profit that the departments (Heeks, 2002). In India, for example, Budhwar and Bhatnagar (2009) state that HR has traditionally operated in "reactive mode" in the corporate sector, which means that the HR functions are brought into the picture only when there is a need. The role of HR departments has traditionally been limited to problem-solving between management and employees.

Organisations whose sizes are small may feel reluctant to implement HRIS to achieve productivity and efficiency gains and improvements. Since organizations tend to be much smaller, the need for HRIS and automation of HR processes may not be felt by the organizations (Huang and Palvia, 2001). These are some of the factors that could hinder the widespread adoption and implementation of HRIS by organizations.

Empirical Review of Literature Relevant to The Study

Kagehi (2015) in the study of challenges of adopting human resource information systems in the information technology industry in Kenya: a survey of selected it firms. The study used a descriptive research design approach and was based on a sample size of 64. The study employed stratified random sampling as the sampling technique for the research. The study used self-administered

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questionnaires to solicit information from the respondents. The results showed that IT planning was a key factor to be considered in HRIS adoption. The findings also showed that organizational culture greatly affected the adoption of HRIS. The study found out that an open and flexible culture enabled easy adoption of HRIS. Organization change was also seen a key determinant for adoption of HRIS. Unwillingness to accommodate change among staff and management was seen to slow down adoption of HRIS. Staff involvement was also found to be a key factor for HRIS adoption. The end results showed that organizational Characteristics is a determinant of HRIS adoption.

In relation to the same study of Kagehi (2015), the study found out that Human resource characteristics and HRIS adoption have a positive relationship. It made known that the existence of a formal HR department increased the adoption of HRIS. The study also posited that HR and IT department's collaboration and HR professionals were key HRIS adoption. The full involvement of HR staff in the adoption of HRIS was seen to make the process much easier and more efficient.

In relation to top management participation as HRIS adoption determinant per the same study of Kagehi (2015), it was found that top managers had the final say on whether to implement HRIS or not. The majority of the respondents were of the opinion that a positive attitude and commitment among the managers were key in the implementation of HRIS. The findings revealed that top management was the key resource involved in positive finances which is a significant factor for the adoption of HRIS. The study also showed that scarce resources, large number of transaction volumes, unskilled workforce and lack of proper planning slow down

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the adoption of human resource information system. Additionally, resistance to change among employees slows down implementation of HRIS.

Radif (2010) in his study of critical analysis of challenges facing HRIS Adoption in Developing Countries: The Case of India, used a primary research methodology. Data were collected from a range of participants representing organizations engaged in four different kinds of business: information technology, trading, manufacturing, and services using cluster sampling. Based on the responses received it was noted that the 'large' sample had 14 respondents while the 'small' sample had 15 respondents. The study showed that the problems faced by small organizations and large organizations are quite different. The following conclusions were stated large organizations attribute more strategic importance to the HR function than do small organizations; employees' responses to HRIS are more negative in large organizations than in small ones; it is easier for HR managers to obtain approval for HRIS from management teams in large organizations than in small ones, and managers of large organizations are more concerned about the security problems of HRIS than those of small organizations.

Conceptual Framework

The conceptual framework guiding the study is clearly indicated in figure 1 Conceptually, it is expected that when the determinants (Organisation, Top Management, and Human Resource) of HRIS adoption are in place, it will be easy for UHAS to be able to adopt HRIS easily. If the challenges associated with HRIS adoption are high then it will be difficult for the HRIS to be adopted. It must,

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however, be stressed that the level of adoption of HRIS at UHAS and HTU is dependent on some key determinants.

In this study, as shown in figure 1, organisational characteristics, top management involvement and human resource characteristics influence the extent to which HRIS will be adopted within the two universities. Based on the literature, organisational characteristics is operationalised in terms of organisational resources, IT planning within the organisation, organisational culture and change within the organisation. It is proposed that these items characterise an organisation and influence the extent to which they can adopt HRIS.
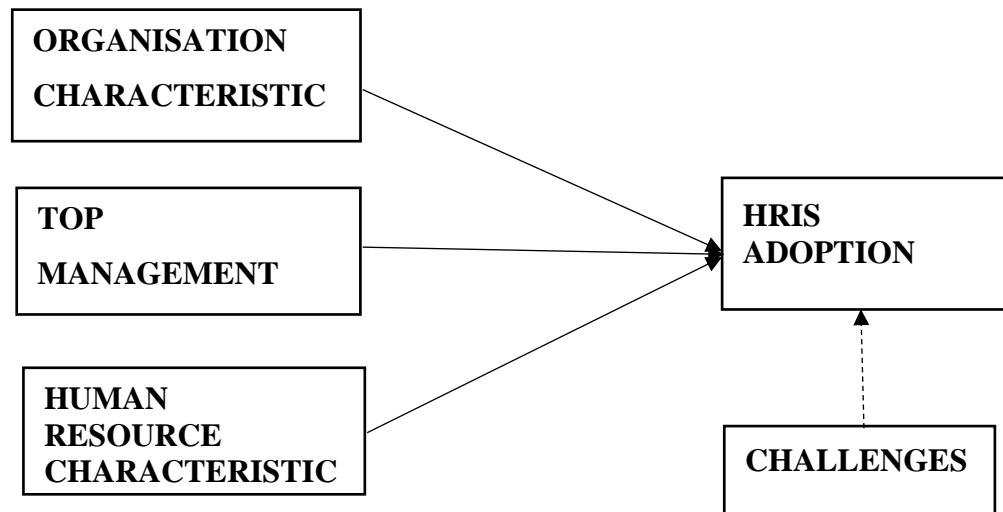
Figure 1: Conceptual framework

Source: Author's own construct (2019)

From figure 1, it is also proposed that the involvement of top management has a very high influence on the adoption of HRIS within UHAS and HTU. Top management involvement and participation is operationalised in this study as the extent to which the management of the universities in involved in implementing the

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innovative HR solution. It includes their final decision-making authority, management commitment, their IT knowledge and the culture of leadership. These management behaviours are seen to be directly related to the provision of needed resources and the adoption of HRIS. In addition, it is proposed in the study that the nature and attributes of the HR department influences the adoption of HRIS. As the host department, the skill, expertise of the department influences their capacity for implementing a HRIS system. The framework also recognises that adoption of HRIS faces some challenges, this study seeks to outline such with the two institutions of higher learning.

Chapter Summary

Various theoretical and empirical studies provide ample evidence and enough literature in examining the concept of HRISs (HRIS). This chapter has outlined the adoption of the unified theory of acceptance and use of technology (UTAUT) to understand adoption of HRIS at UHAS and HTU. The chapter has provided the review of three key determinants of HRIS and how they influence HRIS adoption. In addition, key challenges with respect to HRIS adoption have been provided. The next chapter presents the methodology adopted in investigating the issue understudied.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter provides in-depth procedures used to carry out the study. Research methodology under this study covered some detailed themes such research design, population and sampling procedures that were used and why they were used, data collection instruments and methods that were adopted for the study and the reason for their choice, and data analysis techniques. These facilitated the study to achieve its main purpose; determinant of HRIS Adoption at UHAS.

Research Approach

Moreover, Cresswell and Cresswell (2016), provides three approaches to research; (a) qualitative, (b) quantitative, and (c) mixed methods. The study used a quantitative research approach. In Patel and Davidson (2003) view, quantitative research is well-defined as a research method that comprises the measurement of data collection and statistical processing. According to the study of Bryman and Bell (2003), quantitative research has some benefits over qualitative research in terms of administration, time and cost, no interviewer inconsistency, the absence of interviewer effect or convenience for respondents. Actually, quantitative research is inexpensive compared to qualitative research. On the other hand, quantitative research also has drawbacks which ignore a very important human element such as respondent's emotions, behaviour, and feelings.

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Research Design

According to Yap (2016), a research design is an approach for gathering data about the information desired as well as the preparation to obtain the answers for the research questions. In this study the explanatory design was used to assess the respondent's knowledge about the determinants of HRIS. The choice of an explanatory design was deemed appropriate as it involves quantitative analysis which is geared towards establishing relationships between variables of which the study intends to attain. According to Jonas (2018), the main purpose of this design is to examine cause and effect relationships between variables, and if a relationship exists, to determine a regression equation that could be used to make predictions to a population (Azoury, Kaissi & Attieh, 2018). Some of the major strengths of explanatory design include: it increases understanding of a particular subject, there is flexibility in obtaining data, better conclusions and allows generalisation of findings (Creswell & Creswell, 2017).

Study Organisation

This study was situated within two tertiary institutions at Ho in the Volta Region. The schools were the University of Health and Allied Sciences (UHAS) and the Ho Technical University (HTU). The choice of these two institutions were because they are relatively young institutions who are still in the process of building and deciding to manage human resources. For which reason HRIS adoption and use is of immense importance. HTU is new with respect to the fact that it has recently upgraded from a polytechnic to a technical university, UHAS is new in terms of the fact that compared to most public university in Ghana, it is among the youngest.

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The Ho Technical University, formerly Ho Polytechnic, is a public tertiary institution in the Volta Region of Ghana. The Polytechnic started in 1968 as a technical institute with the primary goal of providing pre-technical education. By 1972, the Institute made tremendous progress and upgraded its courses. In 1986, the institution was upgraded into a Polytechnic. The Polytechnic has its antecedents in the former Ho Technical Institute, which was established in 1968 to provide pre-technical training courses in various engineering and building trades. In 1972, the pre-technical courses were upgraded to more advanced programmes in technical, business and other vocational disciplines.

Though the Technical Institute was re-designated a Polytechnic in 1986, it was not until 1993 that it got the full backing of the law (PNDC Law 321 as amended by ACT 745) to become a tertiary institution with statutory objectives and functions. Subsequently, in 2007, Polytechnics were given the mandate by the Polytechnics Act 745 to award their own degrees to the highest level. Since then, the Polytechnic has been running programmes from non-tertiary level to the bachelor degree level. In August 2016, a bill was passed to convert eight polytechnics to fully fledged universities of which Ho polytechnic was part. This year, the Polytechnic has been given the permit to run Masters in Agricultural Engineering and Mechanical Engineering.

The University of Health and Allied Sciences, Ho (UHAS) was established by an Act of Parliament (Act 828 in December, 2011) and envisioned to become a pre-eminent research and practically oriented health educational institution dedicated to community service. The main campus including the central

administration is in Ho. A second campus is located in Hohoe. The University started operations in September, 2012 with 154 students. Students' population currently stands at 3,752 (3,727 undergraduates and 25 postgraduates) while the staff strength is 611. Staff to student ratio in UHAS is 17:1, which is currently the best among all state universities in Ghana.

Study Population

Population according to Sekaran (2003) refers to "the entire group of people, events or things of interest that the researcher wishes to investigate". The population for this study consisted of the two tertiary institutions in Ghana. The population of this study is made up of staffs at the Human resource divisions and the Information, Communication and Technology division of each university. Information acquired from the HR directorate at HTU indicates a staff strength of at the HR department of 12 and the IT department has a staff strength of 17. With respect to UHAS, data available indicates an HR staff strength of 18 and ICT staff strength of 28 people. The study therefore has a total population size of 75 employees from the HR and ICT department of both universities.

Sample and Sampling Procedure

According to Malhotra, Birks and Wills (2013) sampling is the process of selecting a representative few or unit from a larger group or population, which is used as a basis of estimating certain characteristics or elements about the group or population. Arnold and Randall, (2010) also held similar view when it was concluded that sampling deals with the selection of respondents chosen in such a way that represent the total population as good as possible. In this study, census

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method was used. Census method obtains data from every member of the population. So, all 75 employees were used for the study. According to Shannon and Bradshaw, (2002), using census has a number of advantages of which the first is that everyone has an opportunity to participate. Obviously, some employees may still choose not to participate, but at least the opportunity to do so is presented. Secondly, accuracy concerns are reduced and when conducted properly, it is certainly capable of yielding representative results, although, census surveys tend to enhance feelings of security surrounding the accuracy of the results. Finally, it is easier to administer, because it includes all persons.

Data Collection Instruments

Self-administered Questionnaire was the data collection instrument used to solicit information from respondents. Data were collected using structured close-ended questions. The questionnaires were self-administered manually to the various respondents. The choice of this instrument was necessitated by the extensive review of the literature and the specific objectives of the study. Malhotra, Birks and Wills, (2013) affirmed that the use of a questionnaire is a practical way forward if factual Information is needed from a large number of people. The design of the questionnaire was decided based on the literature review. Most of the questions used were adapted and modified from previous research and have been tested by the author in the previous study; hence it can be seen as valid questions in this study (Seif, 2015; Radif & Agboma, 2010; Sefakor Amuzu, 2013).

The questionnaire used a closed-ended question to elicit responses needed to answer the research questions and achieve the objective set for this study. The closed-ended questions require the respondent to choose from among a given set of responses and require the respondent to examine each possible response independent of the other choice. The closed-ended questions were with only two choices or multi-options questions, where multiple answers were available to choose, also included Likert five-point scale which is more useful when behaviour, attitude or other phenomenon of interest needs to be evaluated in a continuum (Brace, 2018). Close-ended questions have the advantage of making analysis simple and powerful and afforded the researcher the opportunity to control the flow of information for the study (Leedy & Ormrod, 2010; Taylor et al., 2006). The questionnaires survey was estimated to take thirty minutes in duration to complete. All the respondents answered the same set of question and all the survey responses were treated as completely anonymous for individuals even though some demographic information being asked at the beginning of the questionnaire.

The questionnaire was structured into six sections. The structure was based on the objectives of this study. Section "A" covers the demographic information of the respondents, section "B" dealt organisational characteristics as a determinant of HRIS adoption, section "C" also measured human resource characteristics as a determinant of HRIS adoption, section "D" also top management participation as a determinant of HRIS adoption, section "E" also find out adoption of human resource information system whilst section "F" challenges associated with adoption of human resource information system.

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There were 36 questions in all to be answered by the respondents. All items in section B, C, D and F were measured on a five-point Likert-like scale, with one indicating least level of agreement with the statements and five indicating highest level of agreement. The details of the questionnaire are added at the appendices. A caution from Dowson and McInerney (2001) concerning the use of questionnaires is that questionnaires have the drawback of causing the researcher of gaining limited and possibly distorted information.

Validity and Reliability

Reliability and validity are two key components to be considered when evaluating a particular instrument. The level of the reliability of an instrument is measured by Cronbach's Alpha value. Saunders and Lewis (2012) explained that internal consistency involves correlating the responses to each question in the questionnaire with those to other questions in the questionnaire. The validity of an instrument, on the other hand, refers to how well and instrument measures the particular concept it supposed to measure (Saunders et al., 2012). They further argue that an instrument must be reliable before it can be valid, implying that an instrument must be consistently reproducible; and that once this has been achieved, the instrument can then be scrutinized to assess whether it is what it purports to be.

To ensure validity of questionnaires, the researcher reviewed other relevant literature that served as evidence and supported the answers found using the questionnaire, relevance being determined by the nature of their research question and their own judgement (Saunders, et al., 2012). This affirms the assertion by (Zickmund, Babin, Carr & Griffin, 2013) that unlike exploratory research,

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descriptive studies are conducted after the researcher has gained a firm grasp of the situation being studied. Further, the designed questionnaire was submitted to the project supervisor for vetting, correction and approval before distributing it to the respondents.

The reliability of the constructs that made up the scale was measured with internal consistency approach (Cronbach's Alpha).

Table 1: Scale Reliability Results

No	Construct	Cronbach's Alpha	No.of items
1	Organisational characteristics	0.745	6
2	Human Resource Characteristics	0.815	5
3	Top Management Involvement	0.832	7
4	HRIS adoption	0.881	6
5	Challenges of HRIS adoption	0.761	6

Source: Field Survey (2019)

It was also found that all the other constructs were reliable given their respective internal consistency scores as shown in Table 1: Organisational characteristics (Cronbach's Alpha=0.745), Human Resource Characteristics (Cronbach's Alpha=0.815), Top Management Involvement (Cronbach's Alpha=0.832), HRIS adoption (Cronbach's Alpha=0.881) and Challenges of HRIS adoption (Cronbach's Alpha=0.761). This was because all the constructs had Cronbach's Alpha value greater than the minimum cut off point of 0.7 (Pallant, 2013).

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Data Collection Procedure

The data was collected through the use of a self-administered questionnaire manually by the researchers to ensure a high response rate. The data was collected over a period of three months between August and September, 2019. Data collected from the questionnaires was standardized such that each respondent got the same question. Returned questionnaires were edited to correct probable errors and to sort out misconceptions and misunderstandings to ensure credibility of the research. In order to collect and organize data in such a manner that was acceptable and later used to conduct the required analysis. The research questionnaires were structured according to the steps provided by the University of Cape Coast Graduate School dissertation writing hand book. Respondents were taken through how the questionnaire was to be completed and as well pleaded with them to as much as possible, react to the questions. This gave respondents some specific time to respond to the questions on the questionnaire and after a week the researcher went back to respondents and duly collected the answered questionnaire as distributed to respondents. A total of 63 respondents filled and returned their questionnaires, representing an 84% response rate.

Data Processing and Analysis

Once the questionnaires were returned, the data was compiled, studied, and analysed according to the research purpose and related research questions. The data obtained from the Likert type responses and the demographic questionnaire were compiled and the descriptive statistics computed using the SPSS in performing descriptive statistics analysis and various statistical techniques such as independent variables and dependent variable factor analysis, item analysis, correlations, validity and reliability analysis, linear regressions. The individual analysis of each objective is presented in this section. The first section described participants based on specific demographic characteristics. Demographic characteristics were summarized using frequencies and percentages for all variables including: age; gender; numbers of years worked and staff rank.

The specific objectives were analysed as follows: Objective one: This objective was analysed with a linear regression with organisational characteristics as the independent variable and HRIS adoption as the dependent variable. Objective two: This objective was analysed with a linear regression with top management involvement as the independent variable and HRIS adoption as the dependent variable. Objective three: This objective was analysed with a linear regression with human resource characteristics as the independent variable and HRIS adoption as the dependent variable. Objective four: This objective was analysed using mean and standard deviation.

Ethical Considerations

Ethics are the norms or standards of behaviour that guide moral choices about our behaviour and relationships with others (Cooper & Schindler, 2008). Research ethics focuses on the way in which we carry out our study, from formulating the research topic to the results discussed in a moral and responsible way. Malhotra and Birks (2007), emphasize that when conducting research, ethical issues relating to the respondents and the general public are of primary concern. To avoid the unethical dilemma, the research and ethical rules were precisely followed by the researcher in order not to injure harm on the respondents. According to Bless and Higson Smith (2000) ethics play a vital role in ensuring the genuine procedures are followed right from the beginning of the study to its end. They defined the main rules of data collection as a voluntary participation, the right to privacy, freedom and anonymity as well as confidentiality in the entire process of information gathering. All these ethical rules have been met in this research study.

Moreover, the main purpose, as well as the likely benefits for the conduct of the research, was explained to the respondents after their consent have been sought. The respondents were then made aware that responses to the questions are not compulsory and that they may withdraw from the study at any time. However, they were encouraged to fully participate in the survey. Thus confidentiality, self-determination, and subject anonymity were strictly preserved at every level of the study Moreover, the questionnaire was designed in such a way that respondents' privacy was respected

Chapter Summary

This chapter discussed in details and in systematic manner the methodology used for the study, and this includes the research setting, research design, the study population, sampling and sampling procedures adopted for the study, the instruments used, and procedures followed in the collection and analysis of data. The chapter has shown that the study adopted the quantitative method and a descriptive survey design to achieve the purpose of the study. The chapter has also indicated the use of mean and standard deviation for the descriptive related objectives and the use linear regression for the inferential related objectives of the study. The data was processed by the use of SPSS.
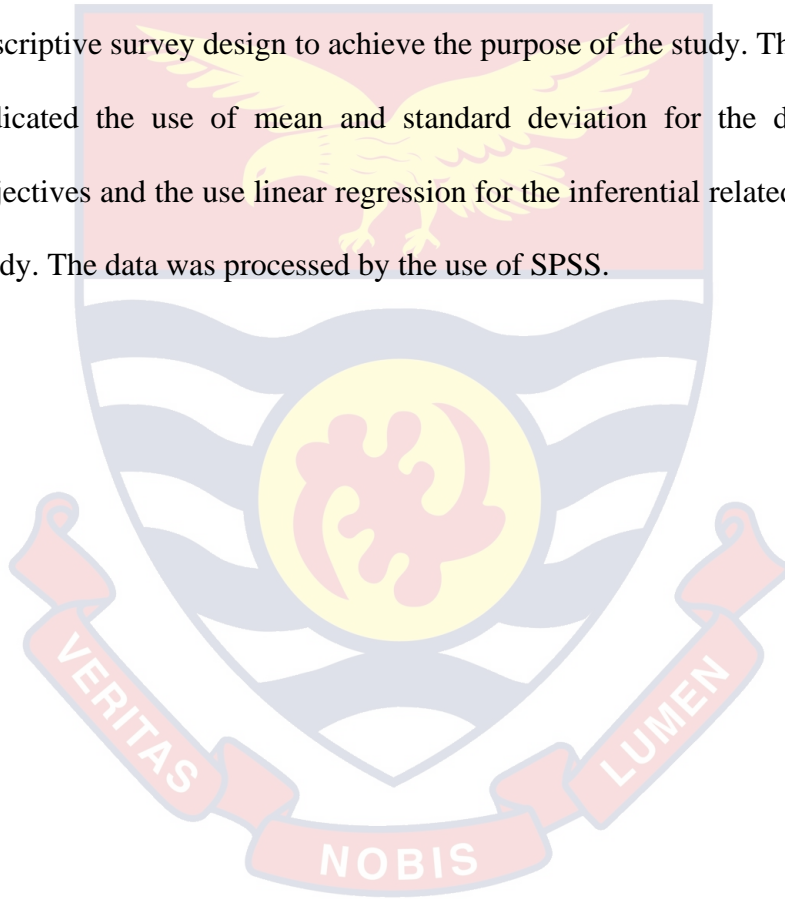
CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The purpose of this study is to assess the determinant of HRIS Adoption at UHAS. This chapter reports the results and make dialog on the research findings of the study. The data for these analyses were obtained through the administration of questionnaires. In line with the main research goal, this chapter reflects on the core research objectives as outlined in chapter One. The first section discusses the demographic background of respondents; however, the second section discusses results according to the research questions guiding this study;

1. What is the effect of organisational characteristics on HRIS adoption?
2. What is the effect of top management involvement on HRIS adoption?
3. What is the effect of human resource characteristics and HRIS adoption?
4. What are the challenges associated with HRIS adoption?

Descriptive Results for Socio-Demographic Characteristics

In order to understand the socio-demographic characteristics of the respondents, the first section of the questionnaires was designed in such a way that the respondents could provide answers relating to their backgrounds. After analysing their answers, the information that was obtained had been summarized and shown in Table 2.

Table 2: Demographic Features of the Respondents

Background characteristics	Frequency	Percentage
Sex		
Male	46	73
Female	17	27
Total	63	100
Age		
21-30	12	19
31-40	45	71
41-50	5	8
51-60	1	2
Total	63	100
Academic qualification		
Postgraduate Degree	14	22
First Degree	39	62
HND	2	3
Professional Certificates	8	13
Total	63	100
Level of Staff		
Junior Staff	31	49
Senior Staff	20	32
Senior Member	12	19
Total	63	100
Years of work		
1 to 4 years	15	24
5 to 9 years	46	73
10 and above	2	3
Total	63	100
Department		
Human Resource	37	59
IT	26	41
Total	63	100

Source: Field survey (2019)

The demographic results from the table 2 shows that 46 staffs out of the total 63 were males, representing a percentage of 73 of the study sample, while the remaining 17 were females representing a total of 42%. The figure shows that the two departments are male dominated as is always common, but the is no justification for the small number of female employees in those departments though. The ages of the respective respondents were also taken into consideration. The results show that majority (71%) of the 45 respondents were between 31-40 years, 19% representing 12 respondents were between the ages of 21-30 years, 8% between 41-50 years and 2% of the respondents were within the age bracket of 51-60 years and over. This showed that majority of the staff were young people and have the opportunity to stay in the organization for a long time hence they must understand the adoption of Human Resource Information systems.

What can be inferred from this age demographic issue of the respondents is that, in the first place, the sample could be considered to be all-inclusive as it captured the opinions of various age groups. Furthermore, one can argue that the fact that the majority of the respondents was between the ages of 31-40 shows that the institution has great potentials of highly skilled and talented workers who could stay with the institution for a bit longer whiles passing the experience to the upcoming generation. The age distribution indicates that the young employees are more than the aged group.

Another demographic result is the academic qualification of the respondents. When it comes to educational level, those who were the majority were those with the First's degree (62%), followed by those with the Postgraduate's

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degree (22%) and those with Professional Certificate (13%) while those with HND are (3%). This finding is not surprising considering the fact that this is an academic institution which prides itself with good quality services and as such those with good educational qualifications have the possibility of being employed. This indicates that most of the respondents were academically qualified in their respective job undertakings and hence they clearly understood adoption of Human Resource Information systems.

The demography on staff ranking indicates that a majority of the staffs, that is 31 out of the total 63, were junior Staff representing 49%, senior staffs were 20 representing 32 percent of the respondents whiles the remaining 12 were Senior Members representing (19%). The numbers of junior and senior staff show that respondents are knowledgeable enough to answer the question on the adoption of HRIS. Finally regarding the demography on the number of years of work by staff and the department they belong, majority 46(73%) out of the 63 respondents had worked for a period of 5-9 years, this was followed by those who had worked for a period of 10 years and above were 2(3%).Those who had worked for 1-4 years were the least 15(24%).This confirms that most of the respondents had worked in the institution over long period and thus understood the adoption of Human Resource Information Systems. Also, majority of the respondents are from HR Department representing 37(59%) out of the 63 respondents and the rest were from the IT department representing 26(41%).

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Findings of the research questions

Research Question one: What is the effect of organisational characteristics on HRIS adoption?

As part of the first research question, the study sought to determine the effect of organisational characteristics on HRIS adoption. In answering this research question, firstly, a descriptive analysis of responses on organisational characteristics was presented using mean and standard deviation. Awang et al. (2010) have established that overall mean values within the range of 1.00-2.32 indicates a low level of acceptance and an overall mean value between 2.33-3.66 signifies a moderate level of acceptance whiles overall mean values between 3.67-5.00 indicates a high level of acceptance.

Secondly, a linear regression was conducted between Organization Characteristics as the independent variables and HRIS Adoption as the dependent variable. The regression equation is written as;

$$Eqn\ 1: HR = a + OCx + e$$

Where OC= Organisational Characteristics (Independent variable)

HR= HRIS Adoption (Dependent variable)

e= Error term.

The results as shown in Table 3 indicates respondents view on organisational characteristics as a determinant of HRIS. Based on the criteria prescribed by Awang et al. (2010), all the mean values range between moderate and high. It indicates that staff of the Universities agree that organisational characteristics determine of adoption HRIS.

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Table 3: Descriptive statistics on Organizational Characteristics

Statement	Mean	SD
Organization's resources, transaction volumes, or total workforce affect the adoption of HRIS	3.42	0.93
Organization IT planning has implication in the adoption of HRIS	4.33	1.21
Organizations can fully benefit from the adoption of HRIS through IT planning	4.12	0.92
Organization Culture influence adoption of HRIS	3.21	1.14
Organizations with open and flexible corporate cultures adapt easily to new technology	2.8	0.98
Organizational change is a significant influencing factor over IT adoption	3.81	0.95

Source: Field survey (2019)

The results of the linear regression between **Organizational Characteristics** as the independent variables and **HRIS Adoption** as the dependent variable is shown in Tables 4, 5 and 6. Table 4 indicates the results of the model summary. It shows the R, R-Square and the Adjusted R square.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.661	.437	.428	.35501	1.867

a. Predictors: (Constant), Organisational Characteristics

b. Dependent Variable: HRIS Adoption

Source: Field survey (2019)

Table 4 shows the model summary of the standard simple regression. What is really concern in the Table 3 is R Square which is the coefficient of

determination, it is the proportion of variation in the dependent (HRIS Adoption) variable explained by the regression model. The findings of the R Square from the Model Summary show that the independent variable (Organisational Characteristics) explains 43.7% percent of the variance in forecasting the dependent variable (HRIS Adoption). This implies that 57.3% percent of the variance in the dependent variable is explained by other variables which were not included in the model. This also supported by a study carried out by Dennis, (2015) who analysed through meta-analysis and found that there is an association between Organisational Characteristics and IT innovation adoption.

Pearson Correlation coefficients, R, is the correlation between the observed and predicted value of the dependent variable as well as can be considered to be one measure of the quality of the prediction of the dependent variable. Cohen (1988) suggests the following guidelines for the interpretation of the magnitude of correlation coefficient; r=.10 to .29 or r=−.10 to −.29 small, r=.30 to .49 or r=−.30 to −.4.9 medium, r=.50 to 1.0 or r=−.50 to −1.0 large. From table 3, R is 0.661 which indicate a positive strong correlation between the two variables. This shows that the more UHAS promotes the organisational characteristics in the institution, the more the HRIS Adoption would be enhanced. This is incongruent with Kamel and Abdullah (2014) who concluded that organisational characteristics is expected to facilitate the adoption of HRIS.

Table 5: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5.963	1	5.963	47.312	.000
Residual	7.688	61	.126		
Total	13.651	62			

a. Dependent Variable: HRIS Adoption

b. Predictors: (Constant), Organisational Characteristics

Source: Field survey (2019)

The result of the ANOVA component of the standard multiple regression analysis is presented in Table 5. A close observation of the Sig. the value indicates that the model is statistically significant in that that the p-value (0.000) is less than 0.05. A normally acceptable P value is $p < 0.05$, which is generally considered statistically significant and provides the basis to reject the null hypothesis (Wambugu, 2014). If such a condition is met, then the independent variable does a good job explaining the variation in the dependent variable. Which means, measurably, the model could be depended on to emphatically modify HRIS Adoption in UHAS. These findings are confirmed by a previous study of Kagehi (2015) who found that organisational characteristics helps in HRIS Adoption by organisation.

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Table 6: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.404	.479		2.933	005
Organisational Characteristics	693	101	.661	6.878	000

a. Dependent Variable: HRIS Adoption

Source: Field survey (2019)

On assessing the individual independent variable contribution to the prediction of the dependent variable, the standardized coefficient Beta value for the independent variables was computed. The findings are provided in Table 6 labelled coefficients provides information that is useful for understanding the regression equation. Under the column marked unstandardized coefficient and sub-column B, the numerical value for the first row, labelled (constant), is the value for the intercept (a) in the regression equation. The findings indicate that the organisational characteristics has a unique but statistically significant contribution to explaining the dependent variable HRIS Adoption when all the other variables in the model are controlled, with the Beta value of 0.661 and corresponding Sig value of 0.000. The estimated regression equation can now be written as;

$$Eqn\ 2: HR = 1.404 + 0.661x$$

The results of this study imply that to make HRIS Adoption easier at UHAS, organisational Characteristics must be critically looked at and implemented efficiently by management with the direct involvement of all staff. It makes an

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important implication that the commitment of organisational resources, planning, culture and flexibility as part of organisational characteristics are important determinants of HRIS success. The findings of this study agree with the findings of Ahmer (2013) who argued that IT planning as a characteristic of the organisation, when done effectively and efficiently can help in HRIS Adoption. Also, the results agree with Abeer, et al (2011) posited that organizational culture is necessary since culture is key to the success of HRIS projects. In the same view with previous studies, studies by Hausdorf and Duncan, (2004); Florkowski and Olivas-Lujan, (2006) and Bakker, (2010) show that organisational characteristics have a positive effect on HRIS Adoption.

Research Question two: What is the effect of top management involvement on HRIS adoption?

As part of the second research question, the study sought the effect of top management involvement on HRIS adoption. In answering this research question, a descriptive analysis of the responds and a linear regression was conducted between Top Management Involvement as the independent variables and HRIS Adoption as the dependent variable. The regression equation is written as;

$$Eqn\ 3: HR = a + TMx + e$$

Where TM= Top Management Involvement (Independent variable)

HR= HRIS Adoption (Dependent variable)

e= Error term.

The results as shown in Table 7 indicates respondents view on Top management involvement as a determinant of HRIS. Based on the criteria prescribed by Awang

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et al. (2010), all the mean values range between moderate and high. It indicates that staff of the Universities agree that Top management involvement is a determinant of HRIS adoption.

Table 7: Descriptive statistics on top management involvement

Statement	Mean	SD
The existence of a formal HR-department appears to increase the likelihood of a firm adopting HRIS	4.21	0.95
The collaboration of HRM and IT has also been identified as a crucial success factor in HRIS adoption and use	3.01	1.35
The HR roles identified could be related to the e-HRM adoption and deployment outcomes	4.12	0.92
Expertise is a crucial factor in innovation adoption of HRIS	3.91	1.21
HR professionals are comfortable with new roles of HRIS	3.21	1.14

Source: Field survey (2019)

The results of the linear regression between Top Management Involvement as the independent variables and **HRIS Adoption** as the dependent variable is shown in Tables 8, 9 and 10. Table 8 indicates the results of the model summary. It shows the R, R-Square and the Adjusted R square.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.873	.762	.758	.24781	2.116

a. Predictors: (Constant), Top Management Involvement
b. Dependent Variable: HRIS Adoption
Source: Field survey (2019)

The figure of concern in Table 8 is the R Square, which is the coefficient of determination, it is the proportion of variation in the dependent (HRIS Adoption) variable explained by the independent variable (Top Management Involvement) in the regression model. An R Square value of .762 indicates that about 76.2% of the variation in the HRIS Adoption by UHAS is accounted for by the top management involvement while the other 24.8% variation in HRIS Adoption may be due to other factors not captured in this study. The findings agree with the finding of previous literature from different researchers such as Dennis 2015, Riffat and Yazzan, 2014, Kristine, 2007, Kamal and Abudallah, 2014 who posited that top management involvement and participation of innovation play a large role in the adoption or early adoption of that HRIS. Niisha and Mona, 2012 also reinforced it by arguing that top managers are the people who make the final decision to adopt HRIS based on the internal needs of the organization or environmental changes.

The R value of 0.873 indicates a very strong relationship between between the two variables that is Top Management Involvement an independent variable and HRIS Adoption as dependent variable. Thus, the results indicate a strong positive significant relationship between the two variables. This shows a positive forecast in HRIS Adoption and this is in agreement with the study of Kamel and Abdullah, (2014) who concluded that successful innovation adoption with an organization can also be associated with an open management style, stating that this can be reinforced by means of communication-related IT.

Table 9: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	12.000	1	12.000	195.411	.000
Residual	3.746	61	.061		
Total	15.746	62			

a. Dependent Variable: HRIS Adoption

b. Predictors: (Constant), Top Management Involvement

Source: Field survey (2019)

The results of the ANOVA in Table 9 indicate a statistically significant figure of p=.000, as held up by Pallant (2015) points out that a significant value of <0.05 indicates that the independent variable has a significant impact on the dependent variable. Therefore, it can be concluded that the relationship between the independent variable Top Management Involvement and the dependent variable HRIS Adoption is significant and therefore Top Management Involvement can significantly influence HRIS Adoption. These findings are confirmed by a previous study of Naser (2014) who found that transformational leader; that is a leader who is a visionary, supporting and encouraging leader, who pushes for HRIS implementation was found to contribute to the acceptance of new systems.

The table in the SPSS output labelled coefficients (Table 10) provides information that is useful for understanding the regression equation. Under the column marked unstandardized coefficient and sub-column B, the numerical value

for the first row, labelled (constant), is the value for the intercept (a) in the regression equation.

Table 10: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.571	.282		2.021	.048
Top Management Involvement	.873	.062	.873	13.979	.000

a. Dependent Variable: HRIS Adoption

Source: Field survey (2019)

On assessing the individual independent variable contribution to the forecast of the dependent variable, the standardized coefficient Beta value for the independent variables Top Management Involvement was computed. The findings are provided in Table 10. The findings indicate that Top Management Involvement has a strong unique but statistically significant contribution to explaining the dependent variable HRIS Adoption when all the other variables in the model are controlled, with the Beta value of 0.873 and corresponding Sig value of 0.000.. The equation can now be written as

$$Eqn\ 4: HR = 0.571 + 0.873x$$

The implication of the findings is that to improve HRIS Adoption at UHAS, Top Management must take effective decision when it comes to HRIS Adoption. The finding is confirmed by a study in Hong Kong by Nagai and Watt (2004) who found out that that support of top management was one of the most important factors in the successful implementation of HRIS. The equation based on the

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findings show that when Top Management is effective HRIS Adoption will also be effective and efficient. This is also in agreement with Murphy and Sounthey, (2003) who posited that top management decision is the most important part in HRIS Adoption. Ananya and Nur (2013) also posited in different way saying if the top management does not view HRIS favourably, it will simply not occur no matter how beneficial the HRIS will be. Lastly the findings are confirmed by Razali and Vrontis (2010) who specified that top management involvement and organizational commitment give the idea as the two largest factors for the impact on the acceptance level of employees toward the new HRIS implemented in the Malaysian Airlines System.

Research Question three: What is the effect of human resource characteristics and HRIS adoption?

As part of the third research question, the study sought the effect of human resource characteristics on HRIS adoption. In answering this research question, descriptive statistics and a linear regression was conducted between human resource characteristics as the independent variables and HRIS Adoption as the dependent variable. The regression equation is written as;

$$Eqn\ 5: HR = a + HRCx$$

Where HRC= Human Resource Characteristics (Independent variable)

HR= HRIS Adoption (Dependent variable)

e= Error term.

The results as shown in Table 11 indicates respondents view on Human resource characteristics as a determinant of HRIS. Based on the criteria prescribed by Awang

et al. (2010), all the mean values range between moderate and high. It indicates that staff of the Universities agree that Human resource characteristics is a determinant of HRIS adoption.

Table 11: Descriptive statistics on Human resource characteristics

Statement	Mean	SD
The existence of a formal HR-department appears to increase the likelihood of a firm adopting HRIS	4.21	0.95
The collaboration of HRM and IT has also been identified as a crucial success factor in HRIS adoption and use	3.01	1.35
The HR roles identified could be related to the e-HRM adoption and deployment outcomes	4.12	0.92
Expertise is a crucial factor in innovation adoption of HRIS	3.91	1.21
HR professionals are comfortable with new roles of HRIS	3.21	1.14

Source: Field survey (2019)

The results of the linear regression between Human Resource Characteristics as the independent variables and **HRIS Adoption** as the dependent variable is shown in tables 12, 13 and 14. Table 12 indicates the results of the model summary. It shows the R, R-Square and the Adjusted R square.

Table 12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.616	.379	.369	.39619	2.290

a. Predictors: (Constant), human resource characteristics
b. Dependent Variable: HRIS Adoption
Source: Field survey (2019)

Table 12 shows the Model Summary of the simple regression. The findings from the model summary show that the independent variable (Human Resource

Characteristics) explains 37.9% percent of the variance in predicting the dependent variable (HRIS Adoption). This implies that 63.1% percent of the variance in the dependent variable is explained by other variables not included in the regression model. This means that the more Human Resource Characteristics within the organisation becomes effective workers in the organization, the more the HRIS Adoption will be easier. This proves that Human Resource Characteristics within the organisation has a positive influence on the HRIS Adoption. This confirms the finding of Niisha and Mona, (2012), who is of the stand that the HR office will always act as an internal promoter in adopting HRIS into the organisation.

The Correlation coefficients, R- value of 0.616 shows that there is a strong positive relationship between Human Resource Characteristics and HRIS Adoption.

Table 13: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5.854	1	5.854	37.291	.000
Residual	9.575	61	157		
Total	15.429	62			

a. Dependent Variable: HRIS Adoption

b. Predictors: (Constant), human resource characteristics

Source: Field survey (2019)

The result of the ANOVA component of the simple regression analysis is presented in Table 13. A close observation of the Sig. value indicates that the model is statistically significant in that the p-value (0.000) is less than 0.05. As held up by

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Tabachnick and Fidell (2013), a significant level of less than or equal to .05 is necessary for social science research. Which means, measurably, the regression equation could be dependent to emphatically modify HRIS Adoption The findings are supported by the study from Murat and Nihat, (2014) who posited that HR department are the change or strategic partner more likely to inspire the adoption and operation of HRIS application and practices.

Table 14: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.701	.449		3.784	.000
Human resource characteristics	.612	.100	.616	6.107	.000

a. Dependent Variable: HRIS Adoption

Source: Field survey (2019)

The table in the SPSS output labelled coefficients (Table 14) provides information that is useful for understanding the regression equation. On assessing the individual independent variable contribution to the forecast of the dependent variable, the standardized coefficient Beta value for the independent variables Human Resource Characteristics was computed. The findings are provided in Table 14. The findings indicate that Human Resource Characteristics has a strong unique but statistically significant contribution to explaining the dependent variable HRIS Adoption when all the other variables in the model are controlled, with the Beta value of 0.616 and corresponding Sig value of 0.000.

Under the column marked unstandardized coefficient and sub-column B, the numerical value for the first row, labelled (constant), is the value for the intercept (a) in the regression equation. The estimated regression equation can now be written as

$$Eqn\ 6: HR = 1.701 + 0.616x$$

The results of this objective have important implications for management. The results of the objective implies that, to improve HRIS Adoption at UHAS, Human Resource must take effective decision when it comes to HRIS Adoption. The finding is confirmed by a study of Kamel and Abdullah (2014), who posited that a collaboration of HRM and IT departments can ensure successful adoption of HRIS into an organization. The equation shows that HR characteristics play a pivotal role 61.6% in increasing the adoption rate of HRIS into an organisation. The findings agree with Randi and Steve, (2013) who concluded that the regression line ascribes changes in the dependent variable (HRIS Adoption) to the independent variable (Human Resource Characteristics). With the overall results showing a positive strong relationship between Human Resource Characteristics and HRIS Adoption.

Research Question four: What are the challenges associated with HRIS adoption

The perception of the respondents was sought to identify challenges associated with HRIS adoption. Table 15, indicates the response from respondents as to the challenges they associate with HRIS adoption. They showed their concerns with respect to various statements concerning the challenges they face. The results

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are discussed using mean and their standard deviation. Awang et al. (2010) have established that overall mean values within the range of 1.00-2.32 indicates a low level of acceptance and an overall mean value between 2.33-3.66 signifies a moderate level of acceptance whiles overall mean values between 3.67-5.00 indicates a high level of acceptance. The findings were descriptively summarised with mean scores as well as the respective standard deviation scores. The results are presented in Table 15.

Table 15: Challenges of HRIS Adoption at UHAS and HTU

Statement	Mean	Std. Dev
1. Lack of management support acts as a barrier to the adoption of HRIS	4.613	0.49
2. HRIS is costly to implement and sustain	4.597	0.59
3. Low level of importance credited to HR functions in general	4.387	0.73
4. Lack of reliable vendor frustrate adoption of HRIS	4.317	1.02
5. IT firms lack the technical expertise to adopt HRIS	3.645	1.43
6. HRIS adoption face resistance from employees	3.307	1.48

Source: Field survey (2019)

Table 15 indicates that respondents strongly agreed or agree that lack of management support acts as a barrier to the adoption of HRIS (M=4.613, SD= 0.49). This agrees with that of Ang, Davies and Finlay, (2001) who posited that there is always a challenge when management are to show their support to HRIS Adoption. It was also revealed that majority of the respondents strongly agree or agree that HRIS is costly to implement and sustain in an organisation (M=4.597, SD=0.059). The findings are in agreement with Heeks, (2002) who postulated that

HRIS is costly to implement and mostly there are funds at the department to support it.

Again, it was interesting to identify that respondents agreed that Low level of importance credited to HR functions in general (M=4.317, SD=1.02). The findings are supported Budhwar and Bhatnagar (2009) who stated that HR has traditionally operated in "reactive mode" in the corporate sector, which means that the HR functions are brought into the picture only when there is a need. Furthermore, it was found that respondents also agreed that Lack of reliable vendor frustrate adoption of HRIS (M=4.317, SD=1.02). This is in line with the findings of Huang and Palvia, (2001) who posited that when there is no reliable vendor of HRIS, adoption of HIRS is affected negatively.

Last but not the least, it was found that respondents agreed that when IT firms lack the technical expertise to adopt HRIS it becomes a challenge of HRIS Adoption (M= 3.645, SD=1.43). It shows that the respondents hovers around agreed and neutral. This is supported by Teo, Lim, and Fedric, (2007) an organization's IT experience over time in the HR department has been found to have a strong effect on the overall success of HRIS adoption in an organization. Finally, it was found that respondents also agreed that HRIS adoption face resistance from employees (M=3.307, SD=1.48). This is the least of all the challenges questions that were asked during the data collection period. This is concreted by Bader, (2012) who also posited resistance to change affect HRIS Adoption.

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Chapter Summary

This chapter has presented results of the objectives considered in this study. The demographic data showed that respondents were from all age levels, educational groups and staff levels within the organisation. With respect to the first objective, the result showed that organisational characteristics has a positive influence on HRIS adoption. The second research objective showed that top management involvement had a positive effect on HRIS adoption. The third objective also showed that human resource characteristics has a positive influence on HRIS adoption. The results showed that comparatively, top level management involvement had a positive influence on HRIS adoption larger than the two other determinants. This is followed by organisational characteristics and human resource characteristics. The results also showed that lack of management support is the most common challenge associated with HRIS. This is followed by cost and the least challenge is resistance by employees.
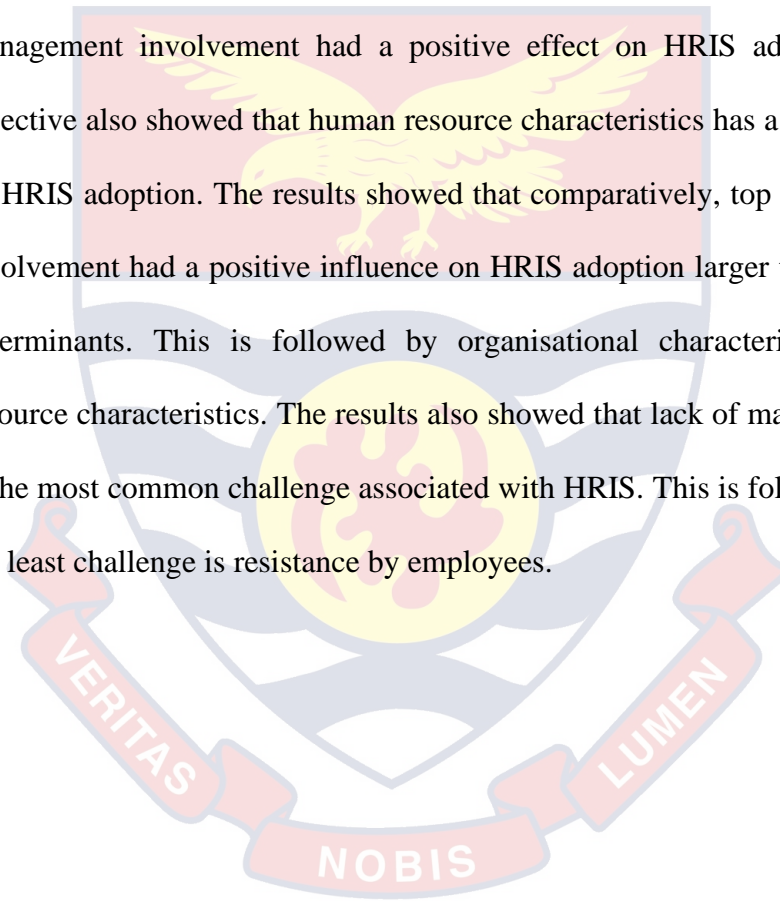
CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

In this chapter, an overview of the purpose of the study, the research objectives and the research methods employed are presented. The researchers present the summary, conclusion, and recommendations based on the findings and interpretations of the research. The researchers also present the limitations that were identified during this research. Further, the researchers provide suggestions for further research on the area and close the chapter by providing implications for policy and practice that can emanate from the findings of the research.

The study sought to identify determinant of HRIS Adoption; Evidence from Tertiary Institution. The research questions which guided the study are; what is the effect of organizational characteristics on HRIS adoption, what is the effect of top management involvement on HRIS adoption, what is the effect of human resource characteristics and HRIS adoption, what are the challenges associated with HRIS adoption. The descriptive research with a quantitative approach of data collection was used for the study. Convenience sampling technique was used in selecting the respondents for the study. A questionnaire was the data collection instrument used for data collection.

Summary of Findings

The summary of the key findings of the research is presented alongside the respective specific research objectives. Regarding the specific objective of the research which states to identify the effect of organizational characteristics on HRIS

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adoption. It was found that organizational characteristics has a strong positive effect on getting HRIS adopted. The findings of the R Square from the Model Summary show that the independent variable (Organisational Characteristics) explains 43.7% percent of the variance in forecasting the dependent variable (HRIS Adoption). This implies that 57.3% percent of the variance in the dependent variable is explained by other variables which were not included in the model. The R value in the same model summary is 0.661 which indicate a positive strong correlation between the two variables This shows that the more tertiary institution specifically UHAS and HTU strengthens their organisational characteristics within their institutions the more HRIS adoption would be made easier.

The result of the ANOVA component of the standard multiple regression analysis shows that close observation of the Sig. the value indicates that the model is statistically significant in that the p-value (0.000) is less than 0.05. Which means, measurably, the model could be depended on to emphatically modify HRIS Adoption in UHAS and HTU. The findings indicate that the organisational characteristics has a unique but statistically significant contribution to explaining the dependent variable HRIS Adoption when all the other variables in the model are controlled, with the Beta value of 0.661 and corresponding Sig value of 0.000. This means to make HRIS Adoption easier at UHAS and HTU, organisational Characteristics must be critically looked at and implemented efficiently by management with the direct involvement of all staff.

On the other hand, the study indicated that the specific research objective which is to identify effect of top management involvement on HRIS adoption. The

findings indicated that top management involvement has a positive significant impact on HRIS adoption. The findings show an R Square value of .762 which indicates that about 76.2% of the variation in the HRIS Adoption by UHAS and HTU is accounted for by the top management involvement while the other 24.8% variation in HRIS Adoption may be due to other factors not captured in this study. The R value of 0.873 indicates a very strong positive relationship between the two variables that is Top Management Involvement an independent variable and HRIS Adoption as dependent variable. The findings indicate that Top Management Involvement has a strong unique but statistically significant contribution to explaining the dependent variable HRIS Adoption when all the other variables in the model are controlled, with the Beta value of 0.873 and corresponding Sig value of 0.000. This means to improve HRIS Adoption at UHAS, Top Management must take effective decision when it comes to HRIS Adoption.

The findings concerning the third objective which states to identify effect of human resource characteristics on HRIS adoption reveal that human resource characteristics has a strong positive relationship between Human Resource Characteristics and HRIS Adoption with R- value of 0.616. The findings from the model summary show that the independent variable (Human Resource Characteristics) explains 37.9% percent of the variance in predicting the dependent variable (HRIS Adoption). This implies that 63.1% percent of the variance in the dependent variable is explained by other variables not included in the regression model. This means that the more Human Resource Characteristics within the organisation becomes effective workers in the organization, the more the HRIS

Adoption will be easier. The findings indicate that Human Resource Characteristics has a strong unique but statistically significant contribution to explaining the dependent variable HRIS Adoption when all the other variables in the model are controlled, with the Beta value of 0.616 and corresponding Sig value of 0.000. This means to improve HRIS Adoption at UHAS, Human Resource must take effective decision when it comes to HRIS Adoption.

Considering the objective which sought to identify the challenges associated with HRIS adoption. it was found that majority of the respondents were of the view that there were constraints or challenges when it comes to HRIS adoption. The findings further identified that majority of the respondent agree that lack of management support when it comes to HRIS adoption. It was also revealed that respondents agreed often HRIS is costly to implement and sustain in an organisation. Again, it was interesting to identify that respondents agreed that Low level of importance credited to HR functions in general. Furthermore, it was found that respondents also agreed that Lack of reliable vendor frustrate adoption of HRIS. It was also revealed that when IT and HR departments lack technical expertise to adopt HRIS it becomes a challenge. Finally, it was identified that employees' resistance to change affect HRIS Adoption.

Conclusion

Based on the findings of the study, it can be concluded that determinant such as organisational characteristics, top management involvement and human resource characteristics has a strong positive relationship with HRIS Adoption at UHAS and HTU. The institutions need to improve on these determinants if they want to make HRIS adoption easier.

Based on the findings of this study for the first objective, it leads to the conclusion that organisational characteristics have a positive effect on HRIS adoption. Organizational characteristics include business size, IT experience and planning of the firm, organizational culture and organizational change have strongest unique but statistically significant contribution to explaining the dependent variable HRIS Adoption when all the other variables in the model are controlled. Lack of proper planning within an organization also slows the adoption of human resource information system. Additionally, resistance to change among employees has been indicated to slow down HRIS implementation. Therefore, to improve HRIS Adoption at UHAS and HTU organisational characteristics must be critically checked and make sure that these characteristics are improved and made effective and efficient.

This study also concludes on the second objective that when top management support in both institutions are effective and efficient, HRIS Adoption will become easier. Given the nature of the duties of the top management, when they don't support the adoption of HRIS it will never be made available in the institution. The study therefore concludes that negative attitude and lack of

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commitment among top managers hinder the adoption of HRIS. Low level of knowledge among Top management also impacts on the adoption of HRIS. Lack of desire to accept a new HRIS system and lack of experience by the top management slows down the adoption of HRIS in organizations. Leadership culture determines how fast the organization adopts HRIS. Since top management approves finances of resources in organizations, they are key to adoption of HRIS in organizations.

With respect to the third objective, the findings indicate that Human Resource Characteristics has a strong unique but statistically significant contribution to explaining the dependent variable HRIS Adoption when all the other variables in the model are controlled. This means to improve HRIS Adoption at UHAS, Human Resource must take effective decision when it comes to HRIS Adoption. The study concludes that low level of collaboration between human resource staff and information technology departments slows the adoption of human resource information system. This is because as HR staff are afraid to lose their relevance and their resistance to take new roles slows the human resource information systems adoption process. Management's failure to involve human resource professionals in the implementation of human resource information system leads to slow adoption of HRIS. Lack of expertise and understanding by the HR professionals on the importance of HRIS to the organization can also lead to slow adoption of HRIS within an organization.

Finally, it was found that majority of the respondents were of the view that there were constraints or challenges when it comes to HRIS adoption. lack of

management support slows down the adoption of HRIS. Funds should be set aside because HRIS is costly to implement and sustain in an organisation. it is important for HR to be actively and genuinely involved when it comes to successful implementation of HRIS as they are seen as the driving force behind a new system. Furthermore, it was found that respondents also agreed that Lack of reliable vendor frustrate adoption of HRIS. It was also revealed that when IT and HR departments lack technical expertise it slows down adoption of HRIS.

Recommendation

This study recommends that the institutions should allocate adequate resources to improve on the organisational characteristics for the adoption of HRIS. Organizational characteristics include business size, IT experience and planning of the firm, organizational culture and organizational change should be properly managed and controlled by the organization to enable the organization to conceive and implement a system that will improve its efficiency and effectiveness.

The study revealed that top management has a great impact on HRIS adoption. Thus, it will be very important for top management be the leading endorsers of new systems like HRIS in the institutions as this will show the employees that the leadership of the institutions supports new practices. This study recommends that management practices in the institutions concerning HRIS should facilitate adoption of information system among employees using the HRIS. The study also recommends that top management should ensure there is coordination of all factions so as to allow a seamless and smooth process in the adoption of human resource information system.

The study recommends that the institutions should prepare human resource departments for the adoption of human resource information system through regular training on the intended purpose of the integration. The management in the IT industry should ensure that the new roles of human resource staff are within their human resource areas of expertise which should reduce resistance to change. The study recommends that the institutions should always look for a certified vendor who is involved in selling and installation of HRIS so as to make adoption easier.

Suggestion for Further Studies

The study identified the determinants of the adoption of human resource information systems. Even though this study was based on two tertiary institutions, future studies can be based on a comparative analysis of HRIS adoption in two institutions. In addition, exploratory studies could be carried out to determine all possible determinants of HRIS adoption within Ghanaian institutions of higher learning.
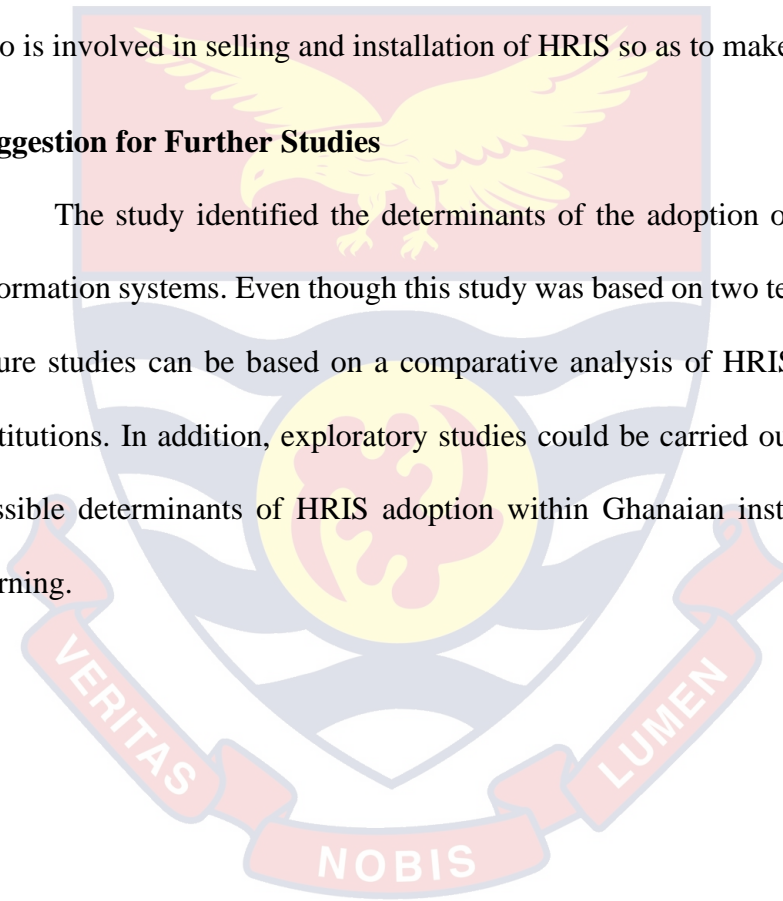
REFERENCES

Abeer, I., Mashael, S. & Abdullah, S. (2011). The Critical Success Factors of ERP implementation in Higher Education in Saudi Arabia. *Journal of Information Technology and Economic Development,* 2(2), 1-16.

Aggarwal, N., & Kapoor, M. (2012). Human resource information systems (HRIS)-Its role and importance in business competitiveness. *Gian Jyoti E-Journal*, *1*(2), 1-13.

Aggelidis, V. P., & Chatzoglou, P. D. (2009). Using a modified technology acceptance model in hospitals. *International journal of medical informatics*, *78*(2), 115-126.

Ahmer, Z. (2013). Adoption of human resource information systems innovation in Pakistani organizations. *Journal of Quality and Technology Management*, *9*(2), 22-50.

Alhazemi, A. (2017). Critical Analysis and Current Challenges Facing HRIS Adoption in Arab Countries-the Case of Saudi Arabia. *International Journal of Heritage, Tourism and Hospitality*, *11*(2), 143-164.

Alireza, P. E., & Payvand, F. N. (2012). Exploring the Type of Relationship between Information Security Management and Organizational Culture. *International Journal of Information, Security and Systems Management*, *1*(1), 21-28.

Ananya, R. & Nur, N. A. (2013). Adoption of Human Resource Information System: A Theoretical Analysis. *Procedia - Social and Behavioral Sciences*, 473 – 478.

Ang, C., Davies, M. A., Finlay, P. N., (2001). An empirical model of IT usage in the Malaysian public sector, *The Journal of Strategic Information Systems*, 10(2), 159-174.

Armstrong, M. (2006). *A handbook of human resource management practice*. Kogan Page Publishers.

Arnold, J., & Randall, R. (2010). *Work psychology: Understanding human behaviour in the workplace*. (5th edn.). Harlow, Essex: Pearson Education.

Ashbaugh, S., & Miranda, R. (2002). Technology for human resources management: Seven questions and answers. *Public Personnel Management*, *31*(1), 7-20.

Awazu, Y & Desouza, K. C. (2003). Knowledge Management, HR Magazine. 48(11), 107.

Bader, Y. O., (2012). The relationship between human resource information system (HRIS) functions and human resource management (HRM) functionalities. *Journal of Management Research*, *4*(4), 192-211.

Bakker, Y., (2010). Back to the future of human resource information systems? A survey towards the role of country differences regarding adoption and deployment outcomes of e-HRM.

Ball, K. S. (2001). The use of human resource information systems: a survey. *Personnel review*.30 (6), 667-693.

Bandyopadhyay, K., & Fraccastoro, K. A. (2007). The effect of culture on user acceptance of information technology. *Communications of the Association for Information Systems*, *19*(1), 23.

Beckers, A. M., & Bsat, M. Z. (2002). A DSS classification model for research in human resource information systems. *Information Systems Management*, *19*(3), 41-50.

Beulen, E. (2009). The contribution of a global service provider's Human Resources Information System (HRIS) to staff retention in emerging markets. *Information Technology & People*.

Bless, C., Higson-Smith, C., & Kagee, A. (2000). Fundamentals of social research. *Lansdowne: Juta Education*.

Boateng, A. (2007). The role of human resource information systems (HRIS) in strategic human resource management (SHRM). *Master of Science Theses, Accounting Swedish School of Economics and Business Administration, Palovartijantie*.

Bowen, D. E., & Oestroff, C. (2004). *Understanding HRM-Firm performance linkages: The role of the strengths of the HRM system*. Academy of Management Review, 29.

Brace, I. (2018). *Questionnaire design: How to plan, structure and write survey material for effective market research*: Kogan Page Publishers.

Brown, D. (2002). eHR–victim of unrealistic expectations. *Canadian HR Reporter*, *15*(5), 1.6

Brown, S. A., Dennis, A. R., & Venkatesh, V. (2010). Predicting collaboration technology use: Integrating technology adoption and collaboration research. *Journal of Management Information Systems*, *27*(2), 9-54.

Bryman, A., & Bell, E. (2003). Breaking down the quantitative/qualitative divide. *Business Research Methods*, 465-478.

Budhwar, P. S. & Bhatnagar, J. (2009). *The Changing Face of People Management in India*, Taylor & Francis.

Chauhan, A., Sharma, S. K., & Tyagi, T. (2011). Role of HRIS in improving modern HR operations. *Review of Management*, *1*(2), 58-70.

Cohen, M. A. (1988). Some new evidence on the seriousness of crime. *Criminology*, *26*(2), 343-353.

Cooper, D., & Schindler, P. (2008). *International edition: business research methods*. New Delhi: MacGraw-Hill.

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications

Dennis, K. (2015). Drivers and challenges of ICT adoption by SMES in Accra metropolis. *Journal of Technology Research*, 6.

Dery, K., Grant, D., & Wiblen, S. (2009, August). Human resource information systems (HRIS): Replacing or enhancing HRM. In *Proceedings of the 15th World Congress of the International Industrial Relations Association IIRA* (pp. 24-27).

Dessler, G., & Varrkey, B. (2005). *Human Resource Management, 15e*. Pearson Education India.

DiPietro, R. B., Shani, A., & Tesone, D. V. (2010). Have human resource information systems evolved into internal e-commerce?. *Worldwide Hospitality and Tourism Themes*.

Dowson, M., & McInerney, D. M. (2001). Psychological parameters of students' social and work avoidance goals: A qualitative investigation. *Journal of educational psychology, 93*(1), 35.

Florkowski, G. W., & Olivas-Luján, M. R. (2006). The diffusion of human-resource information-technology innovations in US and non-US firms. Personnel Review, 35(6), 684-710.

Hausdorf, P. A., & Duncan, D. (2004). Firm size and internet recruiting in Canada: A preliminary investigation. *Journal of Small Business Management*, 42(3), 325-334.

Heeks, R. (2002). Information systems and developing countries: Failure, success, and local improvisations. *The information society*, *18*(2), 101-112.

Hendrickson, A. R. (2003). Human resource information systems: Backbone technology of contemporary human resources. *Journal of Labor Research*, *24*(3), 381.

Hendrickson, A. R. (2003). Human resource information systems: Backbone technology of contemporary human resources. *Journal of Labor Research*, *24*(3), 381.

Hosain, M. S., Arefin, A. H. M. M., & Hossin, M. A. (2020). The Role of Human Resource Information System on Operational Efficiency: Evidence from MNCs Operating in Bangladesh. *Asian Journal of Economics, Business and Accounting*, 29-47.

Huang, Z. and Palvia, P. (2001). ERP implementation issues in advanced and developing countries, *Business Process Management Journal*, 7(3), 276-284.

Kagehi, S. J., (2015). *Challenges of Adopting Human Resource Information Systems in the Information Technology Industry in Kenya: A Survey Of Selected It Firms* (Doctoral dissertation, United States International University-Africa).

Kamel, K. & Abdullah, B. (2014). The Impact of Implementing SAP System on Human Resource. *International Journal of Business and Management,* 9(12), 1833-8119.

Kavanagh, M. J., Gueutal, H. G., & Tannenbaum, S. I. (1990). Human Resource Information System: Development and Application. MA.: PWS-KENT.

Kinanga, R. (2012). Understanding why human resource function is lagging behind in information technology adoption. *Journal of Human Resources Management Research*, 1.

Kovach, K. A., & Cathcart Jr, C. E. (1999). Human resource information systems (HRIS): Providing business with rapid data access, information exchange and strategic advantage. *Public personnel management*, *28*(2), 275-282.

Kovach, K. A., Hughes, A. A., Fagan, P., & Maggitti, P. G. (2002). Administrative and strategic advantages of HRIS. *Employment Relations Today*, *29*(2), 43-48.

Kristine, D., David, G. & Sharna, W. (2006). Replacing or Enhancing HRM. The University of Sydney.

Kuhn, T. S. (1962). The structure of scientifi revolutions. *The Un. of Chicago Press*, *2*, 90.

Langbert, M., & Friedman, H. (2002). Continuous improvement in the history of human resource management. *Management Decision*.

Laudon, K. C., & Laudon, J. P. (2007). Management Information Systems-Pearson International Edition.

Leedy, P. D., & Ormrod, J. E. (2010). *Practical research: Planning and design*. Upper Saddle River: NJ: Prentice Hall.

Lengnick-Hall, M. L., & Moritz, S. (2003). The impact of e-HR on the human resource management function. *Journal of labor research*, *24*(3), 365.

Light, Z., Idisemi, A., Craig, C. & Hanifa, S. (2013). The Impact of Culture in Enterprise Resource Planning System Implementation. *Proceedings of the World Congress on Engineering*, 1, 0-7.

Lu, J., Yao, J. E., & Yu, C. S. (2005). Personal innovativeness, social influences and adoption of wireless Internet services via mobile technology. *The Journal of Strategic Information Systems*, *14*(3), 245-268.

Malhotra, N. K., Birks, D. F., & Wills, P. (2013). *Essentials of marketing research*. Harlow: Pearson.

Mao, H., Liu, S., Zhang, J., & Deng, Z. (2016). Information technology resource, knowledge management capability, and competitive advantage: The moderating role of resource commitment. *International Journal of Information Management*, *36*(6), 1062-1074.

Marlene, S. A. S & Carlos, G. S. L. (December 21st 2017). The Role of Information Systems in Human Resource Management, Management of Information Systems, Maria Pomffyova, IntechOpen, DOI: 10.5772/intechopen.79294. Available from: https://www.intechopen.com/books/management-of-information-systems/the-role-of-information-systems-in-human-resource-management

Martinsons, M. G. (1997). Human resource management applications of knowledge-based systems. *International Journal of Information Management*, *17*(1), 35-53.

Mohapatra, S. (2009). Framework for HRIS implementation in non-IT sector. *Journal of Convergence Information Technology*, *4*(4), 111-117.

Muhhamad, I., Shao, Y. & Khawaja, T. (2014). Explore the Adoption of HRIS in Telecom Sector in Pakistan. *International Journal of Economics and Management Sciences*, 3(1), 2162-6359.

Mun, Y. Y., Jackson, J. D., Park, J. S., & Probst, J. C. (2006). Understanding information technology acceptance by individual professionals: Toward an integrative view. *Information & Management*, *43*(3), 350-363.

Murat, E. & Nihat, E. (2014). Effects of Technology Readiness on technology acceptance in E-HRM. *The Journal of Knowledge Economy & Knowledge Management*, 9.

Murphy, G. D., & Southey, G. (2003). High performance work practices: Perceived determinants of adoption and the role of the HR practitioner. Personnel Review, 32(1), 73-92.

Naser, A. (2014). The Impact of Organizational Culture on the Adoption of EManagement. *International Journal of Business and Management*, 9(9), 1833-8119.

Ngai, E. W. T., & Wat, F. K. T. (2006). Human resource information systems: a review and empirical analysis. *Personnel review*, 35, 3, 297-314.

Njau, N. F. (2018). *Factors influencing adoption of human resource information system in parastatal organizations; case of Dar es salaam* (Doctoral dissertation, The University of Dodoma).

Naqshbandi, M. M., & Kamel, Y. (2017). Intervening role of realized absorptive capacity in organizational culture–open innovation relationship: Evidence from an emerging market. *Journal of General Management*, *42*(3), 5-20.

Niisha A., & Mona K. (2012). Human resource information systems (HRIS)-Its role and importance in business competitiveness. *Gian Jyoti E-Journal*, *1*(2), 1-13.

O'Reilly, C. A., & Tushman, M. L. (1997). Using culture for strategic advantage: promoting innovation through social control. *Managing strategic innovation and change: A collection of readings*, 200-216.

Pallant, J. (2015). SPSS Survival Manual. Open University Press, Berkshire.

Qadir, A., & Agrawal, S. (2017). HR Transformation through Human Resource Information System: Review of Literature. *Journal of Strategic Human Resource Management*, *6*(1), 30.

Radif, M. (2010). Critical Analysis of Challenges Facing HRIS Adoption in Developing Countries: The Case of India.

Rajar, S.S. & Shah, A. (2007). *The Challenges of Globalization and the Role of Human Resources*. Pakistan: Isra University publication.

87

Randi, H. & Steve, L. (2013). Factors Influencing the Adoption of HRIS Applications. *International Journal of management and Business studies*, Vol 3, Issue 4, ISSN 2230-9519.

Razali, M. Z., & Vrontis, D. (2010). The reactions of employees toward the implementation of human resources information systems (HRIS) as a planned change program: A case study in Malaysia. *Journal of Transnational Management,* 15(3), 229-245

Rifat, O. & Yazzan, N. (2004). The Effect of the Adopted Computerized Human Resources Information System on Job Satisfaction in the Jordanian Private Hospitals. University of Jordan.

Ruël, H., Bondarouk, T., & Looise, J. K. (2004). E-HRM: Innovation or irritation. An explorative empirical study in five large companies on web-based HRM. *Management revue*, 364-380.

Salwa, A. & Ziad, M.S. (2006). *The Organizational Factors Affecting Enterprise Resource Planning Systems (ERPs) Implementation Success*.

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students. 5th edition. *Perntice Hall*.

Sefakor A., B. (2013). *An exploration of the use of Information Systems (Is) for efficient human resources management practices: A case study of selected organisations in Kumasi Metropolis* (Doctoral dissertation).

Seif, J. K. (2015). *Challenges of Adopting Human Resource Information Systems in the Information Technology Industry in Kenya: A Survey Of Selected It Firms* (Doctoral dissertation, United States International University-Africa).

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.

Sergio, B., Pez, G., Sebasti, M., & Ugarte, N. (2010). On the quest of choosing an effect HR Information system–assessing its role and key success factors. *Horizontes Empresariales*, *9*(1), 49-54.

Shannon, D. M., & Bradshaw, C. C. (2002). A comparison of response rate, response time, and costs of mail and electronic surveys. *The Journal of Experimental Education*, *70*(2), 179-192.

Strohmeier, S. (2007). Research in e-HRM: Review and implications. *Human resource management review*, *17*(1), 19-37.

Syeda, Q., Sajid, M.A. & Syed, H.R. (2012). Benefits and Barriers of Human Resource Information System in Accounts Office &Azad Jammu &Kashmir Community Development Program. *International Journal of Humanities and Social Science*, 2(3).

Syrett, M., & Lammiman, J. (1997). Innovation: a front-line perspective. In *EFMD FORUM* (pp. 24-27). EFMD.

Tabachnick, B. G., & Fidell, L. S. (2013). Using multivariate statistics: International edition. *Pearson2012*.

Targowski, A. S., & Deshpande, S. P. (2001). The Utility and Selection of an HRIS. *Advances in Competitiveness Research*, *9*(1), 42-42.

Targowski, A. S., & Deshpande, S. P. (2001). The Utility and Selection of an HRIS. *Advances in Competitiveness Research*, *9*(1), 42-42.

Taylor, B., Sinha, G., & Ghoshal, T. (2006). *Research methodology: A guide to for reseachers in management and social sciences*: PHI Learning Pvt. Ltd.

Teo, T. S., Lim, G. S., & Fedric, S. A. (2007). The adoption and diffusion of human resources information systems in Singapore. *Asia Pacific Journal of Human Resources,* 45(1), 44-62.

Tian, M., Deng, P., Zhang, Y., & Salmador, M. P. (2018). How does culture influence innovation? A systematic literature review. *Management Decision*.

Tiwari, P., & Saxena, K. (2012). Human resource management practices: A comprehensive review. *Pakistan business review*, *9*(2), 669-705.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, *46*(2), 186-204.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.

Venkatesh, V., Thong, J. Y., Chan, F. K., Hu, P. J. H., & Brown, S. A. (2011). Extending the two-stage information systems continuance model: Incorporating UTAUT predictors and the role of context. *Information Systems Journal*, *21*(6), 527-555.

Vincent, C. (2007). *A Study of the Impact of Organizational Learning on Information System Effectiveness*. Hong Kong Polytechnic University.

Virginia, B., Maria, P. & Ana, I.J. (2007). Drivers, Benefits and Challenges of ICT Adoption by Small and Medium Sized Enterprises. *Problems and Perspectives in Management*, 5(1).

Virdyananto, A. L., Dewi, M. A. A., Hidayanto, A. N., & Hanief, S. (2016, October). User acceptance of human resource information system: An integration model of Unified Theory of Acceptance and Use of Technology (UTAUT), Task Technology Fit (TTF), and Symbolic Adoption. In *2016 International Conference on Information Technology Systems and Innovation (ICITSI)* (pp. 1-6). IEEE.

Wali, O. (2010). Promoting human resources in the public sector: Critical role of human capital in the performance of public services in Africa. In *Regional Workshop Organized by CAFRAD* (21-25).

Wambugu, L. W. (2014). Effects of Organizational Culture on Employee Performance (Case Study of Wartsila-Kipevu Ii Power Plant). *European Journal of Business and Management, 6*(32).

Yap, Y. Y. (2016). *Relationship between Employees Engagement, Career Development, Organisational Culture, Psychological Ownership and Staff's Talent Management in Service Industry.* UTAR

Zikmund, W. G. (2000). *Business research methods* (6 ed.). Chicago: The Dryden Press.
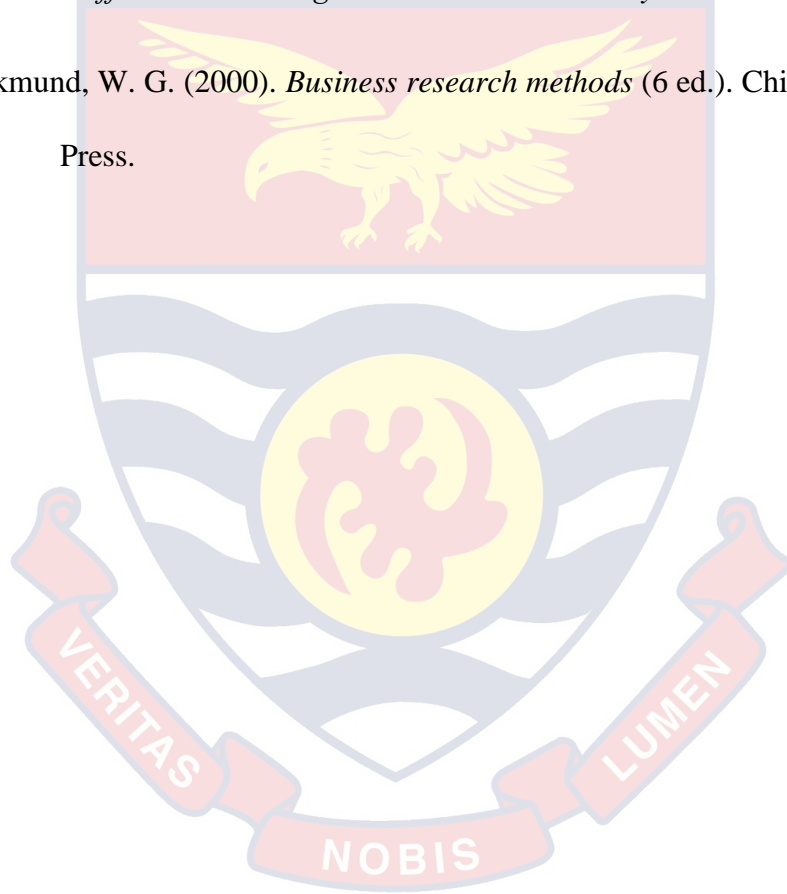
APPENDIX A

UNIVERSITY OF CAPE COAST

DEPARTMENT OF HUMAN RESOURCE MANAGEMENT

QUESTIONNAIRE

Dear respondent,

The objective of this study is to assess the determinants of HRIS adoption in UHAS and Ho Technical University. I, therefore, appeal to you to answer the following questions as cordially as possible. No form of identity will be disclosed and the information will be used for purely academic purposes.

Thank you in advance for your cooperation.

SECTION A: PERSONAL DATA

These statements are about you. Kindly tick in the box the answer that best describes your response in each of the states.

1. Gender: [1] Male   [2] Female

2. Age (years) of respondent: [1] 21 - 30 [2] 31 – 40 [3] 41 –50 [4] 51 – 60 [5] Above 60

3. Level of staff: [1] Junior staff   [2] Senior staff [3] Senior staff

4. Qualification: [1] Postgraduate Degree [2] First Degree [3] HND [4] SHS [5] Professional certificates

5. Department: [1] Human Resource   [2] IT

6. How many years have you been working in your current division/ department?

   [1] Below one year [2] 1-4 years [3] 5-9 years [4] 10 years +

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Section 'B': Organisational characteristics as a Determinants of HRIS adoption

The following are statements about the **Organisational characteristics as a Determinants of HRIS adoption**. Please indicate the extent to which agree to each statement by ticking [√] one number of each item.;

1- Least level of agreement, 5- the Highest level of agreement

s/n	Statement	1	2	3	4	5
1.	Organization's resources, transaction volumes, or total workforce affect the adoption of HRIS					
2.	Organization IT planning has implication in the adoption of HRIS					
3.	Organizations can fully benefit from the adoption of HRIS through IT planning					
4.	Organization Culture influence adoption of HRIS					
5.	Organizations with open and flexible corporate cultures adapt easily to new technology					
6.	Organizational change is a significant influencing factor over IT adoption					

Section 'C': Human Resource Characteristics as a Determinants of HRIS adoption

The following are statements about the **Human Resource Characteristics as a Determinants of HRIS adoption**. Please indicate the extent to which agree to each statement by ticking [√] one number of each item.;

1- Least level of agreement, 5- the Highest level of agreement

s/n	Statement	1	2	3	4	5
1.	The existence of a formal HR-department appears to increase the likelihood of a firm adopting HRIS					
2.	The collaboration of HRM and IT has also been identified as a crucial success factor in HRIS adoption and use					
3.	The HR roles identified could be related to the e-HRM adoption and deployment outcomes					
4.	Expertise is a crucial factor in innovation adoption of HRIS					
5.	HR professionals are comfortable with new roles of HRIS					

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Section 'D': Top Management Involvement as a Determinants of HRIS adoption

The following are statements about the **Top Management Involvement as a Determinants of HRIS adoption**. Please indicate the extent to which agree to each statement by ticking [√] one number of each item.;

1-   Least level of agreement, 5- the Highest level of agreement

s/n	Statement	1	2	3	4	5
1.	It is the University management who make the final decision to adopt HRIS					
2.	A positive attitude of University management has resulted in relative success of HRIS adoption.					
3.	Management commitment has a positive influence on HRIS adoption					
4.	The strong commitment of University management, especially of a particular 'innovation champion', leads to early adoption of HRIS					
5.	University management desire of being more innovative will expedite the process of HRIS adoption					
6.	University management's IT knowledge and experience of IT affect the adoption of HRIS					
7.	Leadership culture is key to the success of HRIS adoption					

Section 'E': ADOPTION OF HUMAN RESOURCE INFORMATION SYSTEM

The following are statements about the adoption of the human resource information system. Please indicate the extent to which agree to each statement by ticking [√] one number of each item.;

1-   Least level of agreement, 5- the Highest level of agreement

s/n	Statement	1	2	3	4	5
1.	Adoption of a human resource information system helps in strategic human resource management					

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s/n	Statement					
2.	Adoption of a human resource information system helps improve efficiency					
3.	Adoption of HRIS increases competitiveness by improving HR practices					
4.	Adoption of HRIS creates a greater number and diversity of HR operations					
5.	Adoption of HRIS make the employees part of HRIS					
6.	Adoption of HRIS re-engineers the entire HR role.					

Section 'F': CHALLENGES ASSOCIATED WITH ADOPTION OF HUMAN RESOURCE INFORMATION SYSTEM

The following are statements about the challenges associated with the adoption of human resource information system. Please indicate the extent to which agree to each statement by ticking [√] one number of each item.;

s/n	Statement	1	2	3	4	5
1.	Lack of management support acts as a Barrier to the adoption of HRIS					
2.	HRIS is costly to implement and sustain					
3.	Lack of reliable vendor frustrate adoption of HRIS					
4.	HRIS adoption face resistance from employees					
5.	IT firms lack the technical expertise to adopt HRIS					
6.	low level of importance credited to HR functions in general					