UNIVERSITY OF CAPE COAST

ASSESSING THE INFLUENCE OF DEMOGRAPHIC FACTORS ON THE

ACCEPTANCE AND ADOPTION OF MANAGEMENT INFORMATION

SYSTEM BY THE SENIOR STAFF OF THE UNIVERSITY OF CAPE

COAST

GIFTY KUKUA ESHUN
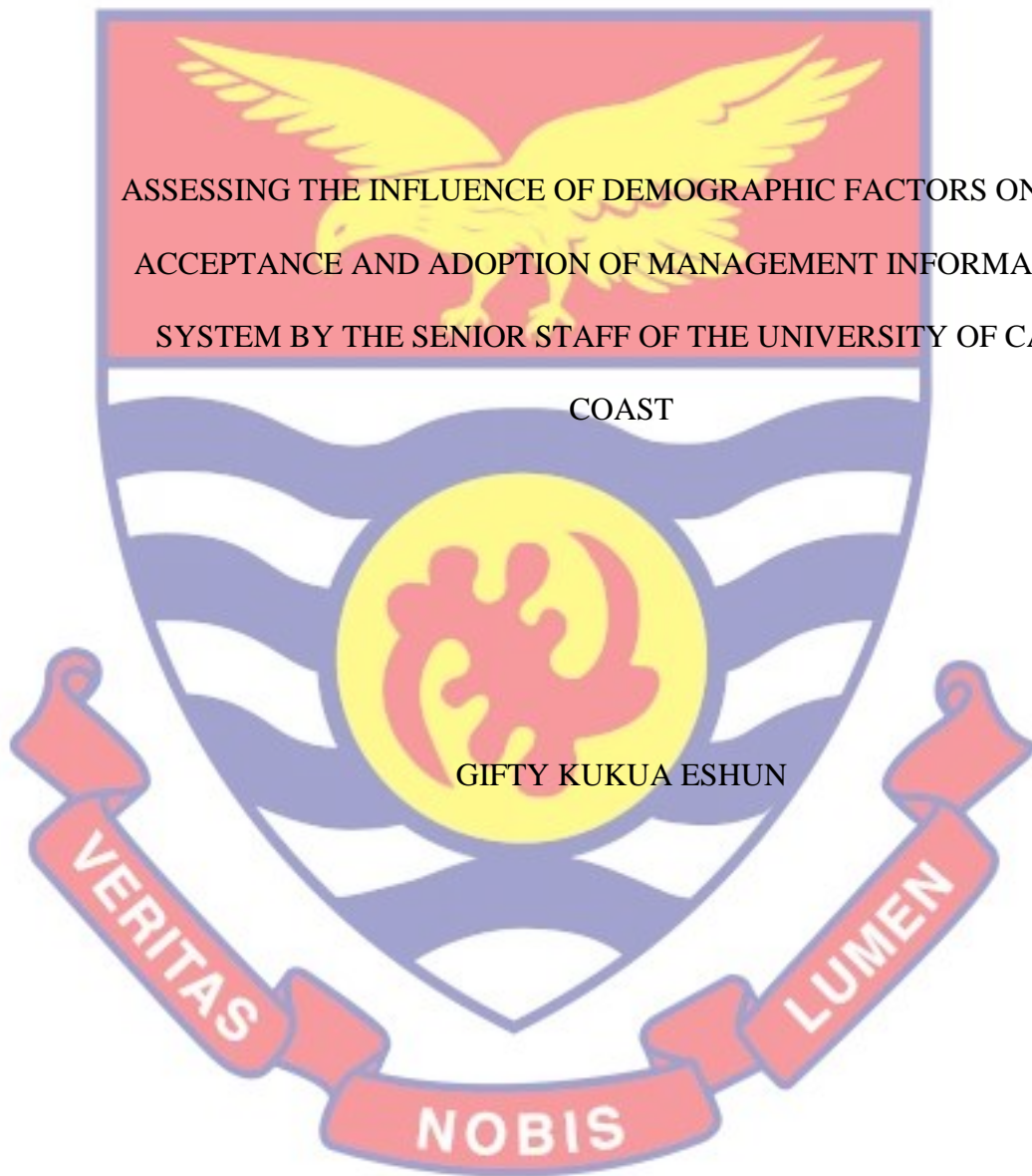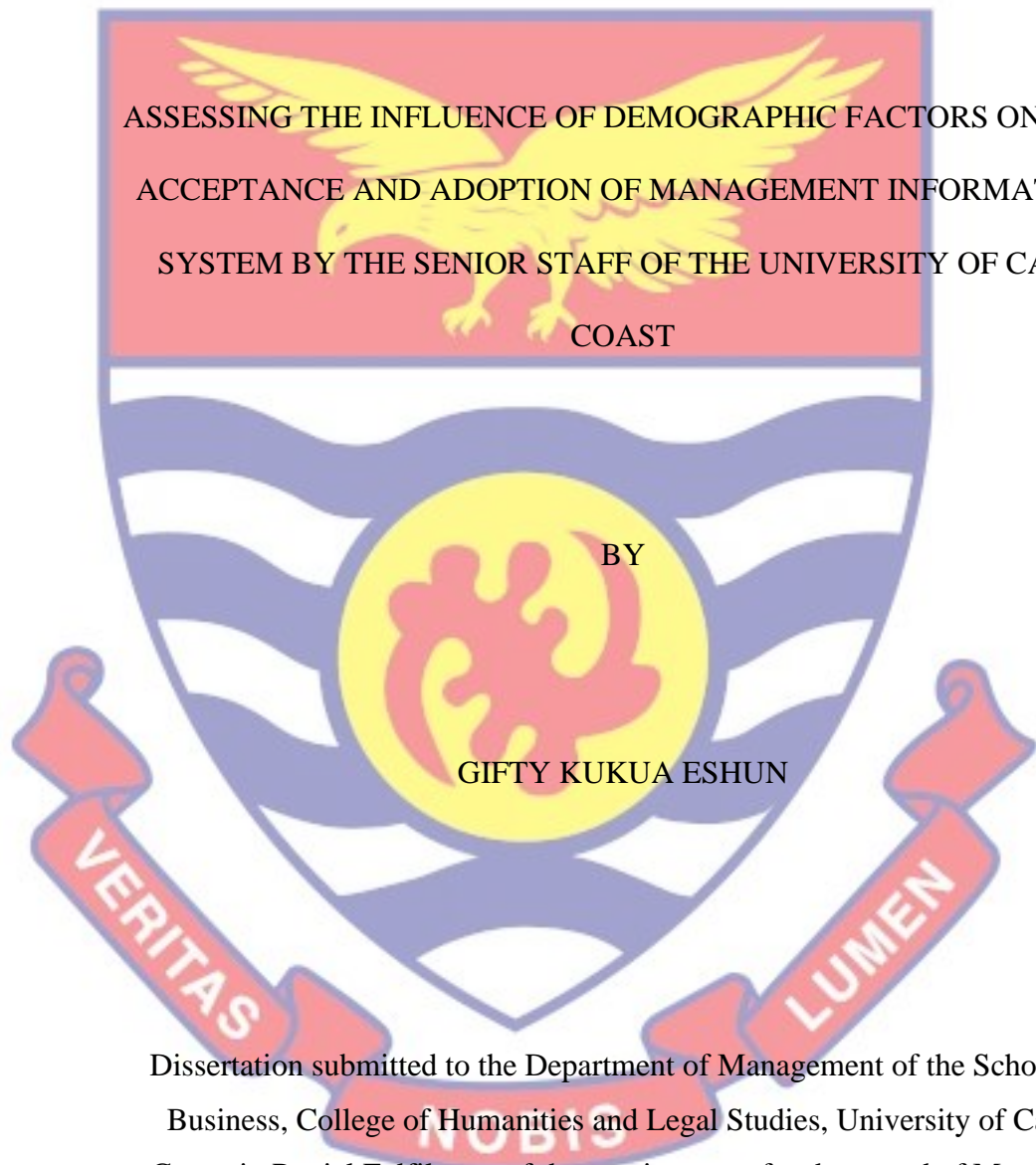
2022

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BY

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Dissertation submitted to the Department of 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 Management.

APRIL 2022

DECLARATION

Candidate's Declaration

I, the author of this work, do hereby declare that this dissertation is solely my handwork except for references made to another people's work which have been duly acknowledged.

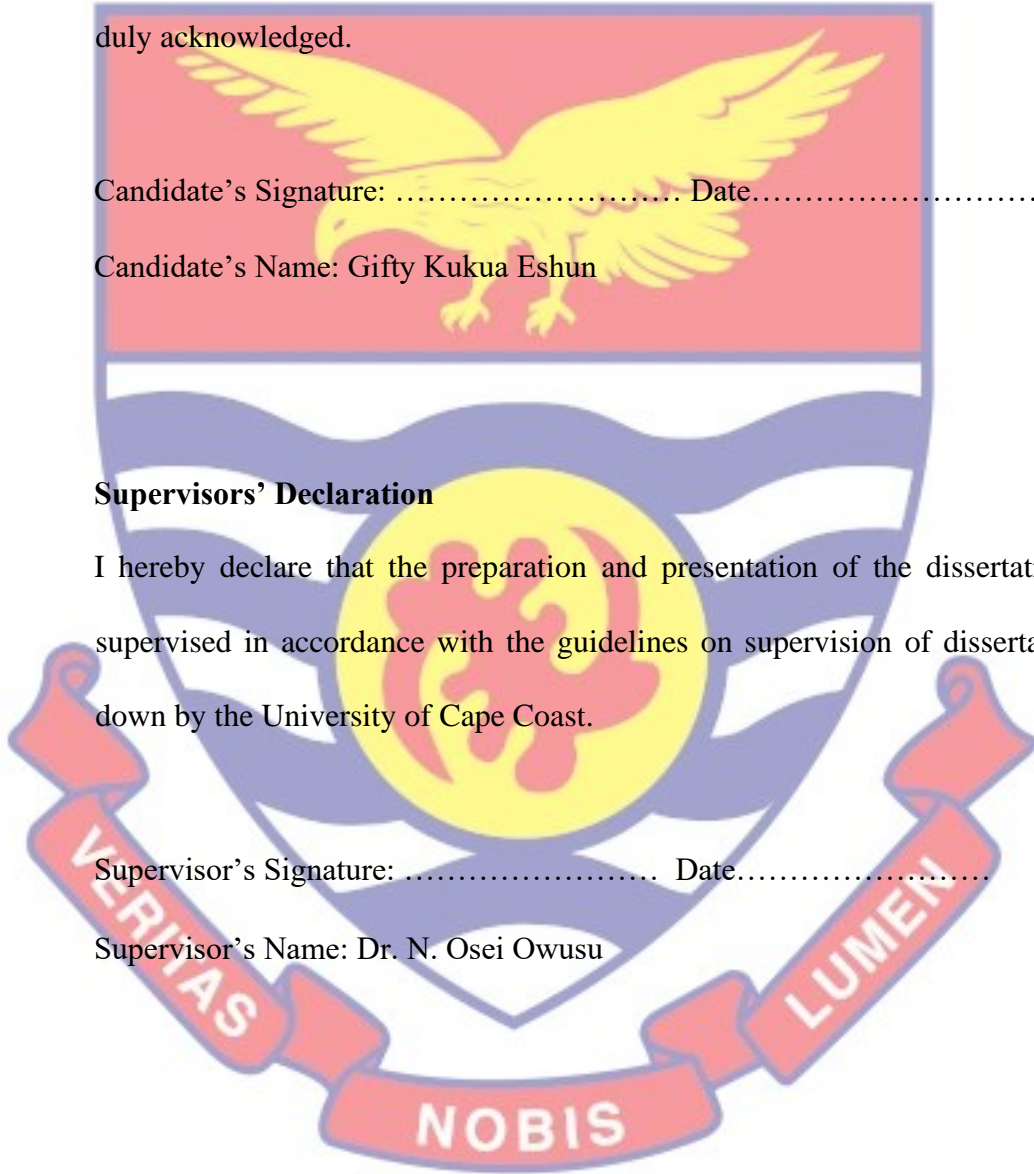Candidate's Signature: ……………………… Date…………………………

Candidate's Name: Gifty Kukua Eshun

Supervisors' 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……………………

Supervisor's Name: Dr. N. Osei Owusu

ABSTRACT

This study investigated the influence of demographic variables on the acceptance and adoption of management information system practices by senior staff members at the University of Cape Coast, Ghana. The objectives of this study were to: assess the nature of management information system practices among the senior staffs at University of Cape Coast; examine if there is any difference in the acceptance and adoption of MIS between male and female senior staffs; among senior staffs of different age groups; between married and unmarried senior staffs; and among senior staffs with different years of experience. The study employed a descriptive quantitative research approach and descriptive survey and inferential statistics as the study design. The study was on the views of 200 senior staff members at the University of Cape Coast with a self-administered questionnaire as the main research instrument. The results were analysed with the help of the Statistical Product and Service Solutions (SPSS 22.0 version) software The major findings of the study revealed that the administrative information is stored in the management information system of the organisation. It was clear from the findings that demographic variables have influence on the acceptance and adoption of MIS. However, the most significant demographic variable which had positive influence on the use of MIS acceptance and adoption among senior staff at the University of Cape Coast was age range. Therefore, it was recommended that senior staff of University of Cape Coast should embrace the management information system practices to ensure its effectiveness, and also professionally trained management information system managers should be employed.

ACKNOWLEDGEMENT

I wish to express to all individuals who contributed to the success of this project. My special thanks to my supervisor, Dr N. Osei Owusu, for his direction and assistance in supervising this work. Also, special thanks to all family and friends who helped me through all these endeavours.

iv

DEDICATION

To my husband; Nii Adu Ayitey Solomon and adorable children; Jinora N. L.

Solomon and Christine Adu Yeboah

v

TABLE OF CONTENT

CHAPTER FOUR: RESULTS AND DISCUSSION

LIST OF TABLES

LIST OF FIGURES

x

CHAPTER ONE

INTRODUCTION

Introduction

The turning point for evolution, commenced around the 1960s can be linked to the rising role of management information system (MIS) in creating present society. This society is referred to as the information society. In this society, especially since the end of the 20th century, business, public administration, and everyday life have been extremely influenced by MISs, and the acceptance and adoption of MISs are becoming more widespread. This section presents the overview of the study which includes the background to the study, statement of problem, purpose of the study, research objectives of the study, research questions of the study, significance of the study, delimitations of the study, limitations of the study, the definition of terms and organisation of the study.

Background to the Study

Today, the world is experiencing significant technological changes, management information system being at the centre (Mambo, 2019). Data innovation has changed the whole world into a little town creating correspondence channels all around the world (Koyuncu et al., 2017). Individuals and associations use data advances to track new advancements in the security sector (Senkbeil & Ihme, 2017). These innovative developments have improved the abilities of associations and have led to massive improvements inside and among these associations. The day to day uses of MISs in organisations has brought about a movement of acceptance and adoption of MISs in organisation operations.

1

The management information system society developed and became more distinguished over the past 50 years, and began to focus on sustainable development. The move toward the new phase is called the Sustainable Information Society (Daud et al., 2018; Servaes & Hoyng, 2017; Song et al., 2020; Warren & Burmeister, 2017; Ziemba, 2013; Ziemba, 2016). In this society, MISs are becoming a key tool of economic, socio-cultural, political, and environmental sustainability (Warren & Burmeister, 2017; Higón et al., 2017; Rivera & Kurnia, 2016; Ziemba, 2015). MISs cannot play an essential role in poverty mitigation and sustainable development means unless they are adopted by different groups within society; mainly by enterprises, public administration, and organisations (Ziemba, 2013, 2015).

A stream of research to date has focused on exploring the acceptance of MISs from enterprise and public administration perspectives. These studies are mainly concerted on conducting investigations of MIS employment for assisting decision-making, and creating new business and government models (Kowalczyk & Nogalski, 2007; Grudzewski, Hejduk, Sankowska, & Wańtuchowicz, 2010; Tapscott & Williams, 2012; Boughzala, Janssen, & Assar, 2014; Dennis, Samuel, & McNamara, 2014).

Some studies identify challenges and determinants for the acceptance of MISs in enterprises and public administration (Soja, 2010; Yeoh & Koronios 2010; Ifinedo & Singh, 2011; Liu, 2011; Roztocki & Weistroffer, 2011; Olszak & Ziemba, 2012; Rana, Dwivedi, & Williams, 2013). While the key issues of MIS acceptance

within business and public administration are now relatively wellrecognized, it is also significant to concede that in the information society MIS acceptance within organisations has become common in many forms such as ecommerce, e-government, e-learning, e-health, and e-working (Ziemba, 2016).

Factors influencing the acceptance and adoption of MISs by organisation members in the modern-day are subjected to scientific research. However, most studies are grounded in the context of well-developed economies, e.g., United Kingdom (Choudrie, Vyas, Voros, & Tsitsianis, 2013; Vyas & Choudrie, 2013) and Germany (Maier, Laumer, & Eckhardt, 2011; Niehaves & Plattfaut, 2011). Researchers also explored factors affecting the acceptance and adoption of MISs in organisations of non-European developing countries, e.g., in Jordan (Abu-Shamaa & Abu-Shanab, 2015; Dwivedi, Al-Alwan, Rana, & Williams, 2015), Thailand (Kilenthong & Odton, 2014), and China (Yang, Chen, & Wei, 2015). However, after extensively searching the literature, a discovery was made that no deep studies had been made about factors affecting the acceptance and adoption of MISs within organisations in less developed countries, which are called transition economies, of which Ghana is to be considered as part.

According to Roztocki and Weistroffer (2011), there are significant differences in MIS acceptance and use between developed and less developed economies, namely as regards strategy, planning and design, implementation, management, security, economics, sourcing, and impact on organisations and society. Soja and Cunha (2015) summarized major and significant issues that have been established in regard to the use of MISs in less developed countries, i.e., lack

of strategic role of MISs, lower level of MIS use, need for external support in MIS acceptance, impact of MIS-related foreign investments, insufficient customer orientation, and inadequate planning.

In general, because of their unique background, the less developed economies present very specific challenges that affect how MISs are adopted and used (Soja & Cunha, 2015). There are some factors than can influence MIS acceptance and adoption in less developed economies, and these factors may differ from factors for the well-developed and some developing countries. To address the abovementioned issues, the objective of this study is to identify some demographic factors influencing the acceptance and use of MISs among the senior staff members of the University of Cape Coast in Ghana. The definition of MISs employed throughout this study includes a diverse set of hardware and software used to communicate and to create, disseminate, store, and manage information. They are mainly computers, the Internet, smart phones, and various kinds of e-services, eproducts and applications that can be used by organisations members in professional and everyday life.

Information system management is relevant to business firms in a variety of ways, particularly regarding data reduction (Astuty, 2015), reduction in information uncertainty, and the resulting improvement in decision making (Mayasari, 2016). Furthermore, Laudon and Laudon (2016) assert that information system management help staffs of tertiary educational institutions, particularly University of Cape Coast to analyse problems, visualize complex subjects, and create new services. Tiamiyu, Ajayi, and Olanlokun (2001), Corbett and Williams (2002), in

4

their studies in examining factors that affect MIS, were able to find out that gender, age, level of education, academic discipline, skill and income are the factors that affect the adoption of MIS. Okiki and Asiru (2011), were of the opinion that the factors that influence the use of MIS varied and recognized the need for employees to carry out researches in order to excel in their field of work.

However, demographic variables such as gender, age, level of education, and length of experience were not significantly related to their attitude towards computers. Zhu and He (2002), as quoted by Adeoye (2010), surveyed 1000 adult residents to examine the adopting use and social impact of the Internet in Hong Kong and found that Internet acceptance was affected by a full range of factors such as one's personal characteristics, socio-economic status, social cultural settings and perceived compatibility of the Internet. The purpose of this study, therefore, is to examine the demographic factors that influence senior staff's acceptance and adoption of MISs in the Ghanaian Higher Education Institutions.

Statement of the Problem

Education policymakers in Ghanaian institutions have hailed the introduction of MIS in Ghanaian Higher Education Institutions as a remarkable step that would contribute to knowledge production, communication and information sharing among lecturers, students and staff in the Higher Educational Institutions (Amenyedzi, Lartey, & Dzomeku, 2011). This move stems from assertions in the literature about the benefits that come with MIS literacy in institutions (Hakkarainen, Ilomaki, Lipponen, Muukkonen, & Rahikainen, 2000; Mucherah, 2003). Hakkarainen et al. (2000) point out that MIS is a transformative tool and its
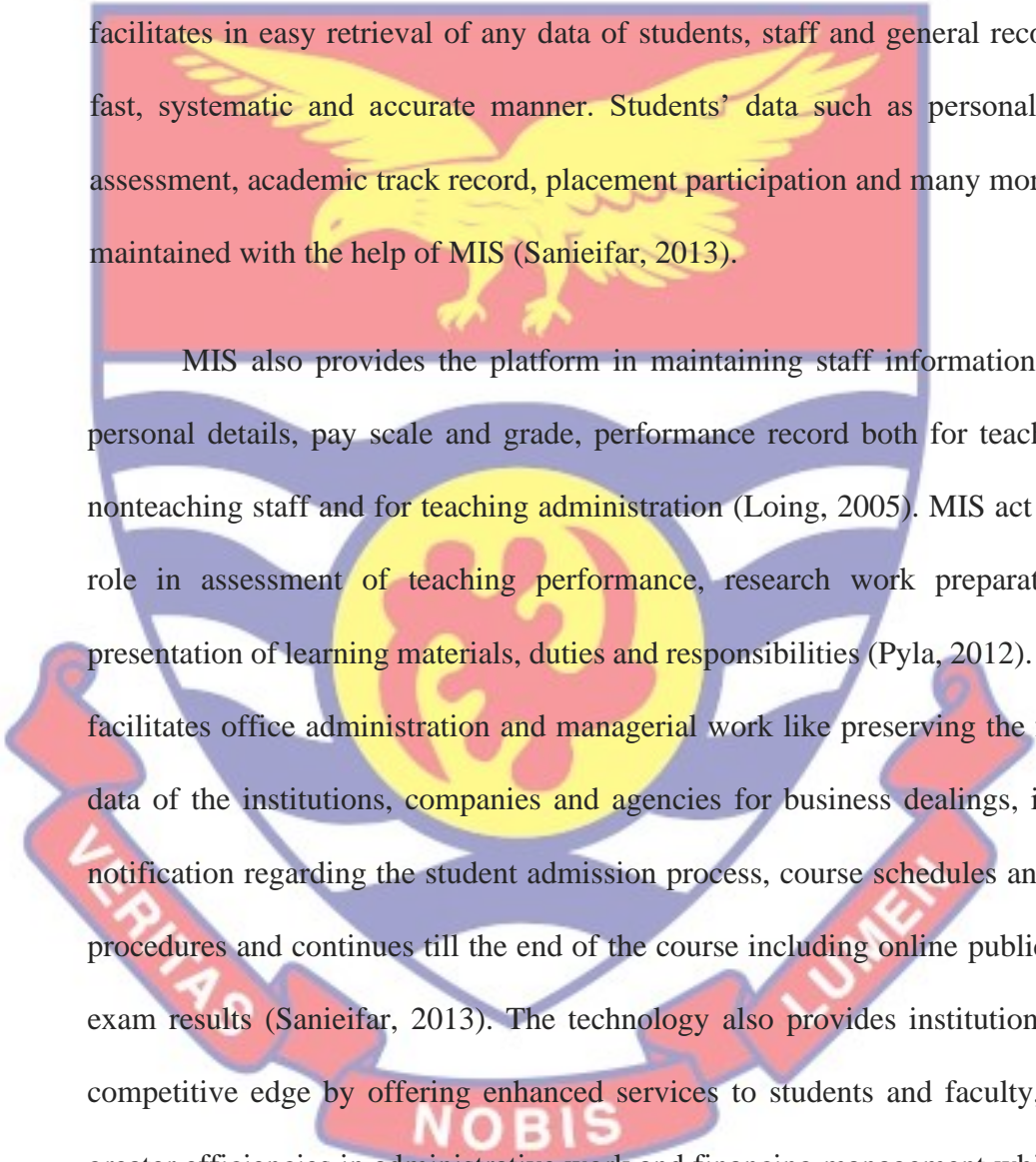
full acceptance and use in institutions and organisations is necessary to improve staff efficiency and productivity.

Information and Communication Technology has become an important issue of our everyday lives over the past few decades, increasing the use of MIS in the teaching and learning environment (Noor-Ul-Amin, 2013). Several variables influence individual's acceptance and use of MIS. Among these variables include individual's personality traits, demographic factors, institutional and social factors. Personality traits predispose technology users to behave in certain ways under different situations (Thatcher & Perrewe, 2002). The psychology literature used personality as a predictor of human beliefs and behaviour. There is substantial evidence for the role of personality traits as predictors of beliefs and behaviour across a variety of contexts (Mischel 2004; Pulford & Sohal, 2006).

According to Schillewaart et al. (2000), personal innovativeness is a characteristic that greatly affects consumer acceptance of the technology. Personal innovativeness or general innovativeness is defined as the "degree to which an individual is relatively early in adopting an innovation than other members of his social system" (Rogers et al., 1971), while personal innovativeness in MIS is defined as the willingness of an individual to try out any new management information system (Agarwal & Prasad, 1998). High innovativeness level in a person reflects greater readiness in accepting new technology. Level of innovativeness can be influenced by demographical factors too (Roger & Shoemaker, 1971).

6

According to Pyla (2012), MIS plays a key role in educational administration by offering efficiency adoption of existing resources and shorten the administrative tasks by plummeting to paperwork. This substitutes the manual maintenance of record-keeping with electronic preservation of records. This facilitates in easy retrieval of any data of students, staff and general records in a fast, systematic and accurate manner. Students' data such as personal profile, assessment, academic track record, placement participation and many more can be maintained with the help of MIS (Sanieifar, 2013).

MIS also provides the platform in maintaining staff information such as personal details, pay scale and grade, performance record both for teaching and nonteaching staff and for teaching administration (Loing, 2005). MIS act as a key role in assessment of teaching performance, research work preparation and presentation of learning materials, duties and responsibilities (Pyla, 2012). The tool facilitates office administration and managerial work like preserving the financial data of the institutions, companies and agencies for business dealings, issues of notification regarding the student admission process, course schedules and billing procedures and continues till the end of the course including online publication of exam results (Sanieifar, 2013). The technology also provides institutions with a competitive edge by offering enhanced services to students and faculty, driving greater efficiencies in administrative work and financing management which leads to transparency and reduces corruption (Loing, 2005).

Universities all over the world make available a wide variety of Information and Communication Technologies for use to the undergraduates, postgraduates,

researchers and staff in their respective institutions. Lecturers and students in universities use MIS facilities in order to derive positive benefits from using them. In Ghanaian universities, the level of MIS awareness is high which does not necessarily lead to the acceptance and adoption of the facilities. It is on this basis that the researcher decided to investigate if demographic factors are responsible for the difference in the acceptance and adoption of MIS facilities by the senior staff members in the University of Cape Coast.

Despite the important role MIS plays in the field of work, research on factors influencing the acceptance and adoption of MIS in Higher Education Institutions in Ghana is rather few (Buabeng-Andoh, 2019; Agyei & Voogt, 2011; Martey, 2004). It is this gap in literature that the present study seeks to fill. Therefore, this study aims at contributing to literature on the subject matter by examining the demographic factors influencing the acceptance and adoption of MIS in Ghanaian higher education institutions in general, and the University of Cape Coast in particular.

Purpose of the Study

The purpose of this study is to examine the demographic factors influencing the acceptance and adoption of MIS among Ghanaian higher education institutions: the case of the University of Cape Coast.

Objectives of the Study

Specifically, the objectives of the study sought to:

1. Assess the nature of management information system practices among the senior staffs at University of Cape Coast

8

2. Examine if there is any difference in the acceptance and adoption of MIS between male and female senior staffs.

3. Access if there is any difference in the acceptance and adoption of MIS facilities among senior staffs of different age groups.

4. Investigate if there is any difference in the acceptance and adoption of MIS facilities between married and unmarried senior staffs.

5. Examine if there is any difference in the acceptance and adoption of MIS facilities among senior staffs with different years of experience.

Research Questions

Based on the objectives of the study, the study attempted to answer the following research questions:

1. What is the nature of management information system practices among the senior staffs of University of Cape Coast?

2. Is there any difference in the acceptance and adoption of MIS between male and female senior staffs?

3. Is there any difference in the acceptance and adoption of MIS among senior staffs of different age groups?

4. Is there any difference in the acceptance and adoption of MIS between married and unmarried senior staffs?

5. Is there any difference in the acceptance and adoption of MIS among senior staffs of different years of experience?

9

Significance of the Study

In the present knowledge-based economy, it is important for institutions to adopt processes that enable them to provide services that will bring about the advancement of knowledge and their work efficiency. MIS has a significant positive impact on organisational performance and is vital to Educational Institutions mostly in developing countries. MIS is known as a major catalyst and enabler of organisational change. Without the use of MIS, modern businesses are not possible as MIS has a significant impact on organisations operations and is claimed to be crucial for the survival and growth of economies.

MISs provide opportunities for organisation transformations and provide institutions the opportunity to conduct business anywhere. The European Commission (2008), states that organisations could use MIS in order to grow and to become more innovative. Hence, there is a need to encourage the use of MIS in organisations and address the high cost of ownership of MIS equipment since it can help to improve technical and managerial skills, making available e-business solutions for these institutions. The use of MIS offers many benefits to organisations at different levels (operational level, tactical level and strategic level).

The use of MIS would help change the way organisations operate in this era of globalization by changing the institutional structures and increasing competition, creating competitive advantage for businesses and by changing business operations. For that reason, institutions must have an ability to compete and dynamically respond to rapidly changing environment using MIS as it plays a significant role in an organisation's growth and success. Survival and staying abreast in a competitive

10

global economy it is apparent that employees embrace MIS, as it is becoming imperative for individuals, institutions and the society as a whole to gain competitive advantage and for stability in international markets. In the light of the above, the findings of this study will inform the University of Cape Coast, Ministry of Education and other stakeholders in other tertiary Education Institutions; the lapses in the adoption of MIS and the needed MIS logistics and will also portray as to whether the staff at the University of Cape Coast have acquired the requisite skills and knowledge in the adoption of MIS to facilitate in their efficiency and output.

Delimitation of the study

The study examined the demographic factors influencing the acceptance and use of MIS among senior staff members at the University of Cape Coast, Cape Coast. The senior staff members of the university are the targets of the study and it cover a sample of the workers selected from each department within the institution. The assessment is limited to only senior staff members at the University of Cape Coast, Cape Coast. The study examined the factors influencing the acceptance and adoption of MIS among senior staff members. The context of this study is limited to assessing the demographic factors influencing the acceptance and adoption of MIS among senior staff members at the University of Cape Coast, Cape Coast, Ghana.

Limitations of the study

Data availability was a limitation the study encountered and data concerning the area of study was difficult to obtain. The majority of the respondents been the

11

senior members were not ready to share information at their respective offices since they conceived to stand at a risk to realistically give their honest opinions regarding the use of MIS and some efforts made by the school to assist them to adapt to these technologies. It was difficult, as some of the respondents were not willing to divulge information to the researcher. In that light, research assistants were engaged to aid in the administering of the questionnaire to aid in better understanding of participation by the respondents.

Organisation of the Study

The study was organized into five main chapters; Chapter one introduced the concept and background of the study, problem statement, the objectives of the study, the research questions of the study, significance of the study and the organisation of the study as well as profile of the organisation under study. Chapter two explained the literature review of the study. This chapter took into details theories that pertained to the field of the study and as such discussed various existing work or materials related to the study. Chapter three built upon the methodology. The methodology of the study explained the research approach and design, population and sample size of the study, instrumentation, and data collection technique and procedures and data analyses. Data Analysis and Representation of data for this research, a summary of findings, was discussed in chapter four. Chapter five gave brief recommendations on what can be done about the problem.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter presents a review of contemporary literature pertinent to the topic of the factors influencing the acceptance and adoption of MIS. The chapter presents a review of concepts, theories and literature that sustain and provides grounds for this study. The literature review is carried out in line with the objectives identified in this study. In particular, the chapter seeks to unravel and critically analyse the relevant theories, models and concepts on the concept of MIS adoption. Findings of other researchers have been empirically reviewed, whilst addressing the role played by MIS in a higher education context.

Theoretical Review

Theoretical models are a body of knowledge that seeks to observe, understand and explain concepts. According to Colombo (2017), the theory is a proposition which can account or explain certain phenomena or event in concept. It is very useful in research as it serves as an open eye to numerous possibilities and ways of modelling contemporary challenges in the world. There are several theoretical approaches towards organisational support and employees' performance, but this study will consider the Technology Acceptance Model (TAM) and the Innovation Diffusion theory to explain the management information system. This is discussed in detail below:

13

Technology Acceptance Model (TAM)

This study adopts the Technology Acceptance Model (TAM) proposed by Davis (1989). TAM is an information systems theory that models how users come to accept and use technology. The model suggests that when users are presented with new technology, a number of factors influence their decision about how and when they use it. First is the Perceived Usefulness (PU). This is defined as the degree to which a person believes that using a particular system would enhance his/her job performance. Again, there is the Perceived Ease-of-Use which is defined as the degree to which a person believes that using a particular system would be free from effort Davis (1989).

Technology Acceptance Model claims that user's adoption of MIS is determined by intention to use, which in turn is driven by the user's attitude and belief about the system. TAM further explains that perceived usefulness and perceived ease of use are helpful in explaining difference in users' intentions. In short, it can be concluded that TAM emphasizes three factors that can influence adoption of technology, namely attitude, perceive usefulness and perceived ease of use. Attitude is a mental and neural state of readiness, organized through experience (Davis et al., 1989).

Innovation Diffusion Theory

This study also lies within the innovation diffusion theory. The innovation diffusion theory provides well-developed concepts and a large body of empirical results applicable to the study of technology evaluation, adoption and implementation (Rogers, 1983). Diffusion theory provides tools, both quantitative

14

and qualitative, for assessing the likely rate of diffusion of a technology, and additionally, identifies the influence of the technology on overall productivity, highlighting how the technology is implemented, its benefits and challenges, and pragmatic measures to mitigate those challenges (Ngina, 2016). It is not surprising then, that innovation diffusion is becoming an increasingly popular reference theory for empirical studies of information technologies (Wisdom, 2012). Much of classical diffusion theory innovation based on the benefits they expect to accrue from their own independent use of the technology. was developed in the context of adopters making voluntary decisions to accept or reject an

Conceptual Review

This section helps enhance knowledge with respect to the constructs used in this study. It will consider how the various concepts operationalized in literature will be addressed. Information system will be discussed with much emphasis on its meaning, origin, activities and practices and demographics factors.

Concept of Management information system

Management information system management is the process whereby all resources related to management information system are managed according to organisation's priorities and needs (Laudon & Laudon, 2016). This includes tangible resources like networking hardware, computers and people, as well as intangible resources like software and data. The central aim of management information system management is to generate value through the use of technology (Khan & Wood, 2015). Management information system management is a means to make the connection between Consolidated Bank and the customers served,

15

whether those customers are in school, work, home or a natural preserve. Management information system has become, and will continue to be a "value-add" to the organisation (Mao, Liu, Zhang & Deng, 2016).

Types of Management Information Systems

According to O'Brien and Marakas (2007) the applications of information systems that are implemented in today's business world can be classified in several different ways. For example, Al-Mamary, Shamsuddin, and Abdul Hamid (2014) opined that the several types of information systems can be classified as either operations (Support of business operation) or (Support of managerial decision making). Support of business operation such as transaction processing systems, process control systems and Enterprise collaboration systems (office automation system). Support of managerial decision making such as management information system, decision support system and executive information systems.

Transaction Processing Systems

Transaction processing systems (TPS) are the basic business systems that serve the operational level of the organization. A transaction processing system is a computerized system that performs and records the daily routine transactions necessary to the conduct of the business (Laudon & Laudon, 2006). At the lowest level of the organizational hierarchy, we find the transaction processing systems that support the day-to-day activities of the business (Belle, Eccles & Nash, 2001).

Process Control Systems

Process control systems is Monitor and control industrial or physical processes. Examples: petroleum refining, power generation, and steel production

16

systems. For example, a petroleum refinery uses electronic sensors linked to computers to monitor chemical processes continually and make instant (real-time) adjustments that control the refinery process (O'Brien & Marakas, 2007). A process control system comprises the whole range of equipment, computer programs, operating procedures (Ciortea, 2004).

Enterprise Collaboration Systems (Office Automation Systems)

Office automation systems are one of the most widely used types of information systems that will help managers control the flow of information in organizations (Heidarkhani, Khomami, Jahanbazi & Alipoor, 2013). Enterprise collaboration systems (office automation systems) are enhanced team and workgroup communications and productivity (O'Brien & Marakas, 2007). Office automation systems are other types of information systems are not specific to any one level in the organization but provide important support for a broad range of users (Belle, Eccles & Nash, 2001). Office information systems are designed to support office tasks with information technology. Voice mail, multimedia system, electronic mail, video conferencing, file transfer, and even group decisions can be achieved by office information systems (Shim, 2000)

Management Information Systems

Management information systems are a kind of computer information systems that could collect and process information from different sources in institute decision- making in level of management (Heidarkhani, Khomami, Jahanbazi & Alipoor, 2013). Management information systems Provide information in the form of pre specified reports and displays to support business

17

decision making (O'Brien & Marakas, 2007). The next level in the organizational hierarchy is occupied by low level managers and supervisors. This level contains computer systems that are intended to assist operational management in monitoring and controlling the transaction processing activities that occur at clerical level. Management information systems (MIS) use the data collected by the TPS to provide supervisors with the necessary control reports (Belle, Eccles & Nash, 2001). According to Hasan, Shamsuddin and Aziati (2013), management information system is type of information systems that take internal data from the system and summarized it to meaningful and useful forms as management reports to use it to support management activities and decision making.

Decision Support Systems

A Decision Support System is a computer-based system intended for use by a particular manager or usually a group of managers at any organizational level in making a decision in the process of solving a semi structured decision [11]. According to Heidarkhani, et al. (2013), Decision Support Systems are a kind of organizational information computerize systems that help manager in decision making that needs modelling, formulation, calculating, comparing, selecting the best option or predict the scenarios. According to Khanore, Patil and Dand (2011), decision-support systems are specifically designed to help management make decisions in situations where there is uncertainty about the possible outcomes of those decisions.

Executive Information Systems

Executive Information Systems have been developed, which provide rapid access to both internal and external information, often presented in graphical format, but with the ability to present more detailed underlying data if it is required (Belle, Eccles & Nash, 2001). Executive information systems provide critical information from a wide variety of internal and external sources (from MIS, DSS, and other sources tailored to the information needs of executives) in easy-to-use displays to executives and managers (O'Brien & Marakas, 2007). According to Patterson (2005), an EIS provides senior managers with a system to assist in taking strategic and tactical decisions.

Centralization and Decentralization of Management Information Systems

Jung, Narayanan and Cheng (2018) explained that there is a concept of centralization and decentralization in the context of management information systems (MIS). The degree of centralization of a system is the degree to which one element of subsystem plays a major are dominant role in the operation of the system. Brinker and Satchwell (2020) opined that in a business perspective, decentralization means that business can make decisions locally. A business unit can choose the way to use local resources to fulfil objectives for that unit. The unit must cooperate with other units in the company (perhaps also externally) and must report to management in a specified way (Lakin & Scheubel, 2017).

However, there is a freedom of action to perform within each business unit. In addition, in a decentralized organization there must be a central coordination. Carbonell and Rodriguez Escudero (2016) explained that without management and

19

control, the organization ends up in anarchy. Even if this central coordination such as standardization can set restrictions for each unit, the main criteria for decentralization is the right (and responsibility) to form an efficient inner structure in each business unit, using local resources to fulfil objectives and tasks that are set for the unit (Joos, Reilly, Bower & Neal, 2017). Changes in this inner structure should not affect other units.

When applying the concept of centralization and decentralization to information systems, we must be more specific and analyse some different alternatives (Glaser, 2017). To develop one common system for an organization is of course a centralized approach. To develop and implement a number of systems in the company is on the other hand not always a decentralized approach. If these systems are developed "wildly" without any coordination and have no computerized interaction, we must characterize it as anarchy (Singer & Friedman, 2014). However, even if these systems have a computerized interaction the question remains: what is really a decentralized structure of systems?

If the different systems have a common database, we must still consider it as a centralized approach, as each system is directly dependent of the common database, and a change in this database affects many systems (Garcia-Molina, 2008). Also distributed systems with a centrally controlled data storage have a limited freedom of action in each local system. A strict definition of decentralized systems could be that each system in the structure must fulfil specified demands on interaction with other systems, but it should be possible to develop (and change) the inner structure in each system, including data storage, without dependences to

20

other systems, as long as the specified interaction stands (Jost, Kirks & Mättig, 2017). It must for instance be possible to insert systems of different origin into the structure. The main condition is that each system must interact with other systems as specified.

Concept of MIS Acceptance and Adoption among Senior Staff

Consolidation is thought of as steps along a continuum that range from fairly simple undertakings to highly complex initiatives (Tafti, 2011). Not all organisations move through the phases of consolidation at the same pace or in the same order, and most employ a combination of options to address their particular needs. Based on a completed research, International Data Corporation has identified five main types of consolidation, namely centralised consolidation: collocating servers and/or storage into fewer locations or one central location; physical consolidation: consolidating servers or storage systems with the same application types or platforms onto fewer or larger systems with the same application type or platform; data integration: combining data with formats onto a similar format or platform; application integration: consolidating servers or storage systems supporting different types of workloads onto fewer or larger systems; and storage consolidation: consolidating storage onto fewer or larger systems independent of server type, operating system type, or application (Benitez-Amado & Ray, 2013). The methods of consolidation are merges, acquisitions, joint ventures and strategic alliances.

Benefits of Technology Acceptance of MIS among Senior Staff

Acceptance and adoption have the potential to benefit many different types of organisations with a variety of different IT environments. One of the benefits of Acceptance and adoption is that it delivers maximum efficiency. Cost is always an important consideration, especially in a time of limited IT spending. Replacing older hardware with newer platforms presents obvious cost savings in terms of floor space, power consumption, cooling, and maintenance. There are also potential savings in licensing due to the need for fewer software licenses on a reduced number of machines (Aoko, 2017).

Simply reducing the overall number of things that must be managed may make it possible to reduce the number of administration personnel. It also allows for better use of the available staff resources. High-cost people resources are often poorly utilised in IT environments because their skills are stretched over multiple technologies and locations. Consolidation allows organisations to establish consistent processes and procedures and reduce the number of technologies present across the environment. International Data Corporation studies have shown a 7:1 cost savings in people management resources when processes and resources are consolidated (Benitez-Amado & Ray, 2013).

Efficiency gains can also be found in better adoption of available system resources. By acceptance and adoption multiple applications on the same server with workload balancing capabilities, organisations can reduce the total number of servers they need. The direct attached storage can be consolidated into a highly available storage area network-based architecture to maximize adoption, ease of

22

management, and flexibility in deployment. The consolidated system can manage peak workloads to take advantage of available processor and storage capacity, reducing the amount of excess capacity that must be maintained (Laudon & Laudon, 2016).

Management information system consolidation enables an organisation to provide the best possible service levels. Increasingly, organisations are looking to change their image from being part of overhead to being perceived as a strategic service provider. To do so, they often must operate within service level agreements, which spell out the level of service the organisation must provide. Acceptance and adoption of MIS can help improve service levels by increasing the availability of systems and applications and, potentially, the total number of users the organisation can serve. At a physical level, the consolidated environment allows organisations to boost the availability of their systems by having redundancy and failover capabilities in place (Tafti, 2011).

At a procedural level, consolidation can lead to a more effective, overall management scheme that supports higher availability. Consolidation involves not only physical assets but also the processes and procedures that run the organisation. Streamlining these elements allows the implementation of a consistent set of best practices that runs across the entire IT environment, which greatly reduces the possibility of downtime associated with operator error. Consistency can also enhance the ability of the organisation to respond to its customers' requests for services. By reducing the backlog of requests, the organisation can become much more strategic and conduct valuable operations. Acceptance and adoption can also

23

lead to higher levels of security by making the environment less vulnerable to intrusion (Tafti, 2011).

Furthermore, Acceptance and adoption of management information system provides maximum business flexibility. For many organisations, the ability to anticipate changes in the business environment and even be out in front of them is the greatest benefit to acceptance and adoption. The IT centre sees not only a growing number of applications but also increasing interdependence among them. In a distributed environment, applications are spread among departments and often do not offer the necessary levels of interoperability. Data may be shared synchronously (e.g., through a remote procedure call [RPC]) or asynchronously (batch updates from various applications). IT centres are constrained by their ability to make and extend these relationships and do so in an ever-shrinking business window (Mati, 2016). A distributed environment also presents inherent problems in deploying new applications. Consolidating the server environment may involve creating a consistent naming scheme across the new environment, which greatly facilitates the process of rolling out new applications from a single location.

Once the IT centre has completed the consolidation process and achieved the desired environment, users can expect more rapid deployment of new applications and features and greater flexibility to respond to changing business demands within the education sector (Mati, 2016). Ultimately, consolidation can lead to a utility computing paradigm, where all resources and data are universally available. Such an environment removes the barriers to innovation and productivity that technology can present. It allows an IT infrastructure that supports highly

24

flexible business models that are not constrained by technology. Many consolidation projects have proven that they can effectively combine cost efficiency with improved business value and flexibility. Organisations considering consolidation often face an internal battle from those who argue that centralisation leaves the organisation more vulnerable to unforeseen events. Many organisations find, however, that consolidation provides the groundwork for implementing greater redundancy and disaster tolerance (Cao et al., 2016).

From IBM view, an integrated software platform offers many benefits. An integrated software platform connects data sources with targets and can support a wide variety of sources – from mainframe, native adapters and other legacy systems as well as major ERP software including SAP, Siebel, Oracle, PeopleSoft Enterprise and PeopleSoft Enterprise One. Besides, it helps companies' profile and understands the structure and content of heterogeneous data in terms of what state the data is in and the relationship of the data. It also identifies data the needs to be cleansed, standardized and harmonised, whether it is product, customer, supplier or names and addresses, and this also includes global address validation (IBM, 2005).

Furthermore, an integrated software platform transforms data to map the source of the target, enriches it with external data and then connects and moves it to the target; depending on the scenario. Moreover, it can handle very large volumes of data in parallel, enabling large loads to be completed in parallel. Integrity of the core data can be easily maintained when new customer records or item records are added to the system. More so, because of the significant economies of scale in electronic payment technologies, the large institutions resulting from consolidation

may be better able to invest in new, often costly technologies, and to decrease unit costs by capturing economies of scale (IBM, 2005).

Acceptance and adoption of MIS leads to a greater concentration of payment and settlement flows among fewer parties within the financial sector. Indeed, consolidation tends to lead to the emergence of very large financial institutions and non-bank service providers that specialise in providing a wide range of payment and settlement services to third parties. Interbank transactions may increasingly become in-house transactions, which do not involve external exchanges of payment messages and hence tend to be cheaper to process (Kijewski, 2011). Consolidation may help to improve the effectiveness of institutions' credit and liquidity risk controls. For example, increased concentration of payment flows may reduce liquidity tensions due to the greater degree of offset between payments received and payments sent by individual participants (National Association of State Chief Information Officers, 2006). If planned and executed properly, consolidation can decrease cost and boost productivity (Biddinga, 2011).

There are varied models in the literature trying to explain individual technology adoption, although those based on the technology acceptance model (Davis et al., 1989) are the most widely accepted. The technology acceptance models are inspired by the Theory of Reasoned Action (Fishbein, & Ajzen, 1975), grounded in social psychology and, to date, one of the most fundamental and influential theories of human behaviour (Davis, 1989). Theory of Reasoned Action contends that both, the attitude towards a specific behaviour and subjective norm has an impact on behavioural intention which, in turn, determines actual behaviour.

Intentions are assumed to capture the motivational factors that influence a behaviour and thus indicate how hard people are willing to try or to what extent they are planning to make an effort in order to perform the behaviour (Ajzen & Fishbein, 1980). An attitude can be defined as a person's negative or positive evaluation of performing the target behaviour (Ajzen, & Fishbein, 1980; Fishbein, & Ajzen, 1975). The assertion of the Theory of Reasoned Action, that any other factors influencing behaviour do so only indirectly by influencing attitude, subjective norm or their relative weights, constitutes one of the key assumptions of the technology acceptance model (Davis et al., 1989).

According to the study of Venkatesh, Morris, and Ackerman (2000), females' decisions related to the adoption of the new management information system were more strongly impacted by subjective norm and perceived behaviour control when compared to males. In contrast, attitude affects more strongly male's decision about using the new technology. Also, these results are valid when controlled for income, organisation position, education, and computer self-efficacy levels. In another study, Venkatesh and Morris (2000), found that perceived ease of use has more impact on men's management information system adoption decisions than females. On the other hand, the results show that the perceived ease of use and subjective norm affects more management information system adoption decisions of women than males. Consumer lifestyle factors are also related to gender, age, and level of education. This situation directly or indirectly affects consumer's intention to use and adoption of management information system (Lee, Lim, Jolly, & Lee, 2009).

Another factor that might have an influence on technology acceptance is age. Because of weaker self-efficacy, age shows a negative effect on perceived behavioural control as an antecedent to it (Morris, &Venkatesh, 2000). Also, habits get stronger with ageing; making them more difficult to change (Nickel, & Pinto, 1986) and, therefore, is diminishing perceived usefulness of management information system (Gomez, Egan, & Bowers, 1986). Hence, age is likely to negatively impact the management information system adoption and use. In addition, it seems that age also has a negative effect on the frequency of use (Burton-Jones & Hubona, 2005; Harrison, & Rainer, 1992). According the logic of the theory of planned behaviour, age cannot be fully mediated by belief constructs on adoption of management information system (Ajzen, 1991), and age also has a direct effect on the intention to use or adoption of management information system.

On the other hand, another study used an individual's tenure in the workforce as a surrogate for age indicates that it did not have any effect on the perceived usefulness and perceived ease of use of management information system innovation (Agarwal, & Prasad, 1999). In Malaysia, Sadiq & Daud (2009), in their review on knowledge sharing in higher education institutions found a significant relationship between knowledge sharing among the university teaching staff. Their findings provide useful insights into the management of educational institutions in providing facilities to enhance knowledge sharing. However, their study was only limited to teaching staff of higher education institutions in Malaysia. This prompts further research to be conducted on the non-teaching staff's acceptance and adoption of MIS in Ghana.

According to Lewis et al. (2003), individual factors are one of the most important determinants of adopting innovation. It refers to individuals' cognitive interpretations of innovation and themselves. Several studies found that individual factors such as perceived usefulness, personal innovativeness, prior experience, image and enjoyment with innovation have a stronger influence on an individual's adoption of innovation (Lewis et al.,2003; Venkatesh et al, 2000). Addy &OforiBoateng (2015), used the Technology Acceptance Model (TAM) to assess the adoption of MIS in universities in Ghana and concluded that even though there has been some improvement in MIS adoption in the universities in Ghana, there are challenges which makes it impossible for the universities in Ghana to bridge the digital divide, hence widening the global information revolution. Their research was limited to students and the teaching staff. Therefore, this calls for further research to be directed particularly at examining the factors that influence the senior administrative staff of the University of Cape Coast to accept and use MIS in the performance of their duties.

Bentum et al. (2014), in their study on MIS use in higher education; a perspective from the students found that the success of MIS integration among students depends on the frequency of use as well as the availability of MIS infrastructure. The authors suggested that students' ability in using MIS is an important factor in determining MIS integration. Larbi-Apau et al. (2012), studied the computer attitude of teaching faculty members and their implications for technology-based performance in higher education in Ghana. The study examined the validity of Selwyn's computer attitude scale (CAS) and its implication for

technology-based performance of randomly sampled (n=167) multidiscipline teaching faculty in higher education in Ghana.

Considered, computer attitude is a critical function of computer attitude and potential performance. Composed of four constructs, and using a five-point Likert rating scale, the CAS measured effective, perceived behavioural control, behaviour, and perceived usefulness attitudes as multi-construct of computer attitude. Their results showed that affective attitude was the highest contributor to computer attitude followed by perceived usefulness, behaviour, and perceived behavioural control attitudes. That is, the teaching faculty has relatively high positive computer attitude; with purposeful practice and enabling environment, they can manage technology-oriented proficiencies and professional performances effectively.

Empirical Studies

In a study on identifying key factors in the adoption of innovative practices in the United States, Baron et al. (2007), discovered better ways to accelerate and improve the adoption of innovative practices in teaching with technology, and determined how to better support faculty members in taking advantage of technological infrastructures to improve teaching and learning using Everett Rogers' five stages to the innovation-decision process. The researchers concluded that change agents must be more proactive in creating positive experiences via information sources, pedagogical understanding, technical support, and reinvention ideas. By understanding the process of adopting innovative practices, academic staff can provide improved support in order to achieve smoother technical and pedagogical implementation of technology in teaching and learning. However, their

study was limited to only the teaching faculty, which reduces the overall generalization ability of the research.

In Canada, Wulong (2004), in a study on the effects of organisational behavior innovation and management information system on firm performance found that while MIS is productive on its own, it is more productive in firms that combine high levels of MIS with high levels of organisational change. The firms that combine MIS with organisational changes have a high incidence of productivity improvement as well as high rates of innovation. These findings suggest that to be successful, firms typically need to adopt MIS as part of a "system" or "cluster" of mutually-reinforcing organisational approaches. Saleem (2011), used and MIS Role and Adoption (IRA) model to examine the role of information communication technologies in perceived organisational performance and found that MIS had a significant positive effect on organisational effectiveness and productivity. He argued that MIS has significantly contributed to better response time among staff of higher education institutions.

A study by Brynjolfsson and Hitt (1998), explored the relationship between computers and productivity growth. The study used data that included more than 600 large U.S. firms over the period 1987 to 1994. The findings showed that computers make a positive contribution to output growth. More interestingly, the study concludes that "as a general-purpose technology, the pattern of growth contribution appears to suggest that computers are a part of a larger system of technological and organisational changes that increased productivity over time."

31

Jaap de Koning & Gelderblom (2006), in their study on MIS and older worker's job performance found that compared with younger workers, older workers use make less use of MIS on the job, employ less complicated applications and have more difficulties in using MIS. This, the authors argued, is to their disadvantage since the use of MIS and particularly the level of use of MIS affect performance positively.

Demographic Factors Affecting Adoption of MIS

Interest in the use of MIS resources especially in secondary education is increasing significantly (Alampay, 2006). Therefore, as the teaching importance of MIS resources continue to rise among teachers involved in secondary education, understanding of the factors that encourage MIS use among the teachers become critical (Jiang, Hsu, Klein and Lin, 2000). Alampay (2006), while commenting on differences in capabilities and opportunities to access and use of MIS resources by people affirmed that while access to MIS is a prerequisite to use, the capability approach says that individual differences, capabilities and choice play a role on whether an individual will make use of these MIS resources. Scholars have theorized demographic factors as having the ability to determine the extent of use or non-use of MIS.

Among the demographic factors that are often cited as having an influence on MIS use: gender; income; level of education, and age (UNDP, 2011). Olatokun (2009) highlighted demographic factors such as income level, level of education, age, and gender as the key individual differences that determine the freedoms, capabilities and functioning's that relate to MIS use.

32

Gender and Acceptance and Adoption of MIS

There are various factors affecting MIS acceptance and adoption in Ghanaian universities and gender is one of the many factors that influence the use of MIS by the senior staffs in Ghanaian public and private universities. Researchers have embarked on diverse studies on how gender affects MIS acceptance and adoption. Schumacher-Khadijevich and Morahan-Martin (2001) and Dorup (2004), found out that females were discovered to be more negative in their attitudes than males towards MIS.

Hunley, Evans, Delgado–Hachey, Krise, Rich, and Schell (2005), undertook research on adolescent's use of computer and academic achievement in USA and found out that girls spent more time than boys using telephone and doing assignments but there was no significant difference between gender and the total time spent on the computer. Colley and Comber (2003), were of the view that there was no gender difference in frequency of use for email, the Internet and CD-ROM in their study and revision on gender difference in computer use and attitudes among five secondary schools in Midlands of the United Kingdom.

Tchombe (2008), in her research on Gender and Psycho-pedagogical Implications for Cognitive Growth through Access to Information and Communication Technologies came out with the view that MIS, especially in developing African countries, is an area quite sensitive to gender where women and girls are at particular peril of exemption from potential chances and opportunities for various reasons. She further opined that computer is noticed as improving technological capabilities and empowering the reader and learner and that with the

33

acceptance and adoption of MIS and the positive effective role in school through students' communication via e-mail and use of Web-based resources, that there is an increasing rate of interest in how MIS might best be used to exterminate the inaccurate belief about female incapability to manage the computer or technological focused studies and learning.

The above declaration and statement were approved when the Secretary General of the United Nations at the World Summit on the Information Society in Geneva in December 2003 identified that "that was a gender divide, with women and girls enjoying less access to management information system than men and boys". Ford, Miller and Moss (2001), revealed that females experience more struggle and difficulty while searching for information on Internet and those females feel capable and contented while using the Internet, and that they used the Internet less than their male counterparts.

Observations during the research showed that there was a gender gap on the acceptance and adoption of the Internet. That gender is a major analyst and forecaster of the adoption of Internet facilities and services. They have also found that females have more concern and interest in MIS than males, constructed and based on the rate at which females enrolled and registered in the computer laboratory and the cybercafé. Munyna (2005), indicated that there were some influences and factors that function as barriers to women's acceptance and adoption of MIS such as technological infrastructure, socio-economic and cultural construct. Gender plays an important role in hindering the female involvement and participation on the same terms with their male counterparts. Other factors that are

34

influential against females' full participation and involvement in the maximum acceptance and adoption of MIS are poverty, insufficient mastery and knowledge, and lack of training and insufficient time due to other happenings and undertakings that are carried out by women within their immediate environment. ROCARE, Cameroon (2005), indicated that girls become more dedicated and concerted than boys once they are effectually and effectively introduced to the use of MIS.

In a study undertaken by Selwyn (2008), it was discovered that gender and course affected use of the Internet. Rideout (2002), revealed that geography, gender, age and disability are factors that are interrelated to the digital divide in Canada. Reddick, Boucher and Groseilliers (2000), reported that gender, location and age had an influence and effect on the levels of acceptance and adoption of MIS. Furthermore, Hunley, Evans, Delgado – Hachey, Krise, Rich, and Schell (2005), also discovered that males were more experienced and skilful than females at surfing the internet in their research on Internet use among adolescents in the United States of America. Jackson, Ervin, Gardner and Schmitt (2001), also found out that the introduction of Internet and electronic mail have no intense impact on female attitudes to the use of computer notwithstanding its worth and usefulness as a medium of connecting to the old friends through e-mail or face book and the act of getting various and different information on the Internet.

It is vital to know that Malaney (2005), in her study on the adoption of Internet in universities declared that females and males spent almost the same time on the Internet but the information source by females were quite different from males. The above finding was buttressed by Dumont and Dumont (1981), who

questioned the opinion that appealed those women were less interested than men in the acceptance and adoption of MIS. Women in this technological age similarly need MIS like their male counterparts. Therefore, females should be introduced to the acceptance and adoption of MIS as and when due just like males so as to be competent enough to fit into the community. Munyua (2005), asserted that an attempt to realize gender equality in MIS entails more than mainstreams gender fears and concerns into the MIS. There should be thoughtful assurance and partisan will. Gender divides necessity to be addressed whereby women will also profit or benefit from MIS and to make MIS a vital tool in women's empowerment and advancement of gender equality. It has been discovered that there was no significant difference in the attitudes of male and female administrators in secondary schools in Taiwan with reference to computer and computerization (Liu, 1989).

Also, Igbaria and Para Suaraman (1991), in their study found out that there was no significant relationship between gender and attitudes towards microcomputers and that attitude was highly correlated with acceptance and frequency of use of MIS. White (1995), in his study on the use of the Internet by the faculty staff in a university discovered that female members showed significantly higher use of electronic information than males.

Age and Adoption of MIS

Age could be one of the factors that has an influence on acceptance and adoption of MIS in Ghanaian public and private universities. Age has been discovered to correlate with the acceptance and adoption of MIS facilities. It is a known fact that recent generations are nurtured with computer, especially with the

introduction of mobile phones. Numerous studies have been carried out on how age affects the acceptance and adoption of MIS in the education system. White (1995) undertook a study on internet use by a Faculty of Mass Communication and other related disciplines in USA and found out that about three quarters of the respondents used computer-mediated communication, and that younger faculty members revealed higher use of electronic information than the general population. Laguna and Babcock (1997), discovered that there were significant age differences on computer task, as measured by older adults making fewer correct decisions than the younger adults.

Rabnov-MISchs (1995), Avigdori (2000), Hammerschaig and Izhaki (1997) in their studies also confirmed that age is one of the factors that affect the use of MIS resources. Corbel and Willms (2002), were of the opinion that people who speedily embrace new technologies tend to be younger than those who are later or non-adopters of the new technologies. Comber, Coley, Hargreaves and Dorn (1997), in their research of age, computer experience and computer attitudes among the youth discovered that there was positive attitude in younger group of ages eleven to twelve years than the older group of fifteen to sixteen years. In a research on Internet use among people aged sixteen (16) years and above in the United State of America, they proposed that people within 16 and 24 years were considered as using the Internet at a high rate than the older ones (Hunley, Evans, DelgadoHachey, Krise, Rich, and Schell, 2005).

Similarly, Hoskins and Hoof (2005), in their research on some factors that affect the acceptance and adoption of MIS and their influence on the

37

accomplishments of second year undergraduates of psychology in a university in the United Kingdom discovered that the number of hits, length of access, and use of the bulletin board was related to age, with older students using internet more than others. Chu (1994), also found a negative relationship between age and the use of e-mail. Colley and Camber (2003), also undertook research on gender and age difference in MIS acceptance and adoption among students of ages 11-12 and 1516 in five secondary schools in Midlands of the United Kingdom and reported that the older girls of ages between 15-16 years used CD-ROM less than the younger ones of ages 11-12 years.

In the same vein, Kjefulff, Pillar, Mills and Lamgan (1992), in their study among nurses in medical school, reported that older nurses were more technology anxious than younger ones. Laerum (2001), discovered that age does not seem to make a difference in people's comfort levels with computer. He further stated that medical doctors showed no difference in adoption of electronic resources in terms of sex and age.

Mayanja (2002), affirmed the influence of age on the use of MIS by reporting that young teachers make use of MIS resources more than the old people. According to the study, young teachers within the age range of 21-40 years were found to be more capable of using the MIS resources than every other age group. One explanation for this is the fact that the MIS is a more recent development and that the young population would have had the benefit of being exposed to it in their schools. This was corroborated by Alampay's (2006), study in the Philippines that emphasised that the use of MIS is more pronounced among the younger generation.

Sanni, Awoleye, Egbetokun and Siyanbola (2010), corroborated Mayanja (2002), views on age differences in MIS use. According to them MIS adoption is more pronounce among the younger teachers than among their older counterparts.

Marital Status and Adoption of MIS

Marital status is one of the demographic factors that has an influence on the acceptance and adoption of MIS in some universities in Africa. Adetimirin (2008), found that majority of the respondents that accepted and utilised MIS most were discovered to be singles ranging from 54.8% to 76.3% in six of the seven universities Nigeria. She also found out that across the universities that people that used MIS averagely were 19.9% among single undergraduates and to crown it all, MIS was used more for academic tasks by single undergraduates than the other groups. Taylor, Dekkers, and Marshall (2003), indicated that the unmarried or single showed higher use of internet more than the married.

This could be as result to the fact that the married have other demanding issues to attend to such as domestic services and activities in form of ensuring the wellbeing of their children, husbands and other family members or relatives which may not give them ample time to utilise the facilities like their counterparts that are not married or single.

Conceptual Framework

A conceptual framework is a system of concepts, assumptions, expectations, beliefs and theories that support and inform a study. It is a conceptualization of the study variables through a diagrammatical representation of the relationship between the study dependent variable and the independent variables (Robson, 2011). The

39

conceptual framework explains the key concepts used in the study and how they are linked to one another to produce the final outcome.
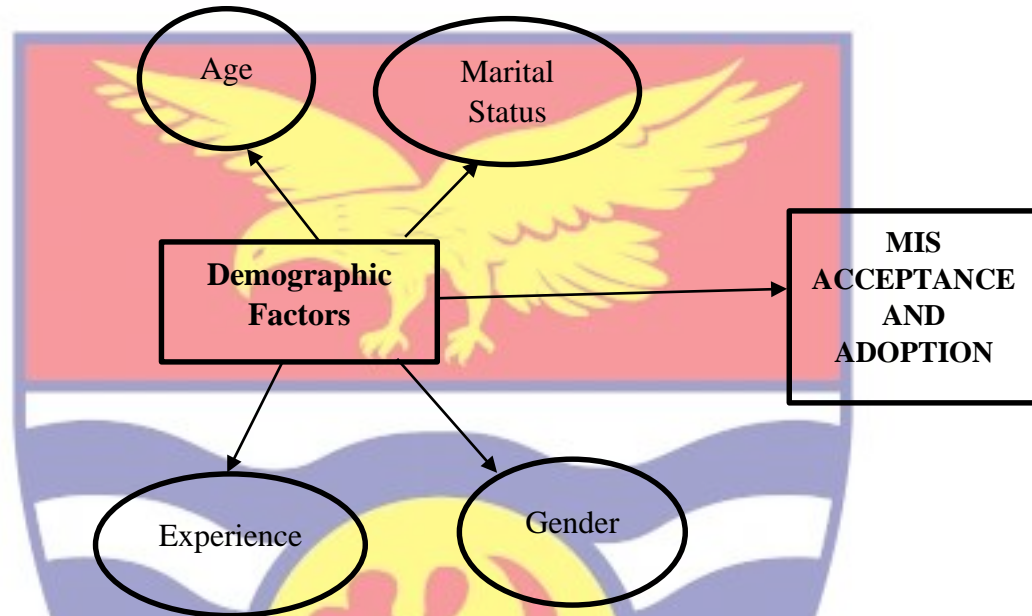
Figure 1: Conceptual Framework of the Study

Source: Author's Construct, 2021.

Based on the literature review, a conceptual framework developed in Figure 1 shows that the demographic factors of the senior staff are made up of gender, experience, age and marital status. These form the various demographic factors that can influence the acceptance and adoption of MIS in the University. The proper and continuous management of the acceptance and adoption of MIS produce the records management practices in organizations. The information system management practices have both benefits and challenges which influences the way and manner in which records are managed within organization.

40

Chapter Summary

This chapter has discussed the literature review about the topic under study. In addressing the issue, the theory underpinning the study were first discussed. This was followed by the explanations of concepts and later the empirical analytical literature on management information system practices. Thus, the chapter was indirectly divided into two parts. Part one identified and explained the theoretical models and conceptual orientation on which the study was hinged. Finally, the last section focused on empirical literature of the various demographic factors that influence management information practices with a conceptual framework within the context and scope of the study also discussed.

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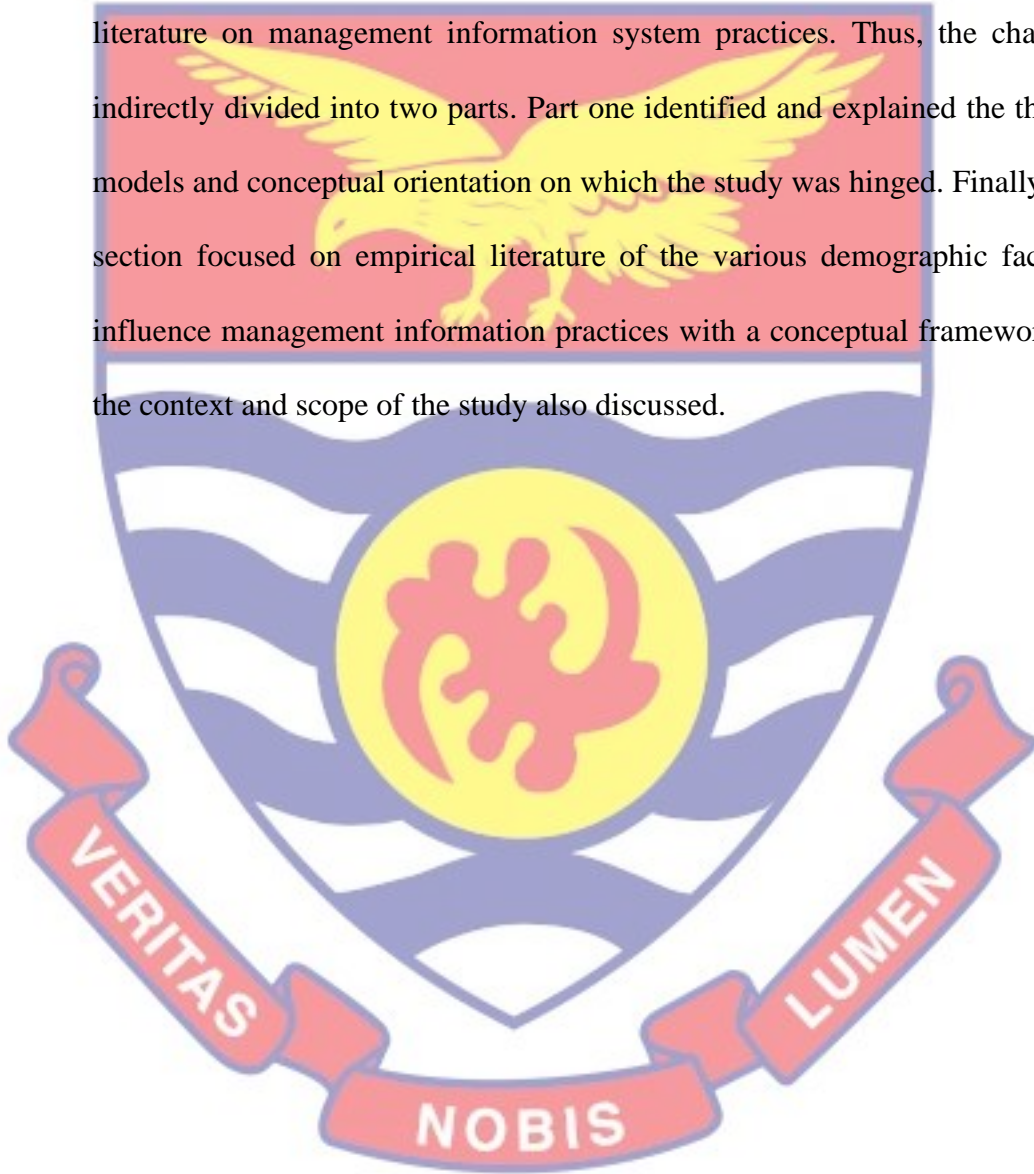
CHAPTER THREE

RESEARCH METHODS

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Introduction

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. This section explained that research methodology is the general approach the researcher takes in carrying out the research project.

Research Approach

Sekaran and Bougie (2016), postulated that, the epistemological underpinning of a quantitative motif holds that there exist definable and quantifiable social facts. The study therefore employed the quantitative research approach based on the nature of the study purpose under consideration, specific objectives, hypotheses and the nature of the primary data to be collected and analysed. Creswell (2014), asserted that quantitative approach deals with explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics).

This approach typically begins with data collection based on a hypothesis or theory and it is followed with application of descriptive or inferential statistics (Tashakkori & Teddlie, 2010). Quantitative methods are frequently described as deductive in nature, in the sense that inferences from tests of statistical hypotheses lead to general inferences about characteristics of a population. Quantitative

<div align="center">42</div>

methods are also frequently characterized as assuming that there is a single "truth" that exists, independent of human perception (Lincoln, Lynham & Guba, 2011). It was also found that the findings from quantitative research can be predictive, explanatory, and confirming (Williams, 2007 as cited in Bernard & Bernard, 2012).

Research Design

Research methodology refers to the procedural framework within which a study or research is conducted (Anabila, 2010). Descriptive research design was adopted and used in this study. This is because the researcher intended to describe systematic facts and figures of a given population or area of interest factually and accurately and attempted to discover the relationships of variables with each other (Arnold & Randall et al, 2010). More so, surveys do not intervene in naturally occurring events, nor does it control such events (Arnold & Randall et al., 2010). Further, the use of this design helped in the assessment of people's knowledge, beliefs, preferences and satisfaction to measure these magnitudes in the general population (Kotler & Keller, 2013).

Study Area

The University of Cape Coast is one of the public collegiate research universities in Ghana located in the colonial city of Cape Coast. The university is located on a hill overlooking the Atlantic Ocean, making it one of the rare sea front universities in the world. The government of Ghana established the university in 1962, after recognizing the gap and need for highly skilled and qualified human resources to man the educational sector. The university at its establishment was equipped and mandated to train graduate teachers for teacher training colleges and

43

technical institutions. Currently, the university has added other disciplines to its core mandate including the training of doctors and other allied health professions, as well as, administrators, physicists, agriculturalists, education planners.

The university is five kilometres west of Cape Coast, and operates on two campuses, the Northern campus and the Southern campus. The University is organized into five (5) Colleges headed by Provosts, namely: College of Health and Allied Sciences, College of Agricultural and Natural Sciences; College of Humanities and Legal Studies, College of Distance Education, and eighteen (18) Faculties/Schools headed by Deans. The University also has eleven (11) Directorates.

Study Population

The research problem had a bearing on the population. According to Sekaran (2003:265), the population is the study object and consists of individual groups, institutions, human products and events or the conditions to which they are exposed. Thus, the *study population* is the subset of the *population* with the condition or characteristics of interest defined by the eligibility criteria. Although it is usually not practically and economically feasible to involve all members of the population in a research project due to mainly cost, time constraints and population size, it was felt that it would be important to involve all eligible junior employees of the institution who met the criteria of having done one performance appraisal and who had voluntarily consented to participation in the study. In essence, the group of participants actually studied is selected from the *study population* *(*Friedman - 2010).

44

In this study the population covered the senior staffs of the University of Cape Coast since it has a working environment to which may either adopt and utilize the use of MIS in its teaching process or not. They were considered to be approximately 200. The frame of the available population was identified through personnel records of the individual provided by the Directorate of Human Resource Affairs of the institution (2020).

Sample Size and Sampling Procedure

From the point of Israel (1992), there are several approaches that can be used in determining the sample size. These include using census for small populations, imitating a sample size of similar studies, using published tables, and applying formulas to calculate the sample size. In the context of this study, a census shall be used because of the relatively small number of population size. In view of this, a sample size of two hundred (200) will be used which is made up of the senior staffs at the institution.

The advantages of a census are that although cost consideration makes this impossible for large populations, it is attractive for small populations (e.g., 200 or less). A census eliminates sampling error and provides data on all the individuals in the population. This means that all employees have the same opportunity to participate. Some employees may still choose not to participate, but at least the opportunity to do so is presented and no one person or group can feel left out. In addition, some costs such as questionnaire and developing the sampling frame are "fixed," that is, they will be the same for samples of 50 or 200 and census tends to enhance feelings of security surrounding the accuracy of the results (Parker, 2011).

45

Finally, virtually the entire population would have to be sampled in small populations to achieve a desirable level of precision. This implies that while the administration of sample surveys is more complicated, a census survey is easier to administer because it includes all persons. To this end, results from a census survey can be used to "drill down" into the organisational structure and highlight departmental results, and because all employees participate, there is a greater chance of obtaining responses that are representative of all sub-groups within the organisational structure. Thus, the volume of surveys that need to be distributed may increase with a census survey but figuring out who receives a survey is clear – everyone (Kraut, 1996).

Data Collection Instrument

The research instrument that will be used for data collection will be a questionnaire. This is very useful in social science research (O'Brien & Toms, 2010). A questionnaire is a formalised set of questions for obtaining information from respondents (Malhotra, Birks & Wills, 2013). Close-ended questions will be used to elicit responses needed to answer the research questions and achieve the objectives set for this study. The closed-ended questions will 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. It will also employ a Likert scale, which is more useful when behaviour, attitude or other phenomena of interest needs to be evaluated in a continuum (Leedy & Ormrod, 2010). Groves, Fowler, Couper, Lepkowski, Singer and Tourangeau (2011), posit that there are distinct advantages in using questionnaires rather than interview methodology. One

of such advantage is that questionnaires are less expensive and easier to administer than personal interview. Groves et al (2011), indicate that mailed surveys, for example, are extremely efficient at providing information in a relatively brief period time at low cost to the researcher.

Validity

Validity in research simply means the extent to which instruments (questionnaires or structured interview schedules) measure what they intend to measure. In other words, validity means to what extent that the selected tool measures the intended research objectives (Bowling, 2009). In the context of this study, several strategies were undertaken to validate and refine the content of the questionnaire. To address the face validity, the researcher read the questionnaires and the appropriate corrections were made before it was given to the employees of University of Education, Winneba. Peer review was also of immense importance. Content validity was further enhanced by asking experienced experts in the field to go through the questionnaire before it was administered to the respondents. All efforts and views of experts were taken to consideration as to either to add or drop certain items from the questionnaire. Many items of domains and sub-domains were manipulated and reconstructed with minor language and adjustments to enhance clarity, and to be assured that the instrument is entirely applicable.

Pre-Test

Validity and reliability indicate how best the instrument used in the study best measures the parameters it is meant to measure, and it is the measure of accuracy in terms of results attained in the study (Cook & Campbell, 1979). In this

study, a pre-test of the research questionnaire was done among the staff at the University of Education, Winneba. This institution was selected for the protesting because it has similar structure employees like the one university community in the University of Cape Coast. This process was aimed at testing the accuracy and strength of the questionnaire in eliciting data needed for the study. In other words, this was to help in assessing the clarity of our questions to the respondents and to elicit their understanding regarding answering questions. Questionnaires were administered and after receiving them back, it was realized that the questionnaires did not need any significant changes.

Reliability

With regards to reliability, it can be seen as the extent to which the application of a scale produces consistent results if repeated measures are taken (Kent, 2007). It is achieved when keeping results at a consistent level despite changing of time and place (Bowling, 2009). Internal consistency: internal consistency comprises testing the homogeneity that assesses the extent to which personal items are inter-correlated, and the extent to which they correlate with overall scale findings and this can be performed by using Cronchbach's alpha test (Pilot & Beck, 2008). In terms of observation, reliability of observations refers to the same inferences or activities of intra-observation (one observation at different time) and inter-observation reliability (more than one observer) (Pilot & Becker, 2008).

The Cronbach's coefficient alpha (α) was used in this study to determine the reliability of items in the questionnaire. The value of Cronbach's alpha ranged from 0 to 1. It is worthy to note that, the closer the value of α to 1, the better its reliability.

Table 1: Cronbach Alpha Values for the Variables

Variable	Alpha value
Demographic Characteristics	.710
MIS Acceptance and Adoption	.783

Source: Field survey (2021)

Data Collection Procedure

A copy of introductory letter was obtained from the department which was sent together with the questionnaires. The questionnaires were distributed to the senior staff at the University of Cape Coast. The researcher administered the questionnaire individually to all respondents of the study. This was to ensure that all questionnaires issued to the correspondents were received. On the average, the questionnaires were distributed and collected within four weeks. Out of 200 questionnaires administered, 189 were collected, giving a response rate of 94.5%.

Response Rate

A total of 200 copies of the questionnaire were distributed, out of which 189 (94.5%) copies were returned representing response rate. However, after a thorough examination of the returned copies, all 189 (94.5%) were properly completed and found usable for the analysis. According to Mugenda and Mugenda (2008) this response rate could be judged to be acceptable because a response rate of 50% is

satisfactory enough for analysis. On the premise of this, the response rate was deemed good and was further used for the analysis of the study.

Table 2: Responses Rate from the Questionnaires

	Frequency	Percentage
Response	189	94.5
Non-response	11	5.5
Total	200	100

Source: Author's Survey, 2021.

Data Processing and Analysis

Analysis of data is a process of editing, cleaning, transforming, and modelling data with the goal of highlighting useful information, suggestion, conclusions, and supporting decision making (Adèr & Adèr, 2008 as cited in Rampino & Colombo, 2012). The responses from the questionnaires were then edited, coded and entered into Statistical Package for Social Science (SPSS) version 22.0 for processing. This statistical software is recommended for us in studies in social sciences (Zickmund et al, 2013). In analysing the data, categories were identified and put into themes for presentation and discussion. Both inferential statistics and descriptive statistics were computed.

The data were analysed quantitatively and this was done using Statistical Product for Service Solution (SPSS) version 21. The responses received from the respondents were analysed according to four scales (options) contained in the questionnaire. These scales were, Strongly Disagree (1), Disagree (2), Agree (3), Strongly Agree (4). From this a descriptive analysis was made with statistical

50

techniques used for getting percentages and averages. As per scoring given above, the entire data of 189 questionnaires were tabulated in an Excel Spread Sheet and later fed into SPSS for calculation of results. *Data related to employees' sociodemographic features were assessed using frequency and percentage.* Descriptive statistics comprised of means, standard deviations, frequency distributions and percentages.

Ethical Consideration

An introductory letter was obtained from the Department of Management Studies of the School of Business, University of Cape Coast to introduce the researcher to the institution. To gather data from the sampled staff, permission was sought from the management of the institution. Those staffs that were selected to participate in the study were contacted with the help of the management of the University. The consents of the staff were sought through the management of the University.

According to Awases (2006), ethics is mostly associated with morality and deals with issues of right and wrong among groups, society or communities. It is therefore important that everyone who is engaged in research should be aware of the ethical concern (Rubin & Babbie, 2016). The study employed every effort to avoid as far as possible violation of ethical principles. Edginton et al. (2012) have identified the basic ethical consideration for research as; respondents being fully informed about the aim's methods and benefits of the research, granting voluntary consent and maintaining the right of withdrawal. The rationale for the study, assurance of confidentiality and the right of withdrawal was explained to the

51

participants. Also, respondents were assured of anonymity and confidentiality in answering the questionnaire.

Anonymity and confidentially were guaranteed and the researcher did not cause harm or mental stress to those who choose to participate. This research and its associated methodology adhere to all of these ethical considerations. An organisational entry protocol was observed before the data were collected. Individual participant was informed of the reason for the whole exercise and the benefit that will be obtained by the institution if the research was carried out successfully.

Chapter Summary

This chapter has provided information as to how the primary data for the study was collected, organized, analysed and presented for easy comprehension. This chapter also presents information on the design of the study and scientific approach it took in terms of approach to data needs, statistical techniques and systematic enquiry into the investigation under consideration.
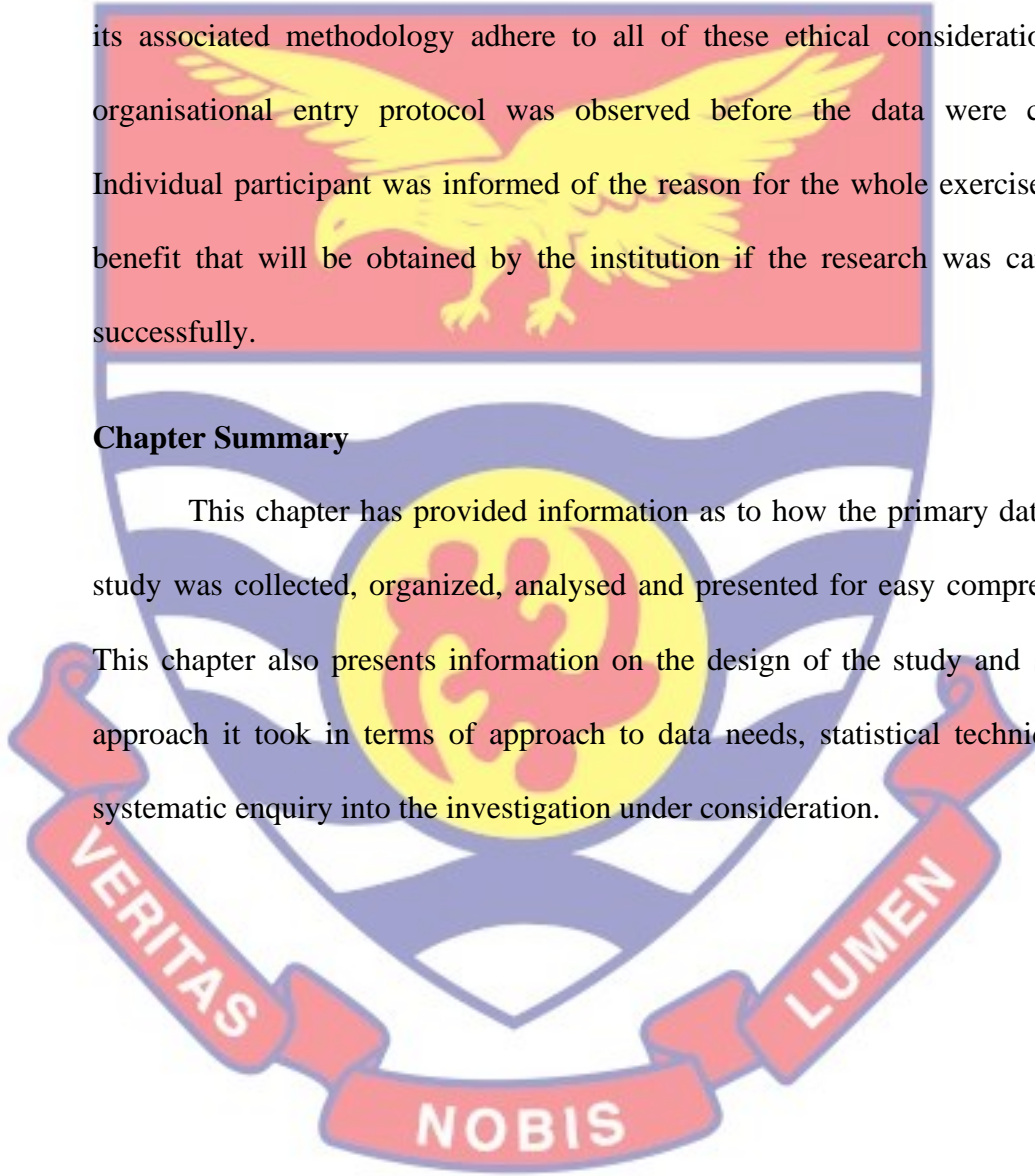
CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results and discussion of the data gathered from the field. Based on this main research objective, specific objectives were used to achieve the study goal. In line with these original research objectives and the method used, this chapter provides the findings and discussions which reflect on the core study specific objectives as outlined in Chapter one. The first section covers the demographic characteristics of the respondents. The following sections spells out the findings with respect to the objectives of the study which includes; to examine if there is any difference in the acceptance and adoption of MIS between male and female senior staffs, to examine if there is any difference in the acceptance and adoption of MIS facilities among senior staffs of different age groups, to examine if there is any difference in the acceptance and adoption of MIS facilities between married and unmarried senior staffs, and to examine if there is any difference in the acceptance and adoption of MIS facilities among senior staffs with different years of experience.

Socio-demographic Characteristics

Socio-demographic data collected and descriptively analysed included gender, marital status, age, and the years of experience, as shown in Table below. *Socio-demographic data collected and descriptively analysed included gender, age, and the number of years worked at UCC, as shown in Table 3 below.*

53

Table 3: Sample Characteristics of Respondents

Items	Frequency	Percentage
Gender		
Male	103	54.50
Female	86	45.50
Marital status		
Married	158	83.60
Single	31	16.40
Divorced/ other	0	0.00
Age		
20 – 30	6	3.17
31 – 40	41	21.70
41 – 50	60	31.75
51 – above	82	43.39
Years of Experience		
1 – 5 years	6	3.17
6 – 10 years	48	25.40
11 – 15 years	116	61.38
16 years and above	19	10.05
Total	**189**	**100**

Source: Authors Survey (2021)

Male respondents constituted the highest percentage (54.5%) which closely

against Females (45.5.%). This finding is consistent with a similar study by Bintu

54

(2014) at the Kwame Nkrumah University of Science and Technology, Ghana, where 52.5% were males, and Laake (2016) had 53.2% males. The respondents' ages were widely distributed ranging from below 20 years to 51 years and above. Greater percentages (56.62%) of the respondents were between the ages of 20 and 50 years, with most (43.39%) of the respondents in the 51 and above years age group. It could be concluded that, most senior staff members at the University of ape Coast were really matured and nearing retirement ages. Further, 96.83% of the respondents had over 6 years of working experience at the University, suggesting that most staff members at the University of ape Coast who become senior members may have had worked for over 6 years with the institution. The findings of the study also revealed that, 83.6% of the respondents representing a total of 158, were married, whereas 31 (16.40%) were single.

Findings of the Main Objectives

This section presents results and analysis based on the three key questions of this study. The descriptive survey statistics was used in analysing the data. As it has been indicated in the methods, the design of this research is descriptive and adopts a quantitative method. The results and analysis are presented chronologically based on the stated objectives of this study. With the descriptive summary and analysis for the demographic factors influencing the acceptance and adoption of MIS among senior staff in University of Cape Coast, questions were construed on the bases of three variables namely; incentives, perceived usefulness and social network. Responses to these questions by the senior staff was then analysed

descriptively on the bases of how the demographic factors as gender, age, marital status and years of experience influence the acceptance and adoption of MIS.

Research Objective One: The Nature of Management Information System Practices adopted by senior staff of University of Cape Coast

In line with the research objective one the study sought to establish the nature of MIS practices in University of Cape Coast. To this end, respondents were asked to indicate their level of agreement on the MIS practices that they find relevant in relation to their institution. This question was posed on a four-point Likert scale, with 1 being Strongly disagreed, 2 = Disagreed, 3 = Agreed and 4 = Strongly agreed. On the basis of these scales, the respondents were asked questions and in response various answers were obtained and analysed. The results are shown in table 4 below.

Table 4: Descriptive Statistical Results of MIS Practices in University

Items	N	Min	Max	Mean	S. D.
The institution has policies and procedures for creating and storing information in both paper and electronic format	189	1	4	3.19	1.015
A thoroughly documented information retention schedule that lists information categories and expected retention time periods is available at university.	189	1	4	2.98	1.005

	189	1	4	3.05	1.144
An organizational file plan that lists primary types by functional unit so that information can be located without depending on any one employee is available in the institution.	189	1	4	3.05	1.144
University has a vital information system that serves as a back-up in case of a disaster.	189	1	4	3.14	1.063
A management information system training program is organized annually to ensure that quality information is kept.	189	1	4	3.03	0.928
University has in place periodic audits that provide an enforcement vehicle and assess the clarity of MIS procedures.	189	1	4	3.18	0.914
The institution adequately addresses data privacy and security issues.	189	1	4	2.89	1.053
My organisation monitors and controls information management and retrieval systems.	189	1	4	2.97	1.090

Source: Field survey (2021)

As presented in Table 4 above, most respondents strongly agreed that the most important MIS practice in the University has been the instalment of policies and procedures (Mean=3.19, SD=1.015). The next MIS practice which the majority

57

of respondents strongly agreed was by the use of periodic audits on information system (Mean=3.18, SD=0.914). This was followed by back-up information system (Mean=3.14, SD 1.063); organizational file plan (Mean=3.05, SD=1.144) and management information system training program (Mean=3.03, SD=0.928). However, some of the respondents also reasonably agreed that the organisation has information retention schedule (Mean=2.98, SD= 1.005), followed monitors and controls information management and retrieval systems (Mean=2.97, SD=1.090). The least unpopular was the address MIS practice data privacy and security issues (Mean=2.89, SD=1.053).

The results depict that the University has information system management policies and procedures which facilitate how information systems are managed. This is in line with the assertion made by De Wet and Du Toit (2000) that information system management has evolved from a paper-based function for the storage of an organization's miscellaneous documents to one concerned with the management of specific internal information system in a multitude of media from creation to disposal through their active use as sources of information and ultimate review against retention schedules for their eventual distraction. Also, Uwaifo (2004) which states that, generally information system management must be guided by some level of confidentially, proper maintenance, security, preservation of the content and context. Kanzi (2010) also confirmed the assertion which states that MIS staff should be trained to equip them with the necessary skills to carry out their functions properly.

58

The results imply that MIS practices should be adopted in the organization as confirmed by the assertion made by Kanzi (2010) that for a sound information system management practice to take place, heads of institutions should designate or appoint an information system manager who will develop and implement information system management policies endorsed by the head of the organization and the top management team. Again, in the absence of management information system manager within the various units, sections, departments and faculties confirms to the Information System Management Policy Framework which states that the information system manager will develop a schedule for retention and disposal of information system drawn up as a result of applied best practice i.e., based on information system surveys, analyses, agreements with business units.

Research Objective Two: Examine if there is any difference in the Acceptance and Adoption of MIS between Male and Female Senior Staffs.

The Table 5 below presents the difference between the mean ratings of male and female senior staff members on the acceptance and adoption of MIS in the University of Cape Coast.

Table 5: t-test of the Difference between the Mean Ratings of Gender

Group	N	Mean	SD	Df	Cal. t-value	P-value
Male	103	52.22	9.94			
				189	1.44	0.15
Female	86	53.59	11.15			

Source: Author's Field survey, 2021.

Table 5 (sample characteristics table) revealed that there were 103 male lecturers and 86 female lecturers that responded to the questionnaire constructs. The

59

male and female senior staff members responses showed that they sometimes utilize MIS (X = 52.22; SD = 9.94) and (X = 53.59; SD = 11.15). The table 3 above revealed that there was no significant difference between the mean ratings of male and female lecturers on the adoption of electronic databases (t_{188} = 1.44, p>0.05). Therefore, this can be concluded that, there is no significant difference among gender with reference to the acceptance and adoption of MIS among senior staff at the University of Cape Coast. This implies that male and female senior staff do not differ in their responses regarding the acceptance and adoption of MIS at the University of Cape Coast.

This finding is in consonance with Oyeniyi (2013) who investigated the gender differences in information retrieval skills and use of electronic resources among information professionals in South–western Nigeria and finds that there was no statistically significant difference in the use of electronic resources on the basis of gender. The finding however negates the findings of Sivathaasan, Achuthan and Kajananthan (2013) who reported that there is a statistically significant mean difference between the mean numbers of adoption of electronic information resources of male and female university teachers. They reported that male have the highest mean adoption of electronic information resources. This finding implies that gender is no longer a predictor of electronic databases adoption. Both males and females staff seem to enjoy using electronic databases for teaching and research. Both male and female university senior staff at the University of Cape Coast, now have equal MIS adoption ability.

Research Objective Three: Examine if there is any difference in the acceptance and adoption of MIS facilities among senior staffs of different age groups.

The Table 6 below presents the Analysis of variance result of mean difference among the University of Cape Coast senior staff members in the acceptance and adoption of MIS based on age range.

Table 6: Analysis of variance Result of Mean Difference in the Age Range

Sources	Sum of Squares	df	Mean squares	Cal. F value	P-value
Between Groups	2335.24	5	497.05		
Within Groups	80652.14	184	101.07	4.62	0.00
Total	**82987.65**	**189**			

Source: Author's Field Survey, 2021.

The result of analysis of variance as presented in Table 4 revealed that the calculated value of F was 4.62 ($F_{188} = 4.62$) and the observed probability value is 0.00 which is less than the fixed probability value of 0.05 (p<0.05). This indicated that there is a significant influence on the acceptance and adoption of MIS among different age groups within the University of Cape Coast. This implies that the use of MIS by senior staff members at the University of Cape Coast differ significantly within age ranges.

61

Table 7: Duncan Multiple Range Test (DMRT) Showing the Differences in the Age
Range of Lecturers and their Adoption of MIS

Age Range	Group	N	Mean	Duncan Groupings
20 – 30	1	6	48.40	A
31 – 40	2	41	58.92	B
41 – 50	3	60	52.90	C
51 – above	4	82	49.95	D

Source: Author's Field survey, 2021.

Table 7 shows the DMRT indicating the significant difference noted in the ANOVA. All the groups significantly differed in the mean scores. All the groups differed from one another but the significant difference noted was as a result of the mean of Group 3 with the highest mean score, hence the significant difference noted in the ANOVA on Table 7 was brought about by respondents who were between 31-40 years in age range. Therefore, it can be concluded that, age has a significant influence on the acceptance and adoption of MIS among the senior staff members at the University of Cape Cost.

This finding is supported by previous findings of Sivathaasan, Achchuthan and Kajananthan (2013) who revealed that adoption of electronic information resources differs significantly among age group. Adepoju (2017) also indicated that there was significant difference in the adoption of MIS facilities among users of different age groups. This finding implies that young senior staff members rate the acceptance and adoption of MIS higher than the older senior staff members. This is the reality because most of the young senior staff members are digital natives while

62

the older senior staff members are mainly digital migrants. Younger generations are brought up with computers. Older senior staff members may not have had as much exposure to computers, resulting in increased computer anxiety.

Objective Four: Examine if there is any difference in the acceptance and adoption of MIS facilities between married and unmarried senior staffs.

The Table 8 presents the t-test of the difference among the mean ratings of the senior staff members at the University of Cape Coast on the acceptance and adoption of MIS based on marital status.

Table 8: t-test of the Difference between the Mean Ratings of senior staff on the Adoption of MIS Based on Marital Status

| Group	N	Mean	SD	Df	Cal. t-value	P-value
Single	31	52.35	9.92			
				189	0.13	0.99
Married	158	52.48	10.22			

Source: Author's Field Survey, 2021.

Analysis of data in Table 8 revealed that there were 31 single senior staff members and 158 married senior staff members that responded to the questionnaire constructs. The singles and married senior staff members' responses showed that they sometimes utilize MIS (X = 52.35; SD = 9.92) and (X = 52.48; SD = 10.22). Their responses are close to the mean as the standard deviations are very low. The table revealed that there was no significant difference between the mean ratings of married and single lecturers on the adoption of MIS ($t_{188} = 0.13$, p>0.05). Therefore, it could be concluded that, there was no significant difference in the

acceptance and adoption of MIS based on marital status. This implies that the singles and married senior staff members do not differ in their responses regarding the acceptance and adoption of MIS at the University of Cape Coast.

This finding is at variance with Adepoju (2017) who revealed that there was significant difference in the adoption of MIS between married and unmarried students. Majority of the respondents were single students. It also contradicts Adetimirin (2008), who reported that most of the MIS users were single. This could be due to the fact that married lecturers are now employing the services of house help to attend to such domestic activities in form of caring for their children, husbands and other family members or relatives which may have prevented them from having enough time to use the electronic databases like their counterparts that are not married.

Objective Five: Examine if there is any difference in the acceptance and adoption of MIS facilities among senior staffs with different years of experience.

The Table 9 presents the Analysis of Variance result of mean difference in senior staff members acceptance and adoption of MIS based on years of experience as working as senior staff at the University of Cape Coast.

64
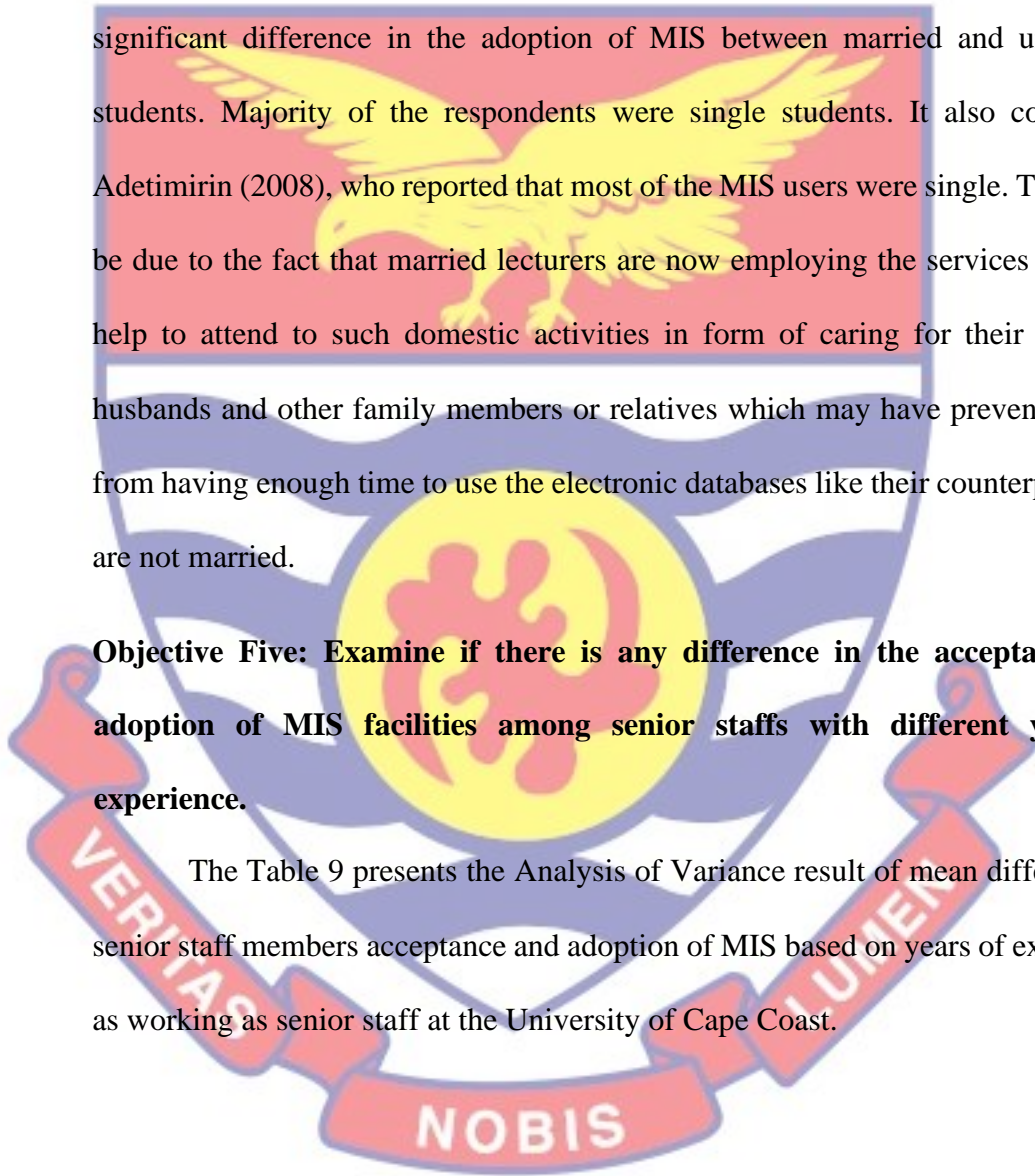
Table 9: Analysis of Variance Result of Mean Difference in senior staff Acceptance and Adoption of MIS based on experience

Sources	Sum of Squares	df	Mean squares	Cal.F value	P-value
Between Groups	1067.45	5	177.91		
Within Groups	81920.19	184	102.79	1.73	0.11
Total	**82987.65**	**189**			

Source: Author's Field Survey, 2021.

Table 9 revealed that the calculated value of F was 1.73 ($F_{188} = 1.73$) and the observed probability value is 0.11 which is greater than the fixed probability value of 0.05 (p>0.05). This indicated that there was no significant influence of the number of years of experience on the acceptance and adoption of MIS among senior staff at the University of Cape Coast. This implies that, senior staff members acceptance and adoption of MIS does not differ significantly based on years of experience as a senior staff at the University for Cape Coast. This finding contradicts the previous study of Xhaferi, Bahiti and Farizi (2018) who reported that there is a significant difference in attitudes towards e-learning with different teaching experience groups. This result implies that the acceptance and use of MIS by senior staff members at the University of Cape Coast is not influenced by their work experience. This may be due to the fact that the use of technology is a product of MIS skills. Younger senior staff members seem to possess higher MIS skills.

Chapter Summary

This chapter presented an analysis and discussions of the results in the study. The chapter began by providing a demographic background of the respondents in this study to give an appreciation of the study's results. The analysis was presented according to the objectives of the study. With respect to the first objective, the analysis sought to examine if there is any difference in the acceptance and adoption of MIS between male and female senior staffs. The results of the study indicated that, there is no significant difference among gender with reference to the acceptance and adoption of MIS among senior staff at the University of Cape Coast. The study also indicated that with respect to the second objective, there is a significant influence on the acceptance and adoption of MIS among different age groups within the University of Cape Coast. With respect to the third objective, the study concluded that there was no significant difference in the acceptance and adoption of MIS based on marital status. Concerning the final objective which sought to examine if there is any difference in the acceptance and adoption of MIS facilities among senior staffs with different years of experience, it was concluded that, there was no significant influence of the number of years of experience on the acceptance and adoption of MIS among senior staff at the University of Cape Coast.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter presents a summary of the findings that emerged from the study and data analysis. It draws conclusions and makes recommendations on the demographic factors influencing the acceptance and adoption of MIS among senior staff in the Ghanaian Higher Institutions. Finally, the suggestion for future research is also made.

Summary of the Study

The study set out to examine the demographic factors influencing the acceptance and adoption of MIS among senior staff in Ghanaian Higher Institutions: The case of the University of Cape Coast. The four specific objectives, which guided the study were; to examine if there is any difference in the acceptance and adoption of MIS between male and female senior staffs, to examine if there is any difference in the acceptance and adoption of MIS facilities among senior staffs of different age groups, to examine if there is any difference in the acceptance and adoption of MIS facilities between married and unmarried senior staffs, and to examine if there is any difference in the acceptance and adoption of MIS facilities among senior staffs with different years of experience.

The study employed a quantitative research approach. A total of 200 senior staff members were selected from a target population of 200 at the University of Cape Coast, using Census. A self-administered questionnaire was the main research instrument. The questionnaire contained several questions (items) and was

67

subdivided into four subscales. The maximum and minimum score for each question ranged between 1 and 4 as per under mentioned-description starting from the following: Strongly Disagree, Agree, Agreed, and Strongly Agreed. The results from the survey were analysed with the help of the Statistical Product and Service Solutions (SPSS 21.0 version) software.

Key Findings

The major findings as they related to the specific objectives of the study have been summarized. The first research objective of the study sought to establish the nature of MIS practices in the University of Cape Coast. Respondents were asked to indicate their level of agreement on the MIS practices that they find relevant in relation to their institution. Results indicated that most respondents strongly agreed that instalment of policies and procedures is the most important MIS practice in the University. The next MIS practice which the majority of respondents strongly agreed was by the use of periodic audits on information system. This was followed by back-up information system, organizational file plan and management information system training program. However, the least unpopular MIS practice is information retention schedule, monitoring of information management and retrieval systems and lastly data privacy and security issues.

Evidence from second objective, this study indicated that there was no significant difference between the mean rating of male and female senior staff acceptance and adoption of MIS. This implied that male and female senior staff do not differ in their responses regarding the acceptance and adoption of MIS at the

68

University of Cape Coast. As other researchers reported that male have the highest mean adoption of electronic information resources this survey proved otherwise. This finding implied that gender is no longer a predictor of electronic databases adoption. Both males and females staff seem to enjoy using MIS for executing their responsibilities. Both male and female university senior staff at the University of Cape Coast, now have equal MIS adoption ability.

Considering the third study objective, which was to know if there is any difference in the acceptance and adoption of MIS facilities among senior staffs of different age groups, questions relating to this objective was asked. In response to this, it was found that, there is a significant influence on the acceptance and adoption of MIS among different age groups within the University of Cape Coast. This implied that the use of MIS by senior staff members at the University of Cape Coast differ significantly within age ranges. All the groups significantly differed in the mean scores. All the groups differed from one another but the significant difference noted was as a result of the mean of Group 3 (31 – 40 years) with the highest mean score, hence the significant difference noted in the ANOVA on Table 5 was brought about by respondents who were between 31-40 years in age range. Therefore, it can be concluded that, age has a significant influence on the acceptance and adoption of MIS among the senior staff members at the University of Cape Cost.

The fourth objective of the study which was to examine if there is any difference in the acceptance and adoption of MIS facilities between married and unmarried senior staffs showed that, there was no significant difference between

the mean ratings of married and single lecturers on the adoption of MIS. Therefore, it could be concluded that, there was no significant difference in the acceptance and adoption of MIS based on marital status. This implied that the singles and married senior staff members do not differ in their responses regarding the acceptance and adoption of MIS at the University of Cape Coast. Although this finding also contradict with what researchers have reported, that most of the MIS users were single. This could be due to the fact that married senior staff members are now employing the services of house help to attend to such domestic activities in form of caring for their children, husbands and other family members or relatives which may have prevented them from having enough time to use MIS like their counterparts that are not married.

The final objective sought to examine if there is any difference in the acceptance and adoption of MIS facilities among senior staffs with different years of experience. It was discovered that, there was no significant influence of the number of years of experience on the acceptance and adoption of MIS among senior staff at the University of Cape Coast. This implied that, senior staff members acceptance and adoption of MIS does not differ significantly based on years of experience as a senior staff at the University for Cape Coast.

Conclusion

With the aim of this study being to examine the demographic factors influencing the acceptance and adoption of MIS among senior staff in the Ghanaian Higher Education Institutions, with the growing acceptance and adoption of MIS among senior staff members at the University of Cape Coast in their assistance in

executing their responsibilities and duties in the institution. From the findings, it can be concluded that the University use various MIS practices is significant to every organisation. The implication here is that management information system practices are inextricable entwined with increased transparency, accountability, and good governance. It also became apparent that fraud cannot be proven, meaningful audits cannot be carried out and government actions are not open to review when information system are not well managed.

MIS practices provide verifiable evidence of fraud and can lead investigators to the root cause of corruption. Sound information system management is therefore at the centre of increased accountability and good governance, it is one of the best weapons in fighting corruption, it plays a vital role in the advancement of human rights and contributes towards ensuring sound financial management. Management information systems should therefore be managed in the same manner that the other organisational resources, such as finance and staff, are managed. It was also clear from the findings that demographic variables have influence on the acceptance and adoption of MIS. However, demographic variable such as age range greatly influences the use of MIS acceptance and adoption among senior staff at the University of Cape Coast.

Recommendations

Based on the findings of this study, the following recommendations were made. Equal and more opportunities should be provided by university management to all senior staff members in form of training and education on MIS acceptance and adoption to enable them access MIS related equipment and software with ease.

This will go a long way to affect members performance and the rate at which work is executed within the institution which would facilitate growth and efficiency. Gender should not be a factor to consider at the point of determining the personnel for capacity building and development within the University community. This is based on the discovery made at the end of this study there, gender has no significant influence on the use and acceptance of MIS. This therefore calls for equal opportunities be given to senior staff within the institution on MIS related platforms and not blindly been discriminated against.

Government and University management should make more relevant MIS resources available in university libraries and encourage adoption of the resources by removing all obstacles to accessibility.

Suggestions for Further Research

Against the background of the limitations of this study, a number of further research opportunities need to be highlighted as follows: In the first place, a mixed method should be adopted to have a detailed investigation of the social factors influencing the acceptance and adoption of MIS. This will help the respondents to have detailed accounts the various factors influencing the acceptance and adoption of MIS among staff. Secondly, there is a need for future research to have a comparative study as to examine what other factors influences the acceptance and adoption of MIS within various organisations other than the educational institutions. Finally, looking at the small sample size, it would be better if more the whole staff at the University of Cape Coast are considered so that a better conclusion or generalization could be made on the results.

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84

APPENDICES

APPENDIX A: INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST

SCHOOL OF BUSINESS

DEPARTMENT OF MANAGEMENT

Telephone:	**03321 32440/32444 Ext. 219/220**	**UNIVERSITY POST OFFICE**
Direct:	**03321 37870**	**CAPE COAST, GHANA**
Telegrams:	**University, Cape Coast**	
Telex:	**2552, UCC, GH.**	

Dear Sir/Madam,

INTRODUCTORY LETTER FOR GIFTY KUKUA ESHUN

The bearer of this letter, Gifty Kukua ESHUN is an MBA (General Management) student of the School of Business. She is writing her dissertation on "Assessing the Influence of Demographic Factors on the Acceptance and Adoption of Management Information System amongst the Senior Staff of University of Cape Coast".

We would be grateful if you could assist her with the filling of the questionnaires and any other information that she may need to complete her work.

We appreciate your co-operation.

Yours faithfully,

Signed

N. O .O

HEAD

85

APPENDIX B: QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

SCHOOL OF BUSINESS

DEPARTMENT OF MANAGEMENT

Dear Respondent,

I am a student of University of Cape Coast, offering Master of Administration (General Management) programme at the School of Business, Department of Management. This questionnaire is designed to ascertain information for my research work on the topic: "**ASSESSING THE INFLUENCE OF DEMOGRAPHIC FACTORS ON THE ACCEPTANCE AND ADOPTION OF MANAGEMENT INFORMATION SYSTEM AMONGST THE SENIOR STAFF OF UNIVERSITY OF CAPE COAST**". This research is in partial fulfilment of the requirement for the award of a Master of Administration Degree in General Management at the University of Cape Coast.

All the answers you provide will be treated with the utmost confidentiality and for academic purpose only. Please feel free to answer the questions as candid as possible.
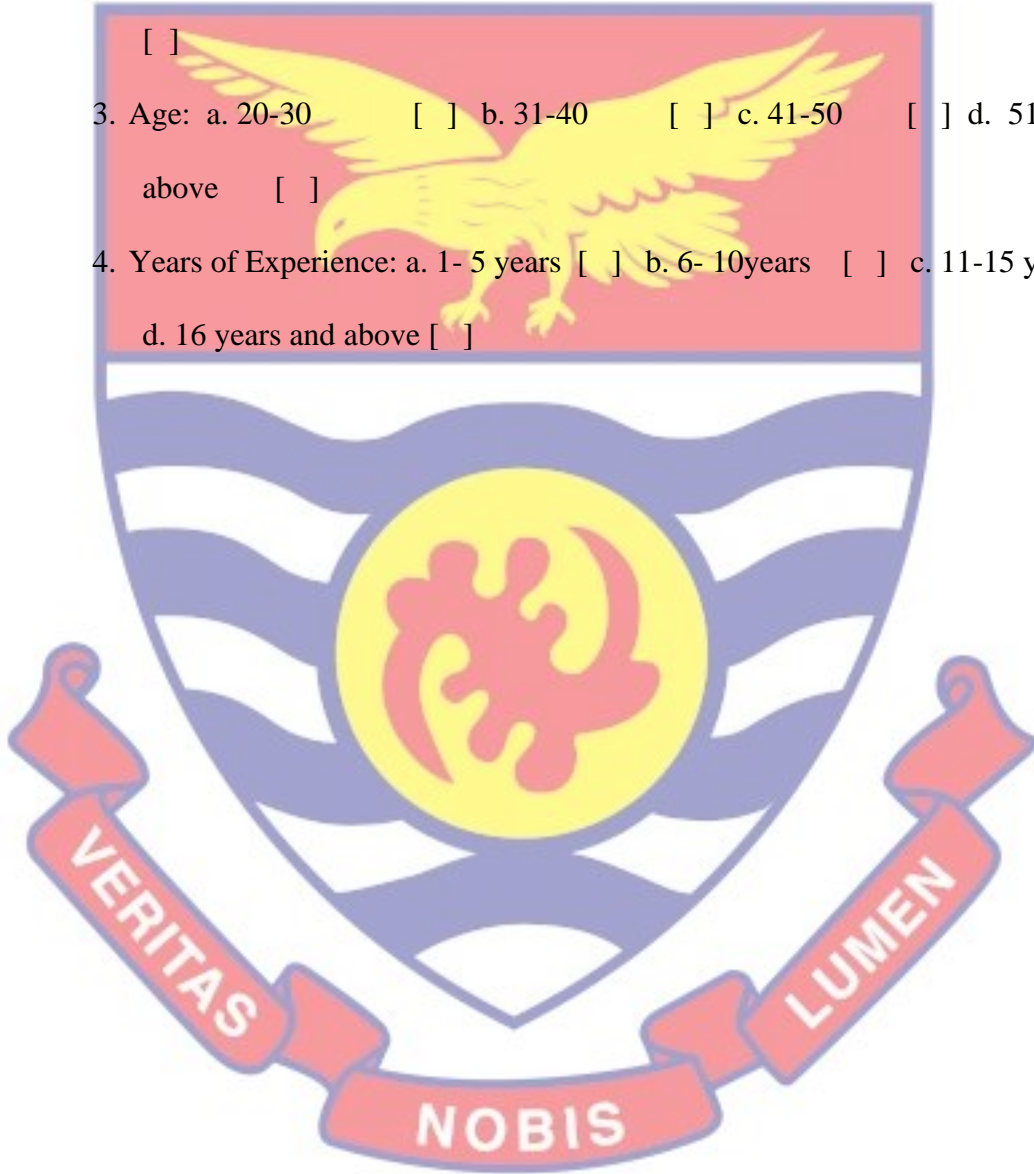
Thank you

Gifty Kukua Eshun

86

SECTION A: DEMOGRAPHIC DATA OF RESPONDENTS

To answer a question, either tick [√] where necessary.

1. Gender: a. Female   [ ]   b. Male   [ ]

2. Marital status: a. Married   [ ]   b. Single   [ ] c. Divorced/Other

   [ ]

3. Age: a. 20-30   [ ] b. 31-40   [ ] c. 41-50   [ ] d. 51 and

   above   [ ]

4. Years of Experience: a. 1- 5 years [ ]   b. 6- 10years   [ ]   c. 11-15 years [ ]
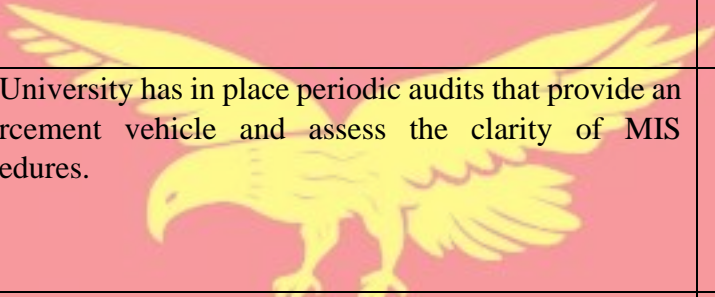
   d. 16 years and above [ ]

87

SECTION B

QUESTIONNAIRES ON MANAGEMENT INFORMATION SYSTEM PRACTICES

The statements are about the assessment of MIS practices of the University of Cape Coast. Please read each statement carefully and decide if you agree or disagree. If you have never agreed or ever agreed with the statement, kindly tick the strongly disagree (SD), Disagree, (D); Agree, (A); and Strongly Agree (SA) in the column after the statement.

THE NATURE OF MANAGEMENT INFORMATION SYSTEM PRACTICES

Items	SD	D	A	SA
The institution has policies and procedures for creating and storing information in both paper and electronic format				
A thoroughly documented information retention schedule that lists information categories and expected retention time periods is available at the University.				
An organizational file plan that lists primary types by functional unit so that information can be located without depending on any one employee is available in the institution.				

88

The university has a vital information system that serves as a back-up in case of a disaster.				
A management information system training program is organized annually to ensure that quality information is kept.				
The University has in place periodic audits that provide an enforcement vehicle and assess the clarity of MIS procedures.				
The institution adequately addresses data privacy and security issues.				
My organisation monitors and controls information management and retrieval systems.				

SECTION C

THE DEMOGRAPHIC FACTORS INFLUENCING THE ACCEPTANCE

AND ADOPTION OF MIS AMONG SENIOR STAFF IN GHANAIAN

HIGHER EDUCATION INSTITUTIONS

Kindly indicate your *level of agreement* with each of the following statements that

is set to examine the demographic factors influencing the acceptance and adoption

of MIS among senior staff in Ghanaian Higher Education Institutions: The case of

the University of Cape Coast, by **circling** the appropriate number on the scale:

1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree.

INCENTIVES- *a thing that motivates or encourages someone to do something*					
I01	Use of MIS is a means of effective self-organizing	1	2	3	4
I02	Use of MIS saves time in organizing my work	1	2	3	4
I03	Use of MIS keeps my personal data more secure than conventional methods	1	2	3	4
I04	Use of MIS motivates me as it is being recognized by UCC	1	2	3	4
I05	Using MIS can increase my productivity	1	2	3	4
PERCEIVED USEFULNESS- *the degree to which a person believes that using a system would enhance his or her job performance*					

P01	Using MIS would improve my job performance	1	2	3	4
P02	Using MIS would enhance my effectiveness on the job	1	2	3	4
P03	I would find MIS useful in my job	1	2	3	4
P04	I can accomplish my tasks more quickly using the MIS system	1	2	3	4
P05	I find MIS useful for my job	1	2	3	4
P06	MIS offers value of money	1	2	3	4

SOCIAL NETWORK-*People around or within your environs ie.: family, friends, marriage*

S01	People in my discipline think that using MIS is valuable	1	2	3	4
S02	I use MIS because out interrelated organisations also use MIS	1	2	3	4
S03	I use MIS because many of my friends in other divisions are using MIS	1	2	3	4
S04	Using MIS better enables me to form interpersonal bonds with others	1	2	3	4
S05	Using MIS helps me make new friends	1	2	3	4

THANK YOU FOR YOUR PARTICIPATION