

UNIVERSITY OF CAPE COAST

**EVALUATING THE IMPACT OF THE USE OF ACCOUNTING
SOFTWARE ON THE PROCESSING OF FINANCIAL
INFORMATION. A CASE OF GHANA EDUCATION SERVICE, NEW**

JUABEN MUNICIPALITY

BY

CHARITY BOATENG

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Business, College of Humanities and Legal Studies, University of Cape
Coast, in partial fulfilment of the requirements for the award of Master
of Business Administration degree in Accounting**

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DECLARATION

Candidate's Declaration

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

Candidate's signature Date

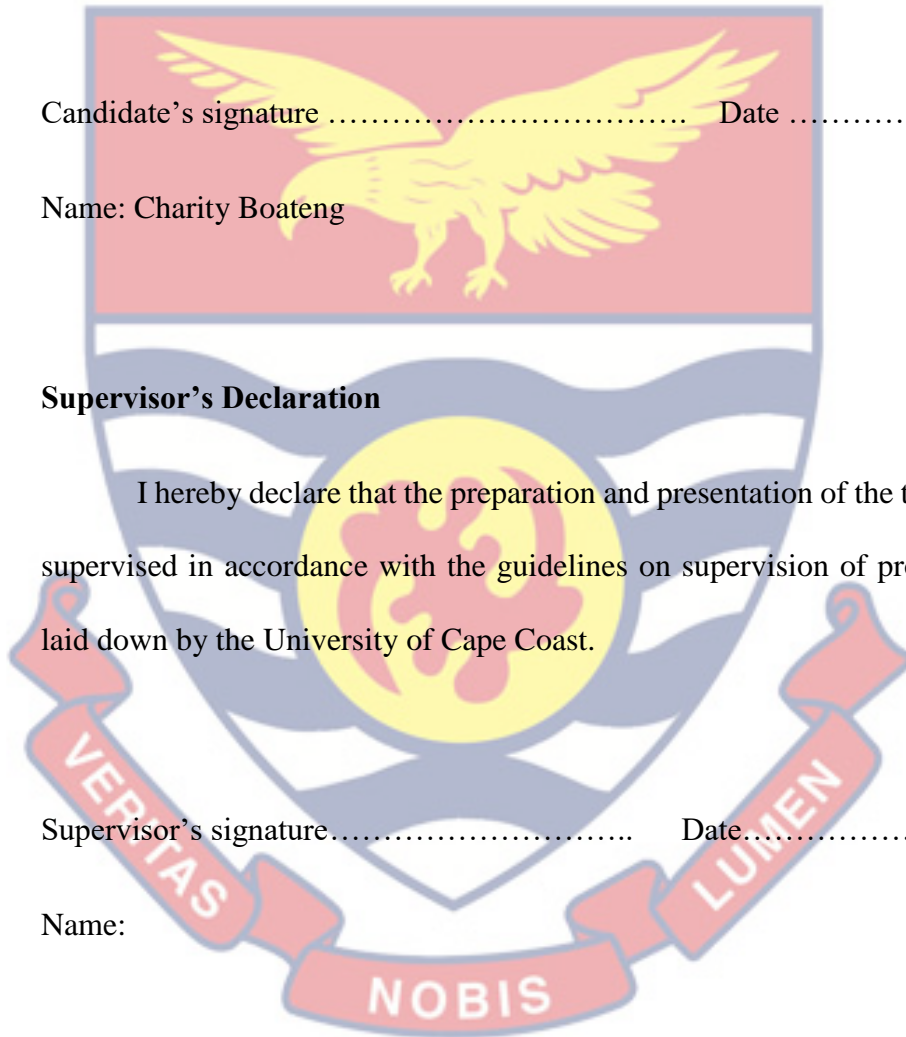
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Supervisor's Declaration

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

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ABSTRACT

The purpose of the study was to evaluate the impact of the use of accounting software on the processing of financial information. An exploratory research design was used and the population was all the finance offices of Ghana Education service at New Juaben Municipality. A probability convenient sampling technique was used to select sample of 50 employees in the finance department across the New Juaben Municipality. Questionnaire was used to collect data and data analysed with Statistical Package for Social Sciences. The study found a positive relationship between use of accounting software and efficiency of processing financial information. Moreover, use of accounting software accounts for 7% of changes in the efficiency of processing financial information from the study. Furthermore, the study found that accounting software is used for undertaking all accounting activities and acceptance by employees, knowledge and skills of employees and cost-benefit analysis influenced decision to use accounting software. Also, the skills and expertise of employees in operating accounting software was average. The study concludes that accounting software has positive impact on the processing of financial information. It is recommended that Ghana Education Service should develop the knowledge and skills of employees in operating accounting software.

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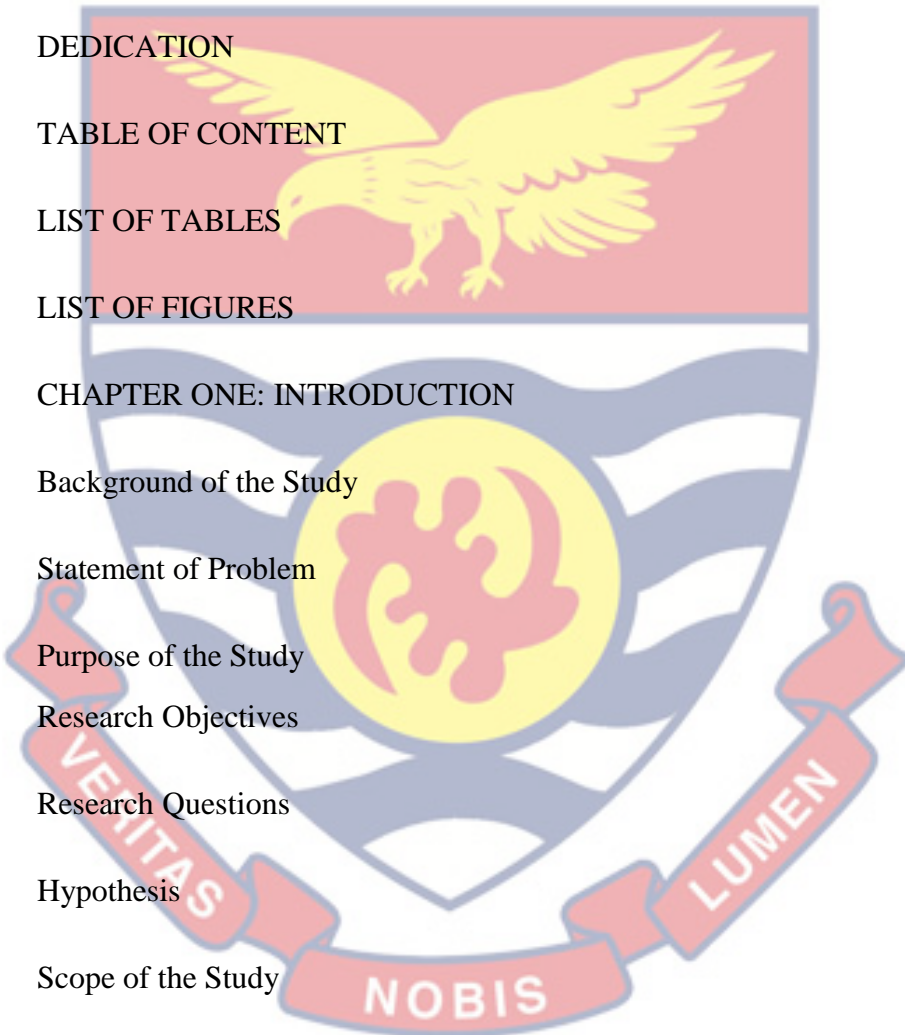
DEDICATION

To Miss Eugenia Osei Boateng.



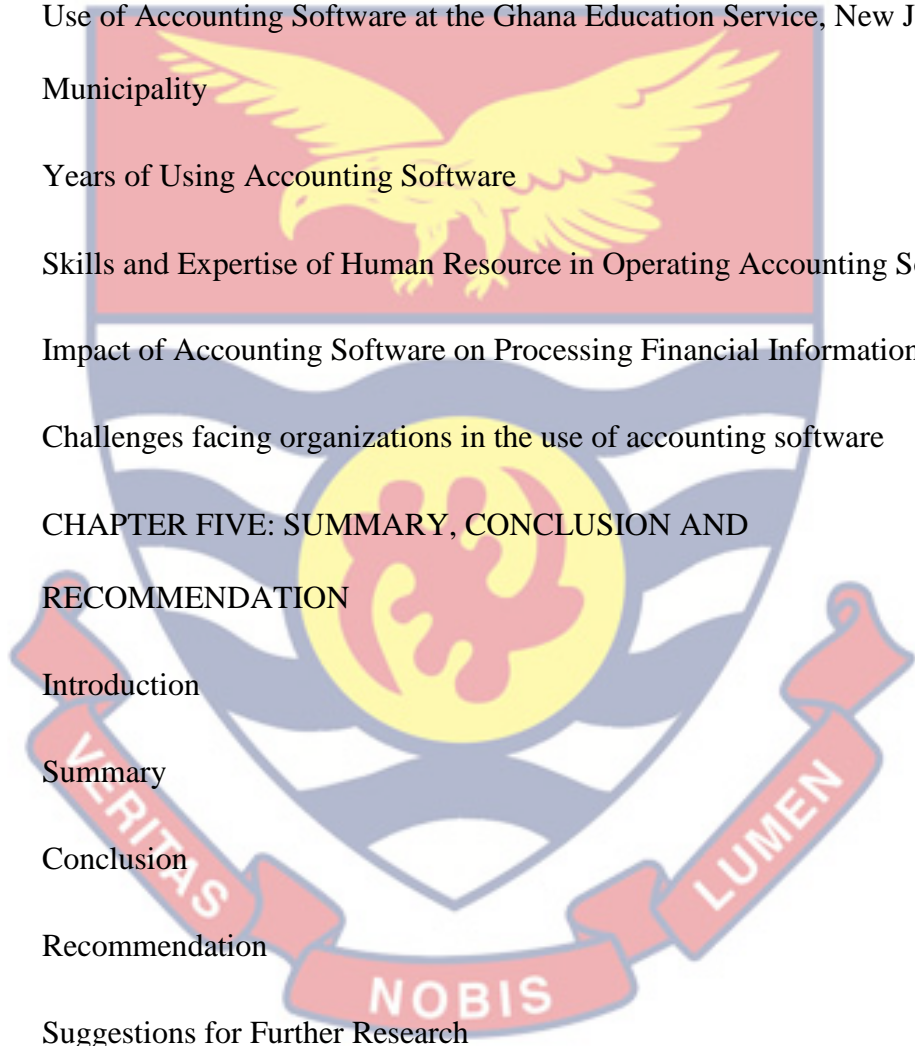
TABLE OF CONTENT

CONTENTS	PAGE
DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	v
TABLE OF CONTENT	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER ONE: INTRODUCTION	1
Background of the Study	1
Statement of Problem	3
Purpose of the Study	5
Research Objectives	5
Research Questions	6
Hypothesis	6
Scope of the Study	5
Significance of the study	5
Organization of the study	7
CHAPTER TWO: LITERATURE REVIEW	9
Introduction	9
Theoretical Framework	9



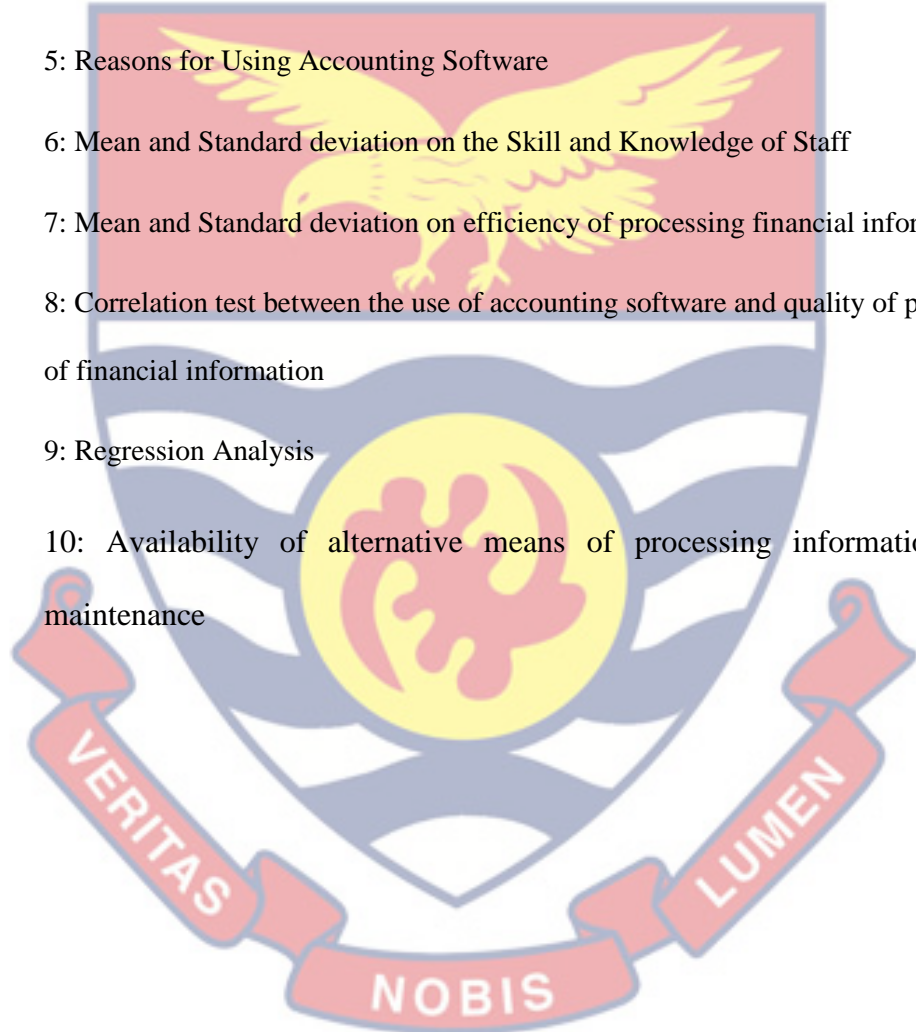
Contingency Theory	10
Diffusion of Innovation Theory	11
Technology Acceptance Model	12
Factors Influencing the Use of Accounting Software	17
Characteristics of an organizations decision makers	18
Characteristics of Technology Innovation	20
Characteristics of the Organization	22
Characteristics of the Business Environment	23
Effects of Accounting Software on Organizational Activities	25
Challenges Associated with Implementing Computerised Accounting Software	29
Conceptual Framework	31
Research Gaps	33
CHAPTER THREE: RESEARCH METHODS	34
Introduction	34
Research design	34
Study Area	35
Population	35
Sampling Procedure	35
Sources of Data	36
Instruments	37
Data Collection Procedures	37

Data Processing and Analysis	38
Ethical Considerations	38
CHAPTER FOUR: DATA ANALYSIS	40
Introduction	40
Analysis of Socio-Demographics	40
Use of Accounting Software at the Ghana Education Service, New Juaben Municipality	43
Years of Using Accounting Software	43
Skills and Expertise of Human Resource in Operating Accounting Software	50
Impact of Accounting Software on Processing Financial Information	51
Challenges facing organizations in the use of accounting software	57
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION	61
Introduction	61
Summary	61
Conclusion	62
Recommendation	63
Suggestions for Further Research	64
REFERENCES	65
APPENDIX	73



LIST OF TABLES

	Page
1: Socio-Demographic Characteristics of Respondents	40
2: Use of accounting software	43
3: Years of Using Accounting Software	44
4: Mean and Standard Deviation on the use of accounting software	45
5: Reasons for Using Accounting Software	47
6: Mean and Standard deviation on the Skill and Knowledge of Staff	50
7: Mean and Standard deviation on efficiency of processing financial information	53
8: Correlation test between the use of accounting software and quality of processing of financial information	55
9: Regression Analysis	56
10: Availability of alternative means of processing information during maintenance	59



LIST OF FIGURES

	Page
1: Process in adopting accounting information software using the contingency and diffusion of innovation theories	32



CHAPTER ONE

INTRODUCTION

Background of the Study

Modern businesses are faced with fierce competition, accelerated speed and overwhelming change (Johnson, 2012). Adhering to standards and quality control principles in the midst of fierce competition and change have rendered manual processes of analysing and discussing business information untenable. The speed of change calls for companies to develop means of processing information with speed and efficiency in order to present timely business information for quick decision making (Rotich, 2017). These have made it imperative for companies to develop computer programmes design to process business information to make quick decisions in order to survive contemporary competition.

Financial information is a crucial information of every organization's decision-making process (Mitchell, 2006). They are used to make decisions related to cost, budget, investment and other aspects of business decisions which require accuracy, reliability and efficiency (Lun, 2006). These requires systems that are able to integrate huge information and summarize them into understandable forms. Manual methods of processing accounting information have proven untenable to meet the accuracy and reliability standards of contemporary financial information and have paved way for a more faster and efficient method of processing financial information.

Modern forward-looking companies have transformed from the manual methods of processing financial information and have adopted computerized

means of processing accounting information (Maria, 2010). Accounting information systems or software are computerized programmes that enhances efficiency and co-ordination of financial information or organizational activities (Teru & Hla, 2015). Nicolaou (2000) cited in Rotich (2017) asserts that accounting software is very important in achieving sustainable internal control mechanism whose main aim is to assign quantitative values to past, present and future economic situations. Accounting software generate income statement, balance sheet, computerized accounting system flow statements and other financial statements with high speed, efficiency and accuracy. Accounting software are programmed in line with accounting principles and standards, hence it ensures strict adherence to accounting principles like the manual method but the computerized method presents it in a more effective manner since it is void of any human errors (Rotich, 2017).

The introduction of accounting software in financial information processing are mostly characteristic of private sector companies who require quick processing of financial reports to make strategic decisions because of the competition staged by rival firms. The speed in information processing have made accounting practice very easy and less time consuming and have been adopted by many government institutions to improve government. These show that accounting software has been widely accepted in all spheres of business (private and government) and it is thus imperative to assess the impact of accounting software on processing of financial information.

The Ghana Education Service (GES) is a government body that is set to supervise the activities and administration of education in the country. It is to ensure that all the financial resources and any other educational materials are

channelled to the right sources. Notwithstanding, the ability of this body to ensure efficient allocation and use of financial resources is heavily dependent on technology. Technology is taking over the world, and one's ability to be abreast with current software to process information is very key in succeeding in the contemporary world. However, some software can be difficult to work with when the calibre people using the software are not exposed to much training in computer applications. The GES uses accounting software in processing information obtained on finance and from other operations. The manual way of processing financial information makes it more difficult for the GES to work effectively due to the large responsibility of serving people. This in effect has called for the use of the software to help reduce the stress of manual information processing. In this good initiative, it is however unfortunate that financial information processed cannot be accessed and utilised by many users due to low performance of the GES. This could be that, the introduction of the use of accounting software in processing financial information is not having a positive impact on the accounting activities of the GES or lack of maintenance of the software. This calls for an investigation into this matter.

Statement of Problem

The need to integrate computer programmes for data processing in accounting practice have been underscored by some studies in early 1960's by Roy and MacNeil (1967) and the American Accounting Association and other individual accountants. The need for this integration is premised on the fact that accounting information measures critical business variables like profitability, assets and liabilities. These procedures require reliable and

accurate systems that minimize errors because financial transactions involve bulk of information (Toth, 2012).

Amidst the strong acceptance of the need to integrate accounting software in the processing of financial information, most business schools and institutions that train accountants have not integrate a computerized programme in the curriculum that expose accountants to accounting software and how it influences financial data processing. Toth (2012) argues that there need to be a synergy between manual method of processing financial data and the computerized approach in order to achieve efficiency in processing financial information. The absence of this synergy creates under-utilization of computer programmes that could have made work effective. It also makes it difficult for accounting students to appreciate the computerized approach to analysing financial information.

Furthermore, accounting information software or data although are discrete from other management system but they are intertwined with entire management information system (Rotich, 2017). This is because analysis provided by accounting software or programmes influence the decision management information system generates. This makes the reliability, accuracy and timeliness of the programme very imperative. Companies and corporations mostly do not have specialized departments that measure the impact of accounting programmes on management's efficiency. This makes it crucial to measure the impact of accounting software on processing of financial information. Moreover, the lack of synergy between modern computerized methods of processing financial information and traditional methods can affect utilization of accounting software programmes since the educational

institutions train accounting students with traditional methods with less emphasis on computerized methods.

The aim of this study is to explore the impact of accounting software on the processing financial information of New Juaben Municipality Education Service.

Purpose of the Study

Generally, the research examined the skills and expertise of staff in the use of accounting software at the Ghana Education service (GES). New Juabeng. The study is designed to provide empirical findings with respect to relationship between the use of accounting software and financial information processing at the GES. The central aim of the study is to explore the impact of accounting software on processing of financial information at Ghana Education Service.

Research Objectives

The study seeks to:

1. Examine the skills and expertise of staff in the use of accounting software at Ghana Education Service, New Juaben Municipality.
2. Examine the workers in the use of accounting software at Ghana Education Service, New Juaben Municipality and mechanisms to overcome the challenges.
3. Examine the impact of accounting software on processing of financial information at Ghana Education Service, New Juaben Municipality.

Research Questions

1. What is the skill level of employees in the use of accounting software?
2. What is the impact of accounting software on the processing of financial information?
3. What are the challenges employees face in the use of accounting software and how can they be resolved?

Hypothesis

H0: There is no relationship between the use of accounting software and the efficiency of processing financial information.

H1: There is a relationship between the use of accounting software and efficiency of processing financial information.

Scope of the Study

The study was conducted at Ghana Education Service, New Juaben Municipality in the Eastern Region. The study primarily focused on employees at the accounts department. This area was chosen because the employees at the accounts department engage in the use of accounting software in book-keeping, designing computerized accounting system flow statement and other financial statements and hence can provide adequate information on how the software influences their efficiency at work.

Significance of the Study

The overarching aim of every company in cost reduction strategy is to develop a mechanism that increase speed, accuracy, reliability and timeliness of information. This has resulted in the increase in capital expenditure on computerized programmes aimed at improving efficiency of processing

financial information. This study will provide knowledge and insight for managers to appreciate the role accounting software play in processing financial information efficiently and how it can influence decision making processes.

Furthermore, the state anecdotal reports have always cited most public institutions to be involved in embezzlement, corruption and accounting malpractices. Many a time, the underlying cause of the malpractices relates to wrong application of accounting principles and falsification of figures on the part of unethical accountants. The use of accounting software helps to reduce the human influence on financial information. Records can be traced and analysed and correct errors on financial reports. This can help reduce the tendencies of accounting malpractices.

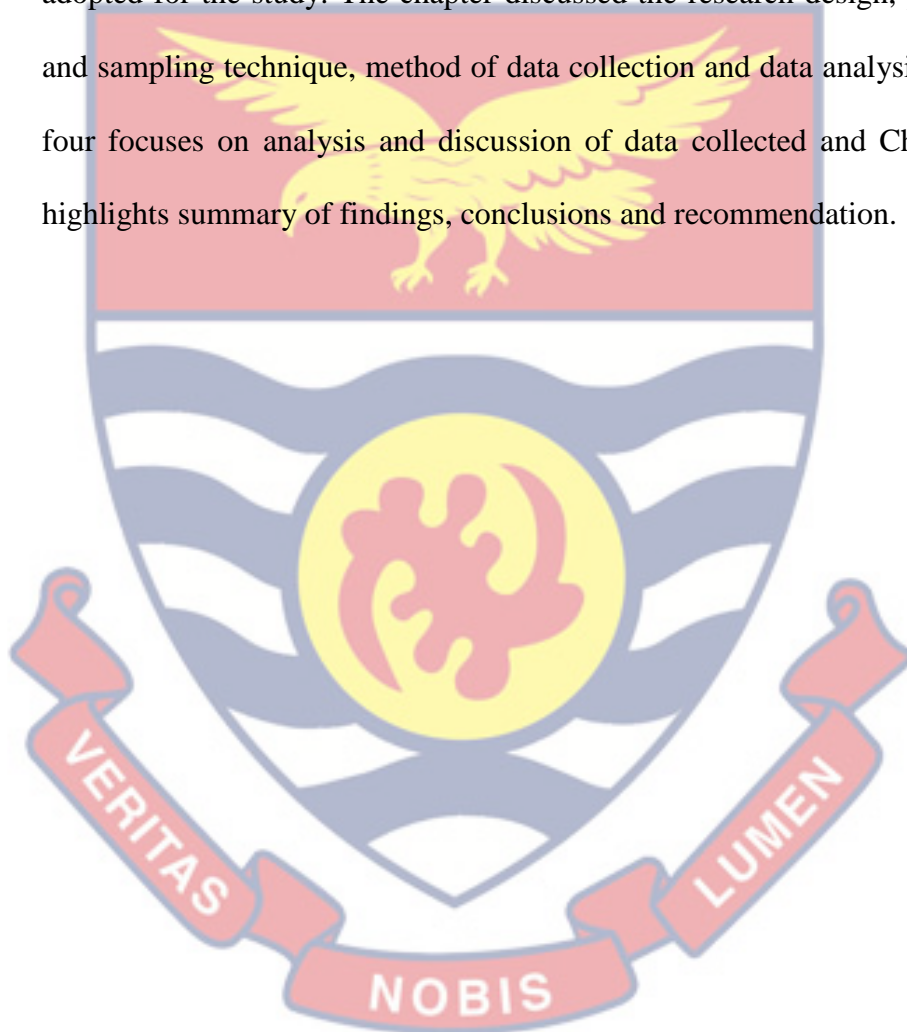
Moreover, the study provides knowledge on the need to ensure a synergy between traditional methods of processing financial information and computerized methods in an organization. It also helps business schools to understand the role accounting software education improves the efficiency of accounting students in processing financial information.

Organization of the Study

The study was conducted in five chapters. Chapter one focused on introducing the topic and the motivation behind the work. It revealed the background to the study, problem statement, objectives of the study, research questions and hypothesis of the study. Chapter two of the study revealed how the concepts of the study has been examined in the literature, evaluate its contemporary relevance and gaps for future research. The chapter reviewed

existing literature on accounting information systems and processing of financial information by considering theories and models related to the impact of accounting software on the efficiency of information processing.

Chapter three of the study focused on the right tools and techniques employed to conduct the study. It shows the overall research methodology adopted for the study. The chapter discussed the research design, population and sampling technique, method of data collection and data analysis. Chapter four focuses on analysis and discussion of data collected and Chapter five highlights summary of findings, conclusions and recommendation.



CHAPTER TWO

LITERATURE REVIEW

Introduction

The chapter two of this work will focus on revealing existing body of knowledge accumulated on the impact of accounting software and information processing. The role of accounting software in improving efficiency of information processing has a long history in global accounting research but it is a new area of study in the Ghanaian accounting research area. Existing theories and models related to the role of accounting software in information processing will be examined in this chapter.

Theoretical Framework

Several theories have been developed to explain the impact of computerized accounting software on the processing of accounting information with the aim of ensuring high quality financial accounting reports. The theoretical framework sets the defining space that explain how the adoption of computer software influence data processing and also the overall behaviour of employees towards the new technology in preparing financial statement. The theoretical framework is very relevant to the study because it determines the direction of the work as well as prescribe the appropriate research methodology (Knapp, 2016; Mackey and Gass, 2010). Relevant theories selected for this study include Contingency theory, Diffussion Innovation theory, and Technology Acceptance Model.

Contingency Theory

The contingency theory was developed by Fred Edward Fiedler as found in the work Gordon and Miller (1976). The contingency theory suggests that the behaviours leaders exhibit should be contingent on the prevailing situation of the organization. The contingency theory does not support the argument that there are universal management practices that results in high organizational performance but management decisions and systems aimed at achieving high performance should be contingent on the internal and external environment of the organization. The contingency theory therefore, prescribes a best fit approach to systems management adopt to achieve high performance.

Applying the contingency theory to accounting software application, there are several accounting software/systems that results in higher efficiency in financial reporting but the accounting software management adopt should be contingent on the existing management system. Accounting software/systems form part of the overall management system that results in organizational effectiveness (Bahati, 2014). It has become necessary to adopt or design accounting software that are contingent on the management system that has been designed in line with the organizations strategic objective. Therefore, the accounting software that an organization adopts should be contingent on the overall management system.

Furthermore, management systems are designed with in-built flexibility to facilitate changes when the business environment change. This implies that accounting software that companies design should have some extent of flexibility so that when management systems change, it can be changed to meet the new management systems (Rotich, 2017). Therefore, the contingency

theory proposes that a universal accounting software or system that results in high quality financial accounting reporting does not exist and that the type of accounting software or system should be a consequence of the management system and the overall business strategy.

Langfield and Smith (1997) concludes in their study on accounting software and systems that the form of accounting systems organizations adopted were consequence of the overall business strategy. The findings of Chenhall (2003) on the study of accounting information systems also affirms the conclusion by Lagfield and Smith (1997).

Diffusion of Innovation Theory

The diffusion of innovation theory is adopted for the study to describe the extent to which the users of technology accept a new technology. The theory was found in the work of Rogers (1983). The theory argues that the relative advantage, compatibility, complexity, triability and observability of the new technology influences the degree to which employees accept a new technology.

The theory argues that the degree to which employees regard the technology as being better than existing method of performing work activities influences them to develop a positive attitude towards the technology. Also, where employees regard a technology as compatible with existing principles, systems and methods of performing their work, they are more likely to accept the technology. Moreover, when a new technology being introduced is difficult, users are less likely to accept the new technology. Also, when the

technology can be experimented and results from utilization of the technology used are visible, employees are more likely to accept the new technology.

Applying the diffusion of innovation theory to the use of accounting software, when the accounting software is believed to be better than the existing means of preparing financial reports, employees will accept and use the technology. Also, when the principles underlying the accounting software is compatible with the existing accounting principles and procedures, it makes it very easy for employees to apply the software in preparing financial reports. In spite of the compatibility, if the accounting software is difficult to use, it breeds confusion and employees are less likely to use the software. Furthermore, when the accounting software can be experimented and the results can be seen, employees will develop a positive attitude towards the accounting software.

Technology Acceptance Model

The Technology Acceptance Model (TAM) is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new technology, two specific factors influence their decision about how and when they will use it. The two factors are; perceived usefulness (PU), and perceived ease-of-use (PEOU) (Davis, 1989). This translate that how employees perceive how useful the technology will be to the performance of their work influences their attitudes towards use of the technology. Also, the perception of employees about the easy-of-use of the technology influences the employees to accept the change in the use of the technology.

Applying this model to the use of accounting software, when employees perceive the software to be useful in enhancing their efficiency in the performance of their duties they are more likely to accept the software. On the contrary, where employees perceive the software as less useful, they are likely to resist the use of the software. Furthermore, where the accounting software is easy to use, employees are more likely to use the software and vice versa. It can be concluded that the perceived usefulness of an accounting software and extent of complexity influences the use of a computerized accounting system.

It can be seen that the technology acceptance model, although shows the extent to which an accounting software can be adopted but it fails to show the extent of behavioural changes in the utilization of the accounting software. Bahati (2014) asserts that major weakness of the technology acceptance model is that it has limited use in explaining users' behaviour. As a result of the shortcomings, many authors have extended TAM with additional constructs. Mbogo (2010) for instance, employed TAM and extended it to include other factors such as perceived ease of accessibility, perceived low cost, perceived security, perceived convenience, perceived satisfaction and perceived support to investigate the success factors attributable to use of computerized accounting system.

Adjei and Tobbin (2011) modelled adaptation of computerized accounting systems expanding TAM and Diffusion of Innovation to investigate the consumer behavior towards computerized accounting system adaptation in Ghana. Similarly, Bosire (2012) adapted Diffusion of Innovation theory alongside TAM to explain factors which contributed to success of adaptation

of new technologies. Similarly, Odia (2012) applied TAM with additional factors such as perceived trust, security, and perceived convenience.

Accounting

Ghasemi, Shafeiepour, Asleni and Barvayeh (2011) defines accounting as a system an organization adopts to measure its financial performance by noting and classifying critical transactions such as sales, purchases, assets and liabilities in a manner that is in line with existing standards formats. The definition by Ghasemi et al., (2011) explains that accounting is a complex system a company uses to measure its financial performance. This definition recognizes the complexity of measuring activities that influence the financial performance of the firm. Therefore, the systems used to record, edit and analyse such information to meaningful forms must exhibit a high sense of accuracy, reliability and easy to be accessed. This definition underscores the need to integrate computerised programmes into processing huge data on sales, purchases and other relevant financial performance parameters.

A more summarized definition of accounting by Gogan and Nolan (1995) explains the concept of accounting as a process of recording, classifying and summarizing a significant number of monetary transactions and events, and interpreting the results thereof. The definition of Gogan and Nolan (1995) shows that the processing of presenting meaningful financial information undergoes a significant process requiring careful management of financial transactions. This definition also inadvertently underscores the need then to have a system that makes this information accurate, reliable and easy to

understand considering how critical financial information is to management decision.

Sacco (2008) simplifies the meaning of accounting to assessing the financial performance of an organization, thus accounting is the measurement of how well an organization managed financial resources entrusted to them. The definition by Sacco (2008) establishes that accounting is not just recording, classifying and summarizing financial transaction but a key aspect of the accountability process of an organization. Sacco (2008) explains that accounting summarizes information into understandable forms that enhances financial decision making.

Efficiency

Efficiency of accounting processes relates to providing meaningful accounting information at the highest quality. Sacco (2008) highlights that efficiency of accounting process begins from how the data collected through to classifying and also ensuring that analysis and interpretation of the financial transaction is in line existing standards of the industry. The efficiency of an accounting process aim at ensuring that the information processed is of high quality (Bahati, 2014). Ensuring quality relates to making sure that the accounting information presented is understandable, relevant, reliable, comparable and consistent (DeLone,2010; Marquez, 2011; Frank and Alan, 2010). Every organization has a means through which it achieves efficiency in the processing of accounting information. Some organizations use manual methods to achieve efficiency whilst others use computerized software/systems to achieve high quality accounting information processes.

The effectiveness of the accounting software is measured by the extent to which it is able to produce an accounting report or information that can be easily understood by professionals and non-professionals (DeLone, 2010). Furthermore, Marquez (2011) explains that the information generated by an accounting software should be relevant to influencing decisions by management. Marquez (2011) concludes that where the information processed cannot be used for decision making, the efficacy of the software becomes contentious.

Moreover, accounting software/systems are designed to meet the principles and standards of the industry. Stone (1973) asserts that the introduction of computer programmes in accounting does not change the underlying principles and techniques but to increase accuracy and reliability in the application of the principles. The effectiveness of an accounting software is measured by the extent to which the report generated is consistent and comparable to other businesses in the industry. DeLone (2011) adds that the software designs an organization use may be different from its competitors, hence the accounts may not be uniform but comparable due to application of the same accounting principles.

Accounting Software/System

Accounting software are computerized programmes that help to record, classify, analyse and prepare useful financial accounting reports such as income statement, computerized accounting systemh flow statement and balance sheet (Bahati, 2014). Teru and Hla (2015) explains accounting software/systems as a computer based system that enhances internal control

and coordination in an organization. Teru and Hla further explains that accounting information is at that heart of management decision making process because it is the information for measuring financial performance.

Teru and Hla (2015) asserts that in order to coordinate the processes of accounting effectively and minimize errors, accounting software/systems have become the panacea. The manual method of managing and processing accounting has several pitfalls such as difficulty in retrieving information, computational errors and time-consuming. These pitfalls have paved the way for a modern approach where computer programmes are design to suit the manual book-keeping and preparation of accounts at a faster and convenient means.

Empirical Review

Factors Influencing the Use of Accounting Software

The development of powerful, low cost micro-computers, coupled with user-friendly accounting software, has made it possible for organizations to implement computerized accounting software in recent years (Weber, 2011). The need to improve financial management is another motivating factor for adopting accounting software. The relevance of implementing a computerized accounting system are; to increase business efficiency and to facilitate timely information (DeLone, 2011). The impediment to implementing a computerized accounting systems are; lack of time (Chenhall & Morris, 2006), the view that the computerized accounting systems are costly (Henry, 2007) and lack of computerized accounting software expertise (Bretch & Martin, 2006).

Chenhall and Morris (2006) identified four main factors that determine adoption of computerized accounting systems in an organization namely; characteristics of the organization's decision makers; characteristics of the technological innovation within the organization, availability of resources within the organization; and characteristics of the environment in which the organization operates.

Characteristics of an organizations decision makers

In large business teams are typically involved in the computerised accounting software decision-making process. Characteristics of the owner-manager are critical in determining the organization's attitude to computerised accounting software. Characteristics important to computerised accounting software adoption are: innovativeness, computer self-efficacy, level of computerised accounting software knowledge, education, and computerised accounting software training experience (Chenhall & Morris, 2006).

Innovation: Organizational characteristics have significant influence over the decision to adopt accounting software in the organization. Armstrong (2002) asserts that where the work environment is flexible and allows autonomy to determine the pace of work, employees become innovative through their ability to influence the work process. Theory Y further adds that employees have the skill and are willing to work (McGreggor, 1960). Thus, management must create a work environment that engenders innovativeness. This implies that, if an organization creates the right environment for employees to be innovative, the employees are more likely to be willing to look for means of doing work faster and efficiently, thereby influencing the use of accounting software. Additionally, it is important to note that the strategic

objective of organizations to have competitive advantage may drive the need to be innovative and lead to the adoption of accounting software. Ghana Education Service is a public institution may desire to be innovative in order to ensure faster preparation of financial information to improve efficiency in delivering service to the public.

Level of Computer Self-efficacy, Training Experience and Knowledge of accounting Software: Computer self-efficacy as a judgment of one's capability to use a computer (Gray, 2011). Businesses that have CEOs (typically the owner) that have undertaken computer training and possess computer self-efficacy are more likely to implement computerised accounting software. Conversely, owner-managers can inhibit any worthwhile computerised accounting software achievements through hostility or detachment towards computerised accounting software (Gray, 2011). Computerised accounting software adoption is more likely in small enterprises where the owner-manager has computerised accounting software exuberance and competency, the question is what specific computerised accounting software skills are required? Chan and Kelvin (2010) provided further insight into this question by outlining the core skills required to exploit computerised accounting software. The skills include ability to provide technical fixes in as complex networked environment and integrate the effort with business purpose.

Mohamed and Tahir (2012) conducted a study on the adoption of computerized accounting software in Small and Medium Enterprises (SMEs) in Malaysia and found that the adoption of computerized accounting systems among SMEs is high. The study findings also showed that the innovativeness

of the CEOs of the SMEs contribute to the usage of computerized accounting software.

Education: Employees level of education can play a significant role in influencing the use of accounting software. A high level of education of management and employees of an organization may influence the perceived ease-of-use of accounting software. The Technology Acceptance Model explains that, the perceived ease-of-use of a technology is influenced by the user's perception of how well they have knowledge or education in the use of the technology (Davis, 1989). This implies that where employees have the right education in the use of accounting software, it may influence the organizations willingness to use accounting software. For example if a company has all of its accounts officer to be ACCA certified, the company is more likely to use accounting software because the staff have the capacity to use the software efficiently.

Characteristics of Technology Innovation

In the process of adopting a computer-based system, it is important to consider the characteristics of the technology. The adoption of a technology should guarantee improvement of performance and resolve the lapses of the old system. Before companies decide to adopt ab technology, the technology must offer relative advantage, compatible, complexity, observability and trainability (Honing, 2009).

A company may adopt a technology where the new technology offers more advantage and provide wider opportunities to undertake critical and innovative activities that hitherto may be impossible. DeLone (2011) adds that,

organizations are more likely to adopt accounting software if it presents an opportunity to undertake analysis better and more accurate than the previous software. The Technology Acceptance Model further adds that perceived usefulness is more likely to influence the use of accounting software.

Furthermore, the Technology Acceptance Model explains that the perceived ease-of-use significantly influences the extent to which users will accept a technology. Employees are likely to accept an accounting software if they perceive that the technology is easy to use and compatible with the principles behind their work (Honing, 2009). Honing further adds that, software perceived to be difficult and lack consistencies with their work, may be rejected by users. This implies that complex accounting systems are more likely to be rejected. Complex refers to the extent to which it is difficult to use the technology.

Moreover, Honing (2009) adds that organizations' may adopt a computer based system if it is easy to measure the results of the innovation. Observability is important to ascertain feedback with regards to the effectiveness of the software and the extent to which it meets the objective for adopting the technology. Honing also adds that regular feedback system of the technology ensures monitoring of the impact of the technology on work process of the organization.

It is also imperative to understand the cost of testing the technology before adopting the technology into work process. Some technologies may take long periods for testing. Trainability is a key factor companies may consider before adopting a technology. Honing explained that computerized accounting

systems with less cost associated with testing the efficiency of the system are more likely to affect decision to use accounting software.

Honig (2009) asserts that, the adoption of accounting software as the innovation, the software must be perceived better than the predecessor system (most likely a manual accounting system); must be consistent with the needs of the adopter, such as capable of handling; must be easy to learn and use; the results must be apparent; and the accounting software should be available on a trial basis.

Characteristics of the Organization

The characteristics of the organizations are other variables that influences the decision whether to adopt computerized accounting software. Organizational characteristics such as: business size, employee's level of computerized accounting software knowledge, industry sector and information-intensity. Generally, the larger the number of employees, the more information-intensive the industry – the more likely a business will adopt computerized accounting software innovation (Chan & Kelvin, 2010). Moreover, businesses tend to suffer resource poverty when it comes to adoption of new technologies in terms of financial capacity, available time and computerised accounting software skilled staff to facilitate innovation adoption. Consequently, resource poverty raises the barrier to innovation adoption in business and this is one of the factors that affect the adoption of computerized accounting software in some organizations (Chan and Kelvin, 2010).

Characteristics of the Business Environment

The characteristics of the environment in which the organization operates relates to variables such as competition and external agents. Gray (2011) established that competition leads to innovative technology adoption. Their study indicated that businesses with high computerised accounting software adoption rates had been influenced by external agents such as: trade associations, wholesalers and franchisors. Though this finding is fit best into the corporate social world, the methodology applied to achieve results have limitations such as: inability to show further prospects of accounting professionals in analysing past data to influence future decisions.

Early studies on technology diffusion found that competition increases firms' incentives to adopt new technologies so as to remain competitive (Thong, 2005). Competition intensity has been found to be an important driver of internet software technologies (Chongetal.,2009; Sila,2013; Wangetal.,2010; Zhu etal.,2003,2006). Studies have also found that external pressure from customers and suppliers affect e-business adoption (Del Aguila-Obra and Padilla-Melendez, 2008; Wang and Ahmed, 2009). Therefore, competition intensity is expected to drive organizations to adopt Internet technologies for knowledge exchange. However, research (e.g. Chan et al., 2012; Zhu et al., 2006) has also shown that competition may deter firms from using Internet technologies, challenging the traditional wisdom about competition and innovation diffusion. Zhu et al. (2006) found a positive relationship between competition and e-business adoption, but a negative relationship between competition and the extent of e-business use. Similarly, Chan et al. (2012) found that competition intensity is negatively related to the

extent of e-collaboration use in SMEs. Thus, Internet technology use is less tied to competition intensity than initially believed in both large and small businesses. Too much competitive pressure leads firms to change rapidly from one technology to another without sufficient time to infuse the technology into the company (Zhu et al., 2006). Porter's (1985) five forces refer to horizontal competition (the threat of substitute products, the threat of existing rivals, and the threat of new entrants), and vertical competition (the bargaining power of suppliers and the bargaining power of customers). Thus, although competition encourages technology adoption, it is not necessarily good for technology use.

Gary (2011) found that the competitiveness of an industry may influence firms to be innovative. This because accounting information system enable companies to process financial information into different analytical forms that facilitate effective decision making and results in development of right strategy to win competitive advantage. Moreover, where the company has a large customer base, the use of accounting software would be imperative to increase speed in processing financial information. Ghana Education Service has over 400 senior high schools and thus, co-ordinating financial reports from all the schools require a system that is fast, efficient and less costly.

External agents can influence the adoption of computerised accounting software. Internet based payments systems, international transactions and modern banking systems can influence a firm to adopt an accounting software that integrates modern forms of transaction. For example, GES currently accept mobile money payment of fess, direct bank transfers and international payments. These require the use of accounting systems that are compatible with current transaction methods.

Herman (2006) found that business customers were a significant reason for implementing computerised accounting software, more than the influence of competitors. Public Practice Accountants are in a unique position to provide systems analysis, design, and implementation and support advice to their clients, thereby spreading the cost of acquiring this expertise among multiple customers. Their findings provide a more significant application of technological software to accounting activities. The variables used in the research were competitors, customers, managers and government policy as the external agents of the business environment. These factors affect the way software are used to process information in the fastest way and this creates an environment that businesses and other organisations drive their goals into the future. (Amoako & Salam, 2003) also concluded that, both training and project communication influence the shared beliefs that users form about the benefits of the technology and that the shared beliefs influence the perceived usefulness and ease of use of the technology. The researchers used perception of technology by employees as an external factor to determine the business environment characteristic. Thus, they provided empirical and theoretical support for the use of managerial interventions, such as training and communication, to influence the acceptance of technology (accounting software), since perceived usefulness and ease of use contribute to behavioural intention to use the technology.

Effects of Accounting Software on Organizational Activities

Amveko (2011) conducted a study in which he aimed to identify the impact of computerized accounting information systems on financial reporting, and he concluded that computerized accounting system actually have an

influence on the quality of financial reports for publication purposes. The study also found that computerized accounting systems improve efficiency in financial reporting.

McBride (2000) suggest that, computerized packages can quickly generate all types of reports needed by management for instance budget analysis and variance analysis. Data processing and analysis are faster and more accurate which meets the managers need for accurate and timely information for decision making. The influence of computerized accounting systems on financial reporting has been linked to the benefits of applying computer systems while generating financial reports. With the application of computerization, generation of financial reports will be easy as information can be easily generated.

Computerized accounting systems have also been credited for their quick processing speed and large storage capacity. Using computerized accounting systems ensure up to date account balances are available at any time to aid management in decision making. Computerization saves time on transaction hence leading to quality of financial reporting as timely, accurate and reliable information can be generated (Chan & Kelvin, 2010). The substantial increase in the number of transactions and increase in the need for real time information, maintenance of accounting data on a real time basis has become essential. This is achievable using computerized systems hence promoting the quality of financial reporting. Carol (2002) says that computerizing business general ledger, payroll and other accounting tasks increases office efficiency.

Amidu (2013) conducted a study to examine e-accounting practices among Ghanaian SMEs. The study revealed that almost all the SMEs sampled attach a lot of importance to financial information by employing at least degree holders and Chartered Accountants to handle their accounting information. The study also showed that majority of the firms put in place accounting softwares to generate financial information. This has the tendency to reduce cost, enhance clerical works, provide sufficient space to Store data and process information for management decision in a timely manner. In terms of functionality, the results of the study showed that almost all the SMEs use the software for accounts receivables functions as well as accounts payables, inventory management, payroll, fixed assets management and computerized accounting system management.

A study conducted by Adesaju (2004) on internal control systems in a computerized accounting environment found that the advent of computerized accounting has helped to improve effectiveness in processing transactions and that the accounting function is made easier while the control function is made more intricate because of the technicalities involved in the application of computerization. Studies conducted by Daoud and Triki (2013) found that the use of computerized accounting information systems has great potential to influence business performance. The study also found that the competence of accounting staff has a positive impact on firm performance improvement.

Rajeshwaran and Gunawardana (2008) conducted a study to investigate security controls of computerized accounting information systems in selected listed in Sri Lanka found that availability of user friendly accounting software and the increased competition have forced companies to adapt computerized

accounting systems in order to remain competitive whereas threats to computerized accounting software. are unavoidable in the dynamic environment.

Alshebeil (2010) aimed to identify the role of accounting information systems in achieving competitive advantage for Jordanian commercial banks, and concluded that there is a statistically significant impact for accounting information systems on achieving the dimensions of competitive advantage (improving the pricing process, reducing costs of banking services and increasing the speed of provided services.

Other studies have also found on the contrary the dire impact of accounting software on organizations performance and processing of financial accounting information. Most of the negative impact have focused on security threat and the minimal skill levels of employees with respect to the use of computerised accounting software. Abu-Musa (2004) conducted a study to investigate the significant perceived security threats of Computerized Accounting Information Systems (CAIS) in Saudi organizations. The survey results revealed that almost half of the responded Saudi organizations have suffered financial losses due to internal and external CAIS security breaches. The findings of the study also revealed that accidental and intentional entry of bad data; accidental destruction of data by employees; employees' sharing of passwords; introduction of computer viruses to CAIS; suppression and destruction of output; unauthorized document visibility; and directing prints and distributed information to people who are not entitled to receive are the most significant perceived security threats.

Okoye and Oghoghomeh (2011) conducted a study to investigate the impact of computerized accounting system on external audit functions. The findings of the study revealed that though auditor's knowledge of computer makes significance difference on his effective audit of a computerized accounting system, certain factors including skills levels of employees on the use of accounting software serve as to its effectiveness.

Challenges Associated with Implementing Computerised Accounting Software

Amidst the several benefits of computerized accounting software that can be listed, they are also beset with challenges. The impediments to implementing a computerised accounting software include: lack of time (Proudlock et al. 1999), owner-manager's view that the computerised accounting software is costly (Head, 2000), perception that the technology is not suited to the nature of the business (ABS, 2000), and lack of IT expertise (ABS 2000).

Furthermore, there is a risk of improper human intervention with the computer programs and computer files. Employees in the organization may temper with the computer programs and computer-based records for the purpose of deliberately falsifying accounting information. This may result into distortion of information that would be essential for decision making.

Moreover, Teru and Hla (2015) add that, several public and private institutions face the challenge of separating accounting from operation. Teru and Hla (2015) explains that accounting software is designed to support daily operations through data collection, data maintenance, and data control to facilitate processing of financial information to enhance monitoring of internal

operations, and financial statement (Wilkinson, 1986). When operations are mixed with data for accounting software can lead to mix-up of data.

Furthermore, Mwassi, Keneth and Mwamisha (2000) add that, competitive priorities in the organization affect full implementation of the whole programme. Accounting information systems requires continuous training and maintenance activities to improve its efficiency. Other business priorities can affect the ability of the organization to undertake all the necessary activities relevant for full utilization of the programme.

Innovation adoption has been the focus of considerable research. Thus, for example, numerous studies have examined the innovation characteristics (example, Tormatzky & Klein, 2012). Furthermore, many studies have examined the characteristics that distinguish innovative organisation (Damanpour, 2008). Implementation follows adoption and is “the transition period during which targeted organisational members become increasingly skilful, consistent, and committed in their use of an innovation” (Klein & Sorra, 2009). The empirical review on the implementation of computerised technologies is dominated by single-site, qualitative studies (example, Leonard-Barton, 2010). Quantitative studies of technology implementation are rare. Rarer still are quantitative studies examining between-organisational, not between-individual, differences in implementation effectiveness. Gunnarson (2008) posits that one major challenge associated with the implementation of computerised accounting software is the lack of security. According to the findings, respondent argued that, although the software eases the stress of manual information processing, it is less secure because hackers can break into the companies details and steal. Put differently (Rouiller & Goldstein, 2004;

Hofman & Stetzer, 2012; Kozlowski & Hults, 2013) found that weak reporting service, lack of efficiency and accuracy, inconvenient technical support via phone poor speed of access tend to be a challenge associated with implementing computerised accounting software.

Conceptual Framework

The conceptual framework of the study is developed from the contingency and diffusion of innovation theory. The overall organizational strategy determine the appropriate management information systems. The accounting software adopted forms part of the overall management information system. The perceived relative advantage, compatibility, complexity, trialability and observability of results, determines the adoption of the accounting software which translate to efficiency in processing of financial information.

In the context of this study, the overall organizational strategy of Ghana Education Service will influence the type of management information system to adopt. The accounting software adopted will be based on the extent to which it is beneficial to accounts officers, compatible with the principles of their job, easy to use, less cost of testing the software and the feedback from observing the processing of financial information. When these factors are satisfied, Ghana Education Service will adopt an accounting software, which will be used by all the accounts officers at New Juaben Municipality. The use of accounting software is result in efficiency in processing financial reports.

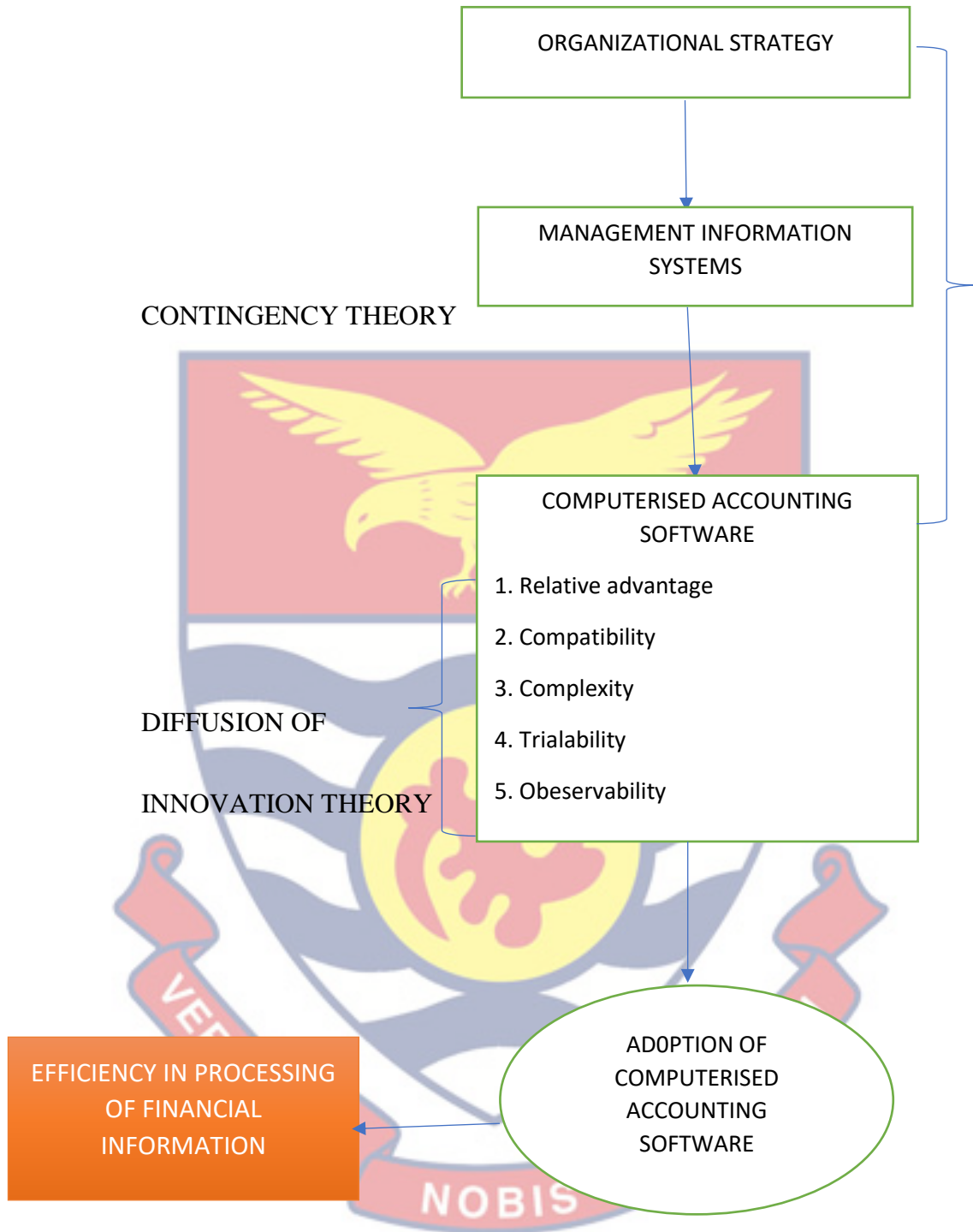
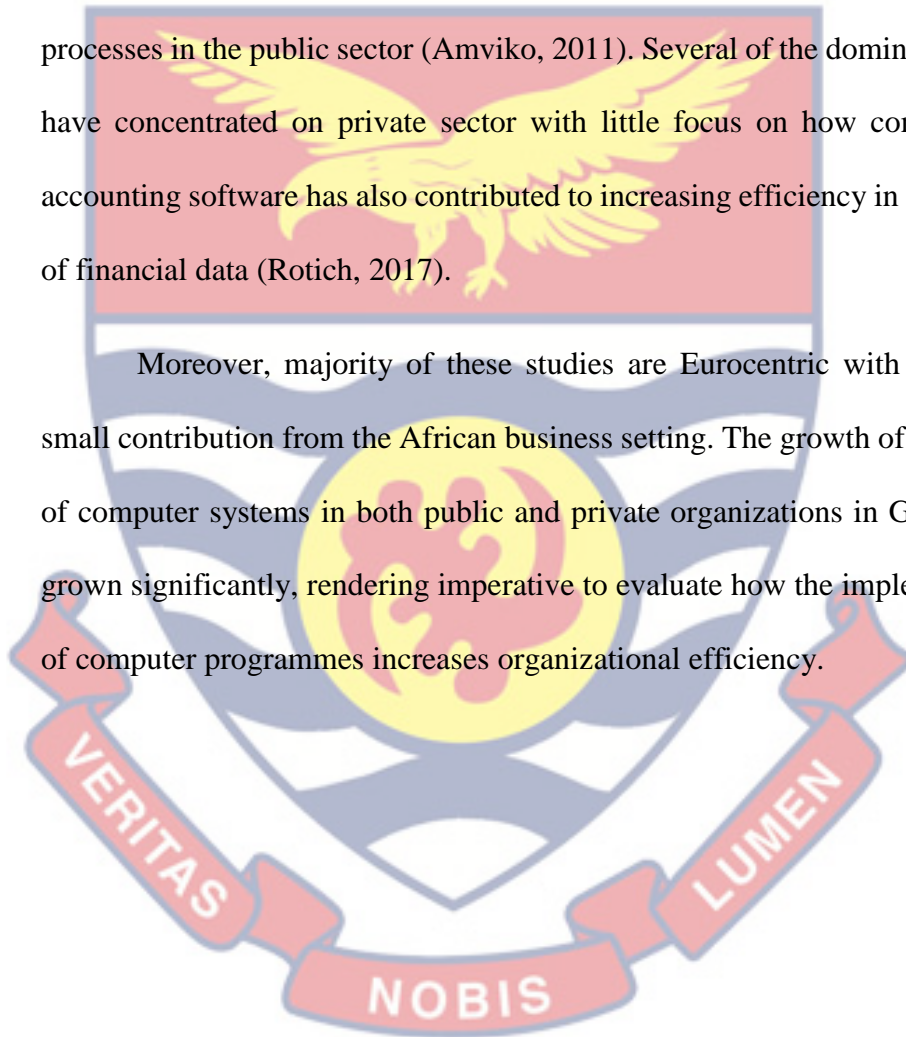


Figure 1: Process in adopting accounting information software using the contingency and diffusion of innovation theories.

Research Gaps

The review of literature shows that the desire to incorporate computerised programmes into the processing of accounting has a very long history and has received significant research attention in the body of knowledge of accounting. In spite of the numerous contribution of many writer, there is limited focus on how computerised programmes influence accounting processes in the public sector (Amviko, 2011). Several of the dominant studies have concentrated on private sector with little focus on how computerised accounting software has also contributed to increasing efficiency in processing of financial data (Rotich, 2017).

Moreover, majority of these studies are Eurocentric with little with small contribution from the African business setting. The growth of utilization of computer systems in both public and private organizations in Ghana have grown significantly, rendering imperative to evaluate how the implementation of computer programmes increases organizational efficiency.



CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter focuses on the research methodology that was adopted for the study. It shows the research design, population and sampling technique, tool and method of data collection and data analysis.

Research Design

Research design relates to the method and processes that are adopted in collecting and analysing data. It presents the overall framework for conducting a study and an approach for answering research questions (Babbie et al., 2010). The study adopted a quantitative approach to the study because it aims to establish a relationship between accounting software use and efficiency of processing financial information. The study adopted an exploratory research design. An exploratory research design is a research design that aims at bringing out findings of a phenomenon where little studies have addressed (Neuman, 2014).

The exploratory research design allows much flexibility and allows the researcher to examine the boundaries within which the phenomenon occurs (Neuman, 2014). The exploratory design reveals the relationship that exist between the use of accounting software and efficiency of processing financial information which will help as a basis for future research to examine the extent to which it influences information processing.

Study Area

Legislative Instrument (LI) 1462 established the New Juaben Municipal Assembly in 1988 (Ministry of Finance Composite Budget, 2015). The Municipality is located in the Eastern Region of Ghana and has 52 communities with Koforidua as its capital. The population of the Municipality in the 2010 Population and Housing Census was 183,727 with a growth rate of 2.1%. The Municipality is mainly agrarian with about 26.1% of its economically active population employed in the agricultural sector. Educational facilities in the Municipality comprises of 221 pre-schools, 129 primary schools, 95 junior high schools, 17 senior high schools, 3 public technical schools, 1 college of education, 1 college of nursing and 3 tertiary institutions (Ministry of Finance Composite Budget, 2015).

Population

The population of the study was employees at the accounts department of 9 public senior high schools, 1 public technical school, 1 college of education and the district and municipal education office. The target population was 100 employees from the various institution under the umbrella of Ghana Education Service.

Sampling Procedure

Sampling technique refers to the procedure that was adopted to select the respondents for the study. The study adopted a probability convenient sampling technique to select respondents. This approach was adopted because it helps the researcher to select respondents that can be easily accessed. This method also helps to save cost involved in gathering data. The method saves

time in collecting data and this method will help to meet the timeline for the dissertation. A sample size of 50 staff members working at the finance office were selected for the study. According to Neuman (2014), sample size has implication on the findings and the conclusions. The study used developed by deVaus (deVaus, 2002) to estimate the appropriate sample size. The deVaus model is expressed as:

$$S = \frac{N}{1+N(e)^2}$$

Where:

S = Sample Size

N = Target population

E = Confidence Level

Given a confidence level of 10% and the target population 100, the sample size is determined as:

Substituting the data on these variables in the study, the sample size is determined as:

$$n = \frac{100}{1+100(0.1)^2}$$

Therefore, the sample size is 50 staff members from the Finance Department.

Sources of Data

The study utilized both primary and secondary sources of data. Primary data for the study was obtained through questionnaires. Secondary data was ascertained through articles, journals, publications and management information system reports from the Ghana Education Service.

Instruments

Data was collected using questionnaire. This process saves time, cost and also the study can be conducted without distracting the work environment of the respondents. The questionnaire helped to design standardized questions for respondents which will enhance quick analysis of responses. Moreover, large proportion of respondent can be reached because the questionnaire can be sent to them through several means and does not require face-to-face. The use of questionnaire help reduces any form of biases the researcher is more likely to exhibit if they had a face-to-face interaction with the respondents.

Data Collection Procedures

Procedure is the most important thing in research methodology. Without procedure we cannot reach any conclusion. After selecting and finalising the tools for the research, the researcher visited the Ghana Education Service at New Juabeng Municipality under investigation personally for taking prior permission from the management of the GES. Subsequently the researcher discussed in detail about his investigation with the management of the GES and sought the permission from them for collecting the necessary data.

In the first step, a good communication relationship with the staff of the concerned GES was established to do the investigation carefully. Before assigning the questionnaire, instructions of each test used in the study was made clear. In order to giving responses to the questions free and frankly, honestly and sincerely, they were made aware there are no right or wrong answers to these questions and their professional career would not be affected as it was only an exercise for academic research purpose and their responses would be held highly confidential. In order to free them from boredom, they

were given sufficient time interval between tests. Thus, the questionnaires were administered under proper testing conditions. Each session to testing, ended with a vote of thanks to the respondents concerned.

After collecting data from the sample, and students with the help of the selected tools, collected data was scored in the following manner: The use of accounting software, skills and expertise of human resource in operating accounting software and the impact of accounting software on processing financial information were scored on a Likert scale. This scale has five choices numbered 1 to 5 against each statement with 1-strongly disagree and 5- strongly agree. Data was then analysed from this point.

Data Processing and Analysis

Data will be analysed into descriptive and inferential forms using the Statistical Package for Social Scientist. A correlation and regression analysis were conducted to examine the relationship that exist between use of accounting software and efficiency of processing financial information. The purpose of the correlation and regression test is to examine the relationship between the use of accounting software and efficiency of processing financial information. Efficiency will be measured in terms of speed, understandability, accessibility, security of data stored and reliability. These will be measured in a five-point Likert Scale. Mean scores will be measured and used to generate correlation and regression test results.

Ethical Considerations

Anyone involved in collecting data from population has an ethical duty to respect each individual participant's autonomy. According to Partington,

(2003) an ethic is a philosophical term derived from the Greek word ethos, which means character or custom and connotes a social code that conveys moral integrity and consistent values. In other words, it is considered as what is wrong and what is right when conducting research. Therefore, the two important ethical issues to adhere to when conducting a survey are confidentiality and informed consent. Thus, the respondent's right to confidentiality should always be respected and any legal requirements on data. This study therefore explains the caution it would take to avoid any harm to participants in the light of sensitivity of the research theme concerning responses about the assessment of the financial practices in the Ghana health service. The study explains to respondents the nature of study and stated that participation is voluntary. All participants are assured of their privacy and how confidential the data are kept.

In addition, the confidential right and anonymity of the study is highlighted. It also informed the participants that any data provided by them would only be applied for the study. The research does not impede in the administration of the questionnaires so that respondents answer the questionnaires in the most reasonable time. The study also regards on the ethical issues in reporting. Under no situation does the researcher formulate data to support conclusion made.

CHAPTER FOUR
RESULTS AND DISCUSSIONS

Introduction

The chapter four of the study presents the analysis of data, interpretation and discussions of findings. With an exploratory research design, a sample size of 50 respondents were selected using a convenience sampling technique. Questionnaires were sent to accountants and staff members at the finance office at the Ghana Education Service, New Juaben Municipal Office. The analysis in this chapter focuses on analysis of socio-demographics and analysis of findings on objectives.

Analysis of Socio-Demographics

Socio-demographic characteristics including sex, level of education, age, membership of professional bodies and years of experience was examined in the study.

Table 1: Socio-Demographic Characteristics of Respondents

Description	Frequency (N)	Percentage (%)
Sex		
Male	26	52.0
Female	24	48.0
Age		
20-25years	7	14.0
26-30years	33	66.0
31-35years	10	20.0
Level of Education		

First degree	30	60.0
Masters degree	11	22.0
Professional Certificate	9	18.0
Membership of Professional bodies		
Yes	8	16.0
No	42	84.0
Years of Service		
0-5years	10	20.0
6-10years	31	62.0
11-15years	9	18.0
Total	50	100

Source: Field Survey, (2018)

From Table 1, majority of respondents were males with a significant proportion (48%) of respondents who were females. The sex distribution from the study is a reflection of the sex distribution of the population of Ghana's Labour Force, where there are more males (71.4%) than females (64.7%) employed in Ghana. (Ghana Statistical Service, 2015). Furthermore, the study examined the age distribution of respondents. The study found that majority of the respondents (86.0%) were between the age of 26-35years. This shows that the Ghana Education Service at the New Juaben Municipality has a youthful population. Most young adults are inclined towards the use of computers to make work faster and easier since they are exposed to the use of computers in most of their daily activities. This implies that, with a youthful population the

staff members are more likely to accept the use of accounting software and can adapt to it easily.

Moreover, the study examined the educational levels of the respondents. The study found that majority of the respondents have acquired high level of education because 60.0% of respondents have had university degrees. This shows that the Ghana Education Service at New Juaben Municipality has a highly educated workforce and hence possess high skills. The high level of education of respondents implies that the adaptability, understandability and use of accounting software in processing accounting information will be very effective because most of them have been exposed to computer literacy during university education.

Furthermore, the study found that majority of the respondents (84.0%) did not belong to professional bodies. This implies that most of the respondents may not be abreast with current ethics, skills and knowledge in the practice accounting. Also, the study found that majority of the respondents (80.0%) have between 6-15years of work experience with 20% of respondents with below 5years of work experience. This shows that majority of the respondents have high years of experience, which implies that the respondents understand their work and can make meaning out of information. The findings also reveal that there is a significant number of respondents with less than 5years, which implies that the organization has a blend of new staff with fresh ideas which prevent them from experiencing a stale workforce. The socio-demographic characteristics of the respondents show that the use, adaptability and understandability of accounting software will be effective at the Ghana Education Service, New Juaben Municipality.

Use of Accounting Software at the Ghana Education Service, New Juaben Municipality

The study examined the use of accounting software at the Ghana Education Service, New Juaben Municipality. The aim of this objective was to find out the use of accounting software and the common types of software used for processing financial information. Moreover, the study also examined the factors that influence the use of accounting software in the organization.

Table 2: Use of accounting software

Use of accounting software	Frequency (n)	Percentage (%)
Yes	45	90.0
No	5	10.0
Total	50	100

Source: Field Survey, (2018)

From Table 2, the findings show that majority (90.0%) of the finance offices in the Ghana Education Service in the New Juaben Municipality use accounting software. The remaining 10% that do not use accounting software shows that, the use of accounting software is accepted and used in the Ghana Education Services at the New Juaben Municipality but not all the districts have received equipment and necessary logistics to process financial information with accounting software. The findings show that most of the finance offices of the Ghana Education Service at New Juaben Municipality use accounting software. The findings are in line with Son et al., (2006) assertion that both private and public institutions have adopted accounting information systems

because it has become a very effective tool for critical financial accounting decision making.

Years of Using Accounting Software

The study further examined the number of years the organization has used accounting software for processing financial information. Out of the 50 respondents sampled, only 45 respondents use accounting software in preparing final accounts as shown from Table 2.

Table 3: Years of Using Accounting Software

Number of years	Frequency (n)	Percentage (%)
Below 5years	45	100
6-10years	0	0
Total	45	100

Source: Field Survey, (2018)

Table 3 reveals that, the use of accounting software for processing financial information at the Ghana Education Service, New Juaben Municipality is less than 5years. This means the use of accounting software is a new change been introduced and hence much expertise and knowledge on the use such technology has not been accumulated. This also shows signs of a learning organization because it is in tune with modern methods of processing financial information in order to also enhance speed, accuracy and reliability of financial information.

The study further examined the extent to which financial information is processed by the use of accounting software. A five point Likert Scale (1=strongly disagree, 2=disagree, 3=uncertain, 4=agree, 5=strongly agree) was

used to measure the extent to which some accounting processes are undertaking with accounting software from a sample size of 45. Mean scores and standard deviation was generated and used for interpretation of findings.

Table 4: Mean and Standard Deviation on the use of accounting software

Statement	Mean (π)	Standard Deviation (s)
The accounting processes in this organization is computerized.	3.92	0.40
Book-keeping activities and records are managed with accounting software.	4.34	0.45
Financial reports are generated using accounting software.	3.68	0.74
Cost preparation and budget activities are undertaking with accounting software.	3.74	0.87
Financial forecasting and cost projections are conducted with accounting software.	4.36	0.48

Source: Field Survey, (2018)

Mean score of 1-1.5 (strongly disagree), 1.6-2.0 (disagree), 2.5-3.0 (neutral), 3.5-4.0 (agree), 4.5-5.0 (strongly agree).

From the study, the respondents agreed that accounting processes are organized with accounting software with a mean score of 3.92 and a standard deviation of 0.40, which implies there is less variation in the responses of the

respondents. Moreover, respondents agreed that book-keeping activities and records are managed with accounting with a mean of 4.34 and a standard deviation of 0.45. Furthermore, the study found that financial reports in the organization are generated using accounting software with a mean score of 3.68 and a standard deviation of 0.74. Also, the study found that cost preparation and budget activities are designed with accounting software with a mean score of 3.74 and 0.87. This implies that the respondents agree that cost and budget activities are designed with accounting software. Furthermore, the respondents highly agreed that financial forecasting and cost projections are prepared with accounting software, with mean of 4.36 and a standard deviation of 0.48.

The findings from the study shows that majority of accounting activities in the finance offices are undertaking using accounting software. Gagnon, Orruno and Emparananza (2010) asserts that the growth of technology, speed and efficiency of accounting software has resulted in the dominant acceptance and usage. Gagnon et al., argues that the various benefits derived from use of accounting software influences the rate and extent to which the software would be use. Accounting software can be used to undertake various activities like recording, classifying and generating financial reports all can be done on one software and simultaneously. This reduces time wasted on recording, classifying and preparing financial reports.

Furthermore, Rotich (2017) explains that accounting software has become the dominant means of processing financial information because, accounting software has more advantages over manual methods of processing information. Rotich (2017) adds that, accounting software offers range of activities which can be done simultaneously and makes it very convenient.

Moreover, Rotich asserts that the acceptance and use of accounting software is because the software is designed to suite the principles of accounting, which help to reduce the human errors associated to accounting reports as a result of wrong application of principles as evident in the work of Mitchell et al. (2006).

Nzomo (2013) further adds that, accounting software are dominantly used in organizations because, the accounting system can be integrated into the management information system of the company which makes its acceptability and use very easy. To Nzomo (2013), organizations have adopted accounting software to process financial information predominantly because it can run hand-in-hand with existing management information system and does not call for an overhaul of current management information systems. Therefore, Elena, Raquel and Clara (2011) concludes that the growth in information technology has unlocked the potential to produce data and utilize financial information from a strategic perspective.

The study further examined the factors the organization (Ghana Education Service, New Juaben Municipality) consider before deciding to use an accounting software.

Table 5: Reasons for Using Accounting Software

Factors	Frequency (n)	Percentage (%)
Cost –benefit analysis	7	15.55
Acceptance by staff members	26	57.77
Knowledge and skills of employees	12	26.68

Total	45	100
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Source: Field Survey, (2018)

Findings on Table 5 shows that the finance department consider acceptability of the software by staff, the knowledge and skill of the staff about using accounting software and cost-benefit analysis as the factors that influence the use of accounting software in the organization. This implies that where employees are willing to accept the software, the organization is more likely to adopt the software. Honig (2009) explains that for an organization to adopt an accounting software or any technology, the acceptance by employees is dependent on the perceived relevance of the software. To Honig (2009), where the employees evaluate the software as better than existing means of processing financial information, the employees are more likely to accept the accounting software. To Ezzamel and Watson (1993) as cited in Rotich (2017), the availability of adequate information is relevant to reduce the gap of information asymmetry that may become a basis of resisting the implementation of the software. The high level of education of the employees from the socio-demographic characteristics of the study, can be cited as a major factor influencing the acceptance and use of the software because the employees perceive the use of computerized systems as a means to make their work effective.

Furthermore, the knowledge and skills of employees have a high tendency of influencing the adoption of accounting software for processing financial information. Flamholtz, Kannan-Narasimhan and Bullen (2004) explains that the level of skill of employees is a key determinant of decisions on adopting accounting software. Flamholtz et al. (2004) adds that if employees

lack the requirement to operate the software, it affects their job satisfaction and also prevents the employees from keeping up-to-date with new skills necessary to maximize the benefits of the software. Rotich (2017) concludes that the higher the skills of staff, the more effective and efficient financial information processing, resulting in the production of quality financial information. Several studies including Hansen (1997) cited in Rotich (2017) have concluded on knowledge and skills of employees as key determinant for the adoption of accounting information systems.

Moreover, the cost and benefit of the accounting software has the capacity of influencing the adoption of accounting information systems. Where the cost exceeds the benefit, the organization is less likely to accept the use of the software. Hall (2011) adds that accounting information systems have been adopted by several organizations in contemporary time because accounting information systems provides wide range of benefits than cost of maintaining the system. Hall (2011) explains that accounting information systems enhance interdepartmental connection, provide accurate and reliable information and ensures cost reduction, which are the tenets of quality financial information. these qualities make accounting information systems less costly compared to manual processing of information. Therefore, acceptance by employees, knowledge and skill level of employees and the cost and benefit analysis of the software, from the study, influences the use of an accounting software at the Ghana Education Service, New Juaben Municipality.

Skills and Expertise of Human Resource in Operating Accounting Software

The study sought to examine the skills and expertise of employees in operating the accounting software. Hall (2017) argues that a high skilled workforce brings into fruition the purpose of implementing the use of accounting software because the staff becomes abreast with new skills and ideas that can help maximize the benefits of using accounting software. A five point Likert scale 1=strongly disagree, 2=disagree, 3=uncertain, 4=agree, 5=strongly agree, was used to measure the extent to which employees believed they poses a skill or have received the right training on the use of accounting software. Mean scores and standard deviation was generated and used to interpret findings. Mean score of 1-1.5 (strongly disagree), 1.6-2.0 (disagree), 2.5-3.0 (neutral), 3.5-4.0 (agree), 4.5-5.0 (strongly agree).

Table 6: Mean and Standard deviation on the Skill and Knowledge of Staff

Statements	Mean (π)	Standard deviation (s)
Staff at the finance departments are computer literate.	4.34	0.56
Staff are trained in accounting certification programmes.	2.06	0.24
The organization provides regular training on the use of accounting software.	3.78	0.86

Accounting software are designed to suit manual	4.26	0.44
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processing of financial information, which makes it understandable.

Source: Field Survey, (2018)

From Table 6, the staff agreed that they are computer literate with a mean of 4.34 and a standard deviation of 0.56 which implies less variation in their perception. This implies that respondents have knowledge about the computer, understand its processes and can give meaning from data generated by the computer. This can be attributed to the staff level of education. From the demographic characteristics, majority of the staff had first degree, which implies that they have received higher education, where the use of computers has become very dominant. This implies that the processing of financial information would be very effective because employees have a necessary skill for the use of accounting software. Hall (2011) explains that when employees have the right skill such as computer literacy, it enhances the speed and efficiency at which the employees operate the technology.

Furthermore, findings from the study revealed that respondents disagreed that they have training in accounting certification programme. Many of the accounting information system come with special training programmes that provides in-depth knowledge about the use of the software. The absence of such training implies that employees may not be maximizing some other benefits of the software effectively and efficiently. Rotich (2017) argues that organizations that give more consideration to staff development on a technology or a software are more likely to see high performance from the utilization of the technology. This implies that where the firms does not

develop the skills of the staff in using the software, the organization is less likely to see high performance in the processing of financial information.

Moreover, the staff agreed that the organization provides regular training on the use of accounting software with a mean of 3.78 and a standard deviation of 0.86. This implies that Ghana Education service provides the respondents with regular training aimed at improving the skills and efficiency of employees when using accounting software. Hall (2011) and Rotich (2017) argues that development of staff is a key requirement to ensuring that the knowledge and skills of employees are improved which has the tendency of resulting in high performance. To Hall (2011), skill development of staff improves speed, efficiency and accuracy of financial reports.

Moreover, the respondents agreed that accounting software is design to replace the manual mechanism of processing financial information, with a mean of 4.26 and a standard deviation of 0.44. This implies that the computerized accounting software continue to apply the principles that guides manual processing of information which makes it easier for respondents to adapt the technology. Rotich (2017) adds that accounting information systems do not mean to override the principles of accounting but maintain the principles and ensure faster and better application to improve the quality of financial reports.

From the above findings, it can be inferred that the effects of accounting information systems on processing financial information depends heavily on the nature (Knowledge, skill and expertise) of the staff. The findings imply that an organization with highly skilled workforce is more likely to see high

performance from the use of accounting information system than an organization with a staff with low capacity. Therefore, to Rotich (2017) and Hall (2011), the difference between organizations with respect to the processing of financial information and quality of financial information is not the availability of the software but the nature of people using the software.

Impact of Accounting Software on Processing Financial Information

The central theme of the study was to examine the impact of the use of accounting information system on the processing of financial information. The dependent variable for the study was processing of financial information and independent variable is use of accounting software. The mean score generated from the Likert scale were used to run a correlation between the use of accounting software and the efficiency of processing financial information. In order to measure the efficiency of processing financial information, a five point Likert scale, 1=strongly disagree, 2=disagree, 3=uncertain, 4=agree, 5=strongly agree, was used to measure the extent to which employees regard the efficiency of processing financial information in terms of speed, accuracy, ease, timeliness, understandability, and right application of principle. Mean scores and standard deviation was generated and used to interpret findings. Mean score of 1-1.5 (strongly disagree), 1.6-2.0 (disagree), 2.5-3.0 (neutral), 3.5-4.0 (agree), 4.5-5.0 (strongly agree).

Table 7: Mean and Standard deviation on efficiency of processing financial information

Statements	Mean (π)	Standard deviation (s)
Speed of processing accounting information is enhanced by using accounting software	4.74	0.44
Accounting software increases data accuracy	4.34	0.48
Generation of financial statement is more faster with accounting software	5.00	0.00
Accounting software makes recording of information faster	4.18	0.39
Records are easily accessible and recoverable	4.34	0.48
Generation and processing of financial information is timely	4.12	0.33
Information processed is easy to understand	4.32	0.47
The right accounting principles are applied	4.36	0.44

Source: Field Survey, (2018)

In order to ascertain the relationship between the use of accounting software and efficiency of processing financial information, a correlation test was run on the means of use of accounting software and processing financial information.

Table 8: Correlation test between the use of accounting software and quality of processing of financial information

		use of accounting software	efficiency of processing financial information
use of accounting software	Pearson Correlation	1	.442
	Sig. (2-tailed)		.273
	N	8	8
efficiency of processing financial information	Pearson Correlation	.442	1
	Sig. (2-tailed)	.273	
	N	8	8

Source: Field Survey, (2018)

The correlation test run between use of accounting software and quality of processing financial information has a correlation co-efficient of $R=0.442$. This means that there is a positive relationship between the use of accounting software and quality of processing of financial information. This implies that as the organization uses accounting software to process financial information, the efficiency of processing financial information is enhanced. This finding support the work of Nzomo (2013) where it was found that the use of accounting information correlated positively with financial information and improved the overall organizational effectiveness. The work of Biwott (2015)

also supports the findings of the study because it was found that integrating accounting information systems improved processing of financial information, although the extent of integration was moderate. Odero (2014) also found a positive relationship with a firm’s performance where accounting information systems were introduced for processing financial information of the organization. These studies support the current study that accounting software enhances processing of financial information which consequently results in a high-performance organization as asserted by Hall (2011).

The study further examined the impact of using accounting software on the quality of processing financial information by conducting a regression analysis to examine the extent to which the use of accounting software influences changes in the quality of processing financial information.

Table 9: Regression Analysis

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.422 ^a	.195	.061	.29167	
a. Predictors: (Constant), use of accounting software					
		Unstandardized Coefficient		Standardized Coefficients	
Model		Beta	Std. Error	Beta	T
1	(Constant)	4.253	.168		25.3
	Use of accounting software	.064	.053	.442	1.207
					Sig.
					.000
					.273

a. Dependent Variable: efficiency of processing financial information

Source: Field Survey, (2018)

With an alpha level of 0.05 ($\alpha= 0.05$) and a p-value of 0.273, we accept the null hypothesis that there is no relationship between use of accounting software and efficiency of processing financial information. In 5 out of 100 cases, the null hypothesis would be rejected.

The regression analysis shows that the use of accounting software accounts for approximately (Adjusted $R^2 = 0.061$) 7% of changes in the quality of processing financial information. This means that the use of accounting software has an impact on the efficiency of processing financial information. The findings from this study is in line with the work of Sugut (2014) where it was found that the use of accounting software had a positive impact on the quality of financial information. Furthermore, the findings from this study supports the work by Otieno and Oima (2013) where a positive association was found between the use of accounting software and audit threat administration which involves the processing of financial information. Moreover, Teru and Hla (2015) found a positive association between the use of accounting software and efficiency of organizations with focus on cost-reduction.

Furthermore, the use of accounting software resulted in quality financial information which resulted in improvement in the effectiveness of management in the study on management practice in Lamu and Nairobi counties Njeru (2016). Also, Onaolapo and Odetayo (2012) found in that the use of accounting software had a positive impact on the effectiveness of some selected firms in Nigeria. Onaolapo and Odetayo (2012), concludes that the use of accounting software enhances organizational effectiveness.

Therefore, it can be concluded that the use of accounting software has a positive impact on the efficiency of processing financial information.

Challenges facing organizations in the use of accounting software

The study sought to examine some challenges users of accounting software face when utilizing the accounting information systems. The study found that the main challenge respondents raised was that during periods of

power outages, the system cannot be accessed. Respondents also raised the challenge of inability to technically update the system at the municipal level but need to be maintained or updated by the technical team from the Ghana Education Service Head office. When there is a problem with the system, it takes long for technical team to repair and update the system.

Respondent A explained that;

“since we do not have the expertise to undertake the maintenance (software updates) at the district level or in our schools, we have to wait for the technical team members from Accra to come and update it for us”

Respondent B further adds that;

“I was trained on only how to use the software but I don’t have the package or the software tools to undertake updates. Sometimes the ICT teachers try to help us do it but internet connectivity and absence of other tools for the update makes it difficult for us”.

The findings from the study revealed that there is lack of a technical person who can undertake maintenance on the application according the respondents. This can be attributed to the fact that hiring a technical person for each office or school may be costly for the institutions. Additionally, the findings shows that the respondents did not have IT expertise in terms of how to maintain the software, which required hiring of a technical person. Head (2000) and ABS (2000) asserts that high cost of installing and maintaining accounting software have been found to be a key reason for firms failing to utilize accounting software to process financial information. Moreover, ABS (2000) further adds that where the financial expertise required to manage the

software is absent, it becomes a challenge for users to utilize the software effectively.

The study further examined the alternatives available for employees during maintenance of the software.

Table 10: Availability of alternative means of processing information during maintenance

Response	Frequency	Percent
Yes	45	100
No	0	0
Total	45	100

Source: Field Survey, (2018)

Findings from table 10 shows that all the respondents have an alternative means of processing information during maintenance of the software or the system. The study found that the alternative method available for respondents was to return to manual means of recording and processing data and later input into the software.

Respondent C added that;

“when they are updating or working on the software, it can take a long time so what I do is that, I use the manual method to record and process financial information and when the system is resolved, I will input the data into the software”

Respondent D further explains that;

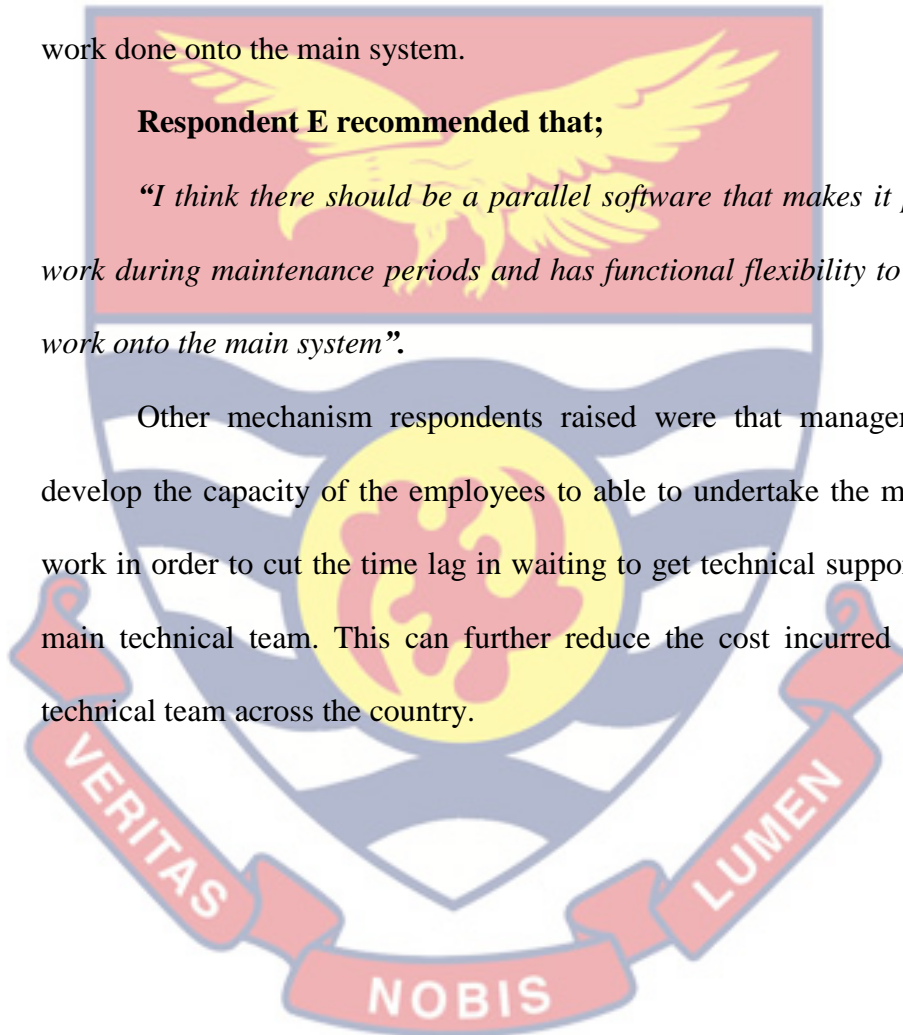
“the manual means of processing financial information is our only resort when there is a problem with the system. The manual method can be very tedious”

To respondents, this approach increases their workload because all the manual records and processing would have to be re-entered onto the system after the maintenance. Respondents suggested that there should be a back-up plan such as other related software that can be integrated into the main system. This will enable the employees to work whiles maintenance is being undertaking and the back-up should have features that makes it easy to export work done onto the main system.

Respondent E recommended that;

“I think there should be a parallel software that makes it possible to work during maintenance periods and has functional flexibility to export the work onto the main system”.

Other mechanism respondents raised were that management must develop the capacity of the employees to able to undertake the maintenance work in order to cut the time lag in waiting to get technical support from the main technical team. This can further reduce the cost incurred in moving technical team across the country.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

Introduction

The chapter five of the study presents the summary of major findings, conclusion and provide some recommendations based on the findings from the study.

Summary

The central theme of the study was to examine the impact of the use of accounting software on the efficiency of processing financial information. A sample size of 50 staff from all the accounts offices of Ghana Education Service, New Juaben Municipality. The study had majority of respondents being males which reflects the population distribution of Ghana's. The demographics reflected a youthful population with a high level of education. Majority of the respondents did not belong to professional bodies and had a blend of new entrants and experienced staff that work to ensure that the organization does not have a stale workforce. The demographic characteristics of the respondents showed a good staff strength with the right requirement, with little training can effectively utilize accounting software to enhance the efficiency of processing financial information.

Furthermore, the use of accounting software for processing financial information was very dominant in the Municipality since majority of the respondents used accounting software for processing financial information which implied that the Ghana Education Service has provided the necessary logistics for the use of accounting software in most of the accounts offices in the municipality. Moreover, the use of accounting software for processing

financial information in the municipality is less than 5 years. The findings showed that most of financial activities such as book-keeping, financial reports, cost preparation and forecasting were all undertaken using accounting software using a five-point Likert scale. Also, acceptance of staff, knowledge and skills of staff and the cost –benefit analysis of installing an accounting software were factors that influence decisions to adopt an accounting software.

Furthermore, the study examined the knowledge and skills of the staff in operating accounting software, using a five point Likert scale. The study found that the staff were computer literate but they did not have any training in accounting software certification programmes which meant that they may lack the necessary skill to properly understand and utilize the accounting software. The organization provided regular training for the staff which were positive signs of improving their skills and the software was easy to adapt because respondents agreed it was designed to suit the manual method of processing financial information, which makes it easy to understand.

Moreover, a correlation and regression analysis were conducted to examine the relationship between the use of accounting software and efficiency of processing financial information. The study found a positive relationship ($R = 0.442$) between the use of accounting software and the efficiency of processing financial information. The study further found that the use of accounting software contributed 7% (adjusted $R^2 = 0.061$) of changes in the processing of financial information.

Challenges including inability to use system during power outages and also breakdown of activities during maintenance of the system and lack of

technical staff to repair problems encountered on the system were challenges bedevilling the use of accounting software in the municipality.

Conclusion

The findings from the study provides significant evidence that the use of accounting software has a positive impact on the efficiency of processing financial information. It can be concluded from the study that the Ghana Education Service, New Juaben Municipality has shifted from the manual methods of processing financial information to the use of computerized methods which is a sign of a learning organization. Moreover, the skill levels of employees in operating accounting software is satisfactory.

Recommendation

From the study, it is recommended that the Ghana Education service must endeavour to improve the skills and knowledge of the staff in operating accounting software for processing financial information in order to maximize the benefits of using accounting software considering its positive impact on information processing. Also, staff can be encouraged to take specialization courses on the use of accounting software in order to improve their efficiency in operating accounting software.

Furthermore, the Ghana Education Service should endeavour to provide power support systems such as UPS or battery systems that can provide power for processing financial information during power outages. Also, at least of the staff at each office should be trained on how to undertake minor maintenance activities order to reduce time wasted in waiting for technical support during breakdown of the system.

Moreover, Ghana Education service must endeavour to provide the necessary logistics required to make sure that all offices in the New Juaben Municipality to use accounting software in processing financial information considering the impact on efficiency of processing financial information as underscored by this study and several studies.

Furthermore, a parallel programme can be developed that can be used to process financial information during maintenance activities on the system. This programme should be design in a way that makes it easy to transfer data from the parallel system to main accounting software for processing financial information.

This study did not consider other factors that may have possible impact on the efficiency of processing information. Thus, it is recommended that future studies must look further into a multiple regression analysis to reveal other variables that have potential impact on the efficiency of processing financial information. Additionally, future studies can investigate the extent to which the use of accounting software is integrated into the curriculum for teaching in business schools and institutions that train accountants.

Suggestions for Further Research

Using the findings and conclusions, it is suggested that the study is extended to other educational bodies across the country which serve a larger number of people. Moreover, since the current study evaluated the impact of the use of accounting software, future study could investigate effectiveness of accounting software in educational institutions.

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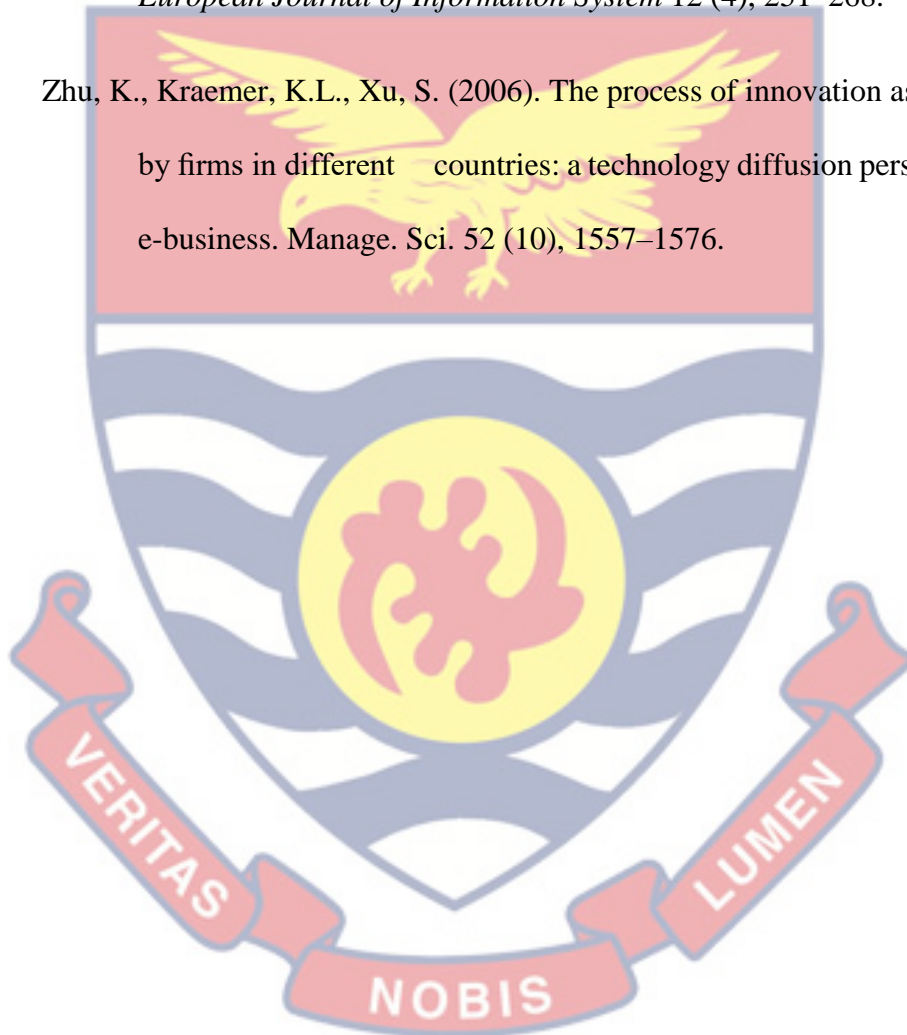
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APPENDIX

UNIVERSITY OF CAPE COAST
SCHOOL OF BUSINESS
DEPARTMENT OF ACCOUNTING

**Evaluating the Impact of Accounting Software on the Processing of
Financial Information in Ghana Education Service. (New Juaben
Municipality)**

Dear Sir/Madam,

The purpose of this study is to evaluate the impact of accounting software on processing of financial information. This questionnaire will be used solely for academic purposes and all responses received will be protected with the highest form of confidentiality and anonymity. Your voluntary participation in this study will be duly appreciated. Thank You

A: Socio-Demographic Information of Respondents

1. Sex

Male Female

2. Age

20-25years 26- 30years 31- 35years 36- 40years
41years and above

3. Level of Education

SHS/ O/A Level First Degree Masters Degree Professional
Certificate

4. Do you belong to any professional bodies?

YES NO

5. Please state the name of the professional body(ies).

.....

6. Years of Service

below 5years 6-10years 11-15years 16years and above

B: The Use of Accounting Software and Common Forms of Accounting Software

7. Does your organization use accounting software?

YES NO

8. How long have your company used accounting software to process financial information?

below 5years 6-10years 11-15years 16years and above

You are required to select the extent to which you agree or disagree to the statements relating to the use of accounting software for processing financial information below on the five point Likert Scale. **1. Strongly Disagree 2. Disagree 3. Uncertain 4. Agree 5. Strongly Agree**

Statement	1	2	3	4	5
9. The accounting processes in this organization is computerized					
10. Book keeping activities and records are managed with accounting software					
11. Financial reports are generated using accounting software					

12. Cost preparation and budget activities are processed using accounting software					
13. Financial forecasting and revenue projections are performed using accounting software					

14. What are the common forms of accounting software used in your organization?

.....

.....

15. What factors do you consider before choosing an accounting software? *Tick all that applies*

- Cost of Installation
- Cost Benefit Analysis
- Cost of Training
- Acceptance by staff members
- Knowledge and Skill levels of users
- Adaptability of the software by users

C: Skills and Expertise of human resource in operating accounting software

You are required to select the extent to which you agree or disagree to the statements relating to the skills and expertise of staff members in using accounting software below on the five point Likert Scale. **1. Strongly Disagree 2. Disagree 3. Uncertain 4. Agree 5. Strongly Agree**

Statement	1	2	3	4	5
16. Staff at the finance department are computer literate					
17. Staff at the finance department are well trained in the use of accounting software with accounting software certification programmes					

18. The organization provides regular training on the use of accounting software.					
19. Accounting software are designed to suit existing manual financial information processes and makes it easy to be understood by users.					

D: The Impact of Accounting Software on Processing of Financial Information

You are required to select the extent to which you agree or disagree to the statements relating to the impact of accounting software on the processing financial information below on the five point Likert Scale. **1. Strongly Disagree 2. Disagree 3. Uncertain 4. Agree 5. Strongly Agree**

Statement	1	2	3	4	5
20. Speed of processing accounting information is improved by using accounting software					
21. Accounting software increases data accuracy					
22. Generation of financial statement is more faster with accounting software					
23. Quick recording of financial information					
24. Records are secured and easily accessible and recoverable					
25. Generation and Processing of financial information is timely					
26. Information processed are easily understandable					
27. Accounting software applies the right accounting principles, procedure and standards					

