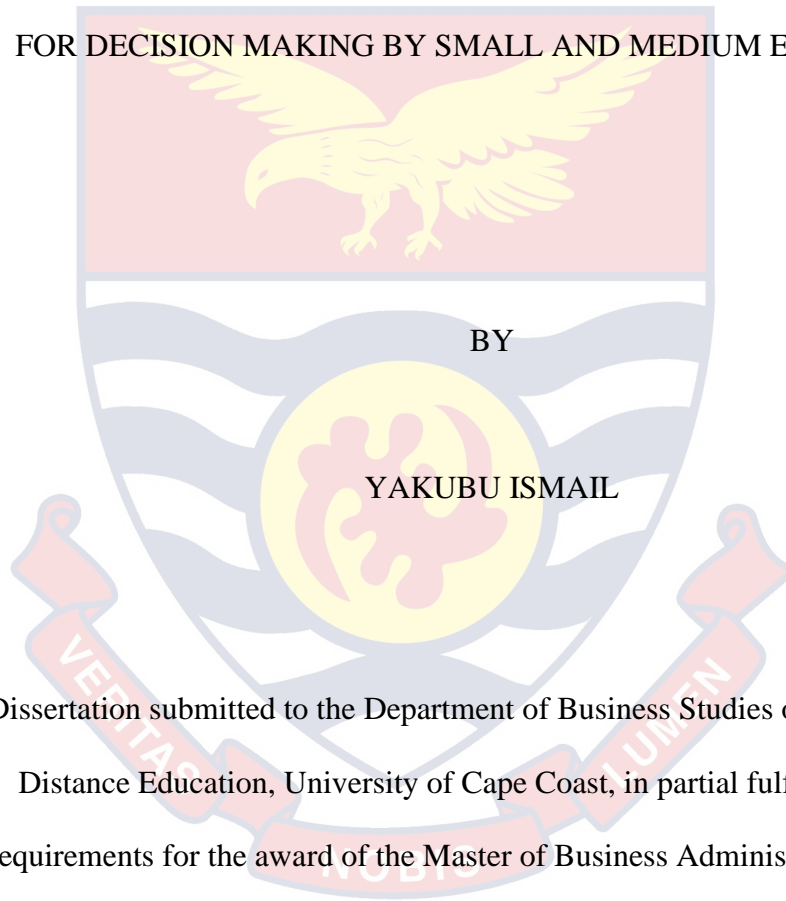


UNIVERSITY OF CAPE COAST

ASSESSING THE ADOPTION OF ACCOUNTING INFORMATION SYSTEM
FOR DECISION MAKING BY SMALL AND MEDIUM ENTERPRISE.



Dissertation submitted to the Department of Business Studies of the College of
Distance Education, University of Cape Coast, in partial fulfillment of the
requirements for the award of the Master of Business Administration degree in
Accounting.

APRIL 2019

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the results of my original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature Date

Name: Yakubu Ismail

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature Date

Name: Mr. Isaac Kwadwo Anim

ABSTRACT

Over the years, the business environments are increasingly becoming highly integrated and more complex due to a sudden rise to the numerous business functions and operations at the various work places. This study was conducted to assess the adoption of Accounting Information System for decision making of Small and Medium Enterprises in Tamale Metropolitan Assembly. The specific objectives that guided the study were to assess the existing accounting information system used by SMEs, to determine the adequacy of the AIS of the SMES of the TMA and to identify the various AIS adopted by small scale and how AIS affects decision making. Additionally, the study aimed at suggesting appropriate AIS for the effective and efficient provision of business information to small scale businesses in TMA. Descriptive research design and a purposive sample of 100 SMEs were recruited for the study. The findings revealed that most of the SMEs uses accounting system information in its operations. Moreover, there was a positive relationship between Accounting Information System and decision making of SMEs Questionnaire was the instrument used in soliciting respondents' views to address the research objectives based on the set objectives, the following key findings emerged: The respondents under this study were agric inputs dealers. The study revealed that specific AISs used by the SMEs were using are Pastel, Tally, Excel and Quick books. It was also noted that respondents encounter some challenges in using AISs and some of these challenges were ignorance about usage and frequent breakdown of channels.

ACKNOWLEDGMENTS

I would like to express my sincere gratitude to my supervisor, Mr. Isaac Kwadwo Anim for his invaluable guidance and directives in conducting this study. I sincerely appreciate his patience and efforts. Once more, I say thank you, Sir!

I wish to thank the Auditor University for Development studies Nyankpala, Mr. Baba Hananu, dean of degree programmes Tamale Technical University, Dr. Mahama Muntari, and indeed all the staff of the Iddisal and Wumpini Agro Chemicals are due special thanks for sharing their insights and timely response to the research questionnaire. May Allah Almighty richly bless them in manifold. I also wish to place on record my profound appreciation to my colleagues for their encouragement and relentless efforts in always giving me good counsel. May God richly bless you all.

I am especially indebted to my parents for their unflinching moral and financial support all through my life especially at the higher level of my educational career.

DEDICATION

To my wife and children.



TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGMENTS	iv
DEDICATION	v
TABLE OF CONTENTS	vi
LIST OF TABLES	x
LIST OF FIGURES	xi
CHAPTER ONE: INTRODUCTION	
Background to the Study	4
Statement of the Problem	6
Purpose of the Study	9
Research Objectives	9
Research Questions	9
Significance of the Study	9
Delimitation of the Study	10
Limitation of the Study	10
Organization of the Study	11
CHAPTER TWO: LITERATURE REVIEW	
Introduction	12
Theoretical Framework	12
The Concept of Small Medium Scale Enterprises	14

Concept of Accounting Information System (AISs)	18
Accounting Information Software System (AISS)	20
Accounting Software	21
Audit software	22
Word Processing Software	22
Spread Sheets	23
Graphics Software	23
Electronic data interchange (EDI)	23
Security	24
Internet	24
Problems Faced by Small and Medium Enterprise (SMEs) in their Operations	25
Empirical Literature Review	27
Chapter Summary	36
CHAPTER THREE: RESEARCH METHODS	
Introduction	37
Research Design	37
Study Area	38
Target Population	38
Sample size and sampling procedure	39
Data Collection Instrument	40
Data & Collection Procedure	41
Chapter Summary	41

CHAPTER FOUR: RESULTS AND DISCUSSION

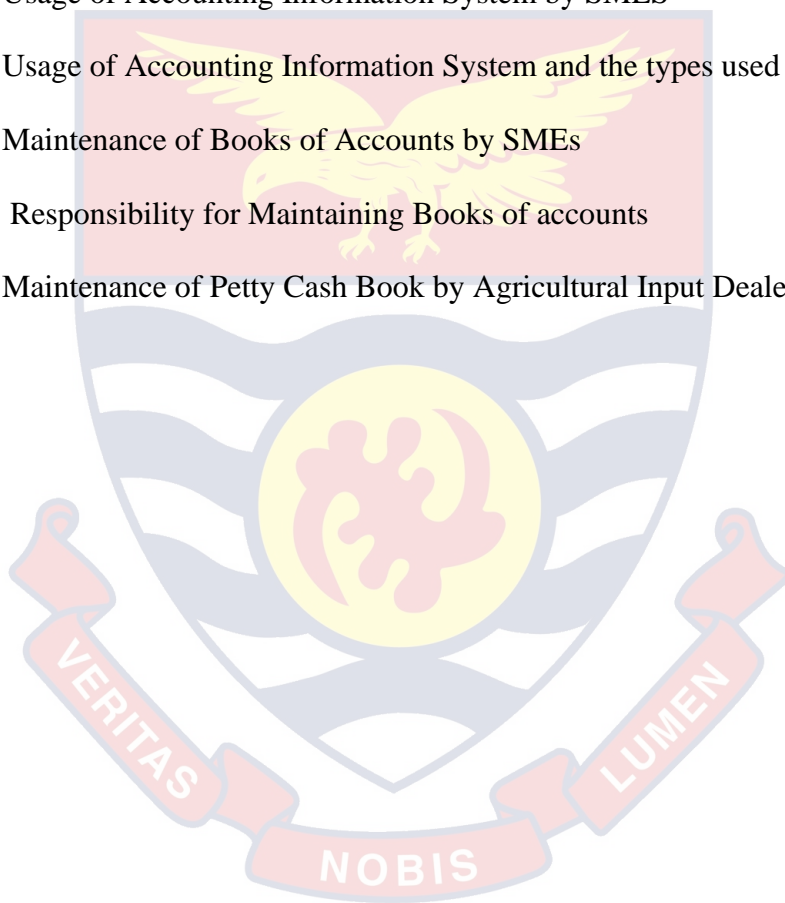
Introduction	42
Demographic Data of Respondents	42
Educational Attainment of Respondents	44
The Existing Accounting Information System used by SMEs for Decision Making in the Tamale Metropolis	46
Adoption of Accounting Information System by SMEs	46
Responsibility for Maintaining Books of Accounts by SMEs	48
Maintenance of Petty Cash Book by SMEs	49
Preparation of Bank Reconciliation Statements	50
Preparation of Financial Statements by Agriculture Input Dealers	51
Types of Statement Prepared by Agriculture Input Dealers	52
Chances of the Agricultural Input Dealers to Respondents	53
The adequacy of the Accounting Information System of the SMEs for decision making.	54
Challenges Face in Ensuring Sound Accounting Practices	55
Problems encountered by Organizations in the Implementation of Accounting Practices	56
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	
Introduction	58
Summary	58

Recommendations.	60
Suggestions for Further Research	60
REFERENCES	61
APPENDIX	71



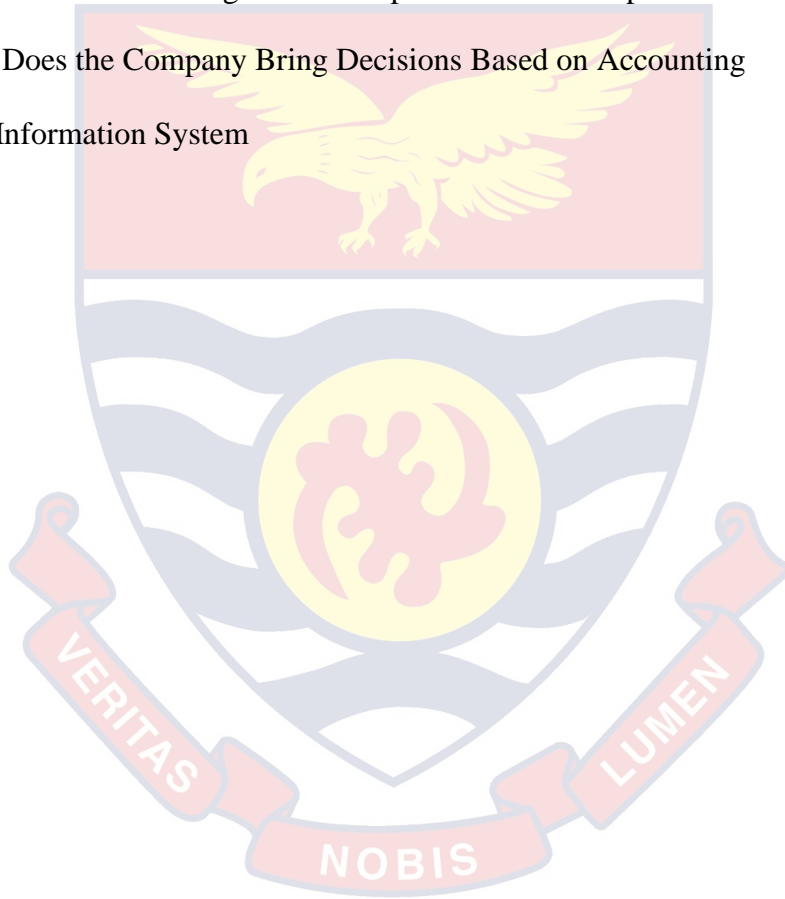
LIST OF TABLES

Table	Page
1 Gender Distribution of Respondents	43
2 Age Distribution of Respondents	43
3 Level of Education of Respondents	45
4 Usage of Accounting Information System by SMES	46
5 Usage of Accounting Information System and the types used	47
6 Maintenance of Books of Accounts by SMEs	48
7 Responsibility for Maintaining Books of accounts	48
8 Maintenance of Petty Cash Book by Agricultural Input Dealers	49



LIST OF FIGURES

Figure	Page
1 Preparation of Bank Reconciliation Statements	50
2 Preparation of Financial Statements by Agriculture Input Dealers	51
3 Types of Statement Prepared by Agricultural Input Dealers	52
4 Chances of the Agricultural Input Dealers to Respondents	53
5 Does the Company Bring Decisions Based on Accounting Information System	55



CHAPTER ONE

INTRODUCTION

Accounting is the information system that measures business activity, processes the information into reports, and communicates the results to decision makers. Accounting is “the language of business.” If this is the case, then an accounting information system is the intelligence or the information providing vehicle of that language. Accounting information system is a system that gathers, records, stores, and processes data to produce information for decision makers (Romney & Steinbart, 2012). An accounting information system can be either manual system or a computerized system that use information technology or something in between. The procedure is the same without regarding the approach taken. Accounting information system must gather, enter, process, store and report financial information. The manual or computer hardware and software are the tools used to produce the information (Romney & Steinbart, 2012).

Accounting information system is a subsystem of organizational management information systems. The purpose of the accounting information system is to measure financial performance of a business organization and performing organizational accounting functions. Accounting information is required not only by management in managing the financial activities of the companies but also by shareholders, who need regular financial statement in order to evaluate business performance. It is required by a government to ensure the effective utilization of the country’s resources therefore; it plays a significant role in all economic and social aspects. It also assists auditing and examining

irregularities and misappropriations (Ahmad, Rand, & Raed, 2016). With the global integration of goods and services, markets and competition, businesses need to be more effective, flexible, offer enhanced quality products and services, reduce cost and be timelier in meeting customer's needs. Accounting information systems provide essential resources in order to meet these requirements effectively (Smith & Puasa, 2016) Accounting information has a great potential to have an impact on enterprise's performance. Extensive use of accounting information system is used to make financial and managerial decisions of the firm. In developing countries, these decisions are highly expensive which leads to annual loss of millions or billions of dollars when such decisions are made poorly. Therefore, it is essential for financial decision making to correctly, guided by improving quality of information system through the use of accounting information system which gives a competitive edge to enterprises and improving their organizational performance (Soto-Acosta, Popa, & Palacios-Marques, 2015). The accounting information system is considered as a requirement in the small and medium-size organization in which massive amount of information is required to perform the level of performance.

Using new technology such as accounting information system have a more significant benefit for businesses in which the accounting information system give job satisfaction and keep the enterprise survive (Aziz, 2003). Generally, businesses have received a huge demand to improve information processing capacity because of the need for high amount of information responses to enable information system in boosting up performance. Accounting information system

could help small and medium enterprises to control short-term issues in areas of expenditure, costing and cash stream by offering information to assist, control and monitoring (Ismail & King, Factors influencing the alignment of accounting information systems in small and medium sized Malaysian manufacturing firm, 2007).

Technology innovation directly and indirectly affects small and medium enterprises performance (Soto-Acosta, Popa, & Palacios-Marques, 2015). Information system technology is increasingly becoming significant in public service to render services of high quality for large as well as small business organizations (Jacobsen, 2018). Many of problems of organizations problems could be solved by moving from manual information system to a more advanced system such as adopting accounting information system, in order to overcome the increased volume of business transactions and high demand of useful information (Smith & Puasa, 2016). Despite all the advantages associated with the use of accounting information system, a number of businesses and organizations faced the risk of failure in adopting it due to lack of infrastructure, poor electricity supply (Malik & Khan), lack of commitment, difficulty of obtaining suitable hardware and software, lack of skilled personnel (Ismail, 2003), management inability and poor management (Alnajjar, 2016) (Meiryani, 2014), lack of resources (Soto-Acosta, Popa, & Palacios-Marques, 2015), Lack of capital (Harash, Al-Timimi, & Radhi, 2014). This paper will have a great contribution to the academic literature by directing researchers in the area of accounting information system to examine the results of previous studies to find relationships

among accounting information system adoption and implementation with its factors.

Background to the Study

The wave of globalization has largely influenced financial and economic decisions of countries and organizations worldwide. Information for that matter has become a major driver of globalization (Jawabreh & Alrabei, 2012). Accordingly, Elvisa and Ilgun, (2015) noted that information is a powerful and indispensable resource without which an entity is unable to accomplish growth and development objectives. By implication, decisions that entities make should be based on information that is precise, relevant, reliable, timely and unambiguous. Considering the global uncertainties, wrong decisions as a result of inaccurate information have dire consequences on the survival of the organization. The globalized market is characterized by competition and unpredictable changes with global economic indicators as well as market dynamics. In the context of business enterprise and in financial management, the quality of decisions is dependent on the substance and accuracy of accounting information provided by systems being utilized by organizations (Adebayor, Seada, Regyannah, Meenakshi & Lara, 2013).

Modern companies make use of sophisticated machinery to collect, monitor and analyses data and information to enhance making precise decisions for organizational development. Accounting information systems are also used to monitor the financial condition of firms, and the preparation of documents necessary for tax purposes. Invariably the system provides information to support

organizational functions in areas such as production, marketing, human resource management, and strategic planning (Amidu et al, 2011). AIS have become integrated in modern organization in that without such a system it will be very difficult for organizations to determine performance, identify customer and supplier account balances and as well forecast future performance of the organization. Accounting Information Systems (AIS) therefore refer to manual systems, computerized systems or a hybrid of manual and computerized systems that are used in the recording and reporting of business transactions, as well as generating reports and financial statements to aid in the planning and controlling of a business' operations (Gutierrez, Ray, Nicolas & Omar, 2011).

Stair & Reynolds, (2006) also stated that information that is accounting in nature and operates within a system adds value that creates a competitive advantage for organizations. Every private or public organization whether profit-making or non-profit making oriented, small or large scale, requires accounting information to make prudent decisions and survive competition. To survive the market place competition, each company strives to own machinery, mainly AIS, to be able to serve their clients better. The use of AIS have not only been a practice by multinational companies but also small and medium enterprises (SMEs) across various economies make use of AIS.

In Ghana, SMEs contribute immensely to the industrial output and export of goods and services. They play an important role as the engine of growth of the economy with about 70% contribution to GDP, (Villars, 2004). A study conducted by (Agyei-Mensah, 2010), revealed that, the availability of affordable

computers and suitable software plays an important part in processing and generating accounting information for decision making, however the study revealed that majority of small enterprises in Ghana have never used computers and computer software to prepare their accounts. The failure to adopt and utilize an accounting information system has caused the marginalization of the SME sector in terms of financing and growth.

Statement of the Problem

Globally, Accounting Information System (AIS) has in the last three decades been used to produce incalculable results in organizations of different shapes. The introduction of excel (spread sheets) and other software packages have helped both accounting and other non-accounting departments to easily compute figures that were hitherto, not easy to compute before the last three decades (Agyei-Mensah, 2010). Several businesses including SMEs have resolved challenges that were otherwise hindering progression or hindering goal accomplishment with the use of AIS. AISs have introduced a lot of swift paradigms in modern business set-ups and are evident by the successive growth in such modern businesses that have adopted the use of Accounting Information System (Agyei-Mensah, 2010).

The changes that occurred within the business environment have led to an increasing number of information to be processed, generated and delivered. Thus, the critical part is the quality of accounting information produced by the business which will be used in making business decisions (Mukherji, 2002). Small and Medium Enterprises (SMEs) encounter increasing competitive pressure fuelled by

globalization, which has brought in its wake increased market expansion due to emerging technologies and innovation (Dzisi, Boateng, Wen, Brew & Chilya, 2014). Regrettably the pace of adoption of modern accounting information system has been abysmal and slow by SMEs.

According to Tavakolian, (2015), SMEs are used to the manual accounting systems consisting of paper ledgers, typewriters and calculators. With this system, it is possible for errors to be introduced and that the error could go undetected for quite some time. Berryman (1983) noted that poor or careless financial management is a major cause of small business failures. Most internal problems of small firms relate to inadequate capital, cash flow management and poor inventory control (Gaskill, & Van, 1993).

Consequently, the action and inactions of owners of small firms could also act as significant barriers to the adoption and utilization of accounting information system. The lack of understanding of accounting information presented in the form difficult to understand could act as barriers in implementing sound accounting systems. Mirat (2013) noted that the level of awareness on the importance of accounting information is still very low in small and medium firms. Accounting is generally not viewed as a core part of many small businesses in Ghana hence these small firms tend not to employ qualified finance personnel (Agyei- Mensah, 2010). Most of these small firms assume they are saving money by employing cheap labor to carry out accounting functions (Agyei- Mensah, 2010). Poor accounting recording keeping and practices is one of the causes of poor performance of small and medium businesses in Ghana.

Agric input dealers usually retails agro inputs and provides tillage services to farmers in the capital of Northern Region, Tamale Metro. These enterprises have been in existence for two decades, offering tillage services to over 1000 smallholder farmers in the Northern Region. These enterprises are usually registered as a sole proprietorship and employ at least 20 people. Among the employees are an accountant and sales personals. The enterprises have a range of fix assets, which include tractors, combine harvesters and a number of cultivations, processing and marketing machines. These enterprises perform financial transactions with wholesalers, companies and banks. Considering the numerous financial transactions, it will be prudent for the enterprises to adopt efficient Accounting Information system (AIS) in decision making regarding the financial soundness, and eventually the growth of the enterprises. In spite of the importance of AIS in decision making, Tavakolian's research in 2015 at Thailand stated that, agricultural input dealers' enterprises operate a poor accounting system. Similar research work has been taken place in other countries like Brazil, Ivory Coast and Thailand where farming is one of the major sources of income to the nation. None of such research has been taken place in Ghana and Tamale to be specific. This work seeks to address these gaps by conducting a study to assess the adoption of accounting information system as a tool for decision making by Agricultural input dealers in the Tamale Metropolis as a reference point.

Purpose of the Study

The general objective of the study is to assess the adoption of Accounting Information System for decision making by Small and Medium Enterprises in the Tamale Metropolis.

Research Objectives

In order to achieve the purpose of the study, the study seeks specifically to:

1. Assess the existing accounting information system used by Small and Medium Enterprises for decision making in the Tamale Metropolis.
2. Determine the adequacy of the Accounting Information System of the SME's of Tamale Metropolis.

Research Questions

1. What are the accounting information system used by SMEs for decision making in the Tamale Metropolis?
2. How adequate is Accounting Information System used by SMEs in Tamale Metropolis for decision making?
3. How has the adoption of accounting Information System impact on decision making by SMEs in the Tamale Metropolis?

Significance of the Study

The study will research into the nature of the existing accounting information system of Small and Medium Enterprises who deals in agricultural inputs in the agric sector. This will help the SMEs in the adoption and utilization of efficient accounting information system that will improve the decision making

of SMEs. The study can again bring out the problems associated with the adoption of accounting information system in SMEs. The study can enable stakeholders within the SMEs development sector to improve on the slow adoption and utilization of accounting information system in Northern Region – Tamale Metropolis to be specific, and ways to address it.

The study can assist other researchers who will carry out similar studies in the future. The study can also make recommendations for policy directions and further studies on adoptions and utilization of simple accounting Information System to be chosen for adoption for SMEs in the Capital of Northern Region – Tamale Metropolis to be specific.

Delimitation of the Study

The study focuses on assessing the adoption of accounting information system for decision making by SMEs that deals in agric input in the Tamale Metropolis. The study is limited to Agric input dealers due to time and its easy accessibility. The study was conducted within the framework of assessing the adoption of accounting information system for decision making. It will be based on people who engages in small businesses in Tamale Metropolis.

Limitation of the Study

The limitation of the study is that it covers just selected small businesses that deals in agric products in Tamale Metropolis due to time and financial constraints. Thus, the scope of the study was limited geographically but the selection was done to reflect the diversity in the SMEs in the Region so the

findings still reflect the specific issues in the small business that deals in agric products in the Region. Again, getting access to business managers to disclose information or answer questionnaires was difficult. given that directors of small businesses mostly do not have a personal office at the business premises or couple as managers of other small firms. Also, not all questions will be answered correctly whilst some questionnaires were also not be returned.

Organization of the Study

The dissertation will be structured into five chapters. Chapter one will consist of the background to the study, the statement of the problem, research questions, significant of the study, limitations and delimitations as well as the organization of the study. Chapter two will be on a review of related literature. This chapter will provide the fundamentals of the study and helps to shape the nature and direction of the study. Chapter three will be on the research methods of the study. It will cover the research design, the population and sampling procedures, data and data collection procedure, research instruments, as well as method of data processing and analysis. Chapter four will presents the results and discussions of the study whiles Chapter five will presents the summary of the findings, conclusions and recommendations for the study.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews the meaning and definition of Accounting Information System and the concepts of SMEs that deals in agric products. The chapter seeks to review the works relating to the adoption of Accounting Information System by SMEs and its impact on the performance these SMEs. The scope of the empirical review of existing literature will be based on evidence from Ghana and other countries as may be useful. The chapter also explains the nature and use of Accounting Information in business organisation, challenges encountered with the use of Accounting Information System and the research gap.

Theoretical Framework

The Contingency Theory

Pike (1986) explained the contingency theory in relation to business management to mean that the efficiency of resource allocation is not simply a matter of adopting complex, theoretically higher investment techniques and procedures but also attention must be given to the fit between the corporate setting and the design and operation of the company's system. Three characteristics of the corporate setting which are assumed to be related with the use of Accounting Information System have been emphasised by Pike.

Kitonga (2013), identified firm's organisational characteristics as the first of such aspects. In this regard, Pike argued that large companies are characterised

by decentralisation and a more administratively oriented control plan concerning a higher degree of standardisation. Moreover, smaller and less complex organisations tend to adopt interpersonal and simple systems to keep data. However, Akas, Gordon and Pinches (1985) have a contradictory view and argued that firms will experience more benefits from using complex accounting systems. This idea, according to Kitonga (2013), was based on findings of a study conducted by Sundemin (1980), which found out that the use of sophisticated systems methods is inversely related to environmental uncertainty.

Pike (1986), recognised environmental uncertainty as the second feature of firms and argued that the more mutable and random the context of operation is, the less suitable will be the highly bureaucratic, mechanistic capital budgeting arrangements. According to Pike, businesses working in highly indeterminate environments are assumed to benefit from complex investment approaches, mainly in appraising risk. Finally, Pike was concerned about behaviour characteristics of firms. In terms of behaviour characteristics, Pike recognises three characteristics, namely degree of professionalism, the history of the organisation and the management style. According to Kitonga (2013), Pike explained that an administratively-oriented capital budgeting control policy is assumed to be consistent with analytical style of management, a high degree of professional competence and a history of ordinary investment outcomes.

Agency Theory

Agency theory has been one of the most important theoretical paradigms in accounting during the last 20 years. The primary feature of agency theory that

has made it attractive to accounting researchers is that it allows us to explicitly incorporate conflicts of interest, incentive problems, and mechanisms for controlling incentive problems into our models. This is important because much of the motivation for accounting and auditing has to do with the control of incentive problems, (Kaplan & Norton, 1993). It is generally assumed that the principal is risk-neutral and the agent is risk- and effort averse. The principal and agent are assumed to be motivated by self-interest, often leading to conflicting objectives. Compensation contracts bring these conflicting objectives into equilibrium (David, Julie & Smith 1999). The sharing rule that determines the allocation of outcome between the principal and the agent is called a contract, whether it is written or not. Thus, agency theory provides a vehicle for formal, direct analysis of the economic elements of incentive compensation contracts based on effort levels or surrogates of effort levels. In conclusion agency theory is used in this research to address two questions; how do features of information, accounting, and compensation systems affect (reduce or make worse) incentive problems and how does the existence of incentive problems affect the design and structure of accounting information systems? Agency theory provides a framework for addressing these issues and rigorously examining the link between accounting information systems, incentives, and behavior.

The Concept of Small Medium Scale Enterprises

A research conducted by the national board for small scale industries in Ghana in 2012, revealed that most of the SMEs in the country practiced inaccurate, inadequate and below standard accounting information system and

internal control systems as a tool for monitoring and checking fraud. Furthermore, reports from the Business Advisory Centre (BAC) of the NBSSI have shown that, accounting information system is a major problem facing the country's SMEs. The report went further to state that the manner in which those who practice basic accounting information system are done could not support any effective financial management of these businesses (2004 NBSSI/ BAC, annual report). Made further division of small-scale businesses into three categories; Micro businesses referring to those employing less than 6 people, very small-scale businesses for those employing 6 to 9 people and small-scale businesses for those with employees between 10 and 29 people. According to Harun (2010), classification is on critical financial information that is mostly needed by the small-scale businesses to increase their competitiveness or success into; taxation financial accounting, management accounting and strategic planning and these services differ between "fast growth stage" and "enterprise companies".

Abor and Quartey (2010), indicated that the issue of what constitutes a small or medium enterprise is a major concern in the literature. Different authors have usually given different definitions to this category of business. SMEs have indeed not been spared with the definition problem that is usually associated with concepts which have many components. The definition of firms by size varies among researchers. Some attempt to use the capital assets while others use skill of labour and turnover level. Others define SMEs in terms of their legal status and method of production. Storey (1994) tries to sum up the danger of using size to define the status of a firm by stating that in some sectors all firms may be

regarded as small, whilst in other sectors there are possibly no firms which are small.

According to Flora (2003), an African economist, she sees Small and Medium Enterprises as a small-scale enterprise that employs a small number of workers and does not have a high volume of sales. An alternate criterion used in defining small and medium enterprises is the value of fixed assets in the organisation. However, the National Board of Small-Scale Industries (NBSSI) in Ghana applies both the 'fixed assets and number of employees' criteria. It defines a small-scale enterprise as one with not more than 9 workers, has plant and machinery (excluding land, buildings and vehicles) not exceeding 10 million Cedis (US\$ 9506, using 1994 exchange rate). The Ghana Enterprise Development Commission (GEDC) on the other hand uses a 10 million Cedis upper limit definition for plant and machinery.

According to Atijosan (1998), a small-scale business is any manufacturing, processing or servicing industry that satisfies any or all of the following conditions:

1. Capital, but excluding cost of land and not exceeding N750,000
2. Staff strength not exceeding 50 persons and wholly Nigerian owned.
3. A manufacturing, processing or servicing industry, exceeding the units of investment stated is relatively small compared to prevalent size of plant and the technology is fairly labour intensive.

The International Accounting Standard Board (IASB) (2002), refers to small scale businesses or entities as those entities that do not have public accountability and do not also publish general purpose financial statements for external users. Australian Bureau of statistics (2001), defined small scale business as a business (excluding agriculture) that employs not more than 200 people. Central Bank of Nigeria, defined small scale business as all businesses with a total assets investment of less than one million, an annual turnover of less than one million and with a total number of employees of less than fifty (World Bank Mapping 2005). According to Ademola (2012), small scale businesses are catalysts for world's economic growth and development which have dominated the industrial sector of both developed and underdeveloped countries.

Steel and Webster (1990) in defining small scale businesses in Ghana used an employment cut off point of 30 employees to indicate small scale enterprises. The latter however dis-aggregated small-scale enterprises into 3 categories:

- (i) micro -employing less than 6 people;
- (ii) very small, those employing 6-9 people;
- (iii) small -between 10 and 29 employees.

In the case of Malawi, the official definition of enterprise sizes dates back to 1992. The definition is based on three criteria, viz.: the level of capital investment, number of employees and turnover.

Again, Steel and Webster (1990), an enterprise is defined as small scale if it satisfies any two of the following three criteria, that is, it has a capital investment of US\$2,000 - US\$55,000, employing 5 - 20 people and with a

turnover of up to US\$110,000 (using 1992 official exchange rate). For manufacturing enterprises, capital investment is taken to mean the cost of plant and machinery, including working capital and the cost of land and buildings. It may be observed that since this official definition was given in 1992, the economic situation in the country has changed drastically, with the value of the kwacha falling from an official rate of MK3.60 to US\$1 in 1992 to MK15.30 to US\$1 in 1996 and to MK43.15 as of January 1999. The implication is that the existing official definition is out of date and needs to be revised. Such enterprises are generally privately owned and operated sole proprietorships, corporations or partnerships. And depending on the country and the industry, a small-scale company employs between 250 and 1,500 people. Anything above that is a large-scale company.

Ghana Statistical Service (GSS), (2004) in their report, the Ghana Statistical Service (GSS) considers firms with less than 10 employees as small-scale businesses and their counterparts with more than 10 employees as Medium and Large-Sized Enterprises. Ironically, the GSS in its national accounts considered companies with up to 9 employees as Small and Medium Enterprises.

Concept of Accounting Information System (AISs)

Nicolau (2000), defined accounting information system as a computer-based system that increases control and enhances cooperation in the organization. Although information technology was within reach of only large companies years back, small scale businesses are gradually taking advantage over the development to improve upon their competitiveness.

According to Boame (2014), when an organization adopts e-accounting, they usually discover that even though computerized accounting systems handle financial data efficiently, their time value is that they are able to generate immediate reports regarding the organization.

Financial managers need the financial and accounting data provided by AISs to evaluate the firm's past performance and to map future plans. AIS is a system of managing and processing transactions, disseminating required reports, and ensuring an appropriate control environment relating to business financial transaction. The outcomes of AISs, the financial reports, are required at numerous levels of detail at different levels of management and by other stakeholders. In fact, the outcomes of an AISs feeds into various decision streams at operational, tactical, and strategic levels of the organization. Users require financial and related information with various degrees of detail and with various levels of analysis (Lalin & Sabir, 2010).

Beke (2010), noted that, there is an improvement in accounting quality and decision making associated with using accounting information system. Quality decisions occur since accounting information system records ensure easy access to information. The writer further stated that accounting information system tend to have standardized forms of data analysis provided by information system.

According to Maesono (2011), business information is information which helps a company manage and market itself in a competitive environment. More specifically, it is understood to cover three broad types of information: marketing

research information, company information and financial information. Business information is sometimes used interchangeably with “commercial information” to mean processed data that can be used to profitably increase the production of goods and services for financial transactions; guard against business risks; and promote the economic development of a country. Again, National Archives of Australia (2000), also posit that “Business Information System” (BIS) refers to a set of processes, policies and procedures designed to capture evidence of business activities undertaken by an organisation. An accounting information system provides for the creation, capture and management of - and access to - an organisation's records, documents and other business information over time. More specifically, Okello-Obura (2009), define an accounting information system as a set of interrelated components that collect/retrieve, process, store, and distribute information to support decision-making and control in an organisation. In addition to supporting decision-making through coordination and control, accounting information systems may also help managers and workers analyse problems, visualise complex subjects and create new products.

Accounting Information Software System (AISS)

An accounting information system (AIS) is a software package that is operated on a computer system and used to accomplish all accounting tasks, including recording, storing, retrieving, sorting, analysing, presenting and transferring accounting information to different stakeholder groups. It enhances the quality of accounting information and promotes transferring efficiency

between organisations' departments and between organisations' branches and their different users or stakeholder groups (Hunton, 2002; Spathis, 2006).

Along with the improvements in the technology, information systems have been computerized. Improvements in this technology have replaced manual bookkeeping systems with computerized ones. The revolution in the information systems, which started in the early 1950s when the first business computers became available, is still in progress (Dalci & Taniş, 2004). Large mainframe computers have been replaced by small and fast personal computers at lower costs. As a result, accounting information systems that were previously performed manually are now performed by computers in most companies. Companies can now capture, process, store, and transmit data with the help of computers. Whereas data collections and processing were performed manually in historical systems, on-line collection and processing of data are performed by computerized systems (Grabski & Marsh, 1994). In manual accounting information systems, processing of data is slow and subject to error. Fortunately, improvements in the technology have enabled companies to collect, process, and retrieve data quickly. In addition, there is less likelihood for error when data are processed with computers.

Accounting Software

Accounting software is an application that records and processes accounting transactions within functional modules such as accounts payable, accounts receivable, payroll, and trial balance. It is a part of the accounting information system. Nowadays, simple accounting software can be acquired

online. For software used in large companies they contact their trusted programming entities. These programs are used for organization and centralization of data. There are three basic types of commercial accounting information system software. These are the turnkey systems, backbone systems, and vendor supported systems (Amidu, 2011). Turnkey systems are completely finished and tested systems. These are ready for implementation in the business process. Examples of this system are Enterprise Resource Planning (ERP) systems, Oracle and SAP. Backbone Systems consist of basic system structures on which to build. In this approach, the primary logic is preprogrammed and vendor will be the one to design the user interface that suits client needs. Vendor-supported systems are referred to as customized systems. In this system, the software vendor designs, implements and maintains the system for its client.

Audit software

Since computers were integrated with the accounting process, auditors can also audit in a computerized environment. There are available auditing software packages only for auditors. Computer technologies also provide digital audit trails to be used by the auditor.

Word Processing Software

This is the computer program used for the creation of word documents. Under this, textual data can also be edited, stored and printed. Accountants and other entity employees use word processing software in communicating information. They use word processing software in preparing reports, billings,

memos and financial statements (Ghasemi, Shafeiepour, Aslani & Barvayeh, 2011).

Spread Sheets

A spreadsheet is a form of an interactive computer application program usually used for organization and analysis of data in tabular form. This developed as computerized simulations of paper accounting worksheets. Today, the two most popular spreadsheets are Excel and SPSS. This can be for virtual or any task that requires computations (Ragsdale, 2014). A company's end-off period financial statements could be exported to a spreadsheet and presented graphically to the board of directors.

Graphics Software

This software creates photos, graphs and charts from data input in order to facilitate better understanding of the topic. This is usually used in financial reporting.

Electronic data interchange (EDI)

This is the intercompany exchange of computer-processed business information in standard format. It is an inter-organizational endeavor for there are two or more entities engaged. There is no presence of human intermediaries to approve or authorize transactions in a pure EDI environment.

Security

Information technology is used widely in accounting security. The use of identifications and passwords provides a strong control in accessing confidential information about the entity. Instead of binders and papers lying around, security greatly enhanced with the proper computer programs. Using a program, accounting information can be encrypted in a way to prevent unauthorized use, making it quite safe. For instance, a lost, stolen or misplaced laptop or desktop computer can be tracked using the security software acquired by the entity (Romney & Steinhart, 2012; Spears & Barki, 2010)

Internet

The Internet provides vast sources of information that can be used by business, especially in the accounting area. Through this, documents can be shared, research can be conducted and taxes in some countries can be filed-all online (Dandago & Rufai, 2013; Tan & Teo, 2000). Connection to the Internet can be wireless and simple. The Point-of-Sale (POS) system is commonly used by malls and department stores. Internet helps in the payment procedure of customers through real-time connection of their credit card to their respective banks. The use of barcodes helps in the improving sales transaction time and automatically updating of their inventory records (Amidu, 2011).

Problems Faced by Small and Medium Enterprise (SMEs) in their Operations

SMEs development is hampered by a number of factors, including finance, lack of managerial skills, equipment and technology, regulatory issues, and access to international markets (Lamprey, 2016; Francis & Willard, 2016; Lopez-Gracia & Aybar-Arias, 2000). The lack of managerial know-how places significant constraints on SMEs development. Even though SMEs tend to attract motivated managers, they can hardly compete with larger firms. The scarcity of management talent, prevalent in most countries in the region, has a magnified impact.

In terms of technology, many SMEs often have difficulties in gaining access to appropriate technologies and information on available techniques (Kavadias, Ladas & Loch, 2016; Appiah, 2016). In most cases, SMEs utilize foreign technology with a scarce percentage of shared ownership or leasing. They usually acquire foreign licenses, because local patents are difficult to obtain. Regulatory constraints also pose serious challenges to SMEs development and although wide ranging structural reforms have led to some improvements, prospects for enterprise development remain to be addressed at the firm-level. The high start-up costs for firms, including licensing and registration requirements, can impose excessive and unnecessary burdens on SMEs. The high cost of settling legal claims, and excessive delays in court proceedings adversely affect SMEs operations. In the case of Ghana, the cumbersome procedure for registering and commencing business are key issues often cited. The World Bank Doing Business

Report (2006), indicated that, it takes 127 days to deal with licensing issues and there are 16 procedures involved in licensing a business in Ghana. Meanwhile, the absence of antitrust legislation favours larger firms, while the lack of protection for property rights limits SMEs' access to foreign technologies (Appiah, 2016). However, their limited international marketing experience, poor quality control and product standardization, and little access to international partners, continue to impede SMEs expansion into international markets (Appiah, 2016). They also lack the necessary information about foreign markets. One important problem that SMEs often face is access to capital (Ahiawodzi & Adade, 2012). Lack of adequate financial resources places significant constraints on SMEs development. Most small-scale firms or entrepreneur usually has access to better information concerning the operation of the business and has considerable leeway in sharing such information with outsiders. However, the entrepreneur is also likely to have less training/experience in business than those in a larger company, although more adapted to operating in an uncertain environment. Hence, it may be difficult for the outside provider of financing to determine whether the entrepreneur is making erroneous decisions or for the outsider to understand the business adequately. In addition, the entrepreneur may have incentives to remain opaque, not only in dealings with financiers, but also with other outsiders such as regulators and tax authorities (Saani, 2012; Ahiawodzi & Adade, 2012; Abor & Quartey, 2010).

One challenge faced by SMEs arises from the fact that most of them lack of knowledge of financial management combined with the uncertainty of the

business environment often lead SMEs to serious problems regarding financial performances (Winborg & Landström, 2001). Regardless of whether owned manager or hired-manager, if the financial decisions are wrong, profitability of the company will be adversely affected. Consequently, SMEs profitability could be damaged because of inefficient financial management. SMEs have often failed due to lack of knowledge of efficient financial management. Moreover, undercapitalization and uncertainty of the business environment cause SMEs to rely excessively on equity and maintain high liquidity and these financial characteristics probably affect SSB profitability (Abdullah & Azam, 2017). Kayanula and Quartey (2000), also identified certain constraints to the development of SMEs in Ghana: Access to finance remained a dominant constraint to small scale enterprises in Ghana. SMEs have difficulty with gaining access to appropriate technology and information on available techniques. Distribution channels, which are not efficient and are often dominated by larger firms, pose important limitations to market access for SMEs. In Ghana, demand constraints limited the growth of SMEs.

Empirical Literature Review

Morris (2014), researched on the impact of accounting information on profitability of small-scale business in Kampala city in Uganda East Africa. The study used qualitative analysis on data collected for the study. The research found positive relationship between accounting information system and profitability level of small-scale businesses. Though this study was conducted on the impact of accounting information system on small scale businesses, it was done in Uganda

which findings cannot be applied in Ghana due to differences in economic and geographical factors which variously affect the operation of small-scale businesses. This justify why the need for this research in Ghana. Okeli (2011), researched into the relationship between proper record keeping and profitability of small-scale businesses in Nigeria. The study used 148 respondents and came to the conclusion that due to inadequate record keeping, the small-scale operators could not assess their performances effectively. He argues that in order to enhance the profitability of small enterprises and their continuity, there is need for adequate record keeping which will help the proprietor's track the performance of these enterprises. This was a relevant and well conducted research however, the differences in geographical location makes it problematic for it to be replicated in Ghana and therefore the need for an independent research to evaluate the effects of accounting information system on small scale businesses in Wa municipality in the upper west region.

Ikhatua (2013), conducted a study to ascertain if accounting information contributes to stock volatility in the Nigeria capital market. The study investigated the effect of accounting information on the volatility of stock market returns in Nigeria using CARCH model. The result from the study showed that, accounting information explain and account for stock volatility in the Nigerian stock market, specially, information on book values earning per share and dividend per share is found to be related to stock volatility. This study conducted in Nigeria provides useful information for the stock market in Nigeria but cannot be representative in the Ghanaian market. In addition, the study failed to look at how the accounting

information system impact on small scale businesses in Ghana. It is with respect to these limitations this research is conducted.

Khurramand (2014), tested for the value relevance of accounting information systems and its impact on stock prices, a case study of listed banks at Karachi stock exchange in which the pooled regression technique was used on nineteen (19) private banks. The findings show that earning per share is more value relevant than book values, while accounting data explains a high proportion of the stock price. The findings show that accounting information system influences the economic decision of users by helping them evaluate past, present and future events. Again, this relevant study is outside Ghana and with differences in locations, its results cannot be applied in Ghana. The study did not also make reference to how accounting information system impact on growth of small-scale businesses and the need for this particular study.

Haddad and Ahmah (2007), studied the factors relating to information technology and environment affecting the role accounting information system in decision making strategy in Jordanian industrial companies. The research distributed 114 questionnaires to key offers in the Jordanian industrial companies. The statistical method was used and the t-test employed. Spearman correlation and R-square were also applied to the study. The study found that there is a positive relationship between information systems but did not find a relationship between accounting information and strategy decision making. This study failed to examine the impact of information system on small scale businesses and the need for this research.

Siamak (2012), conducted a study on the usefulness of accounting information system for effective organizational performance. The ANOVA statistical approach was employed to test the relationship between the independent variable and dependent variable and the simple regression analysis used to test the study hypothesis. The study concluded that accounting information system has effect on organizational performance of listed companies in Duseni financial market, but there was no relationship between accounting information system and performance management.

The research looked at the relationship between accounting information system and organizational performance and performance of management. It however, failed to evaluate the effects of accounting information on small scale businesses and the need for this research.

Al-Hiyari, Al-Mashre, and Mat (2013), examined the factors that affect accounting information system implementation and accounting information quality in university Utara in Malaysia. Questionnaires were used as data collection instrument. The Croah bar Alpha was used to measure internal consistency and regression analyses employed to test hypothesis. The study found management commitment and data quality are not significantly related to accounting information quality but significantly related to accounting information systems and human resources. This study did not look at the effect of accounting information system on the growth of small-scale businesses and there is the need for a study for policy and why this study is significant.

Perez, Raquel, and Clara (2011), examined the relationship between the use of accounting information system on performance of small and medium sized enterprises in Spain. Samples were taken from four Small and medium enterprises. The research used ANOVA analysis to compare samples. The result was found that there is a positive relationship between the small and medium enterprises that use AIS for fiscal and bank management and better performance measures. This study looked at the relationship between accounting information system and small-scale business performance but was conducted outside the source of our country Ghana.

Sarai, Zariyawati, and Annuar, (2010), accounting information system had been widely used by many corporations to automate and integrate their business operations. Many organizations adopt the information system to improve their organizational efficiency and increase competitiveness ability. In achieving their study objective which was the information system impact on firm's performance in Malaysian small medium enterprises, they used panel data to analyze firm's performance which they said was more relevant because it contains the necessary mechanism to deal with both inter- temporal dynamic behavior and the individualistic of the firms. Based on their findings, they found that adoption of accounting information systems could provide SMEs with the right capabilities and resources in achieving their objectives, and also found out that the Malaysian governments have allocated special grants to assist SMEs to acquire these systems. Hence, they suggested that SMEs should use the opportunity on the grants provided by government to acquire AISs and other more advance systems

to make them more competitive. Therefore, result from their study revealed that SMEs that use accounting information system do increase their firm's performance and therefore this research in Ghana.

Omar and Ali (2012), conducted a research on “the impact of Accounting Information System in planning, controlling and decision-making processes in Jodhpur hotels”. The descriptive analytic method has been used to collect data by means of a questionnaire distributed to various hotel accountants. After the statistical analysis of the questionnaires, appeared several key findings most of which are that hotels in Jodhpur didn't use the method of accounting information system in planning, control and decision-making processes. The study shows that there is no relationship between accounting information system and planning, controlling and decision making in four- and five-star Jodhpur hotels. The study recommends an increase in the rehabilitation of all cadres and develops the information system at Jodhpur hotels towards the efficient application of accounting information system. The study also recommend that the Jodhpur hotel management should use accounting information system in controlling information to get more relevant, cost effectiveness, accuracy, timeliness and clarity. The study do not look at the relationship between accounting information system and small scale businesses in Ghana but the relationship between accounting information system and planning, controlling and decision making in four and five star Jodhpur hotels and thus, this study.

The study by Sajady, Dastgir, and Najed, (2008), under the title “evaluation of the effectiveness of accounting information systems of the finance

managers of the listed companies at Tehran stock Exchange” was evaluated, the results indicate that the implementation of accounting information systems of these companies caused the improvement of manager s decision–making process, internal controls and the quality of the financial reports and facilitated the process of the company’s transactions. The results did not show any indication that performance evaluation process had been improved. This study was limited to only listed companies at Tehran Stock Exchange and do not cover all small-scale businesses in Ghana. This looked at registered small-scale businesses with the NBSSI in the Wa municipality.

According to research findings by Ogah (2013), and Saudani (2012), many small-scale businesses do not use accounting information system which resulted in poor performance levels as a result of lack of business information records keeping. Furthermore, issues like fluctuation, in demand, or change in customers’ attitudes towards certain product or services cannot be easily forecasted or easily determined by management by Dwinvedi, (2002) and Mwangi, (2011).

Research findings also show that, accounting information systems (AIS) has a direct impact of profitability level of small-scale businesses as it speeds in processing data, data is easily classified in more detailed fashionable way which resulted into time saving (Rahena, Perez & Munoz, 2011). Accounting information systems are mainly used by many organizations to improve efficiency of business activities by automating existing operations. Past researches showed that by adopting accounting information system, firm performance can be improved. There is always significant improvement in firm’s performance

whenever they adopt the AISs. Accounting information system is a superior system that focuses on user orientation. Core objective of AISs is to collect and record data and information that is concern with event that can economically impact on firms. It processes information and communicate this information to both external and internal stakeholders.

A study on information systems implementation in India has been conducted by Sharma and Bagwig (2003). They measured and evaluated AISs performance from six perspectives; operational efficiency of AISs function, downtime of AISs, responsiveness of AISs, timeliness of information, accuracy of information, and overall competitive position. This Cross-sectional survey was based on a questionnaires and personal interviews of 147 Indian SMEs. The results suggest that AISs performance measurement framework can be the foundation for SMEs strategic growth in the globalization. The proper management of AISs and its performance measurement are necessary for SMEs that want to remain competitive in global economy.

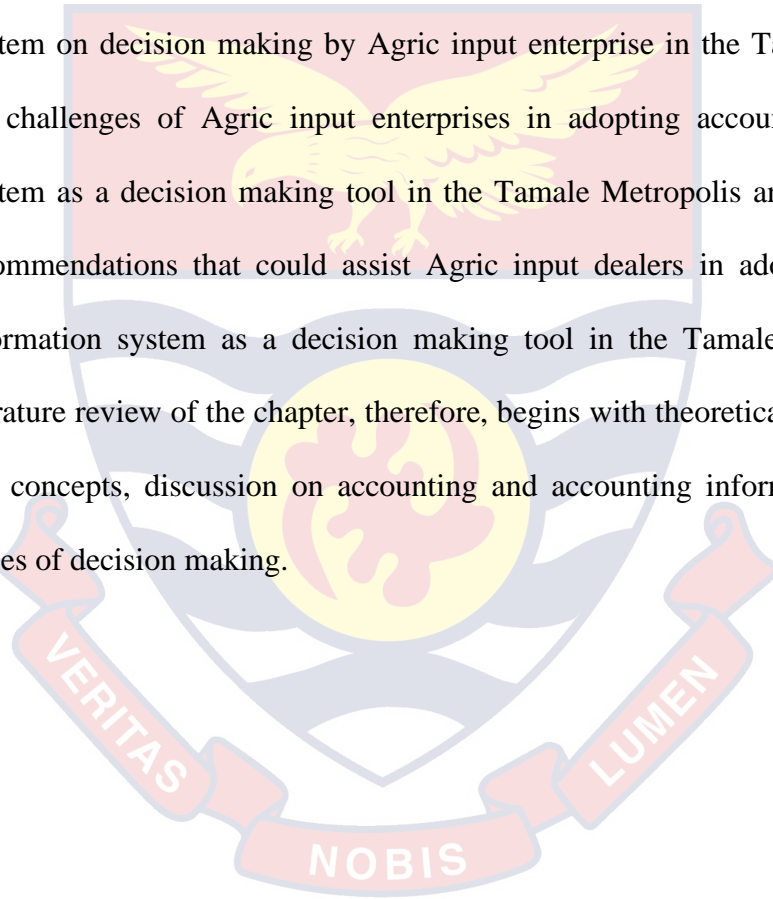
Samira, Zariyawati, and Annuar (2010), examined accounting information system and firm performance of Malaysian SMEs using panel data. Questionnaires were also sent out to various SMEs. Financial statement data for a five-year period commencing from year 2004 - 2008 were gathered. Sample for the study comprised of 205 firm-years. Regression was used for data analysis. Results from the research revealed that SMEs adopting AISs improve significantly in performance compared to non-adopters. Olatunji (2013), examined the impact of sound accounting system on corporate performance of

small and medium scale enterprises using a survey research with analysis of variance (ANOVA) as the statistical tool. The results of the study showed that adoption of sound accounting system enhances performance of SMEs. The study recommended that accounting professionals should customize accounting systems and audits to the need and capacity of these categories of business, provide accountancy services for a fee, and adherence of small business operators to internal controls.

Gerba and Viswanadham (2016), and Gebreeyesus (2007), attempted to provide some theoretical justification, that assumed to use growth rate in sales (increase in sales), increase in capital assets and profits as more precise and potential offer more objective measurement as compared to other measures of performance of firm. However, in practice they reported these measures tends to be susceptible, problematic and not credible as firms hesitate report the true value of their sales and profit in fear for high tax burden from the government and the factors that influence one growth measure (for instance, increase in profits) may not necessarily influence another (for example, increase in employment), moreover, firms may unable to accurately report their sales and profit as they do not keep records and fixed assets could also not indicate proper measures of performance, as it could have possibility to be affected by inflationary conditions of the country hence this may leads to measurement errors and resulted incorrect inferences from the study.

Chapter Summary

The chapter reviews the literature on assessing the adoption of Accounting Information System for decision making by SMEs in the Tamale Metropolis. The theoretical framework and conceptual base of the study include the existing accounting information system used by Agric input enterprise for decision making in the Tamale Metropolis, the impact of the adoption of accounting Information System on decision making by Agric input enterprise in the Tamale Metropolis, the challenges of Agric input enterprises in adopting accounting Information System as a decision making tool in the Tamale Metropolis and the appropriate recommendations that could assist Agric input dealers in adopting accounting information system as a decision making tool in the Tamale Metropolis. The literature review of the chapter, therefore, begins with theoretical clarifications on key concepts, discussion on accounting and accounting information as well as issues of decision making.



CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents methods and tools used in collecting data. It consists of profile of the study area, research design, the target population, sample size determination and sample techniques, data collection procedure, data analysis and ethical consideration.

Research Design

This study adopted the descriptive cross-sectional research design to examine the various accounting information systems adopted by Small and Medium Enterprises in the Tamale Metropolitan Assembly of Ghana. The study was conducted within eight weeks. This duration of the study was affirmed by Cowell (2014), who postulated that cross-sectional research design is a method that is used to collect data over short and fixed period of time on a population. Sarantakos, (2005), also posits that cross-sectional research design enables researchers to collect a large amount of data from a large number of people on a wide variety of respondents. This makes it useful for students who are yet to develop the skills or obtain the time and resources necessary to execute more sophisticated research designs. Cross-sectional research design can be cost-effective. However, as the size of the sample or the number of variables increase, so does the cost of executing the project. The cross-sectional research design was chosen because the sampled variables that are being studied are simply being

observed as they are without making any attempt to control or manipulate them. Despite the benefits cross-sectional research offers, it has some shortcomings. For instance, cross-sectional research designs do not allow researchers to assess facts about time in terms of exposure and effect (Manheim, 1977).

Study Area

Primary data and secondary information were used for the study. The primary data was obtained from the respondents in the field using questionnaire while the secondary information too was acquired from the Tamale Metropolitan Assembly's records, magazines, journals and other relevant information that treat different aspects of the study under investigation.

Target Population

The study focused on owners of registered small and medium enterprises entrepreneurs aged 18 years and above in the Tamale Metropolis. The age of 18 years and above was chosen because it is the age of maturity and consent in Ghana according to the 1992 Constitution of the Republic of Ghana. The population encompasses small scale business entrepreneurs who have been dealing in agric input for at least three years. The choice of the three years is guided by the fact that, five years in operating a SSBs was enough to adopt various accounting information systems which could either lead to higher performance of the business or under-performance. Therefore, the target population of the study was 100 entrepreneurs based on the number of small scale businesses register in the Metropolitan.

Sample size and sampling procedure

A list of 332 registered Small-Scale Businesses were obtained from the National Board for Small Scale Industries (NBSSI) in the Metropolitan served as the sample frame for the study. Out of that number (332), 96 respondents were to be selected and recruited as the sample size for the study. The sample size of 96 Small Scale Business entrepreneurs were determined using Thumb Principle which states that, population less than 1000 are sampled by 30% (Van Belle, 2011; McNamara, 1997).

This is calculated as follows:

30% of Target Population

$$30/100 \times 332$$

$$= 100$$

Cluster sampling technique was used for the study. The channel of arriving at 100 respondents was simple random sampling. All the 332 SMEs in the Metropolitan were grouped based on the sector they operate within. Sectors used were health sector, agricultural sector, financial sector, clothing sector, management sector and other sectors including provisional stores, super markets etc. The researcher chose the Agricultural Sector which deals in Agric inputs. This sector was chosen because it forms a major percentage of SMEs in the metropolitan. After this, the researcher then used purposive sampling to select 100 Agri Dealers enterprise which were thought to be relevant for the survey. Thus, small scale business owners in the Metropolitan was sampled. This meant to find out from small scale business owners in the Metropolis their accounting

information systems which they adopt which could either lead to higher performance of the business or under-performance. The choice of simple random for the study was because a complete coverage of the population is not possible, also complete coverage may not offer substantial advantage over a sample survey. On the contrary, it is argued that sampling provides a better option since it addresses the survey population in a short period of time and produces comparable and equally valid results, also sampling is less demanding in terms of labour requirements, since it requires a small portion of the target population, and finally simple random sampling is thought to offer more detailed information and a high degree of accuracy because they deal with relatively small numbers of units.

Data Collection Instrument

The study adopted questionnaires and interviews to facilitate the study. The interview schedule was chosen for the study because most of the respondents in the area are illiterates and unlikely to respond to questionnaires qualitatively. This position was affirmed by the report reveal by Ghana Population and Housing District Analytical report (2010), Female Literate in Tamale Metropolis constitute 22,569 (44.2%) and that of the non-literate (not literate) is 17,232(63.3%). As such the interview schedule will enable the researcher and the field assistants to translate questions into the Waale, Brefo, Dagaare and the Twi languages which are widely spoken at Tamale. It helps to avoid irrelevant answers from respondents, and it made inputting into the computer fairly easy (Sarantakos, 2012).

Data Collection Procedure

The data collected from the field will be first cross checked to ensure the accuracy of responses. The quantitative data was analyzed using Statistical Package for Service Solution (SPSS) version 21 (Emory & Cooper, 1991). Descriptive statistics such as graphs, tables, percentages and frequencies were used to present the quantitative data.

Ethical Issues Involved

The study ensured that all ethical issues in social sciences research such as confidentiality, anonymity and privacy are religiously followed. More so, the study's objectives were explained to the respondents before the study commenced.

Chapter Summary

The study used descriptive cross-sectional research design to examine the various accounting information systems adopted by small scale businesses to help increases performance. Simple random sampling was used for this study. Both closed and opened ended questionnaire based on the objectives used for the data collection as instrument. The data was analysed using statistical package for social science (SPSS). The major limitation of the study was that, it was difficult to make general conclusion based on a particular phenomenon.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter deals with the presentation and analysis of data collected in the Agricultural input enterprise with the sample size of 100 comprising of staff/management and customers on the topic: ‘the adoption of Accounting Information System for decision making by Small Scale Enterprises in the Tamale Metropolis. The chapter consists of Demographic Data, the existing accounting information system used by Agricultural input enterprise for decision making in the Tamale Metropolis, the impact of the adoption of accounting Information System on decision making by Agricultural input enterprise in the Tamale Metropolis, the challenges of Agricultural input enterprises in adopting Accounting Information System as a decision making tool in the Tamale Metropolis and The appropriate recommendations that could assist agricultural input dealers in adopting accounting information system as a decision making tool in the Tamale Metropolis.

Demographic Data of Respondents

As part of the study, the researcher sought to find out the background information of respondents. This was done in order to understand the characteristics of the respondents and also to gain a better insight to the responses provided. Data sought included Gender and Age. An analysis of these variables is presented in the section that follows. The gender distribution of the respondents

was categorized into two, that is males and females and the males were the majority as presented in Table 1. Age is a considerable variable when carrying out a research and the age range that was majority from this study were the 31-50 years as evidenced in table 1.

Table 1: Gender Distribution of Respondents

Gender	Frequency	Percentage %
Male	60	60
Female	40	40
Total	100	100

Source: Field Survey, Yakubu (2019)

Table 2: Age Distribution of Respondents

Age	Frequency	Percentage %
21- 30 years	30	30
31- 50 years	60	60
51 years and above	10	10
Total	100	100

Source: Field Survey, Yakubu (2019)

Table 2 shows the gender distribution of the respondents. Out of 100 respondents interviewed 60 were males representing 60%, 40 were female representing 40%. This means that there were more males than females in the agricultural input dealers' business with regards to the questionnaire

administering to the customers and staff both in Wumpini agro chemicals and Iddisal agro chemicals.

In an attempt to determine the age distribution of respondents of staff and customers of Wumpini agro chemicals and Iddisal agro chemicals, it is observed that majority 60% of respondents are between 31 to 50 years which represent 60 respondents. 30 representing 30% of the respondents said they are within 21 to 30 years, 10 representing 10% of the respondents were within 51 years and above. These outcomes mean that majority of respondents are fully matured in the sense that they can handle issues concerning customers very well for them to be loyal to their enterprises.

Educational Attainment of Respondents

For the respondent to have an understanding of Accounting Practices there is the need for the researchers to enquire information of the respondents educational background, Table 3 indicates educational qualification of respondents.

Table 3: level of Education of Respondents

Level of Education	Frequency	Percentage (%)
Junior High School	15	15
Senior High School	10	10
A' Level/RSA	4	4
DBS/ HND	55	55
Degree	12	12
Professional	2	2
Masters	2	2
Total	100	100

Source: Field Survey, Yakubu (2019)

The Table 3, it can be inferred that 15% of the respondents had attained Junior High School certificates followed by 10% of respondents had attained Senior High School certificates followed by 4% of the respondents had attained A' Level/RSA followed by 55% of the respondents had DBS/ HND certificates followed by 12% of respondents had attained Degree certificates, followed by 2% of respondents which had attained professional and masters certificates respectively. It can be seen from the Table that those who had DBS/HND certificate are the majority meaning they understood the adoption of Accounting Information System for decision making by Agric input dealers/enterprises in the Tamale Metropolis.

The Existing Accounting Information System used by SMEs for Decision Making in the Tamale Metropolis

The first objective of the study was to assess the existing accounting information system used by Agricultural input enterprise for decision making in the Tamale Metropolis. In line with this, several variable were explored including whether respondents uses accounting information system, the kind of accounting software they use, whether respondents maintain books of accounts, responsibility for maintaining these books, whether respondents prepare bank reconciliation statements, whether respondents prepare financial statements, type of financial statements respondents prepare, the adoption of these Accounts information systems improve your business performance over the years and the chances of the organisation. Analyses of these are presented in the following sections.

Adoption of Accounting Information System by SMEs

The study sought to find out whether respondents' organisation practice formal accounting information system or not. The finding in relation to this is presented in the Table 4.

Table 4: Usage of Accounting Information System by Agricultural Input Dealers

Responses	Frequency	Percentages%
Yes	79	79
No	21	21
Total	100	100

Source: Field Survey, Yakubu (2019)

From Table 4, 79% of respondents indicated that their organizations practice formal accounting information system while 21% of the respondents said that their organizations did not practice formal accounting information system because they can operate without accounting and high cost of employing accounts staff. From Table 4, those who said their organizations practice formal accounting information system were the majority.

Table 5: Usage of accounting information system (AIS) and the types use

Accounting Information System	Frequency	Percentage (%)
Pastel	6	6
Tally	18	18
Excel	46	46
Quick books	12	12
Others	30	30
Total	100	100

Source: Field Survey, Yakubu (2019)

Upon inquiring whether they used accounting information systems (AISs) in their operations, it was realized that many were using accounting information systems and they made up 79 percent. Further probing revealed that the dominant AIS used was Excel thereby constituting 46 percent. Other AIS used were noted to be Pastel (6%), Tally (18%) and Quick books (12%) and other AIS constituted 30% indicated in Table 5.

Table 6: Maintenance of Books of Accounts by SMEs

Responses	Frequency	Percentages%
Yes	57	57
No	43	43
Total	100	100

Source: Field Survey, Yakubu (2019)

From Table 6, 57% of respondents indicated that they maintain books of accounts which were Day books, Journal, Cash books and Ledgers while 43% of the respondents said that they did not maintain books of accounts. It can be seen that most of the respondents used this study kept proper books of accounts

Responsibility for Maintaining Books of Accounts by SMEs

The study sought to find out the person responsible for maintaining these books. The finding in relation to this is presented in the Table 7.

Table 7: Responsibility for Maintaining Books of accounts

Respondents	Frequency	Percentage (%)
The Manager	10	10
The Proprietor	4	4
An Accounts Officer	85	85
Others	1	1
Total	100	100

Source: Field Survey, Yakubu (2019)

It is clear from Table 7 that 10% of respondents confirmed that the person responsible for maintaining books in the enterprise is the manager, 5% of the respondents said is the proprietor, 85% of the respondents said is the account officer while 1% of the respondent indicate that other people in the enterprise can also main the books in the enterprise. This means that those who said the person responsible for maintaining books in both Wunpini and Iddisal agro chemical companies are the account officers were the majority.

Maintenance of Petty Cash Book by SMEs

The study sought to find out whether respondents maintained petty cash book or not. The finding in relation to this is presented in the Table 8.

Table 8: Maintenance of Petty Cash Book by Agricultural Input Dealers

Responses	Frequency	Percentages%
Yes	42	42
No	58	58
Total	100	100

Source: Field Survey, Yakubu (2019)

From Table 8, 42% of respondents indicated that they maintain petty cash books from Wumpini agro chemical and Iddisal agro chemicals companies while 58% of the respondents said that they did not maintain petty cash books from Wumpini agro chemical and Iddisal agro chemicals companies. From the Table those who said they maintain petty books were the manority.

Preparation of Bank Reconciliation Statements

The study sought to find out whether respondents prepare bank reconciliation statements or not. The finding in relation to this is presented in the Figure 1.

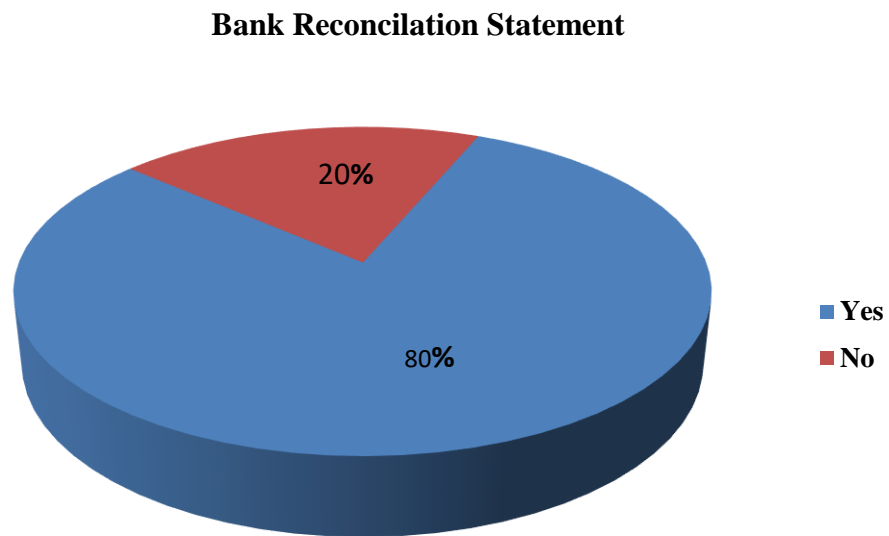


Figure 1: Preparation of Bank Reconciliation Statements

Source: Field Survey, Yakubu (2019)

Figure 1 indicates whether the agriculture input dealers prepare bank reconciliation statements or not. It was found out that some agriculture input dealers prepare bank reconciliation statements. This is because 80% of respondents attest to the fact that their organisations prepare bank reconciliation statements while 20% said it does not prepare bank reconciliation statements.

Preparation of Financial Statements by Agriculture Input Dealers

The study sought to find out whether respondents prepare financial statements or not. The finding in relation to this is presented in the Figure 2.

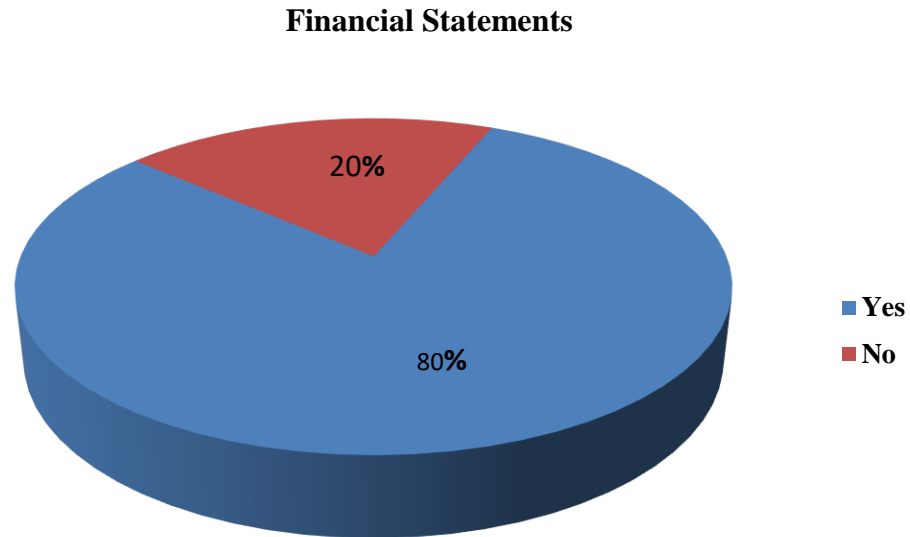


Figure 2: Preparation of Financial Statements by Agriculture Input Dealers

Source: Field Survey, Yakubu (2019)

It is clear from Figure 2 that, 80% of respondents confirmed that they prepare financial statements in their businesses and 20% of respondents said that they do not prepare financial statements in the businesses. This means that, the respondents who said they prepare financial statements in the companies are the majority.

Types of Statement Prepared by Agriculture Input Dealers

The study sought to find out the type of statements respondents prepares.

The finding in relation to this is presented in the Figure 3.

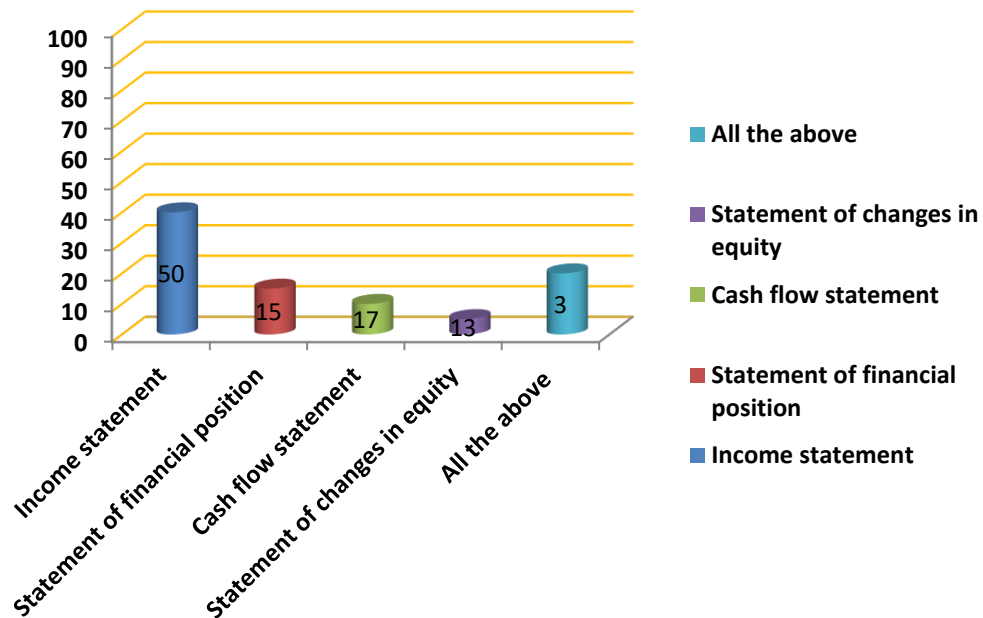


Figure 3: Types of Statement Prepared by Agricultural Input Dealers

Source: Field Survey, Yakubu (2019)

From Figure 3, majority of respondents representing 40% attest to the fact that their businesses prepare income statement, 15% of the respondents also said that, they prepares statement of financial position, 10% of the respondents also prepares cash flow statement, 5% of the respondents prepares changes in equity whiles 20 of the respondents representing 20% attest to the fact that they prepare all statements.

Chances of the Agricultural Input Dealers to Respondents

The study sought to find out the chances of agricultural input dealers to respondents in the company and the chances of agricultural input dealers to most respondents were excellent. The finding in relation to this is presented in Figure 6.

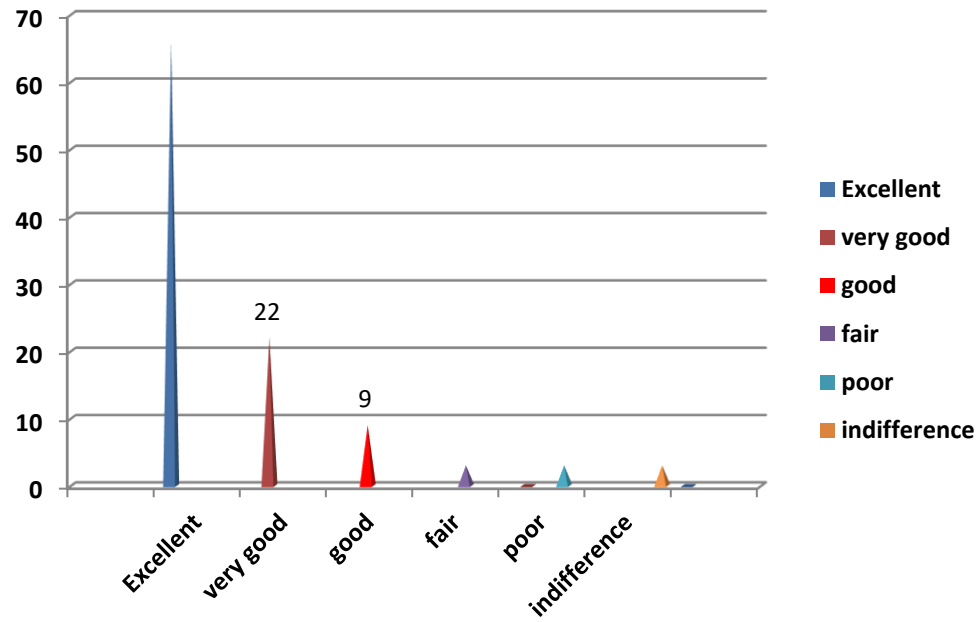


Figure 4: Chances of the Agricultural Input Dealers to Respondents

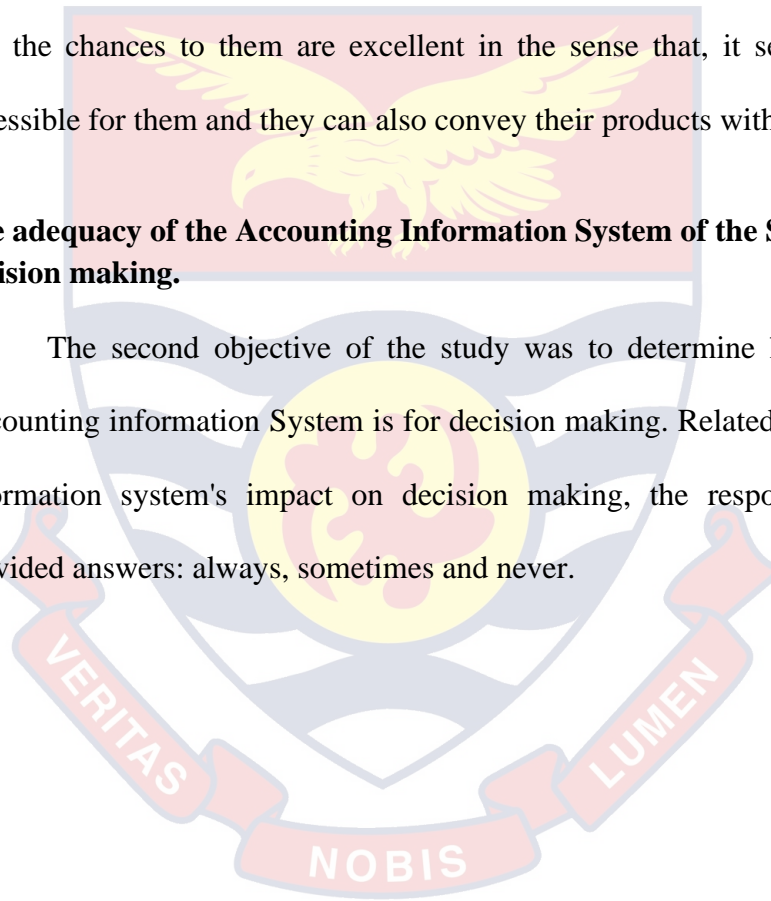
Source: Field Survey, Yakubu (2019)

In an attempt to determine the chances of agricultural input dealers to respondents, it is observed that majority 66% which is 59 of respondents attest to the fact that the chances to them are excellent in the sense that, it serve as an easily accessible for them and they can also convey their products with easy. 20 respondents representing 22% of the respondents also attest to the fact that the chances to them are very good in the sense that, it serve as an easily accessible for them and they can also convey their products with easy, and 8 representing 9%

attest to the fact that the chances to them are good in the sense that, it serve as an easily accessible for them and they can also convey their products with easy. The remaining 3 respondents representing 3% attest to the fact that the chances to them are indifference, poor and fair in the sense that, it does not serve as an easily accessible for them and they can also convey their products with easy respectively. These outcomes mean that majority of respondents attest to the fact that the chances to them are excellent in the sense that, it serves as an easily accessible for them and they can also convey their products with easy.

The adequacy of the Accounting Information System of the SMEs for decision making.

The second objective of the study was to determine how adequate the Accounting information System is for decision making. Related to the accounting information system's impact on decision making, the respondents had three provided answers: always, sometimes and never.



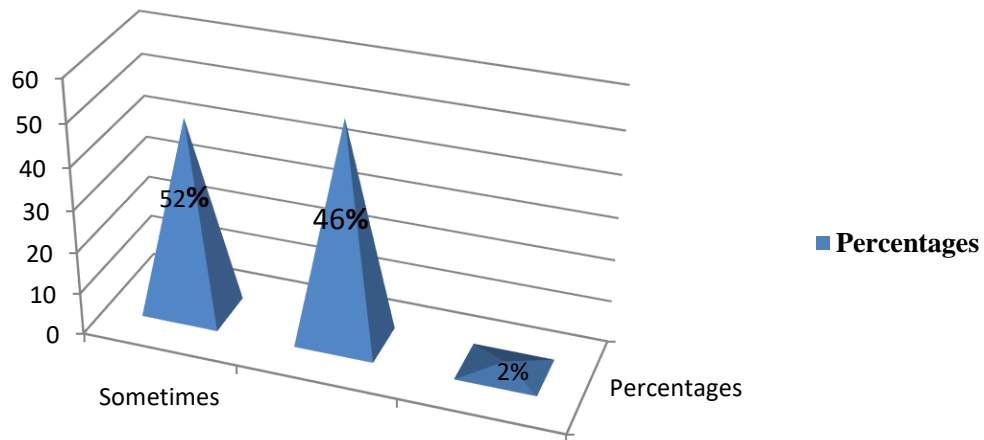


Figure 5: Does the Company Bring Decisions Based on Accounting Informa System

Source: Field Survey, Yakubu (2019)

Out of the two companies that confirmed that they use accounting information system, 46% always use AIS as a basis for decision making, 52% of the respondents said they sometimes use AIS for decision making while 2% of the respondents said they had never used AIS as a basis for decision making. However, during collection of surveys, the surveyed persons usually said that the answer that would be more suitable here is often, instead of sometimes.

Challenges Face in Ensuring Sound Accounting Practices

The third objective of the study was to examine the challenges to ensuring sound accounting practices. The study sort to investigate and identify challenges the various enterprises encounter in the implementation of accounting practices. Analyses of these are presented in the following sections.

Problems encountered by Organizations in the Implementation of Accounting Practices?

The factors that account for improper records keeping has been identified as illiteracy, lack of qualified personnel and high cost to hire a consultant (Maseko & Manayani, 2011) They disclosed that the most predominant challenge is costs constraints, followed by inadequate accounting skills of manager and owners of SMEs. These studies believed that most business owners and employees have no vocational and technical training and were therefore inexperienced as far as record keeping was concerned and that considering the size of the Small-Scale Businesses, the owners deemed it waste of resources to employ qualified accountants. Small Scale Businesses are reluctant to maintain proper books of accounts as they think there is no need to keep accounting records and believe that, it would even expose their financial position for tax purposes (Amoako & Marfo 2013).

Musah & Ibrahim (2013), were also of the view that owners of these businesses feel reluctant to record their daily activities (revenues and expenditures) because of the low worth, returns and performance of their businesses. They argued that the owners, therefore, tend to rely on their memory and do not necessarily see the need to maintain books of accounts. Poor or lack of records keeping by small scale businesses in the country would not only limit their ability to accurately and reliably measure their financial performance and position, but also deny the government the right tax revenue from them. Other users such as customers, suppliers, financial institutions, existing and potential

investors would find it difficult to make financial decisions due to improper or non-availability of financial records.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The final chapter of this project work focuses on summary of key findings, conclusions, and recommendations of the study. It summarises key issues of the research results pertain to the work contained within and that may influence future research on assessing the adoption of Accounting Information System for decision making by Agric input dealers/enterprises in the Tamale Metropolis.

Summary

This is a pure quantitative study that aimed at exploring the nexus between accounting information systems (AISs) adoption and decision-making rate of SMEs in the Tamale Metropolitan of the Northern Region. The specific objectives that guided the study were to assess the existing accounting information system used SMEs, to determine the adequacy of the AIS of the SMES of the TMA identify the various AIS adopted by small scale and how AIS affects decision making.

Additionally, the study aimed at suggesting appropriate AIS for the effective and efficient provision of business information to small scale businesses in TMA. Questionnaire was the instrument used in soliciting respondents' views to address the research objectives based on the set objectives, the following key findings emerged:

The respondents under this study were agric inputs dealers. It is worthy of note that only few of the respondents were using AISs. The specific AISs they were using are Pastel, Tally, Excel and Quick books. They noted that they encounter some challenges in using AISs and some of these challenges were ignorance about usage and frequent breakdown of channels. Acknowledged that, accounting information systems are important as it can help the firms manage their short-term problems in critical areas like costing, expenditure and cash flow, by providing information to support monitoring and control.

Some challenges were identified to be associated with adoption of AIS and these included customers' ignorance about usage, lack of skilled personnel in this field, frequent breakdowns of channels and high maintenance cost.

Conclusions

Based on the findings, the following conclusions have been drawn by the researchers:

Tamale business men and women are involved in diverse activities. This indicates that they all do not trade in same products but there is diversity with regard to the services they render.

Also, accounting information systems bear relevance to the size and need of small and medium scale enterprises.

Lastly, it can as well be concluded that accounting information system would significantly influence the performance of small and medium scale enterprises.

Recommendations.

Based on the findings of this research, the following recommendations are made:

1. In order to facilitate the usage of AISs, there is the need for business men and women to employ qualified staff to manage their AISs.
2. It is also recommended that the level of computerization of SMEs activities should be improved in line with the current level of advancement in technology for SMEs that already adopted accounting information system.
3. Additionally, there is the need to service computers frequently in order stop breakdowns as this has the tendency of boosting the use of AISs.
4. Similarly, SMEs should ensure that the cost of acquiring AISs does not outweigh the benefits the company would gain from using them given the perceived cost of AISs adoption.

Suggestions for Further Research

Further research direction could be geared towards the analysis of the effectiveness of accounting information system as a part of management information systems and other contingency factors that could affect AISs adoption such as competency of personnel and level of enterprise innovation.

REFERENCES

- Abdullah, M. A., & Azam, S. F. (2017). Mediating relationship of financial practice between financial knowledge and business success: an empirical study on Malaysian small enterprises. *Australian Academy of Business and Economics Review* , 1-23.
- Abor, J., & Quartey, P. (2010). Issues in SME development in Ghana and South Africa. *International Research Journal of Finance and Economics* , 39 (6), 215-228.
- Ademola, G. O. (2012). The roles of Record keeping in the survival and Growth of small scale enterprise in Tunu Local government Area of Kogi state. *Global Journal of Management and Business Resources* , 12 (13), 13-23.
- Ahiawodzi, A. K., & Adade, T. C. (2012). Access to credit and growth of small and medium scale enterprises in the Ho Municipality of Ghana. *British Journal of Economics, Finance and Management Sciences* , 34-51.
- Ahmad, A., Rand, A., & Raed, M. (2016). Interrelated factors influencing the adoption decision of AIS applications by SMEs in Jordan. *International Business Research* , 9 (10), 46-62.
- Al-Hiyari, A., Al-Mashre, M. H., & Mat, N. K. (2013). Factors that Affect Accounting Information System Implementation and Accounting Information Quality: A Survey in University Utara Malaysia. *American Journal of Economics* , 3 (1), 27-31.

- Alnajjar, M. (2016). Impact of accounting information system on organisational performance: A study of small and mid-sized enterprises in UAE. *International Journal of Accounting Research*, 1(3), 45-60
- Amidu, M. (2011). E-Accounting Practices among Small and Medium Enterprises in Ghana. *Journal of Management Policy and Practice* , 2(3)152.
- Amidu, M., Agyei, K., Ofori, O., Ansah, P., & King, U. (2011). E-Accounting Practices among Small and Medium Enterprises in Ghana. *Journal of Management Policy and Practice* , 12 (4), 152.
- Amoako, A. (2012). The impact of information and communication technology (ICT) on banking operations in Ghana. *International Journal of Business and Management Tomorrow* , 2 (3), 1-7.
- Appiah, R. S. (2016). Factors hampering the growth of SSBs in the pharmaceutical industry in the Kumasi Metropolis. *Doctoral dissertation* .
- Atijosan, Y. (1998). The Ecology of Small Business: Implications for marketing management in Management in Nigeria. 34.
- Aziz, K. (2003). Accounting information system satisfaction and job satisfaction among Malaysian accountants. *Proceedings of the Pacific Asia Conference on Information Systems* , 54, 23-40.
- Beke, J. (2010). Review of international accounting and information systems. *Journal of Accounting and Taxation* , 2 (2), 139-161.

Boame, I., Solace, K., & Issaka, S. (2014). Adoption of Accounting Practices and Its Effects on SMEs: Financial Perspective of Sachet Water Producers in Northern Region of Ghana. *Research Journal of Finance and Accounting* , 5 (17), 166-179.

Board, I. A. (2002). *The Conceptual Framework for Financial Reporting*. London: The Free Press

Cowell, J. W. (2014). *Educational Research: Planning, Conducting and evaluating quantitative and qualitative research* (2nd ed.). Upper Saddle River, NJ: Pearson Education.

Dalci, I., & Tanis, V. N. (2004). Benefits of computerized accounting information systems on the JIT production systems. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*.

Dandago, K. I., & Rufai, A. S. (2014). Information technology and accounting information system in the nigerian banking industry. *Asian Economic and Financial Review* , 5(12), 655-670.

Dwinvedi, D. N. (2002). *Management Economics*. New Delhi: Vikas Publishing House.

Ebaid, I. E. (2009). The impact of capital- structure choice on firm performance: Empirical evidence from Egypt. *The Journal of Risk Finance* , 10 (5), 477-487.

- Elvisa, K., & Ilgun, R. (2015). Evaluation of the Accounting Systems Used by Small Scale Enterprises in Nigeria: The Case of Enugu- South East Nigeria. *Asian Journal of Business Management* , 3 (4), 235-240.
- Emory, C. W., & Cooper, D. R. (1991). *Business research methods*. Boston, MA: Irvin.
- Flora, G. (2003). *The Financing of Small Enterprises in Uganda*,. Nairobi, Kenya.: Oxford University Press.
- Francis, M. M., & Willard, M. (2016). Unlocking the Potential of Information and Communication Technology for Business Sustainability By Small, Micro And Medium Enterprises In Vhembe District, South Africa. *IADIS International Journal on Computer Science & Information Systems* , 1(3), 85-96.
- Gebreeyesus, M. (2007). Growth of micro-enterprises: Empirical evidence from Ethiopia. *Ethiopian Development Research Institute (EDRI)*, 1(2), 1-21.
- Gerba, Y. T., & Viswanadham, P. (2016). Performance measurement of small scale enterprises: Review of theoretical and empirical literature. *IJAR* , 2 (3), 531-535.
- Ghasemi, M., Shafeiepour, V., Aslani, M., & Barvayeh, E. (2011). The impact of Information Technology (IT) on modern accounting systems. *Procedia-Social and Behavioral Sciences* , 12(5), 112-116.

- Grabski, S., & Marsh, J. (1994). Integrating Accounting and Manufacturing Information Systems; an ABC and REA-based approach. *Journal of Information Systems* , 2 (4), 61-80.
- Gutierrez, K., Ray, O., Nicholas, K., & Omar, S. (2011). Accounting and Control Systems Practiced by Small and Micro Enterprise Owners within the Cape Coast Metropolitan Area of Ghana. *Asian Journal of Business and Management Sciences* , 1 (9), 28-47.
- Haddad, S., & Atmeh, K. (2007). *Accounting information system* (1st ed.). Amman: Al-Mareekh.
- Harash, E., Al-Timimi, S., & Radhi, A. (2014). The influence of Accounting Information System (AIS) on performance of Small and Medium Enterprise (SMEs) in Iraq. *Journal of Business Management* , 3(4), 48-57.
- Harun, G. (2010). *Cases of successful manaysis small and medium enterprises (SMEs)*. London: University Press
- Hunton, J. E. (2002). Blending information and communication technology with accounting research. *Accounting Horizons* , 4(7), 55-67.
- Ikkhatua, Z. H. (2013). *Field Study in the United Arab Emirates Private Hospital*. Nairobi, University Press
- Industry-Ghana, N. B. (2012). *Performance Report, Performance of SMEs* .

- Ismail, A., & King, M. (2007). Factors influencing the alignment of accounting information systems in small and medium sized Malaysian manufacturing firm. *Journal of Information System and Small Business* , 1 (6), 1-20.
- Ismail, A., & Zin, R. (2009). Usage of accounting information among Malaysian Bumiputra small and medium non-manufacturing firms. *Journal of Enterprise Resou* , 3(4), 302-320.
- Jacobsen, I. (2018). Adopting and refining e-services-The role of organisation size. *Public Organisation Review* , 18(2), 111-123.
- Jawabreh, O. A., & Alrabeii, A. M. (2012). The Impact of Accounting Information System in Planning, Controlling and Decision-Making Processes In Jodhpur Hotels. *Asian Journal of Finance and Accounting* , 4 (1), 173-188.
- Kavadias, S., Ladas, K., & Loch, C. (2016). The transformative business model. *Harvard Business Review* , 94 (10), 91-98.
- Khurranmand, W. J. (2014). Value relevance of Accounting Information and its Impact on Stock Prices: Case Study of Listed Banks at Karachi Stock Exchange. *Journal of Economic Info*, 1(3), 23-29
- Lalin, H., & Sabir, R. L. (2010). Research on Usage and Usefulness Perception of Financial Accounting Practices in Less Developing Countries: A case of Cambodia. *Proceedings of the Proceedings of the 7th International Conference on Innovation & Management* , 1881-1885.

Lamprey, S. K. (2016). Impact of venture capital financing on Small and Medium Enterprises in Ghana: the case of Maslenda Fruit Processing Limited. *Doctoral dissertation* .

Lopez-Gracia, J., & Aybar-Arias, C. (2000). An empirical approach to the financial behaviour of small and medium sized companies. *Small Business Economics* , 14 (1), 55-63.

Maesono, N., & Manyani, O. (2011). Accounting practices of SMEs in Zimbabwe. *Journal of Accounting and Taxation* , 3 (8), 171-181.

Manheim, G. (1977). A meta-analysis of research on information technology implementation in small business. *Journal of Organizational Computing and Electronic Commerce* , 13 (2), 91-121.

McNamara, J. F. (1997). *Surveys and experiments in education research*. Nairobi: R&L Education.

Meiryani, J. (2014). Influence of Top Management Support on the Quality of Accounting Information System and Its Impact on the Quality of Accounting Information. *Research Journal of Finance and Accounting* , 5 (11), 124-132.

Morris, H. (2014). *Why Businesses Keep Accounting Record*. Houghton: Mifflin Company.

- Mwangi, B. W. (2011). Accounting Systems in Small and Micro Enterprises in Kenya. *Journal of Language Technology and Entrepreneurship in Africa*, 2(1), 25-30
- Nicolau, A. L. (2000). A contingency model of perceived effectiveness. *International Journal of Accounting Information System*, 1 (2), 91-105.
- Ogah, I. J. (2013). An evaluation of the relevance of accounting system as a management decision tool in Union bank of Nigeria PLC. Uyo branch of AkwaIbom Greener. *Journal of Business and Management Studies*, 1(1), 38-45.
- Okeli, B. E. (2011). Evaluation of the Accounting Systems Used by Small Scale Enterprises in Nigeria: The Case of Enugu- South East Nigeria. *Asian Journal of Business Management*, 5(12), 235-240.
- Olatunji, T. E. (2013). The impact of accounting system on the performance of small and medium scale Enterprise in Nigeria –A survey of small and medium enterprises in Oyo State Nigeria. *International Journal of Business and Management Invention*, 13(8), 13-17.
- Pike, R. H. (1986). The design of capital budgeting processes and the corporate context. *Managerial and Decision Economics*, 7 (3), 187-195.
- Ragasdale, C. (2014). *Spreadsheet Modeling and Decision Analysis: A practical introduction to business analytics*. Lagos: Nelson Education.

- Rahena, G. E., Perez, E. R., & Munoz, C. (2011). *The impact of accounting information system on performance measure: Empirical evidence in Nigeria*. Lagos: University Press.
- Romney, M., & Steinbart, P. (2012). *Accounting information system*. California: MI press.
- Sajady, H. M., Dastgir, K., & Hashemnejad, R. (2008). Evaluation of the effectiveness of accounting information systems. *International Journal of Information Science and Technology* , 6 (2), 23-36
- Sarantakos, S. (2005). *Social Research*. Hampshire: Palgrave macmillian.
- SSharma, M. K., & Bhagwat, R. (2006). Practice of information systems: evidence from select Indian SMEs. *Journal of Manufacturing Technology Management* , 17 (2), 199-223.
- Smith, J., & Puasa, P. (2016). Critical factors of Accounting Information System (AIS) effectiveness: A qualitative study of the Malaysian federal government qualitative study of the Malaysian federal government. *Proceedings of the Br. Account Finance Association Annual Conferance* , 21-23.
- Soto-Acosta, K., Popa, P., & Palacios-Marques, D. (2015). E-business, organisational innovation and firm performance in manufacturing SMEs: *An Empirical study in Spain*. , 22, 885-904.

Spathis, C. (2006). Enterprise systems implementation and accounting benefits.
Journal of Enterprise Information Management , 19 (1), 67-82.

Stair, K., & Reynolds, O. (2006). *The use of Management Accounting Information for Micro Business*. London: Pearson Education Inc.

Statistics, A. B. (2001). Small Business in Australia, 2001. Accessed on the 23
December, 2017 through Available at <http://www.abs.gov.au/ausstats/abs@.nsf/mf/1321.0>.



APPENDIX
UNIVERSITY OF CAPE COAST
COLLEGE OF DISTANCE EDUCATION

Questionnaires for Staff and Customers of Agricultural Input Dealers

I am a postgraduate student pursuing my master degree in Business Administration at the University of Cape Coast and conducting a research entitled “to assess the adoption of Accounting Information System for decision making by Agricultural input dealers/enterprises in Tamale Metropolis” as one of the major requirements for the award of master’s in Business Administration, please you are requested to assist in this research which is only for academic purpose. Confidentiality is here by assured.

Section A: Demographic Data

1. Gender:

- I. Male []
- II. Female []

2. Age Distribution of Respondents

- I. 20 – 30 []
- II. 31 – 50 []
- III. 51 and above []

3. Educational Attainment of Respondents

- I. Junior High School []
- II. Senior High School []
- III. A’ Level/RSA []

- IV. DBS/HND []
- V. Degree []
- VI. Professional (CA/ACCA, etc) []
- VII. Masters []

Section B: The Existing Accounting Information System Used by Agricultural Input Enterprise for Decision Making in the Tamale Metropolis

4. Does your organisation practice formal accounting?
- I. Yes []
 - II. No []
5. If no, what are the reasons for not practicing formal accounting?
- I. Can operate without accounting []
 - II. High cost of employing accounts staff []
 - III. Other(s) [] Specify

6. How many years do you used Accounting Information System
- I. 0 to 1 year
 - II. 1 to 3 years
 - III. 3 to 5 years
 - IV. 5 to 7 years
 - V. 7 to 10 years
 - VI. 10 and above years

7. Do you maintain books of accounts?

I. Yes []

II. No []

8. If yes what type of books of accounts does your organisation maintain?

I. Day books []

II. Journal []

III. Cash books []

IV. Ledgers []

V. All the above []

9. Who is responsible for maintaining these books?

I. The Manager []

II. The Proprietor []

III. An Accounts Officer []

IV. Other [] Specify

10. Do your business use any accounts information systems in the management of your business ?

Yes []

No []

If no, end but yes cont'n Q 11

11. What Accounts information systems do you use in the management of your business ?

.....

12. What services do you use the Account s information services for?

.....
13. Has the adoption of these Accounts information systems improve your business performance over the years?

Yes [] No []

14. Do you have a separate department in your organisation charged with the responsibility of maintaining the accounts of the organisation?

I. Yes []

II. No []

15. Do you maintain petty cash book?

I. Yes []

II. No []

16. Do you prepare bank reconciliation statements?

I. Yes []

II. No []

17. Do you prepare financial statements?

I. Yes []

II. No []

18. What type of financial statements does your organisation prepare?

I. Income statement []

II. Statement of financial position []

III. Cash flow statements []

- IV. Statement of changes in equity []
- V. All the above []

Section C: The Impact of the Adoption of Accounting Information System on Decision Making By Agricultural Input Enterprise in the Tamale Metropolis

19. What are the Level of Satisfactory with regards to the adoption of accounting information system

- I. Low
- II. Moderate
- III. High
- IV. Very High Satisfy
- V. None

20. Does the company use AIS for decision making?

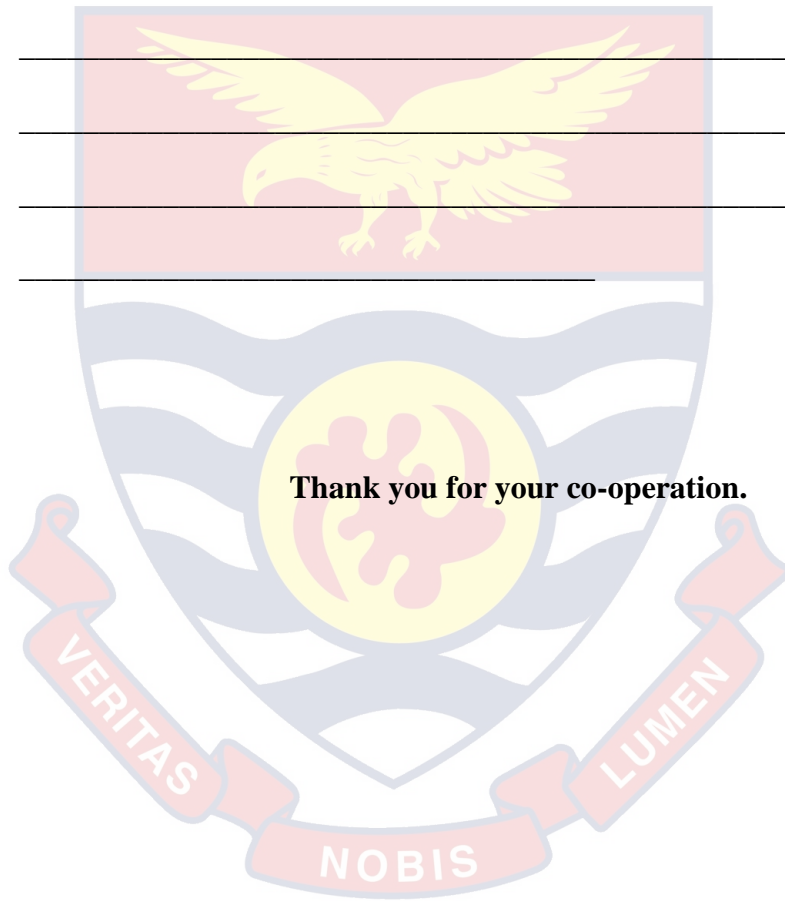
- I. Always
- II. Sometimes
- III. Never

17. What kind of decision does the company uses AIS?

Section D: The Challenges of Agricultural Input Enterprises in Adopting Accounting Information System as a Decision-Making Tool in the Tamale Metropolis

21. What are some of the problems your organization encounter as far as institution of adoption of accounting information system is concerned?

22. What are your general comments on the accounting practices of the organisation?



Thank you for your co-operation.