UNIVERSITY OF CAPE COAST

MANAGEMENT INFORMATION SYSTEM PRACTICES AT GHANA COCOA BOARD

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BY

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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: Hugh Adu-Asante

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

The study sets out to assess the management information system practices in Ghana Cocoa Board. The three main specific objectives were to assess the nature of management information system practices, to examine the benefits of management information system practices, and finally to ascertain the challenges of management information system practices at Ghana Cocoa Board Head Office, Accra. The study employed a quantitative research approach and descriptive survey as the study design. The study was on the views of 175 employees from the study area with a self-administered questionnaire as the main research instrument. The results were analysed using descriptive statistics 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. This leads to quick decision making, saves office space and promotes good corporate governance. It was further indicated that there were insufficient resources in terms of professionally trained management information system managers, training-starved administrative staff and office space. Therefore, it was recommended that management of Ghana Cocoa Board Head Office, Accra should embrace the information system management function to ensure its effectiveness, and also professionally trained management information system managers should be employed.

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I wish to express my gratitude to all individuals who contributed to the success of this project. My special thanks to Dr Nicodemus Osei Owusu, my supervisor for his direction and assistance in supervising this work. Also, special thanks go to Mr. Douglas Okai Akuffo and all my families and friends who helped me through all these endeavours.

DEDICATION

To my family

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CHAPTER ONE

INTRODUCTION

Introduction

It is clear that the efficiency and effectiveness in completing tasks or jobs in the business process are two indications of the Information System success effects. In addition, it can also clearly be seen that in order to achieve the success level; the IS owners have to use the system itself. Therefore, it is why the system use factor has been one of the variables which affect significantly the success dimension in the processional and causal model of Information System success model. This chapter presents the overview of the study which includes the background to the study, statement of the problem, the purpose of the study, objectives of the study, hypotheses of the study, significance of the study, delimitation of the study, and organisation of the study.

Background of the Study

Institutions create information systems to support the activities they carry out. However, if these records are not managed properly, they will not provide the necessary support and information might be lost causing problems for the institution. To provide an efficient and effective administration that ensures that institutions run as smoothly as possible, there should be proper management of records. International Organization for Standardization (ISO) 15489 (2001) explained records management as the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining

evidence of an information about business activities and transactions in the form of records.

The importance of information, according to Nöhren, Heinzl and Kude (2014), is essential for the achievement of short-term, intermediate and long-range goals. The authors added that information consisted of data that have been processed by a system and are meaningful to a user. A system is a set of components that operate together to achieve a common purpose (Laudon & Laudon, 2015). Laudon and Laudon (2016) put forward that an information system is a as a set of interrelated components that collect (or retrieve) process, store, and distribute information to support decision making and control in an organisation.

According to Gui, Forbat, Nardi and Stokols (2016), there are three activities in any information system that produce the information that organisations need to make decisions, control operations, analyse problems, and create new products or services. These activities are input, processing, and output. Input captures raw data from within the organisation or from its external environment. Processing converts this raw input into a more meaningful form, and finally, output transfers the processed information to the people who will use it or to the activities for which it will be used. Information systems also require feedback, which is output that is returned to appropriate members of the organisation to help them evaluate or correct the stage, forming a cycle.

Information is a primary and essential tool of management and a common thread that ties together the cycle of management, namely planning, execution and control (Azevedo, Romão & Rebelo, 2014). Information system management, also

called management information systems, is an information system used for supporting decision making in general on all levels in an organisation. Information system management serves the management level of the organisation, providing managers with reports and access to the organisation's current performance and historical records (Laudan & Laudon, 2015). Information system management collects, transmits, processes and stores data on an organisation's resources, programmes and accomplishments. The system makes possible the conversion of these data into information for use by decision makers within the organisation.

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, Lauden and Laudon (2016) assert that information system management help managers and workers of modern organisations, particularly Ghana Cocoa Board to analyse problems, visualize complex subjects, and create new products. Ghana Cocoa Board is a Ghanaian government-controlled institution that fixes the buying price for cocoa in Ghana.

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 Resource Based View Theory (RBV) to explain the management information system. The price-fixing is intended to protect farmers

from the volatile prices on the world market (COCOBOD, 2019). Ghana Cocoa Board, Accra as reputable higher producing organisation plays an important developmental role in building mother Ghana by producing quality cocoa products and manpower for every sector of our economy. Hence, the need for accurate information system management at the various units, sections, departments and faculties is very essential.

Statement of the Problem

Despite the relevance of information systems to organisations, it appears that the management and middle management team of the Ghana Cocoa Board are not getting timely reports which negatively influence decision-making (Offei-Addo, 2017). Furthermore, the structure of data and relationships are virtually not consistent across their departments. To add, although some data is available, it usually takes a longer time to be retrieved. Furthermore, Ghana Cocoa Board has not fully explored the benefits that information systems can provide in terms of corporate planning (Amudzi et al., 2016).

Addo (2010) was of the view that the problems in most manufacturing organisations in Ghana, especially Ghana Cocoa Board, Accra, tend to be inadequacy of funds, student population explosion and a lack of an efficient and effective management of information system practices. The woes of information management systems of cocoa producing organisations are not isolated to Ghana alone. It has become a recurrent issue for information to be irretrievable when required especially in producing organisations of most developing countries (Fabunmi, 2004). The difficulty of this problem is better appreciated by those who

bear the brunt especially cocoa producing institutions, agents, staffs and administrators who require product information to facilitate accurate and timely decisions. In such a situation administrator find it difficult to retrieve the information they need to formulate, implement and monitor policy and to manage key personnel and financial resources.

In Ghana, the problem mostly arises where cocoa producing organisations and others have to allocate large office space to keep files manually every year when new information is acquired (Bailey et al., 2011). With these shortcomings in mind, it would be difficult for Ghana Cocoa Board to fulfil its mission of encouraging and facilitating the production, processing and marketing of good quality cocoa, coffee and sheanut in all forms in the most efficient and cost effective manner, and maintain the best mutual industrial relation with its objectives (Ghana Cocoa Board, 2018). It is upon this premise that the present study is conducted.

As the information system management practices at Ghana Cocoa Board are yet to be explored scientifically, there is a need for a study that will provide scientific evidence on the information system management practices in the company, the challenges of information systems in the company; and the possible measures for addressing those challenges. It is this gap in literature that the present study seeks to fill. This study, therefore, will assess the management information system practices in Ghana Cocoa Board at Accra in the Greater Accra Region of Ghana.

Purpose of the Study

The purpose of this study was to assess the management information system practices in Ghana Cocoa Board at Accra in the Greater Accra Region of Ghana.

Objectives of the Study

The following are the specific objectives of the study:

1. to assess the nature of management information system practices at Ghana Cocoa Board,
2. to examine the benefits of management information system practices at Ghana Cocoa Board,
3. to ascertain the challenges of management information system practices at Ghana Cocoa Board, and

Research Questions

The following research questions will be asked to achieve the objectives of the study:

1. What is the nature of management information system practices at Ghana Cocoa Board?
2. What are the benefits of management information system practices at Ghana Cocoa Board?
3. What are the challenges of management information system at Ghana Cocoa Board?

Significance of the Study

The study will be very significant to different stakeholders. The study will help management of Ghana Cocoa Board, Head Office (Accra) to sensitize the administrative staff on the importance of effective management information system practices in the organisation. Again, the study will benefit the management of Ghana Cocoa Board, Head Office (Accra) to appreciate the challenges associated with management information system practices and how to address them. It would also help the general public and other organisation to know the importance of proper management information system practices. Furthermore, the study will help reveal the need for good management information system practices for effective planning of Ghana Cocoa Board to ensure rapid growth and development. It will also help identify the need to use appropriate information system to meet the day to day activities of Ghana Cocoa Board, Accra.

In addition, the study will ensure easy access to information by authorized people. Also, it will help provide the government with quick and accurate data for effective policy formulation and regulation. Lastly, it will also add to the body of knowledge in the area of management information systems. Moreover, it will fill in as an article which can be surveyed in further research and be utilized as a report or materials of reference by other individuals who may investigation into such point. At last, the research will likewise profit the overall population since it would extend the learning of the significance of offering support in regular daily existence.

Delimitations of the Study

The study was restricted to management information system practices at the Headquarters of Ghana Cocoa Board in Accra at the Greater Region of Ghana. It therefore confined itself to sections, departments, units in the Ghana Cocoa Board, Accra. Therefore, this study is designed to report exclusively from these respondents' perspectives. This approach is chosen because of two reasons- primarily because of financial constraints and time. Therefore, the conclusion and generalization may not be readily applicable to other universities in the country

Limitations to the Study

This research encountered several problems especially gathering appropriate data for the analysis. Generally, apathy was the major problem since some of the respondents failed to answer the questionnaire. The respondents might not have disclosed their actual opinions on certain issues related to the organisation which could be confidential in nature. Therefore, bias in their responses could be possible. Another limitation is that the quantitative nature of the research may not allow respondents to express themselves in detail. Thus, while this method provides answers to the problems of the study that are relatively more objective, respondents had to answer questions by choosing the options that had been provided. In this case they have no room to air their views in greater depth.

Finally, while the study examined the management information system practices at Ghana Cocoa Board, the study involved only a very limited sample of respondent. As a result, the conclusion that could be drawn from the study results cannot be generalised.

Organisation of the Study

The study was made up of five chapters. Chapter one looked at the background of the study, statement of the problem, research objectives, research questions and significance of the study, limitations, scope of the study and organisation of the study. Chapter two reviewed the literature available on management information system practices, its benefits and challenges in the organisation. It investigated management information system practices using literature from books and other studies relating to the topic. Chapter three described the methodology that would be used in the study: this included the population size, sample size and sampling techniques as well as methods of data collection and data analysis. Chapter four will present the data analysis and the findings based on research questions. Chapter five will provide an interpretation of the results based on the findings and provide recommendations for further studies to be conducted.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter deals with theoretical and empirical review on organisational support and employee performance. The chapter is divided into two parts. Part one identifies and explains the theoretical models and conceptual orientation on which the study was hinged. The second part is dedicated to the empirical review and conceptual framework on the management information system practices.

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 Resource Based View Theory (RBV) to explain the management information system. This is discussed in detail below:

Resource-Based View (RBV) Theory

The fundamental principle of RBV is that the basis for the competitive advantage of a firm lies primarily in the application of the bundle of valuable resources at the firm's disposal. In view of the RBV theory of the firm, outsourcing is taken as a strategic decision which can be used to fill gaps in the firm's resource and capabilities (Grover & Cheon, 1998). Normally, firms establish their specific

resources which they keep on reviewing in order to respond to shifts in the changing business environment. Hence, firms must come up with dynamic capabilities which are adaptable to the environmental changes (Petus, 2001). Capability is the key role of strategic management to ably adapt, integrate and reconfigure internal and external organizational skills, resources and functional capabilities to match the requirements of a changing environment (Zhou & Wu, 2010).

RBV theory puts more emphasis on the firm's internal resource rather than external opportunities and threats created by industry conditions. The theory maintains that in order to generate a sustainable competitive advantage, a resource must provide economic value and must be presently scarce, difficult to imitate, non-substitutable and not readily obtainable from markets (Leonidou, Christodoulides, Kyrgidou, & Palihawadana, 2017). The theory also relies on two key points; first, that resources are determinants of firm performance and second, that resources must be rare, valuable, difficult to imitate and non-substitutable by other rare resources. When the latter occurs, competitive advantage has been created (Chatzoglou, Chatzoudes, Sarigiannidis & Theriou, 2018).

The Resource-Based View theory is relevant to this study because the RBV helps to distinguish the core competences and provides knowledge about which activities must be performed in-house and which must be outsourced, determining that the possession of some resources and capabilities is what defines what the firm itself will do and what it will obtain from third parties. Starting with an analysis of the firm’s value chain and support operations, and in order to compete

efficiently, managers must develop a few critical activities at which they are the most efficient. The most effective core competences strategy consists of focusing on a few (two to four) service operations based on intellect or knowledge in conjunction with maintaining the best capabilities and provide a flexible platform for future innovations (Wang, Kung & Byrd, 2018). Porter and Kramer (2019) point out that an organization must not outsource its core competences, and that it must even create systems for their protection.

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, types, benefits, and challenges.

Concept of Information

Information has been theoretically perceived and defined differently (Bosman, 1985), and many writers, including Rene (1975) and Hintikka (1984) have indicated that the concept of information is misleading, describing it as "semantic chameleon". The differences occur because the concept of information has invaded various disciplines including natural science, economics, psychology and humanities (Burgin, 2009). Brookes (1980), Buckland (1991) and Kogut and Zander (1992) define information in terms of knowledge and concluded that information can be used in place of knowledge. However, others like Meadow and Yuan (1997), Henczel (2000) and Choo (2002) agree that data is transformed into information which is also transformed into knowledge which is used in the

operations of organisations. In this respect, Curtis (1989) defines information as data processed for a purpose, while Senn (1990) discusses information as data presented in a form that is meaningful to the recipient.

Expanding the above definitions, Robek et al. (1995) opine that information is any intelligence, which can be communicated in either graphic form or alphanumeric character, which include records, documents, data and files created and maintained by organisations. The view of McGee (1993), Walker (1993), O' Brien and Marakas (2008) and Laudon and Laudon (2010) is that, information is data that have been transformed into a form that is meaningful and useful to the recipient and has a real or perceived value and can cause a change in decision making. The various definitions of information by different writers indicate that information has some importance which needs to be explored (Adams, 2006).

According to Dorr et al. (2013), information is one of the world's most important resources that are needed to solve societal or organisational problems and make decisions affecting the present and the future. Bedward and Stredwick (2004) have indicated that information enhances organisations' knowledge, improves understanding of complex situations and reduces uncertainty. By reducing uncertainty and enhancing understanding of problems, situations are simplified and become more manageable (Pijpers, 2009). According to Bedward and Stredwick (2004) and Pijpers (2009), in order for information to perform its roles effectively, it should be relevant to the needs of the organisation. It must be accurate, reliable, consistent and must be provided at the right time. These features

of information can only be achieved through effective information management (Robertson, 2005).

Concept of Management Information System

An information system can be defined, technically, as a set of interrelated components that collect (or retrieve) process, store, and distribute information to support decision making and control in an organization (Laudon & Laudon, 2016). There are three activities in any information system that produce the information that organisations need to make decisions, control operations, analyse problems, and create new products or services. These activities are input, processing, and output. Input captures raw data from within the organisation or from its external environment. Processing converts this raw input into a more meaningful form (Gui et al., 2016). Output transfers the processed information to the people who will use it or to the activities for which it will be used. Information systems also require feedback, which is output that is returned to appropriate members of the organization to help them evaluate or correct the stage (Gui et al., 2016).

Information management has been defined differently in information management literature. Akotia (2003), Kargbo (2005), and Robertson (2005) have defined information management to include all processes for gathering, managing, disseminating, leveraging and disposing of all types of information assets within an organization. Ebbighausen (2011) added that it is the systematic, imaginative and responsible collection, storing, processing and distribution of information in order to create and use information that will contribute strategically to the achievement of organisation's goals.

According to Furduescus (2017), management information systems help managers and workers to analyse problems, visualize complex subjects, and create new products. In contributing to the literature, Akortsu and Abor (2011) stated that information management ensures that groups and individuals have efficient access to and make effective use of information. This connotes that information management is a framework by which resources are collected, coordinated, processed, controlled and managed through successive stages in order to provide information to various users for one or more purposes in an organisation.

Evolution of Information Management

IM has evolved from traditional methods of records keeping to the application of sophisticated technology (Trauth, 1989). Earl (1989) categorises the evolution of information management into traditional era and technical era. The traditional era covers the period in which information was managed manually, using human brains and hands, cabinets, papers and pen or pencils. On the other hand, the technological era is the period in which information technology is introduced into the management of information programmes to address some of the inherent problems of the manual system. The study observed that effective information management involves three activities: planning methods, control procedures and organisational arrangements. This stresses the importance of management functions (planning, organising, leading and controlling) in any information management programmes.

The traditional or manual era, according to O' Brien and Marakas (2008), was the period when human capabilities and other equipment such as file, boxes

or filing cabinets, were used to generate information for management decision making. These methods of information management have some pitfalls, which include inaccurate data/ information handling, limited capacity, and slow pace of information processing and distribution which pose a lot of challenges to organisations (Laudon and Laudon, 2010). The technological era was the period in which technological devices like computers were introduced in information management (Earl, 1989), with two sub-eras namely data processing era and information system era. The data processing era was when the technology was in the infancy stage, when simple equipment or devices were used to assist information management.

The Information System era refers to the period that saw an expansion of the data processing concept, where the raw data, previously copied manually from paper to punched cards, and later into data-entry terminals, was fed into a computer system from a variety of sources, including automatic teller machines (ATMs), electronic fund transfer (EFT), and direct customer entry through the Internet. Studies conducted by Earl (1989), Bedward and Stredwick (2004), Stair and Reynolds (2006), Laudon and Laudon (2010), Ravi (2011) and many others agree that the proper way of managing information in organisations is through information systems. They are of the view that information systems provide all the necessary information needed from inquiry level to strategic level.

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 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 enhance 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 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 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 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.

Benefits of Information Technology Systems

Information systems contribute to the efficient running of organizations. Information systems are showing the exponential growth in each decade. In line with Amankwah (2019), today's information technology has tremendously improved quality of life. Modern activities have benefited the most with better information system using the latest information technology. These benefits are as follows:

Communication Enhancement:

Communication is one of the expedient elements to help increase productivity and efficiency in the organization and with the help of information technologies, the instant messaging, emails, voice and video calls becomes quicker, cheaper and much efficient (Anshari, Almunawar, Shahrill, Wicaksono & Huda, 2017). Information technology systems help to give an upsurge in the organisation endeavours.

Globalization and Cultural Gap

By implementing information systems, we can bring down the linguistic, geographical and some cultural boundaries Sligo, Gauld, Roberts & Villa, 2017). Sharing the information, knowledge, communication and relationships between different countries, languages and cultures becomes much easier.

Information Availability

Information systems has made it possible for businesses to be open all day long and all over the globe. This means that a business can be open anytime

anywhere, making purchases from different countries easier and more convenient. It also means that you can have your goods delivered right to your doorstep with having to move a single muscle.

Creation of New Types of Jobs

One of the best advantages of information technology systems is the creation of new and interesting jobs (Atkinson & McKay, 2007; Long, 2018). Computer programmers, Systems analysers, Hardware and Software developers and Web designers are just some of the many new employment opportunities created with the help of IT.

Cost effectiveness and productivity

The IT application promotes more efficient operation of the company and also improves the supply of information to decision-makers; applying such systems can also play an important role in helping companies to put greater emphasis on information technology in order to gain a competitive advantage. According to Koivisto and Hamari (2019), IS has a positive impact on productivity, however there are some frustrations can be faced by systems users which are directly linked to lack of training and poor systems performance because of system spread.

Challenges of Information Technology Systems

Brendan (2012) opined that, growing use of information technologies in record management creates a lot of problems in the management of records in both public and private organizations. Some of these challenges are as follows:

Unemployment and Lack of Job Security

Implementing the information systems can save a great deal of time during the completion of tasks and some labour mechanic works. Most paperwork's can be processed immediately, financial transactions are automatically calculated, etc. Decker, Fischer and Ott (2017) explained that as technology improves, tasks that were formerly performed by human employees are now carried out by computer systems. For example, automated telephone answering systems have replaced live receptionists in many organizations or online and personal assistants can be good example also. Industry experts believe that the internet has made job security a big issue as since technology keeps on changing with each day (Bresnahan & Yin, 2017). This means that one has to be in a constant learning mode, if he or she wishes for their job to be secure.

Dominant Culture

While information technology may have made the world a global village, it has also contributed to one culture dominating another weaker one (Lule, 2017). For example, it is now argued that most organisation influences how most young teenagers all over the world now act, dress and behave. Languages too have become overshadowed, with English becoming the primary mode of communication for business and everything else.

Security Issues

Thieves and hackers get access to identities and corporate saboteurs target sensitive company data. Such data can include vendor information, bank records, intellectual property and personal data on company management (Crane, Matten,

Glozer & Spence, 2019). The hackers distribute the information over the Internet, sell it to rival companies or use it to damage the company's image. For example, several retail chains were targeted recently by hackers who stole customer information from their information systems and distributed Social Security numbers and credit card data over the Internet.

Implementation expenses

To integrate the information system, it requires pretty good amount of cost in a case of software, hardware and people (Davis & Yen, 2019). Software, hardware and some other services should be rented, bought and supported. Employees need to be trained with unfamiliar information technology and software.

As discussed above in a world of change, information has become the most dominant resource in the success of organizations and at the same time, organization has to meet increasing regulatory and legal requirements. The management recorded information, irrespective of form or format, is more vital to organizations than ever before (Sanderson & Ward, 2003). In its response to change, record management has moved along with several conceptual frameworks, from archives to information management. Now the discipline has to acquire another framework, derived from information and communication technology.

The problems of record keeping identified generally in the educational system in Ghana include lack of record manual and filing guidelines which lead to loss of vital information and inadequate computer terminals. Others are

difficulty in record retrieval and lack of appreciation by management and staff of the need for well-controlled records. However, theory and literature are emphatic as the significant contribution of good record keeping to an organization if it will be actualized it objectives in both short and long-term decisions.

Empirical Review

Empirical Studies on the Assessment of Management Information System Practices

Various studies have been carried out on the issue of management practices, whether it is the nature of management information or its concepts and its benefits and challenges. For example, A study by Maceviciute and Wilson (2002) revealed the changes that have occurred in information management research from 1989 to 2000. The authors reviewed the various articles published in renowned journals on the subject and the following issues came to light of empirical research in the areas of economics, management, organisational theory, information systems, library and information. The study pointed out that the new areas of concern regarding information management are economics of information and the adoption of technology, therefore there is the need for managers/practitioners to develop policies and strategies to guide the operations of information management. The review supports the fact that information management is a multidisciplinary concept and management involvement is very crucial.

Tungare (2007) studied the evolution of information management practices from users' perspectives. The review established that the major concerns

of information management practices include information overload and information fragmentation. Information overload was defined as a situation where information processing and demand on individuals/organisations exceed the capacity and competency and the time needed for such processing. It was established from the review that even though the technology has eased the processing of recording, creating, receiving, storing and disseminating, managing and using them sensibly is difficult. The amount of information generated by individuals/organisations can only increase, but organisational resources have remained constant. The situation poses a very difficult future for information workers whose job requires them to stay informed.

A similar review was conducted by Sebina (2007) set out to examine the changes that information management in Africa has undergone. It was found that most African countries are adopting freedom of information (FOI) legislation with the presumption that there exists a good information infrastructure and management is to guarantee access to information. In examining some studies done in some African countries and the United Kingdom, it emerged that information management has been neglected in Africa. The review argues that a good information management that supports businesses and corporate memory is a prerequisite for FOI legislation and therefore advised countries such as Botswana, Malawi and Ghana that are yet to adopt the legislation to consider a sound information management as a tool necessary for successful implementation of the FOI legislation. The study indicated the need for infrastructure (technology) and management involvement in information management activities. The review

re-emphasizes the importance of information management in achieving good governance.

Once again, Tagoe, Anuwa-Amarh and Nyarko (2008) examined the relationship between information management practices of small and medium size enterprises (SMEs) and their access to bank finance. Data were collected with a researcher-administered questionnaire and analysed using non-parametric correlation tests. It was found that SMEs that keep records and present certain types of information improve their access to bank finance. Other factors, such as the age of the SME and the context within which it operates, play very minor roles in determining access to finance.

Supporting the need for technology in information management, Kulcu (2009) used the survey method to evaluate the new aspect of records management with the introduction of technology. It came to light that developing official communication flow with the use of technology is a must, and there is however the need for organisations to meet legal and administrative requirements in relation to electronic records management application. Also, Almutairi (2011) conducted a study on factors influencing the information management behaviour in the Kuwaiti civil service. The study sought to evaluate the impact of personal and professional factors on public sector managers' information behaviour. The result of the study identified age, education, and information system used as the key variables that make a difference in information management behaviours of managers.

Maitland, Tchovakeu and Tapia (2009) set out to study organisational barriers to coordination arising specifically from information management and information technology issues. It emerged from the study that in dealing with information management it requires a higher level of organisational change as compared with information technology. This suggested that information management issues are different from those of information technology and the former require the attention and involvement of all the organisational members, especially the top-level managers.

Burns, Ferris and Liatsopoulos (2009) conducted a review to ascertain the awareness on the need for effective information management practices and to identify the challenges confronting many African countries in that regard. The study emphatically indicated that the various poverty reduction strategies being implemented by the various African governments will be fruitless if they do not include some policies and strategies that address governments' records. Using specific examples from some African countries, the study identified the following challenges: problem associated with the colonial administrators' failure to create an appropriate record/information management scheme; lack of funding, old and insufficient infrastructure, lack of staff with appropriate training on digital divide. The study argued that until these issues are addressed appropriately no significant impact will be made in Africa in terms of development since effective information management is an integral part of any country's rebuilding process.

A similar study was conducted by Ebbighausen, (2011) to assess the information management compliance benchmark, compare information

management programmes across five best practice areas. It emerged from the study that there is a significant improvement in information management practices but there are some challenges in the areas of policies and procedures that need to be addressed. On electronic records management, the study pointed out that there is improvement in policy development, but most organisations have not been putting them into action. Writing on the best practices of information management, the study identified five main areas namely: policies and procedures, retention, index and access, privacy and disposal, and audit and accountability. The results of the survey indicated that much have been done on investment and formulation of policy regarding information management. However, the policies are not well implemented and, in some cases, strategic plan on information management is lacking.

A similar study was conducted by Kahraman and Cevilecan (2011) on the intelligence decision systems in enterprise information management in Turkey. The study identified intelligence technique as a new tool for information management. Intelligence technique was defined as systems that support decision making by gathering, analysing and diagnosing problems, proposing possible causes of actions as well as evaluating the proposed actions. The study emphasised that for effective information management, there is the need to integrate cross functional strategies, and investment in information management should be guided by both intelligence techniques and business strategy and needs.

Once more, Kalusopa and Ngulube (2012) also examined the records management practices in labour organisations in Botswana. The study which was

quantitative in nature used a survey strategy to gather responses from 45 respondents. The study acknowledges the existence of information management practices in the various organisations, but they fall below the expected standard. The result shows that the information management programmes are faced with many problems cutting across all the processes namely, creating, storing, processing and distribution. The outcome of the study reiterates the need for policies and strategies in information management to ensure effective performance.

Likewise, Otopah and Dadzie (2013) in their study investigated the personal information management (PIM) practices of students and its implications for library services at the University of Ghana. This was a survey research, and questionnaires were administered to 150 students across their various programs of study. Questionnaire design was based on the literature reviewed and research objectives. Results showed that, format, skills, size of collection, memory, and habits accounted for diverse PIM practices among students. Among the major drawbacks were inadequate skills, information fragmentation, inappropriate habits, and imperfect memory. These aspects when improved, would enhance the effectiveness of students' PIM practices tremendously. The study adopted the PIM framework developed by James and Teevan and focused on the core activities of PIM namely: keeping, organizing and re-finding. In order to provide a fair rounded picture of the PIM situation of students, it is expected that subsequent studies would cover the remaining variables notably- information maintenance; selection

and implementation of a scheme; managing privacy and the flow of information; matters of security; measurement and evaluation; and making sense of things.

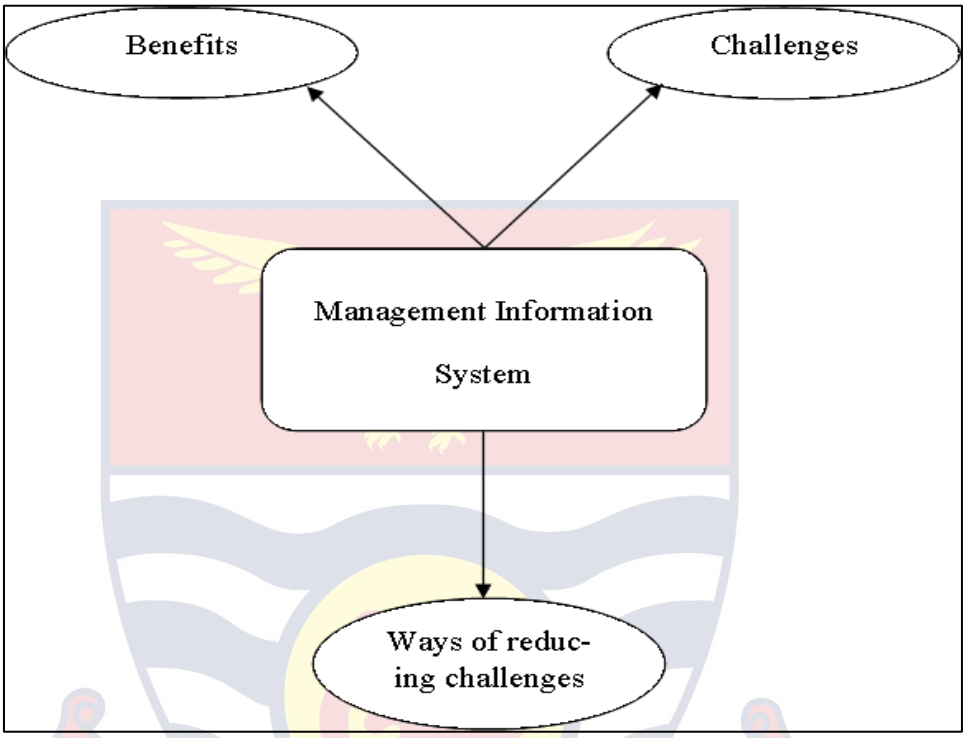
Finally, Opoku and Enu-Kwesi (2017) examined the state of information management practices in Ghanaian organisations. A descriptive survey design was employed. Descriptive statistics, independent samples t-test and factor analysis were used to analyse the views of the sampled units. The results established that more organisations in Ghana have information management strategy and policies which guide their operations, as evident in the presence of departments and staff responsible for information management, and databases. However, in general, heads of information management departments were not part of strategic management teams, while more of the organisations use a manual approach in handling their information issues. Despite these deficiencies, the respondents were satisfied with the current state of information management practices in their organisations, and that there were no differences between the public and private sectors with respect to information management practices.

Conceptual Framework

This section presents the conceptual framework of the study. It explains how the present study is explored. It dwells on the RBV theory of management, and it consistent with the research objectives. The research objective sought to examine the benefits of information system management Ghana Cocoa Board; ascertain the challenges of information system management in Ghana Cocoa Board; and explore the possible ways of reducing the challenges of information

system in Ghana Cocoa Board. The conceptual framework is demonstrated in Figure 1.

Figure 1: Conceptual Framework of The Study



Source: Author's Construct (2020)

Based on the literature review, a conceptual framework developed in Figure 1 shows that management information systems are made up of two forms. These forms are electronics and traditional information management. The proper and continuous management of these two forms of records management 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

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 benefits and challenges of management information practices with a conceptual framework within the context and scope of the study also discussed.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents a description of how the whole research process was carried out. It focuses on the key methods and areas that were used in conducting the study such as the research approach, study design, study area, population, sample and sampling techniques, research instruments, data collection method, data analysis methods and ethical consideration.

Research Approach

Yates (2004) asserted that there are two main approaches to conducting research namely, quantitative and qualitative approach. This study used a quantitative approach. Quantitative research has been defined by Burns and Grove (2005) as a formal, objective, systematic process to describe and test relationships and examines cause and effect interactions among variables. This approach is mostly employed in the natural sciences and based on information that can be measured numerically. According to Eldabi, Irani and Love (2002) quantitative approach is a logical and linear structure in which hypotheses take the form of expectations about likely causal links between the constituent variables stated in the hypotheses, therefore leading to the rejection or acceptance of the theoretical proposition. Quantitative research techniques are employed for this study given the nature and interactions between the variables examined as well as the need to test hypotheses.

Research Design

The research design selected for the study is a descriptive survey. According to Gay, Mills and Airasian (2011), a descriptive survey design involves the collection of data to answer questions concerning the current status of the subject of the study. The design reports the way things are. This design is deemed appropriate as an attempt was made to describe the existing situation by asking respondents to complete questionnaires in order to obtain data to draw meaningful conclusions. Fraenkel and Wallen (2000) identified two difficulties associated with the design. They include the difficulty of ensuring that items to be responded to are very clear, getting respondents to respond to the items thoughtfully and honestly; and the difficulty in getting enough questionnaires completed and returned. Despite the difficulties, the major advantage of this design is that it has the potential of providing a lot of information from a large sample of individuals. Necessary measures such as obtaining the validity of the instruments and direct instrumentation were taken in order to minimize the difficulties mentioned above.

Study Area

The study was conducted in the Ghana Cocoa Board (COCOBOD). Ghana Cocoa Board is a corporate body (Company) domiciled in Ghana, which was established by the Ghana Cocoa Board Act, 1984 (PNDCL 81) as amended by Ghana Cocoa Board (Amendment) Act, 1991, (PNDCL 265). The mandate of Ghana Cocoa Board as set out in section 2 of the Ghana Cocoa Board Act 1984 (PNDCL 81) as amended includes amongst others: to purchase, market and export cocoa produced in Ghana, which is graded under the Cocoa Industry Regulation

(Consolidation) Act, 1968 (NLCD 278) or any other enactment as suitable for export; to establish or encourage the establishment of industrial processing factories for the processing of cocoa and cocoa waste into marketable cocoa products; and to regulate the marketing and export of cocoa, coffee and shea-nuts cocoa, (COCOBOD Annual Report, 2014, p. 22).

In terms of its structure, the COCOBOD by far has one of the equitable HRM systems in place. With a structure that can pass as a matrix organisational structure, the company has a governing board of directors (Management Committee) - composed of government representatives one of whom serves as the chairperson. In addition, the board has institutional stakeholders', a workers' representative and, an Executive Director of the Unit all under the management team. What's more, the company is headed by Chief Executive Director assisted by two (2) Deputy Executive Directors, and five (5) departments at each head office scattered in almost all regions of the country together with managers responsible for technical (field) operations, cartography, accounts, and audit(COCOBOD Annual Report, 2017). Thus, the study area is very reliable in achieving the aim of the research.

Population

Population is a group of people or objects from which the sample for statistical measurement is going to be taken. In the context of this study, the population of the study comprises of all the management employees of COCOBOD in Accra. Only management selected staffs of COCOBOD in Accra were sampled for this study. Out of the numerous management staff of

COCOBOD, one hundred and ninety (190) are with the head office of COCOBOD. The study concentrated on the national headquarters, Accra because it is estimated that it has a total population of one hundred and ninety (190) workers.

Sample Size and Sampling Technique

Trochim (2000) describes a research population as a group that the researcher wants to generalise from and the sample as the group of people that are selected to be in the study. This was supported by Sekaran (2000) when he defined a sample as a sub-set of the population in question and comprises a selection of members from that particular population. The definition of the sample is of vital importance as the results of an investigation are not trustworthy more than the quality of the population or representation of the sample. The targeted population for this study is the management staff of the organisation and due to the small number of the population, census method was used.

The use of census is based on the argument made by Israel, (1992), who asserted that although there are several approaches to determining the sample size, one best way is to use the entire population as the sample. From the point of view of Israel, (1992), although cost considerations make this impossible for large populations, a census 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. In addition, some costs such as questionnaire design and developing the sampling frame are "fixed," that is, they will be the same for samples of 50 or

200. Finally, virtually the entire population would have to be sampled in small populations to achieve a desirable level of precision.

Data Collection Instrument

The instrument used for data collection was a self-administered questionnaire which was distributed to the target population and collected after two weeks. Questionnaire is a set of questions with a definite purpose designed for a target group of people to be administered by themselves within a particular time frame. According to Plano and Badiee, (2010), questionnaire guarantees high efficiency in data collection and high generalizability of results over the more intensive research designs. However, Creswell and Plano (2011) emphasize that questionnaire lacks flexibility in that once a questionnaire has been designed and distributed out it becomes difficult to change the categories of data collected. Questionnaire was selected for this kind of study, because it is a self-reported measure which guarantees confidentiality and therefore it is more likely to elicit truthful response with regard to the information required from the respondents.

The questionnaire was composed in a brief and appropriate language to avoid ambiguity and to attract respondent's interest. (It is attached as an Appendix B). The survey contained a number of items related to the two components of the independent variables (Recruitment and Selection) and one dependent variable (Performance). The set of questionnaires designed for respondents was divided into two sections, namely: sections A and B. The items in section A of the questionnaire collected data on the background of respondents. Also, section B sought to unearth the recruitment and selections practices at COCOBOD.

Information about the demographic data of the participants is gathered from the multiple-choice questions (closed), which just required that the right answers be ticked by the respondents. The main part of the questionnaire, which concerns the objectives of the thesis, consisted of likert-scale questions.

These questions help to ascertain how strongly the respondents agreed with a particular statement. Convenience sampling technique was used to distribute questionnaires. A four-point likert-scale was used with 1 representing strongly disagree and 4 representing strongly agree. The questionnaires were personally distributed to respondents working in the organisation.

Pre-Testing

The questionnaire was pretested to ensure clarity and information validity prior to them being administered (Strauss & Corbin, 2007). The objective of the pilot study was mainly to pre-test the questionnaire on a representative sample and to use the feedback from the pilot study to refine the questionnaire for the main research. The questionnaire was pretested on 10 respondents drawn from PBC Limited (PBC) which is one of the private leading buyers of cocoa with 33.15% share of the market. In choosing this organisation for pretesting, the researcher used convenience sampling which means that any employee available at that particular time was asked to answer the questionnaire. After pretesting, the questionnaires were found to be appropriate as there was no need to revise any of the questions.

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 experts like my supervisor painstakingly read the questionnaires and the appropriate corrections were made before it was given out.

Experts 'responses were dichotomous (clear/unclear), or according to relevancy (not relevant, somewhat relevant, quite relevant, and highly relevant). All efforts were taken to consider all the contributions of my supervisor and the suggestions whether addition or dropping certain items from the questionnaire. Many items of domains and sub-domains were manipulated and reconstructed with minor language adjustments to enhance clarity, and to be assured that the instrument is entirely applicable and understandable.

Reliability

Reliability refers to the extent to which the application of a scale produces consistent results if repeated measures are taken. It can be achieved when keeping results at a consistent level despite changing of time and place (Bowling, 2009). 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 Cronbach's alpha

test (Polit & Beck 2008). In terms of observation, reliability of observation refers to the consistency of observation in which the observers reached to the same inferences or activities of intra-observation (one observation at different time) and inter-observation reliability (more than one observer) (Polit & Beck 2008).

The Cronbach's coefficient alpha (α) was used in this study to determine the reliability of items in the questionnaire. Cronbach's alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability. 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. An alpha coefficient of 0.70 or higher indicated that the gathered data is reliable as it has a relatively high internal consistency and can be generalized to reflect opinions of all respondents in the target population (Zinbarg, et al. 2005).

Results of the Cronbach's alpha

As said earlier, in order to measure the reliability of the gathered data, Cronbach's alpha was used. Table 1 shows Cronbach's alpha of all indicators.

Table 1: Reliability of Scales and Cronbach's Alpha of Study Variables

Variable	Items Retained	Cronbach's Alpha
MIS practices	8	0.749
Benefits of MIS	6	0.834
Challenges of MIS	5	0.773

Source: Field survey (2020)

The Table 1 above provides the values of Cronbach's alpha for all the variables. It appears from the table that the values of Cronbach's alpha range

between 0.749 and 0.834. These values are all equal or well above the minimum value of 0.70. Thus, it can be concluded that the measures have an acceptable level of reliability.

Data Collection Procedure

An introductory letter from the Department of Management, School of Business, UCC was obtained to prove the authenticity of this research work. The copy of the introductory letter was given to the Manager of COCOBOD to seek their audience in order to conduct the research in their institutions. Also copies of the introductory letter were given to all the respondents alongside participants consent form for permission to invite participants who fall within the domain of the study area to participate in the study. The essence was to enable the participants to familiarise themselves with the issues for discussion. The purpose of the study was explained to the participants and they were also encouraged to participate and respond to the questions.

Nsowah-Nuamah (2005) remarked that the goal of explaining the purpose of the study to the respondents is to obtain meaningful responses that would help in the decision-making process. After explaining the rational for the study to them, a convenient date and time were set for the collection of the questionnaires from the respondents.

Response Rate

In this study, the population size was one hundred and ninety (190) management employees and due to the small number of the population the same number was used for the sample size. This means that a total of 190 questionnaires

were issued from which 175 were filled and returned which represents a response rate of 92%. This means only 15 (8%) was not returned as it can be seen in Table 2.

Table 2: Response Rate

Questionnaire	Count	Percentage (%)
Returned	175	92
Non-Returned	15	8
Total	**190**	**100**

Source: Field survey (2020)

The 92% return rate was considered to be satisfactory based on Mugenda and Mugenda (2008) who opined that a response rate of 50% is enough for analysis and reporting; a rate of (60%) is good and a response rate of (70%) and over is excellent. The high response rate was attributed to the fact that the researcher had contacts in the study area that facilitated in the data collection process. Besides, the researcher personally administered the questionnaires and also made a lot of efforts to make many follow-up calls to clarify queries with the intention to boost the high response rate.

Data Processing and Analysis

Data processing and analysis operations carried out included data editing, cleaning and classification. Data editing cleaning is the examination of the collected data to detect omissions and errors and to correct them whenever possible. Data classification is the arranging of the collected data in classes or groups with common characteristics. Similar data was then tabulated before being further analysis was conducted. The tabulated data were then analysed using

quantitative techniques. Descriptive statistics were used for the analysis of the collected data which included parameters such as measures of central tendencies and the measure of dispersion.

The responses from the questionnaires were then edited, coded using Statistical Package for Social Science (SPSS) version 22.0 for processing. This statistical software is recommended for use in studies in social sciences (De Vaus & de Vaus, 2013). In analysing the data, categories were identified and put into themes for presentation and discussion. Both inferential statistics and descriptive statistics were computed. In terms of all the objectives, the results were analysed using mean and standard deviation to assess the MIS practices, their benefits and associated challenges and finally on the various ways of reducing the identified challenges of the MIS practices at the Head Office of Ghana Cocoa Board in Accra, Ghana.

The results were presented using tables. The quantitative data collected was organized in accordance with the research questions. The responses received from the respondents were initially tabulated according to four Likert-Scale (options) contained in the questionnaire. These scales were 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree and 5 – Strongly Agree.

Ethical Considerations

Bless and Higson Smith (2000), state the main rules of data collection as: a) voluntary participation b) the right to privacy c) Freedom and d) Anonymity e) Confidentiality. All these ethical rules have been met in this research study. The study ensured that informed consent of the participants in the study was obtained.

Participant's privacy, confidentiality and anonymity were guaranteed through the researchers' permission letter, consent form and covering letter provided. As indicated by Punch (2000), all social research involve consent, access and associated ethical issues, since it is based on data from people about people. There are five human rights that require protection in research: "the right to self-determination, the right to privacy, the right to anonymity and confidentiality, the right to fair treatment, and the right to protection from discomfort and harm" (Burns & Grove, 2009, p. 189). The appropriate actions were taken to protect the human rights of the participants in this study.

Chapter Summary

The purpose of this chapter was to describe the methods used in achieving the aim of this study. So far it has been noted that for data collection and analysis, a quantitative method which involves structured questionnaire has been used. There has also been significant background information regarding the study context of COCOBOD and the way the data were collected and analysed. Ethical consideration of the study has also been revealed.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

Introduction

This chapter analyses data on the assessment of management information system practices in Ghana Cocoa Board at Accra. The data for these analyses were obtained through the administration of questionnaires. Based on the main research goal, this chapter reflects on the core research objectives as outlined in chapter One. The first section discusses the demographic background of respondents while the second section discusses the results of the research objectives.

Demographic Background Information on the Study Respondents

For the purposes of understanding the socio-demographic features of the respondents, the first section of the questionnaires was designed in such a way that the respondents could provide answers relating to their backgrounds. After analysing their answers, the information that was obtained had been summarized and shown in Table 3.

Table 3: The Results of the Demographic Features of the Respondents

Variable		Frequency	Percent (%)
Sex	Male	108	61.7
	Female	67	38.3
Age	21-30	30	17.1
	31-40	67	38.3
	41-50	47	26.9
	51 and above	31	17.7
Education Levels	SHS	28	16
	Diploma	24	13.7
	1st Degree	39	22.3
	2nd Degree	65	37.1
	Professional	19	10.9
Staff Ranking	Junior Staff	90	51.1
	Senior Staff	85	48.6
Experience	1-5 years	28	16
	6-10 years	76	43.4
	11-15 years	19	10.9
	16 years and above	52	29.7
Total		**175**	**100**

Source: Field Survey (2020)

Table 3 clearly illustrates that there were more male participants than their females' counterparts in this survey. More than half of the respondents (62%) were

males while the remaining respondents, despite the fact that the females were 38. This implies that a lot of males are employed in the service which is not surprising considering the gender inequality in terms of employment in the country. On the age distribution of the respondents, it was found out that the majority of the respondents (67) are between the age of 31 and 40 years representing about (38.3%). This higher percentage of young officers gives a positive impression that there are more young officers in the service. This could mean that the service is of interest to the young adults and for that matter attracting more young people with potentials and ideas.

Again, the table shows that 30 respondents representing (17.1%) were between 21 to 30 years which implies that in the service, majority of the respondents are in their youthful age and that the institution can be thought of a lot of potentials in terms of development in the future. In addition, 47 of the respondents representing (26.9%) were between the ages 41 to 50 years followed by 31 respondents above 51 representing (17.7%) in the service. This implies that relatively a small percentage number of employees are approaching the retirement age.

With the educational levels of the employees, it was also realized that 28 respondents representing (16%) had senior high school education from various fields, while 24 respondents representing (13.7%) had diploma education. Also, with regards to first-degree, 39 of them representing (22.3%) were found to be in this category. However, a large percentage number of the staff had second degree. With this category of staff, a total of 65 representing 37.1% were the second-

degree holders. Finally, 19 employees (10.9%) had professional education. From the table it is realized that most workers in the institution consider education as important to the growth of the country.

It can also be seen from the table that majority of respondents, that is, 90 representing (51.1%) of the sampled population were in junior officers' positions, whilst 85 respondents representing (48.6%) of the population were in senior officers' positions. This implies that majority of officers' fall within the junior officers' positions in the institutions. In terms of the how long each employee has worked in the organisation, it was found that most of them had fell within 6 to 10 years. Within these years, 76 (43.4%) has worked within them, while 28 (16%) has worked within the years of 1-5. This is followed by those who have worked for more than 16 years with a total number of 52 (29.7%). Lastly those who have worked between 11and 15 years make up 19 (10.9%).

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.

Research Objective One: The Nature of Management Information System Practices in COCOBOD

In line with the research objective one the study sought to establish the nature of MIS practices in COCOBOD. 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 COCOBOD

	N	Min	Max	Mean	S. D.
The institution has policies and procedures for creating and storing information in both paper and electronic format	175	1	4	3.19	1.015
A thoroughly documented information retention schedule that lists information categories and expected retention time periods is available at COCOBOD.	175	1	4	2.98	1.005
An organizational file plan that list primary types by functional unit so that information can be located without depending on any one employee is available in the institution.	175	1	4	3.05	1.144
COCOBOD has a vital information system that serves as a back-up in case of a disaster.	175	1	4	3.14	1.063
A management information system training program is organized annually to ensure that quality information is kept.	175	1	4	3.03	0.928

COCOBOD has in place periodic audits that provide an enforcement vehicle and assess the clarity of MIS procedures.	175	1	4	3.18	0.914
The institution adequately addresses data privacy and security issues.	175	1	4	2.89	1.053
My organisation monitors and controls information management and retrieval systems.	175	1	4	2.97	1.090

Source: Field survey (2020)

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

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 practices 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: Examining the benefits of MIS practices in COCOBOD

The study also sought to examine the benefits of management information system practices in COCOBOD. To this end, respondents were required to indicate how strongly they agree or disagree with the benefits of MIS practices in their institutions using the scale: 1= strongly disagree; 2= disagree; 3 = agree; 4= strongly agree. Table 5 below presents the findings.

Table 5: Descriptive Statistical Results of the Benefits of MIS Practices in COCOBOD

	N	Min	Max	Mean	S. D
Quick decision-making leads to the benefit of proper information system management	175	1	4	3.51	0.765
Space saving is the benefit administrative staff of the institution derive from information management	175	1	4	2.98	1.093
Reduction of storage is one of the importance of effective information system management	175	1	4	3.21	1.025
Promoting good governance contribute to the benefit of proper information system management	175	1	4	3.14	1.025
Effective information system management saves employees' time	175	1	4	3.11	1.022
Proper information system management maintain corporate and institutional memory	175	1	4	3.28	1.004

The adoption of MIS help to meet customers' demand	175	1	4	3.09	1.161

Source: Field Survey (2020)

As presented in Table 5 above, a majority of respondents strongly agreed that the most important benefits of MIS practice in COCOBOD has been quick decision-making (Mean = 3.51, SD = 0.765). The next benefit of MIS practice which the majority of respondents strongly agreed was maintenance of corporate and institutional memory (Mean= 3.28, SD=1.004). This was followed by reduction of storage (Mean=3.21, SD 1.025); promotion of good governance (Mean=3.14, SD=1.1025) and saving of employees' time (Mean=3.11, SD=1.022). However, some of the respondents also reasonably agreed that MIS helped the organisation to meet customers' demand (Mean=3.09, SD= 1.161). The least unpopular benefit was space saving (Mean=2.89, SD=1.093).

The effectiveness of the benefits of MIS practices within the context of COCOBOD, Head Office, Accra formed the first objective of the study. This implies that management information system practices occupy a strategic position in the efficient and effective management of COCOBOD information system. In fact, it is central in the administration of institutions of manufacturing because it documents the planning and implementation of appropriate course of activities allowing proper monitoring of work. The findings of this study confirm and are supported by loads of findings with respect to studies conducted in terms of the benefits of MIS practices in an organisation. Hebert (1998) and Shepherd and Yao (2003) asserted that MIS practices support decision making, demonstrate

compliance, documents the history of the organisation and perhaps most importantly enables the institution to do their jobs.

The result indicates that proper information system management promotes good governance. This agrees with the statement made by McLeod and Childs (2007), good record management help demonstrate accountability, transparency and corporate governance and is the source of information for citizens in context of open government and freedom of information. The result confirms that proper information system management maintains corporate and institutional memory. This agrees with Langemo (1995) assertion that a record is the memory of the institution, the raw materials for decision making and the basis for legal defensibility. It is also in line with Hounsome (2001) statement that proper information system management are the corporate memory of the organization, evidence of what was done and why it was done.

It can be seen that management information system practices are very beneficial to every organisation. As concluded by Kahraman and Cevilecan (2011), MIS practices serves as an intelligence technique for information management. This intelligence technique as indicated supports decision making by gathering, analysing and diagnosing problems, proposing possible causes of actions as well as evaluating the proposed actions. This can be emphasised that for effective information management, there is the need to integrate cross functional strategies, and investment in information management should be guided by both intelligence techniques and business strategy and needs.

Research Objective Three: The Challenges of Management Information System Practices in COCOBOD

In line with the research objective three the study sought to ascertain the challenges of MIS practices in COCOBOD. To this end, respondents were asked to indicate their level of agreement on the challenges of 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 6 below.

Table 6: Descriptive Statistical Results of the Challenges of MIS Practices in COCOBOD

	N	Min	Max	Mean	S. D.
Improper information management is challenge in retrieving office documents from the system	175	1	4	3.17	1.015
Lack of proper security for information system affects the information management practices at the institution.	175	1	4	2.96	1.005
Lack of professionally trained MIS managers contribute to problems of information system management	175	1	4	3.03	1.144
Inadequate resources to facilitate proper MIS practices is a problem	175	1	4	3.12	1.063
Insufficient space for information system management at COCOBOD is also challenge.	175	1	4	3.01	0.928

Implementation of management information systems requires a pretty good amount of cost	175	1	4	2.91	1.090

Source: Field survey (2020)

As presented in Table 6 above, most respondents strongly agreed that the most important challenge of MIS practice in COCOBOD has been improper information management (Mean=3.17, SD=1.015). The next challenge which many respondents strongly agreed was inadequate resources (Mean=3.12, SD=1.063). This was followed by lack of professionally trained MIS managers (Mean=3.03, SD 1.144) and insufficient space (Mean=3.01, SD=0.928). However, some of the respondents also reasonably agreed that the organisation lack of proper security for information system (Mean=2.96, SD=1.005) is a challenge. The least unpopular was the expensive nature of implementation of management information systems (Mean=2.91, SD=1.090).

The final research objective was to determine the challenges of MIS practices at Ghana Cocoa Board, Head Office, Accra. The use of MIS posed certain limitations to the organisation's operation by most of the employees at COCOBOD, Head Office, Accra. This agree with studies by Igoudala (1998) and Afolabi (1999) that personnel who maintain the registry systems with filing cabinets containing the paper evidence of business are inadequate and in fact ignorant of their responsibilities, insufficient and experience record management personnel. Also, Burns, Ferris and Liatsopoulos (2009) identified the following challenges of MIS practices in the African context: problem associated with the colonial administrators' failure to create an appropriate record/information

management scheme; lack of funding, old and insufficient infrastructure, lack of staff with appropriate training on digital divide. This implied that until these issues are addressed appropriately no significant impact will be made in Africa in terms of development since effective information management is an integral part of any country's rebuilding process.

Likewise, Otopah and Dadzie (2013) in their study confirmed that MIS practices pose some limitations to organisations and among the major drawbacks were inadequate skills, information fragmentation, inappropriate habits, and imperfect memory. These aspects when improved, would enhance the effectiveness of students' PIM practices tremendously. Finally, Opoku and Enu-Kwesi (2017) established that more organisations in Ghana have information management strategy and policies which guide their operations, as evident in the presence of departments and staff responsible for information management, and databases. However, in general, heads of information management departments were not part of strategic management teams, while more of the organisations use a manual approach in handling their information issues.

The findings acknowledged the existence of information management practices in the organisation, but these practices fall below the expected standard and hence posing certain hindrances to the efficiency of the organisation's operations. The result shows that the information management programmes are faced with many problems cutting across all the processes namely, creating, storing, processing and distribution. The outcome of the study reiterates the need

for policies and strategies in information management to ensure effective performance.

Chapter Summary

This chapter has analysed data on the assessment of MIS practices at COCOBOD in Accra. The data for these analyses were obtained through the administration of questionnaires. Based on the main research goal, this chapter has found that various MIS practices such as back-up information system, organizational file plan, management information system training program, etc respectively have been used by the COCOBOD. It was also realized that there were certain benefits as well as challenges with the adoption of the MIS practices at COCOBOD which had to remedied.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter presents summary of the research study and its findings. It first looks at the study summary followed by the findings' summary conclusions and recommendations. The implications of the areas for further research are also highlighted.

Summary of the Study

The main aim of this study has been assessing the management information system practices in Ghana Cocoa Board at Accra in the Greater Accra Region of Ghana. The specific objectives of the study were to: to assess the nature of management information system practices, to examine the benefits of management information system practices, and finally to ascertain the challenges of management information system practices at Ghana Cocoa Board Head Office, Accra. The study was based on the views of 175 employees from the study area. A self-administered questionnaire was the main research instrument. The questionnaire contained several questions (items) and was subdivided into subscales. The maximum and minimum score for each question ranged from 4 to 1 where 4 stands for Strongly Agreed, 3 is Agreed, 2 is Disagreed and 1, Strongly Disagreed.

Key Findings

The results from the survey were analysed with the help of the Statistical Package for the Social Sciences (SPSS 22.0 version) software. The major findings as they related to the specific objectives of the study have been summarized as follows. Demographically, in conformity to most Africa public sector gender composition, most of respondents who were workers were more as compared to their female counterparts. Most respondents were also found to belong to the lower level management, junior staff as compared to the senior ones. It was also established that most respondents have worked in the organisation between 6 and 10 years followed by those having worked for between 11 to15 years. In addition, it was noted that, a majority, of respondents have attained master's level degree and in terms of age, majority has the age fallen between 31-40.

The first research objective of the study sought to establish the nature of MIS practices in COCOBOD. 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 COCOBOD. 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.

The study also sought to examine the benefits of management information system practices in COCOBOD. Respondents were required to indicate how strongly they agree or disagree with the benefits of MIS practices at COCOBOD. Results showed that quick decision-making is the most important benefits of MIS practice in COCOBOD. The next benefit of MIS practice was maintenance of corporate and institutional memory and this was followed by reduction of storage, promotion of good governance and saving of employees' time. However, the least unpopular was meeting customers' demand and space saving.

The last research objective of the study sought to ascertain the challenges of MIS practices and the results showed that the most serious challenge of MIS practice in COCOBOD has been improper information management. The next challenge was inadequate resources. This was followed by lack of professionally trained MIS managers and insufficient space. However, the least unpopular ones were lack of proper security for information system and the expensive nature of implementation of management information systems.

Conclusion

From the findings, it can be concluded that COCOBOD 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.

Furthermore, the discussion has revealed that sound management information system practices is not a choice, but compulsory as it is regulated by organisations. Advocating the management of information systems as an organisational and societal benefit is therefore not an activity to be taken for granted. Ignorance on information system management can have adverse effects to the COCOBOD's performance and can drain financial resources, and that will ultimately affect service delivery. More importantly, those responsible for making MIS activities should have adequate information upon which to base their decisions.

Recommendations

In view of the findings, the study suggests that in designing and instituting MIS criteria quality should not be compromised. Information system management functions should be incorporated into the organization-wide strategic planning initiatives. Most importantly, senior management should embrace management information systems practices and function to ensure its effectiveness and should

be incorporated into their performance management targets. The recommendations of the study are as follows:

The study reveals the importance of more MIS managers and it is unfortunate that the COCOBOD, Accra has a little MIS manager. The institution needs to appoint information system managers whose responsibilities will be compilation, implementation, maintenance and utilization of approved filing systems and the information filed according to these systems. Again, information system management is a field that needs to be run by experienced professionals who will know what has to be done. It is therefore necessary for the COCOBOD to train their information system management staff to have a qualification in information systems management. Workshops and seminars should be organized by the organisation to train staff on management information system practices. Furthermore, all the officials of COCOBOD should be workshopped on the Management Information System Policy and the Procedure and should be posted on company's website for easy access. Also, there should be MIS Control Schedule to control and manage all the departments information and prevent unauthorized removal and destruction of information.

Suggestions for Further Studies

Based on the findings and limitations in this research, several suggestions for further research are presented. Firstly, a further study may compare MIS practices of organisations in different sectors, such as the public and private. This will explore whether the sectorial characteristics differences cause any impact of the MIS practices on organisational performances. Secondly, the population

sample could be extended to the whole of COCOBOD institution in Ghana. In this way, better results could be obtained, and generalization of the study findings could be made with little or no reservation. Finally, it is recommended that in-depth research should be applied to the study of MIS practices through the use of mixed method. In this way, the respondents could have more room to express their views in detail without any restrictions as compared to the one inherently imposed by quantitative method. With the qualitative method added, it will help the outcome to be more credible and reliable.

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APPENDICES

APPENDIX A: INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST

SCHOOL OF BUSINESS

DEPARTMENT OF MANAGEMENT

Telephone: 03321 32440/32444 Ext. 219/220
Direct: 03321 37870
Telegrams: University, Cape Coast
Telex: 2552, UCC, GH.

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Dear Sir/Madam,

INTRODUCTORY LETTER FOR HUGH ADU-ASANTE

The bearer of this letter, Hugh ADU-ASANTE is an MBA (General Management) student of the School of Business. He is writing his dissertation on "Assessing Management Information System Practices at Ghana Cocoa Board (COCOBOD), Head Office, Accra In the Greater Accra Region of Ghana".

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

We appreciate your co-operation.

Yours faithfully,

Signed

N. O .O

HEAD

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 MANAGEMENT INFORMATION SYSTEM PRACTICES AT GHANA COCOA BOARD (COCOBOD), HEAD OFFICE, ACCRA IN THE GREATER ACCRA REGION OF GHANA**". 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

Hugh Adu-Asante

SECTION A

SOCIO-DEMOGRAPHIC DATA OF RESPONDENTS

To answer a question, either tick [√] or write short notes on the space provided where necessary.

1. Gender:

   a. Female [ ]

   b. Male [ ]

2. Educational level

   a. SHS [ ]

   b. Diploma [ ]

   c. 1st Degree [ ]

   d. 2nd Degree [ ]

   e. Professional [ ]

3. Staff ranking

   a. Junior staff [ ]

   b. Senior staff [ ]

4. Experience

   a. 1-5 year [ ]

   b. 6-10 years [ ]

   c. 11-15 years [ ]

   d. 16 and above [ ]

SECTION B

QUESTIONNAIRES ON MANAGEMENT INFORMATION SYSTEM PRACTICES

The statements are about the assessment of MIS practices of COCOBOD. 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 COCOBOD.				
An organizational file plan that list primary types by functional unit so that information can be located without depending on any one employee is available in the institution.				
COCOBOD 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.				

COCOBOD 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.				

BENEFITS OF MIS PRACTICES

Items	**SD**	**D**	**A**	**SA**
Quick decision-making leads to the benefit of proper information system management				
Space saving is the benefit administrative staff of the institution derive from information management				
Reduction of storage is one of the importance of effective information system management				
Promoting good governance contribute to the benefit of proper information system management				
Effective information system management saves employees' time				
Proper information system management maintain corporate and institutional memory				
The adoption of MIS help to meet customers' demand				

CHALLENGES OF MIS PRACTICES

Items	**SD**	**D**	**A**	**SA**
Improper information management is challenge in retrieving office documents from the system				
Lack of proper security for information system affects the information management practices at the institution.				

Lack of professionally trained MIS managers contribute to problems of information system management				
Inadequate resources to facilitate proper MIS practices is a problem				
Insufficient space for information system management at COCOBOD is also challenge.				
Implementation of management information systems requires a pretty good amount of cost