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AN ASSESSMENT OF THE IMPACT OF ACCOUNTING INFORMATION SYSTEM ON BORROWING COST OF SMEs IN GHANA

WILFRED AMOQUANDOH

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AN ASSESSMENT OF THE IMPACT OF ACCOUNTING INFORMATION SYSTEM ON BORROWING COST OF SMEs IN GHANA

WILFRED AMOQUANDOH
(202123830)

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DECLARATION

Student's Declaration

I, **WILFRED AMOQUANDOH**, declare that this dissertation, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE: …….

DATE: …….

Supervisor's Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of dissertation as laid down by the University of Education, Winneba.

SUPERVISOR'S NAME: Miss Mavis Pobbi

SIGNATURE: …….

DATE: …….

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DEDICATION

I dedicate this research work to my father and mother for their love, support, prayers and sacrifices that have brought me this far. God richly bless you all.

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May God bless you all abundantly!

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LIST OF ABBREVIATION

AIS: Accounting Information System

NBSSI: National Board for Small Scale Industries

MFIS: Microfinance Institutions

ACCA: Association of Chartered Certified Accountants

KPMG: Klynveld Peat Marwick Goerdeler

SME's: Small and Medium Enterprises

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ABSTRACT

This study assessed the impact of accounting information system on borrowing cost in Ghana. Specifically, the study explored SMEs motivation for adopting Accounting Information Systems, the factors that influence Loan Officer's decision to provide credit to SMEs, the relationship between financial reporting benefits of using AIS and SMEs access to credit and the impact of Accounting Information system usage on SMEs Borrowing Cost. The study deployed both mixed research approach where data was collected from the Chief Accountant or finance officers of 7 SMEs who were purposively targeted by the researcher. Also, the study collected data from the Chief Executive Officer (CEO), deputy CEO, loan officers and deputy officers operating in the head offices of the 13 microfinance institutions in the Kumasi Metropolitan Assembly to achieve the other research objectives. The findings of the study revealed that SMEs adopted AIS to improve their decision-making quality from the data reported to managers and also to maintain the quality level of this information. Also, loan officer's perception of SMEs honesty in terms of financial reporting and competence through the quality of their financial reporting data were revealed to be associated with their decision to extend credit to SMEs or otherwise. Moreover, the results of the study revealed that, AIS usage has a negative and statistically significant relationship with SMEs cost of borrowing. Base on the findings of the study, the researcher recommended that the government through the NBSSI (National Board for Small Scale Industries) and other regulators of SMEs in Ghana in their attempt to sustain businesses and increase employment should put out strategic plans such as providing subsidized loans to SMEs solely for the procurement of AIS to help majority of SMEs in Ghana use AIS so that they can make better decisions and also attract lower cost on their borrowed funds.

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CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

The management of an organization mostly dwells on the ability to make relevant decisions that will have positive impact on the organization's cash flows. This is the reason why various firms have deployed information technologies such as the famous. Accounting Information System' at the work places (AIS). The benefits that come with the deployment of Accounting Information Systems at the workplace cut across the various stakeholders of the organization. If we can agree the quality of decision making is connected to organizational performance then, we can basically construct a relationship between Accounting Information System and the performance of an organization. For this reason, various corporate organizations including small business have been motivated to utilize information technology to aid better decision making as well as to ensure that tax laws, regulations and policies are complied with (Rikhardsson and Dull, 2016).

Accounting information systems is one of the ways of applying technology in the area of business decision making specifically the field of accounting. Accounting information system is simply the application of information technology in the field of accounting. The application of accounting information systems has gained considerable attention due to the nature of the accounting work which includes the need to make accurate decisions within a limited time. Vasarhelyi, Alles, Kuenkaikaew, and Littley (2012) describe how continuous auditing technologies which is a component of accounting information system has highly been used in many organizations to tackle challenges that confront the organization. The coverage of

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accounting information system research comprises of Knowledge Base System, Enterprise System, and Business Value of Information Technology (Sutton, 2010).

Small and Medium Enterprises are very important due their contribution to the economy. SMEs contribute to the economy by ensuring that the economy is productive, there is economic growth, adequate jobs and economic growth in the long term (Haltiwanger, Jarmin, Kulick, and Miranda 2016). According to Biekpe, (2004), in sub-Saharan Africa micro-enterprises employ an estimated 80% of the population. However, the rate at which SMEs adopts new technologies is very low (Olatokun and Kebonye, 2010). The low patronage of technologies by SMEs contributes to several business risks such as compliance with laws, cash-flow management and many others and for this reasons banks most at times assume SMEs to be of high risk and may refuse them access to loans whenever they tender their applications for loan. In cases where the bank accepts the loan application, they may want to increase the interest rate on the loan to cover up for the possibility of default due to a lack of competences and transparency, poor cash-flow forecasting techniques and many others showcased by SMEs. Researchers (Grande, Raquel and Clara, 2011, Rikhardsson and Dull, 2016, Ali, Omar, and Bakar, 2016, Hyonok and Yasuda, 2018) have proposed the adoption and application of Accounting Information Systems by SMEs as a way of improving SMEs performance indicators such as Return on Asset, Return on Equity, and productivity and so on.

However, these studies could not identify the impact of the adoption of accounting information system on SMEs borrowing Cost. It is based on these gaps that the study intends to fill by looking at the impact of the adoption of accounting information system on SMEs borrowing Cost.

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1.1 Statement of the Problem

Accounting information systems were primarily designed as a tool in conjunction with Information Technology (IT) to help in the management of the financial and economic areas of the firm. The vast advancement in technology globally and the continuous deployment of information technology by firms across the world has become an eye-opener for firms to adopt accounting information systems in making strategic decisions of the firm. Accounting information systems are very important for all firms including Small and Medium Enterprises (SMEs).

They are even more important for SMEs because they need to tackle issues of competitiveness and uncertainties that are endemic in business decision making now (Louadi, 1998). The situation looks undesirable as Olatokun and Kebonye, (2010) described the patronage of technologies by SMEs as very low. Research has shown that when it comes to the adoption of innovation, the size of a firm is important (Damanpour, 1996). This is evident in the adoption of information technology in small businesses specifically (Lee and Xia, 2006). Studies conducted to look into the adoption of information technology innovation in small businesses found that the adoption rate is influenced by the particular type of information technology that has emerged on the market, the level or stage of adoption and the specific industry (Lee and Xia, 2006). This suggests a lower adoption of accounting information systems by small SMEs as the studies confirmed that the lower the firm, the more likely it becomes reluctant in adopting information technology.

The lower patronage of technology especially accounting information systems affects SMEs in so many ways such as inaccurate cash flow estimations, error-prone financial statements, loss of accounting data, and many others. The urgency of the

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situation can be effectively analyzed when we look at the composition of SMEs across the global economy. Association of Certified Chartered Accountants [ACCA], (2010) conducted a study that revealed that the vast majority of business across the world are small businesses. Specifically, the study revealed that when you take the top 20 world markets, 85% - 99.9% of the businesses are small businesses. In terms of value addition in the private sector, small businesses carry approximately 50% of value addition in the private sector and more importantly 77% of private sector employment. This suggests that the low patronage of technology (accounting information systems) will affect the performance of SMEs and in the end have a dire consequence on economies around the globe.

Financing have been one of the challenges of SMEs across the world. Since the 2008–2010 financial crises, lending institutions have become very critical in their release of funds to borrowers due to the experience of default learnt during the period of the crises. Banks and other financial institutions who lend funds have been overly concerned of asymmetric information and so have taken several steps to make sure that before the lend to any deficit unit, proper diligence is conducted to make sure that the borrower and the lender are at the same page. As a result of this, financing has been very difficult for SMEs in particular as they are most at times rejected by financial institutions in their quest to access financing from them. This is because of the reluctance of SMEs to adopt and use proper information systems that will account for their cash flows, reduce errors in accounting and in the end provide integrity to the financial statement so as to enable banks to have the confidence of providing credit to them.

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Provided SMEs applications for loans are even granted by banks, they suffer more in terms of the borrowing cost charged by banks and other financial institutions on the loan. This has been already seen to be caused by the lack of transparency in their financial reporting (information asymmetry) and for that matter raising their level of risk.

Researchers (Grande et al., 2011, Rikhardsson and Dull, 2016, Ali, Omar, and Bakar, 2016, Hyonok and Yasuda, 2018, Chenhall, 2003, 2006; Chenhall and Langfield-Smith, 2003; Davila and Foster, 2007; Malmi and Brown, 2008; Nobre and Zawadzki, 2013) recommended the adoption of accounting information system as a way forward for SMEs to improve their performance measures like the ROA, ROE, and productivity and so on. However, these studies could not identify the impact of the adoption of Accounting Information System on SMEs borrowing Cost. It is based on these gaps that the study intends to fill by looking at the impact of the adoption of accounting information system on SMEs Bank borrowing Cost.

1.2 Purpose of the study

Accounting information system is a part of the overall information systems in organizations. It plays a significant role in providing all levels of decision-making with relevant and reliable information. Since this is important for all organizations, it is more important for microfinance institutions which need these information systems to assist microfinance institution provide credit to SME's and the impact of SME's borrowing cost in the Kumasi Metropolitan Assembly. Therefore, the research established that a relationship exists between AIS on borrowing cost in Ghana.

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1.3 Research Objectives

1. To explore SMEs motivation for adopting Accounting Information Systems.
2. To examine the factors that influence Loan Officer's decision to provide credit to an SME
3. To determine the relationship between AIS benefits and access to credit.
4. To ascertain the impact of Accounting Information system application on SMEs Borrowing Cost.

1.4 Research Questions

1. What factors motivate SMEs in Ghana to adopt Accounting Information Systems?
2. What are the factors that influence loan officers' decision to provide credit to SMEs?
3. What is the relationship between AIS benefits and SMEs access to loans?
4. What is the impact of the application of Accounting Information system on SMEs borrowing cost?

1.5 Significance of Study

The purpose of the study is to ascertain the impact of the adoption of Accounting Information System on SMEs borrowing Cost. This study is very important as it serves notice to all SMEs especially those in Ghana on the impact of the adoption of Accounting Information System on their borrowing Cost.

The output of this study is very necessary for academic knowledge and literature in the area under investigation because most of the studies conducted in the area are on the adoption of technology in general by SMEs and not specific information system like the Accounting Information system. To the various researches that look into the

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topic (Grande et al., 2011, Rikhardsson and Dull, 2016, Ali, Omar, and Bakar, 2016, Hyonok and Yasuda, 2018, Chenhall, 2003, 2006; Chenhall and Langfield-Smith, 2003; Davila and Foster, 2007; Malmi and Brown, 2008; Nobre and Zawadzki, 2013), the objective has always been to find the impact of Accounting Information system on traditional performance indicators like the ROA, ROE, and productivity and so on aside the fact that there exist a very few literature in the Ghanaian context on the adoption of Accounting Information system by SMEs. This makes the study very significant to literature.

As countries are striving to promote technology usage especially the digitalization drive by the Government of Ghana, this study becomes very relevant as it signifies the government and other regulatory authorities like the National Board for Small Scale Industries (NBSSI), Ghana Enterprise Agency(GEA) and many others as to why SMEs need to adopt accounting information systems and the measures that can be put in place to achieve the digitalization agenda among SMEs in Ghana in order to promote economic growth.

1.6 Delimitations

The study involves ascertain the impact of the adoption of Accounting Information System on SMEs borrowing Cost in Ghana. The study focuses on determining from banks that provide finance to SMEs whether the adoption of Accounting Information Systems by SMEs in Ghana has an impact on their acceptance or otherwise of a loan application filed by these SMEs and also, to ascertain the impact on the borrowing cost of SMEs in Ghana, the adoption of Accounting Information Systems (AIS). Also, the study will determine among SMEs in Ghana, their motivation for adopting an accounting information system.

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The selected the Agricultural Development Bank and National Investment bank in the Greater Accra Region as respondents. The selection of ADB and NIB is influenced by their mandate as to providing financing in the areas of agricultural investment and investment in general. Greater Accra region was selected for easy mobility and access to data by the researcher.

The study defined SMEs in line with the recommendations of the Ghana Statistical Service (GSS) which says 'if any of the firm having the number of employees between 1 and 5 it is called micro, 6 and 30 named small, 31 and 100 called medium and more than 100 named large' (Amoah and Amoah, 2018). The 7 SMEs were purposively targeted manufacturing SMEs in the Ghana Business Directorate who have adopted and use Accounting Information Systems and whose location is convenient to the researcher. Again, the Chief Executive Officer (CEO), deputy CEO, loan officers and deputy officers operating in the head offices of the 13 microfinance institutions in the Kumasi Metropolitan Assembly to achieve the other research objectives.

1.7 Limitations

For the purposes of generalization, it is important certain weaknesses of the study over which the researcher had little or no control be revealed. The researcher could not cover all the population (SMEs in Ghana) because of limited financial resources. Also, although there are 137 microfinance institutions in Ghana that survived the cleanup exercise, the researcher only chose the microfinance institution in the Kumasi Metropolitan Assembly that survived this exercise.

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1.8 Definition of terms

1.8.1 Accounting Information system

Nicolau (2000), defined accounting information system as a computer-based system that increases control and enhances cooperation in the organization. Although information technology was within reach of only large companies years back, small scale businesses are gradually taking advantage over the development to improve upon their competitiveness. According to Boame (2014), when an organization adopts e-accounting, they usually discover that even though computerized accounting systems handle financial data efficiently, their time value is that they are able to generate immediate reports regarding the organization. Financial managers need the financial and accounting data provided by AISs to evaluate the firm's past performance and to map future plans. AIS is a system of managing and processing transactions, disseminating required reports, and ensuring an appropriate control environment relating to business financial transaction. The outcomes of AISs, the financial reports, are required at numerous levels of detail at different levels of management and by other stakeholders. In fact, the outcomes of an AISs feeds into various decision streams at operational, tactical, and strategic levels of the organization. Users require financial and related information with various degrees of detail and with various levels of analysis (Lalin & Sabir, 2010). Beke (2010), noted that, there is an improvement in accounting quality and decision making associated with using accounting information system. Quality decisions occur since accounting information system records ensure easy access to information. The writer further stated that accounting information system tend to have standardized forms of data analysis provided by information system. According to Maesono (2011), business information is information which helps a company manage and market itself in a

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

1.8.2 Small and Medium Enterprises

A number of studies have tried to come up with a working definition of what kind of businesses can be classified as SMEs (Kayanula and Quartey, 2000). As noted by Gockel (2003), the challenges faced by SMEs, especially with regard to access to credit is partly because they lack an operational definition and partly due to lack of understanding of their heterogeneous nature by lending institutions. According to Kayanula and Quartey (2000), there is no single, universal, or uniformly acceptable definition of small-scale enterprises. As a result, several measures have been used to

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define SMEs. A survey of the literature on the definitions of SMEs is based on different criteria such as number of workers employed, annual rate of turnover and value of fixed assets. However, the commonest criterion used across countries is the number of employees, but this definition varies across countries and even within the same country there are divergent views on the exact number of workers and the cut-off point to be used (Ayyagari et al., 2003). Similarly, the World Bank (2013) classifies an enterprise as MSME when it meets any two of the following criteria namely, number of employees, size of assets, or annual sales as follows: microenterprises employ up to 10 employees, with total assets and annual sales of up to $10,000; small enterprises employ up to 50 employees with total assets and annual sales of up to $3 million; and medium-sized enterprise employ up to 300 employees, with total assets and annual sales of up to $15 million.

In Ghana, various institutions such as the Ghana Statistical Service (GSS) and National Board for Small Scale Industries (NBSSI) define SMEs using different criteria (Ackah and Vuvor, 2011). For instance, the industrial census conducted by GSS in 1987 defined micro- and small-scale enterprises as those employing up to 9 employees, medium-scale enterprises as those employing between 10 and 29 workers, and large-scale enterprises as those employing 30 or more employees (Gockel, 2003). Similarly, the NBSSI uses the number of employees and value of fixed assets as two criteria in defining Micro and Small Enterprises (MSE); micro enterprises are those that employ up to 5 people with fixed assets not exceeding $10,000 excluding land and buildings whereas small enterprises employ between 6 and 29 with fixed assets not exceeding $100,000, excluding land and buildings. Thus, SMEs are those enterprises employing 29 or fewer workers.

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1.9 Organization of the study

The study is divided into five chapters. The first chapter is the background and introduction to the study. This chapter includes topics such as the statement of the problem, the purpose and the objectives of the research study as well as highlights of the scope of the study. The second chapter focuses on theoretical review, conceptual review, empirical review and the research framework. It includes a short description of the theories that support the topic, various concepts, existing literature and the framework that the research is based on. The third chapter of this study addresses the research design, methodology, population, sampling and sampling techniques employed for this study respectively. The chapter four centers on the analysis and discussion of the findings of the study. The last chapter presents the conclusions, various recommendations, and avenues for further research.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature on the adoption, access to credit and impact of accounting information system on SMEs Borrowing Cost. The Literature is reviewed in three sub-sections; the theoretical review, conceptual review, and the empirical review. Other sections will review definitions of terms in the field of accounting information systems. The chapter ends with some specific empirical studies on the adoption, access to credit and impact of accounting information system on SMEs Borrowing Cost and finally, provides a summary of the literature reviewed.

2.1 Theoretical Review

This subsection reviewed the information asymmetry theory, management fashion theory, Technology acceptance theory and the resource base view of the firm.

2.1.1 Information Asymmetry Theory

The concept of information asymmetry describes economic transactions between parties where one of the parties holds more or better information than the other party. The imbalance of information which is also called information asymmetry has the potential to make transactions inefficient and causing market failures in the end. This theory was developed by Akerlof et al, who shared the noble prize in economics in 2001.

Information asymmetry has been described to be one of the major challenges for firms trying to raise finance externally to improve their liquidity shortfalls (Moro, Cortez, and Rita, (2015). In most countries around the globe, the majority of SMEs are not listed or publicly traded and so are not compelled to obliged by some strict regulation

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laid for listed firms such as market disclosures which affects SMEs (Deloof and Lardon, 2014). Moro et al., (2015) describes the lack of market disclosure as an opaque situation and that it presents a challenge for banks in collecting and processing information that are necessary for determining the riskiness of the borrower so that they will not heavily rely on collateral to determine the appropriate borrower (Zecchini and Ventura 2009).

It has been assumed that a lower degree of information asymmetry is likely to reduce the potential losses of banks and improve on their lending conditions which includes possibly, an increment in the amount of loans. Moro et al., (2015) posits a positive relationship between the quality, quantity, completeness and timeliness of information provided by SMEs to loan managers and the amount of credit released to Italian SMEs in the short term.

Literature in the banking industry have constantly tried to assess the role of information asymmetry in credit agreements such as the level of intensity between firms and the loan officer (Lehmann and Neuberger 2001), the geographical proximity between the surplus and deficit units (Alessandrini, Presbitero, and Zazzaro 2009) and whether the bank is involved in firm management (Elsas and Krahnen 1998). These elements were seen to be positively correlated with better lending conditions.

For SMEs, the problem is that banks find it time-consuming and costly to gather information about them (Kashyap, Rajan, and Stein 2002) especially when the loan amount is relatively small (loans procured by SMEs) since it will contribute to higher transaction cost and sometimes the apparent lack of information due to poor management of information, a situation that is likely to be rooted from the fact that

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SMEs do not have proper accounting systems to manage their accounting transactions.

Information asymmetry has a cost to any institution that offer credit which is the adverse selection and, in the end, moral hazard. Due to the effect of information asymmetry, banks try to lend to individuals and companies who have kept proper accounting record and so it is expected that SMEs that adopt and use accounting information systems get easy access to loan from banks compared to SMEs who have not yet adopted accounting information systems. The absence of a proper accounting information system for SMEs brings shortfalls in the quantity, quality and accuracy of their financial information required to be processed by banks in order to assess their credit worthiness. This makes it difficult for banks to actually distinguish between SMEs that will repay their loans from those that will default in payment (Stiglitz and Weiss 1981; Berger and Udell 1998). Barton and Waymire (2004) concluded that auditing technologies which is a components of accounting information system provides SMEs with a positive assurance that their financial statement will be free from distortions, accurate and lead to managerial optimism in the financial reporting, a situation desired by banks in order to grant credit.

Also, the adoption of Accounting Information system by SMEs should reduce their credit risk and, in the end, have a positive impact on the SMEs cost of loan.

2.1.2 Resource Base View of the Firm and Dynamic Capability Theory

The principles regarding the Resource Base View of the firm are founded on the position that the performance of an organization is determined by the very key resources it has in its possession (Kozlenkova, Samaha, and Palmatier, 2014). In an organization, the resources may be classified into tangible resources, system and

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procedural resources, knowledge resources, cultural values and resources network resources and resources that may have dynamic capabilities (Bourne, Neely, Platts, and Mills, 2003). There has been a growing increase in the application of this theory in strategic management (Almarri and Gardiner, 2014).

Base on this theory, the adoption of accounting information system should make available a very vital resource to a small and medium size enterprise and this should have a positive impact on the performance of the SME. That is, the adoption of accounting information system should enhance the resources of the SMEs and improve their performance in terms of cash-flow management, profitability and liquidity measures and so on. This is expected to put the SME in a better position in terms of access to loans and lower the cost of loans of SMES. The application of this theory creates the hypothesis that, the adoption of accounting information system has a positive impact on SMEs Borrowing Cost.

Dynamic capability refers to the ability of an organization to adjust to changing business environment. The theory of Dynamic capability emerged from the Resource Base view of the firm that advances that the performance of a firm is based on its ability to hold key resources. However, the dynamic capability theory further states that these key resources should be able to adjust to changing business environment before they can provide competitive advantage for a firm.

The way of approaching accounting has changed considerably which to say that technology has taken a chunk of the accounting task. Basing on the principles of this theory, firms that are able to adjust their accounting systems to meet the modern demand of the environment will achieve competitive advantage, improve in performance, and get access to loans from commercial banks at a lower cost.

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2.1.3 Management Fashion Theory

Management Fashion theory posits the assumption that where firms find themselves under conditions of uncertainty, they tend to emulate innovate management models promoted 'fashion setting organizations' which may be a consulting firm, the media publications and advanced business school. Simply, organizations will emulate management styles that are seen to be the 'fashion' of the day.

Management fashion theory gained interest in literature due to the sudden spread of modern management concepts and ideas such as the balance scorecard (Ax and Bjørnenak, 2005), quality management (Thawesaengskulthai and Tannock, 2008). Kieser (2012) defined management fashion as "management concepts that relatively speedily gain large shares in the public management discourse." Recent literature in IT and information system applied management fashion theory to aid understanding of the recent evolution of Information technology innovations across the world. Studies have identified that the field of IT is not disposed to fashion and cycles (Baskerville and Myers, 2009; Slongo, Blanck, Brinkhues, and Mello 2015; Wang, 2010). Su (2011) identified that several innovations in IT and information systems are motivated by social factors and institutional factors.

For example, cloud computing emerged and became popular partly by 'management fashion settling processes' (Su, 2011) just as social media (Bergquist, Söderholm, Kinneryd, Lindmark, and Söderholm 2013). In the management fashion process, there is a 'fashion setting community' (Abrahamson, 1996) or a 'management fashion arena'(Jung and Kieser, 2012; Kieser, 1997; Klincewicz, 2006). These comprise of software dealers, consulting firms, management experts, conference and seminar organizers, business school academics, business media. The supply of fashionable

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concepts is done through the internet and not on normal mortar outlet (Madsen and Slåtten 2015).

The implication of this theory to the study is that organization tends to copy management models proposed or put forth by 'management fashion experts' such as the media, advanced business schools when they are under uncertainty as to the best management model to be instituted in the organization. Accounting information System has been the latest 'fashion' in business and so base on the theory it is expected that various firms will adopt it when they are in an uncertainty, through economic or social reasons.

2.1.4 Technology Acceptance Model (TAM)

The increased usage of technology especially Information technology and the integration of IT in the lives of users whether in their private capacity, professional or by businesses have been on the rise. Whenever there is new technology or an information system that accomplish a specific task at the workplace, a decision needs to be made as an individual user, a professional or a firm as to whether to adopt or reject such technologies. Therefore, the question always remains what triggers a user to adopt and implement a particular technology at a particular time. To address this question, a number of theories and models have been adopted to explain the acceptance or rejection of a particular technology by a user.

The Technology Acceptance Model (TAM) which is almost a quarter century of age was introduced by Fred Davies and has been dominantly used by the research community to explain the factors behind users' acceptance or rejection of a new technology. The model outlines behaviour intentions as a factor that influences people to use technology which is determined at the attitudinal level. That is, people attitudes

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which affect their behaviour in the usage of a technology is influenced by the general impression a technology have on them.

The adoption and usage of new technology according to the model is influenced by people behaviour concerning the Perceived Usefulness (PU) and Perceived-Ease-of-Use (PEOU) of the technology. Therefore, in determining the motivation factors towards the adoption of AIS by SMEs in Ghana, it is expected that SMEs get influenced by behavioural factors that concerns the Perceived Usefulness (PU) and Perceived-Ease-of-Use (PEOU) of the Accounting Information System.

2.2 Conceptual Review

The sub-section reviews the various variables and constructs that are necessary for understanding the study.

2.2.1 Accounting Information System (AIS)

Accounting information system is one of the forms of information system designed to specifically manage the accounting or generally to say the financial operations of an organization. It is a computer-based system that collects data, input data, process and also stores data in addition to managing, controlling and reporting information which can be applicable to the organizations' planning and decision making (Pierre et al. 2013). To every organization that intends to use AIS, the major benefits that come with it are its ability to quantify past, current and future economic transactions (Sori 2009).

Also, AIS has the potential to provide the required information to decision makers of the organization so that they can make both financial decisions and decisions of internal administration in addition to decisions of external nature (Trigo, Belfo, and

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Estébanez. 2014). Shuhidan and Nori, (2015) provided an update of the benefits of the use of AIS where they asserted AIS seems to have stood out as the only instrument that is worthy of providing an enterprise with valuable information. More recently, Al-Hattami and Kabra, (2019) further described the benefits of AIS as "it has become unreasonable for any organization to operate without such a system".

2.2.2 Honesty

Morgan and Hunt (1994) defined honesty is defined to be the belief in sincerity, truthfulness and frankness. It is believed that in the relationship between the bank and an SME, the loan manager can perceive the SME to have furnished transparent information and for that matter reliable enough to keep its promises when the loan officer assumes the SME to be honest.

2.2.3 Competence

Mayer, Davis, and Schoorman (1995) defined competence as the ability, knowledge and skills that one party has in to be able to carry out some activities for which it has been assigned to. When SMEs are perceived to be competent by the loan officer, it provides assurance to the bank that the SME is capable of carrying out its activities successfully to achieve its objective (Profit motive) and that there is less likely of default should the firm be provided finance by the loan officer.

2.2.4 What Motivates SMEs to Acquire AIS?

Vasarhelyi et al. (2004) and Davidson et al. (2013) identified economic and compliance related issues as factors behind the adoption of continuous auditing technologies a component of Accounting Information system. In the work of Alles et al. (2008), the motivation for a firm adopting a continuous auditing technology was purely economic which is to say that the internal audit unit aimed at improving audit

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efficiency, reduce audit times and increase the auditing capacity of staff of the internal audit unit. The study related the issue of capacity to the requirement to implement section 404 of the U.S Sarbanes-Oxley Act and so this explains the compliance factor behind the adoption of AIS. Research has shown that the proper utilization of information technology with people, procedure and a clearly defined process promotes the creation of business value (Wilkin and Chenhall, 2010). There is therefore a huge benefit when management align information technology with the strategic objectives of the firm.

Gonzalez et al. (2012) conducted a survey on the adoption of continuous auditing technology in larger enterprises and the results showed a higher level of performance expectancy which is the users believe that the system will help to increase job performance. Social influence and facilitating conditions which is the organizational and technical infrastructure affected the adoption of Continuous Auditing. The study found out that potential effort expectancy and social influence were significant in SMEs decision to adopt a continuous auditing technology. KPMG also conducted a study which included more than 700 firms on the adoption of continuous auditing technologies by firms and the findings revealed that process improvement, increased transparency and decentralization of errors were high among the reasons for firms adopting a continuous auditing technology (Klynveld Peat Marwick Goerdeler [KPMG], 2012).

The implication of these prior studies on this study is that SMEs will be adopting Accounting Information system (AIS) in order to better utilize capacity and save economic resources, increased process transparency, control decentralization and social influences. These prior studies indicate that the motivations to adopt continuous

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auditing technology are based on the wish to better utilize capacity and save economic resources — often due to increased compliance requirements. Other motivations can come into play such as the wish for increased process transparency, control decentralization and social influences. The adoption of continuous auditing technology is frequently governed by the internal auditing department and aligned with the internal auditing strategy of the company.

2.2.5 AIS and Credit Granting to SMEs

The informational opaque nature of SMEs entangles them with a myriad of difficulties in accessing equity finance same way as bank credit (Berger and Frame 2007; Hyytinen and Pajarinen 2008). In simple terms, most SMEs are faced with the problem of lack of information availability in terms of quality, quantity and accuracy and this makes it difficult for banks to distinguish between those SMEs that are capable of repaying their loans and those that will behave the otherwise (Berger and Udell 1998), a situation that can be partly attributed to the low rate at which SMEs adopts new technologies (Olatokun and Kebonye, 2010).

Due to the inability for SMEs to adopt and blend technology with their procedure and structures to produce a proper information system such as the accounting information system, banks see them to be of high risk and may demand more guarantees on loan and may increase the cost of debt even when loan applications are accepted. Actually, the most recognized information required by credit firms before accepting a loan application and to even determine customers credit worthiness and to some extent the borrowing cost is the financial statement of the firm (Gómez-Guillamón and Vidal 2008; Brown and Moles 2012).

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Accounting information will lose its importance if it is not fit for purpose in terms of quality of the information and accuracy during the process of credit evaluation by banks. When this happens, the probability of a bank accepting a loan application becomes minute. If SMEs are to adopt a proper accounting information system that enable them to produce quality and accurate financial information, then, it stands to reason that financial institutions may be compelled to accept their loan applications and charge an interest rate that is fairly to that of a public trading firm. This is because Accounting Information Quality which is one of the benefits that comes with the adoption and usage of AIS can mediate relationship of trust between the SME and the loan officer by ensuring honesty and competence of the SME (Palazuelos et al., 2018).

2.3 Empirical Review

Rikhardsson and Dull (2016) in an exploratory study on the adoption, application and impacts of continuous auditing technologies in small businesses found out that major motivation for small companies adopting and using a continuous Auditing technology was not linked to their external reporting or auditing. The findings were in contradiction with Vasarhelyi et al., (2004) that explained that internal auditing practices are developing in commensuration with investment in continuous auditing technologies. That is, the study seemed to assert that, the investment in continuous auditing technologies was mainly for financial reporting and internal auditing.

In the same study Rikhardsson and Dull (2016), majority of SMEs were found to have acquired software solutions to improve their performance as opposed to the study by Gonzalez et al. (2012) which found that among the companies studied that their motivation for adopting and using Continuous Auditing technologies were less likely

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to be influenced by performance improvement and more to do with easing social influences. This study expects the motivation for SMES in Ghana adopting accounting information system not to deviate significantly from that of Rikhardsson and Dull (2016). However, social influence as confirmed by Gonzalez et al. (2012) is expected to act among the motivation for SMEs adopting AIS in Ghana.

On the role of AIS in SMEs access to credit from banks, Palazuelos, Crespo and Del Corte, (2018) conducted a study on Accounting information quality and trust as determinants of credit granting to SMEs: the role of external audit and discovered that for audited SMEs high quality accounting information play a role in the loan officer's willingness to provide credit to the SME or otherwise. On the other hand, the study revealed that for an SME that is not audited, accounting information quality does not have a significant role to play in the loan officer's willingness to grant credit to the SME but it is worth noting that the study identified Accounting information quality as important in building trust between the SME and the loan officer. In simple terms, the study discovered that loan officers perceive AIQ to be relevant in their decision to grant credit and are willing to give more credit if the SME or the accompanying financial statement is audited.

Another important finding of the study was the discovery that when the firm's financial statement is not audited, honesty and competence which are mediated by Accounting information quality are key variables that influence the loan officer's decision to provide credit to the SME or not. The summary of the finding of the study revealed that accounting information quality is not relevant when the financial statement of the SME is not audited but it can mediate relationship of trust between the SME and the loan officer by ensuring honesty and competence of the SME. In

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Ghana, most SMEs do not audit their financial statement and so the study expects accounting information quality which is an output of accounting information system to build trust between the SME and the loan officer that will influence his decision to provide loan or credit to SMEs in Ghana.

2.4 Research Framework

This study is built on the information asymmetry theory and the Resource Base View of the firm. The Information Asymmetry theory asserts that the imbalance of information also called information asymmetry has the potential to make transactions inefficient and causing market failures in the end.

Information asymmetry has been described to be one of the major challenges for firms trying to raise finance externally to improve their liquidity shortfalls (Moro et al. 2015). In most countries around the globe, the majority of SMEs are not listed or publicly traded and so are not compelled to obliged by some strict regulation laid for listed firms such as market disclosures which affects SMEs (Deloof and Lardon 2014). Moro et al., (2015) describes the lack of market disclosure as an opaque situation and that it presents a challenge for banks in collecting and processing information's that are necessary for determining the acceptance and riskiness of the borrower so that they will not heavily rely on collateral to determine the appropriate borrower (Zecchini and Ventura 2009).

In the study of Palazuelos, Crespo and Del Corte, (2018), 'Accounting information quality and trust as determinants of credit granting to SMEs: the role of external audit' found out that Honesty and Competence had a statistically positive and significant relationship with information quality (benefit of AIS).

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This study will test the hypothesis to determine whether AIS will lead to information quality and also to test for the impact of information quality on SMEs competence and Honesty among Ghanaian SMEs and finally to find the statistical relationship between access to competence and credit, and Honesty and access to credit.

Finally, a test is run to determine the relationship between AIS adoption and usage and borrowing cost of SMEs with the principle that the Adoption of AIS will increase organizational performance (resource-based view of the firm) and reduce information asymmetry and in the end improve the credit scores of SMEs in Ghana. The researcher therefore analyzed the impact of AIS usage on SMEs borrowing cost using the econometric model;

$$\text{BORROWING COST}=\alpha + \beta_1 \text{AIS} + \beta_2 \text{PROFITABILITY} + \beta_3 \text{COLLATERAL} + \beta_4 \text{GROWTH PROSPECT} + \varepsilon$$

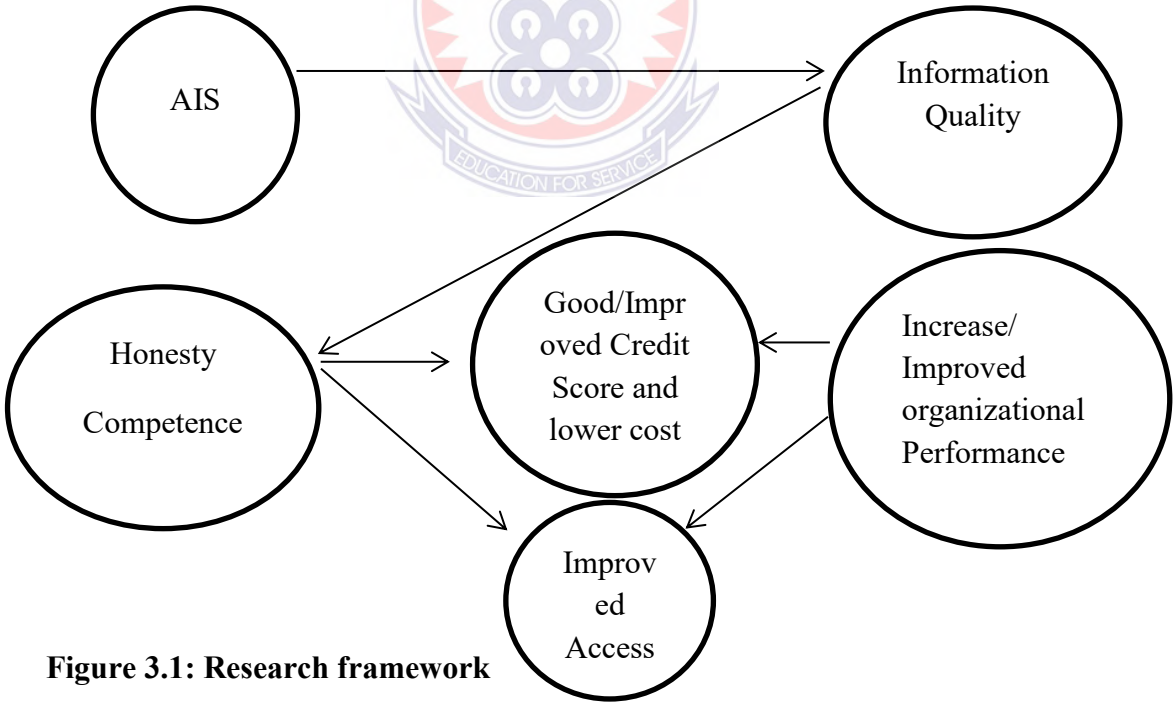

Figure 3.1: Research framework

2.5 Summary of Chapter

The chapter reviewed literature from three perspectives; theoretical, conceptual and empirical studies. The theoretical review talked about the information asymmetry

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theory, the management fashion theory, the technology acceptance model and the resource base view of the firm.

Using the information Asymmetry theory, the researcher is of the opinion that, SMEs that adopt and use Accounting Information Systems get easy access to loan from banks compared to SMEs who have not yet adopted Accounting Information Systems. Also, the adoption of Accounting Information system by SMEs should reduce their credit risk and, in the end, have a positive impact on the SMEs cost of loan.

Again, this study was based on the resource base theory of the firm by adjudicating that the adoption of accounting information system should enhance the resources of the SMEs and improve their performance in terms of cash-flow management, profitability and liquidity measures and so on. This is expected to put the SME in a better position in terms of access to loans and lower the cost of loans of SMES. The application of this theory creates the hypothesis that, the adoption of Accounting Information System has a positive impact on SMEs Borrowing Cost.

The technology Acceptance Model was also applied to the study to expect SMEs to get influenced by behavioural factors that concerns the Perceived Usefulness (PU) and Perceived-ease-of-Use (PEOU) of Accounting Information Systems. Moreover, the management fashion was to confirm the social influence factor as motivation for SMEs using Accounting Information Systems.

The conceptual review also looked at related concepts such as the meaning of AIS, the motivation for adopting AIS by firms, AIS and credit access of SMEs and some definitions of important variables of the study.

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The chapter concluded with an empirical review by presenting the recent studies on the topic and the findings as well as difference in opinion of literature where it was necessary.

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CHAPTER THREE

RESEARCH METHODS

3.1 Research Design

This study adopted Scapens (1990, 2004) descriptive case study that aims at describing systems and procedures in practice. The objectives of the study were achieved using mixed methods to collect primary data from some selected SMEs and microfinance institutions Kumasi Metropolitan Assembly. The Chief Accountant or Finance officer of selected SMEs was interviewed to collect data that helped to determine the motivation for SMEs adopting Accounting Information Systems. This was achieved using open ended interview questions that were purely exploratory in nature. To answer the question on the factors that influence Loan Officer's decision to provide credit, the relationship between AIS benefits and SMEs access to loans and the Impact of the application of Accounting Information system on SMEs borrowing cost, the Chief Executive Officer (CEO), deputy CEO, loan officers and deputy officers operating in the head offices of the 13 microfinance institutions in the Kumasi Metropolitan were selected where closed ended questionnaires were used to collect data from them.

The questions of this study are to determine the factors that motivate AIS adoption, loan officers' decision to provide credit to SME's, relationship between AIS benefits and SME's access to loans and finally the impact of AIS on SME" s borrowing cost. This research design is flexible enough to assist me in answering all these research questions. It will provide me an opportunity to collect both quantitative data and qualitative data which will be useful in answering these questions.

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3.2 Population of the Study

The population of the study was into two and this was to better achieve the objectives of the study. For the purpose of the first objective (SMEs motivation for using AIS), the population comprised of manufacturing SMEs in the Ghana Business Directory. However, the researcher sampled the chief Accountant/finance Officer of these manufacturing SMEs in the Ghana Business Directory who have adopted AIS and reside in within the Kumasi Metropolitan Assembly and who can be conveniently accessed by the researcher. This gave us a total number of 7 SMEs.

The other side of the population consists of all the 13 microfinance Institutions in the Kumasi Metropolitan Assembly that survived the cleanup exercise and is licensed by the Bank of Ghana. The thirteen (13) licensed microfinance institutions in the Kumasi metropolitan Assembly are: mid-county microfinance limited, eman capital microfinance limited, gifs microfinance limited, impact microfinance company limited, k5 microfinance company limited, jally microfinance company limited, mgi microfinance limited, positive golden foundation microfinance limited, microfinance company limited, secure capital microfinance limited, safe microfinance company limited, royale mikri microfinance limited, wallstreet microfinance limited.

The population size of the 13 microfinance institutions was 130. Based on this figure (130), the researcher targeted the Chief Executive Officer (CEO), deputy CEO, loan officers and deputy loan officers operating in the head offices of the 13 microfinance institutions. This gave the researcher 4 respondents per microfinance institutions with the overall sample constituting 52 respondents.

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3.3 Sampling Frame and Sampling Size

The sampling frame is the list of all elements from which the sample is drawn. For this research, the sampling frame is listing a list of chief Accountant/finance Officer of SMEs in the Ghana Business Directorate and the Microfinance Institutions which are found in Kumasi Metropolitan Assembly. This gave a total of 7 SMEs and 13 Loan officers to achieve the various objectives of the study.

3.4 Sampling Procedure

The study defines SMEs in line with the recommendations of the Ghana Statistical Service which says 'if any of the firm having the number of employees between 1 and 5 it is called micro, 6 and 30 named small, 31 and 100 called medium and more than 100 named large' (Amoah and Amoah, 2018). The 7 SMEs were purposively targeted manufacturing SMEs in the Ghana Business Directorate who have adopted and use Accounting Information Systems and whose location is convenient to the researcher. The Chief Accountant or finance officers were also selected because the researcher deemed their position provides them with the required data needed to achieve the study objective.

Also, the researcher targeted Chief Executive Officer (CEO), deputy CEO, loan officers and deputy officers operating in the head offices of the 13 microfinance institutions in the Kumasi Metropolitan Assembly to achieve the other research objectives. These individuals were purposely targeted because they, per the privilege of the position they hold in the financial institutions were the best to provide the researcher with accurate and relevant data.

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3.5 Data Collection Instruments

There were two sets of data collection instruments for the study. The researcher used open-ended interview questions to explore data from Accountants/Chief Finance Officers of sampled SMEs to determine the motivation for SMEs adopting AIS. The interview involved the collection of demographic information of the respondents and questions pertaining to the first objective of the study.

On the factors that influence Loan Officer's decision to provide credit, the relationship between AIS benefits and SMEs access to loans and the Impact of the application of Accounting Information system on SMEs borrowing cost, the researcher employed closed-ended questionnaires which were also structured to cover the demographic features of the respondents.

3.6 Data Collection Procedures

The data for the study were purely primary using interviews and questionnaires. The researcher at some points in time also used secondary data in the form of reports, textbooks, journal articles and statistical data which provided the researcher a guide needed to achieve the purpose of the study.

3.7 Data Processing and Analysis

The data collected from the field was first cross checked to ensure the accuracy of responses. The study used SPSS 20.0 version (statistical analysis software) to process the data. After getting feedback from the respondents, they were neatly coded in excel sheets and imported unto the software where the results were presented using tables, graphs, standard deviation, correlation matrix analysis and many others.

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3.8 Chapter summary

The study adopted a descriptive case study and a mixed method approach to collect data from some selected SME's and microfinance institutions in Kumasi Metropolitan Assembly [KMA]. The population of the study is manufacturing SME's, accountant/finance officers of these institutions who have adopted AIS and 13 microfinance institutions in KMA. The study used open ended and closed ended interview questions as well as close ended questions in order to answer the research questions. The data was processed using SPSS statistical software and analyses were done on the output.

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CHAPTER FOUR

RESULT AND DISCUSSION

4.0 Introduction

The purpose of this study is to determine the impact of accounting information system on borrowing cost as well as determining the what motivates SMEs to adopt AIS. The study employed a mixed method approach and as such uses both primary and secondary data. The study used Pearson correlation to determine the relationship between financial reporting benefits of AIS and access to credit. Anova and regression was also used to arrive at the impact of AIS on SME's borrowing cost.

4.1 Descriptive Analysis

To understand the position of staff on the impact of Accounting Information system Adoption on SMEs Borrowing Cost, some biographical information was needed. This section presents some information on the gender, age and educational level, and length of service or transacting with the selected the institutions. These variables are cardinal in knowing the caliber of people who responded to the questions.

4.1.1 Gender of Respondents

The researcher gathered information on the gender of respondents. Table 1 shows the results obtained.

Table 1: Gender respondents

GENDER	RESPONDENTS	PERCENTAGES (%)
MALE	34	65.38%
FEMALE	18	34.62%
TOTAL	52	100%

Source: Results of Field Data Amoquandoh (2022)

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From Table 1, out of 52 respondents that indicated their gender, the males constituted 65.38% and the females were 34.62%. Therefore, the proportion of Males was higher than the proportion of females in the microfinance institutions.

4.1.2 Age category of respondents

The analysis of the age category of the respondents is considered important for knowing the caliber of people who responded to the questionnaire. It is assumed that the assessment by younger respondents will be relatively different from older respondents and the older the respondents, the more analytical they are likely to be as compared to the younger respondents, all things being equal. Table 2 captures the results obtained.

Table 2: Age Categories of the respondents

AGE	Frequency	Percent
18 – 30	21	40.38
31 – 40	22	42.33
41 – 50	7	13.46
51 – 60	2	0.04
Total	**52**	**100.00**

Source: Results of Field Data Amoquandoh (2022)

The results indicate that out of 52 total respondents, 40.38% of staff was within the age group of 18 to 30 years. Also, 42.33% of the respondents were within the ages of 31 to 40 years. However, a few of the staff were within the ages 41 to 50 years and 51 to 60 years with percentages of 13.46% and 0.04% respectively. In conclusion, it can be said that majority of the staff were within the ages of 31 to 40 years. Also, the 0.04% which represents the ages of 51 to 60 years proves to be fair as the life expectancy of Ghanaians is generally short.

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4.1.3 Educational Status of Respondents

Education is a variable which is usually used to assess the intellect of people. The higher the level of a person's education, the more critical and analytical he or she is likely to be as compared to someone with lower education. The evaluation and assessment by educated people are more likely to be objective as compared to the less educated. Table 3 illustrates the results obtained.

Table 3: Educational Status of the respondents

	Frequency	Percent
SSCE/WASSCE	0	0
HND/Diploma	12	23.08
1st Degree	21	40.38
2nd Degree	14	26.92
PhD	5	9.61
Total	**52**	**100.00**

Source: Results of Field Data Amoquandoh (2022)

It could be observed that on the question of the educational qualification of respondents, a large proportion of the staff 40.38% were Bachelors' degree holders with none of the respondents having SSCE/WASSCE. Also, 23.08% of the staff had HND/Diploma with 2nd Degree and PhD taking 26.92% and 9.61% respectfully. Given the level of respondents' education, it is expected that they will be able to analyses issues that confront the MFIs more critical and analytical.

4.1.4 Number of years operated with the microfinance Institution

The number of years working with the institutions is very necessary in determining the situation at hand. Based on this, it is expected that the employees who have been working with the institutions for a longer time would give a much better assessment than those who have been with them for only a short moment.

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Table 4: Number of years spent with the MFI

	Frequency	Percent
Less than 5	7	13.46
5 – 9	10	19.23
10 – 14	32	61.54
over 14	3	0.06
Total	**52**	**100.00**

Source: Results of Field Data Amoquandoh (2022)

4.2 SMEs motivation for adopting accounting information systems

4.2.1 Overview of responding SMEs

Table 5 outlines the various respondents from the various SME's and the working experience they have using AIS.

Table 5: Overview the responding SMEs

SME	Respondent	Size (No. of Employees)	No of years using AIS
1	Head of Accounts	35	7
2	Head of Accounts	52	10
3	Head of Finance	70	5
4	Head of Accounts	83	6
5	Head of Accounts	32	4
6	Head of Accounts	40	3
7	Head of Accounts	45	2

Source: Results of Field Data Amoquandoh (2022)

It was interesting to note that we did not find these SMEs to have separate internal audit and accounting functions. In fact, only 2 of the SMEs interviewed had a separate internal audit function. The rest of the SMEs interviewed combine the internal audit function with that of the finance department. This is very much expected as we deal with SMEs because one of their characteristics is low formalization of internal control

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activities. However, these 7 SMEs had internal control strategy in place and it was also quite interesting to realize that they had documented their risk assessments and the plans to respond to the various risks.

4.2.2 What factors motivate SMEs in Ghana to adopt Accounting Information Systems?

The need to improve decision making quality from the data reported to managers and also to maintain the level of this quality was the most cited reason by the SMEs interviewed for using accounting information systems. We found put that almost all the SMEs interviewed had in one way or the other adopted and use at least a specific accounting information system. However, they mentioned the need to commit significant number of resources because there was a need to ensure that the system is well suited to be able to carry out the objectives for their adoption. "Managers need to have enough confidence in the data available to them for making their decisions because if the manager does not have the assurance of having a quality and reliable data, it limits his ability to make informed decisions. For here, when we use (the mane of the AIS comes), it enables the accountant is able to detect problems with the data and actions are then to correct them before it gets to the manager for decision making" (Company 1). This means that the AIS technology was to help save the limited resources of the company by constantly minimizing the human errors that come with processing and analyzing data.

Again, with the presence of the technology, the need for ad hoc meetings to implement detective and corrective controls was not overly necessary as it was a continuous activity. One of the managers stated that: "we motive is to get the maximum use of the limited time we have here for our employees in the finance

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department for activities that gives more value and not to be going about checking and correcting errors" (Company 2).

It was interesting to note that in SMEs where the AIS technology was not particularly physical at the finance department, the response from the finance department was that they had no knowledge of the existence of AIS in the Enterprise. That is where the technology is purchased by the IT function but still serves as AIS, the people in the finance department found it difficult to appreciate that it is an AIS because they do not recognize the potential benefits it has in the finance department.

"The company purchased the technology initially for the IT department but we have realized that it has several benefits to the finance department some of which is monitoring processes. In fact, it has helped a lot because it has been used to monitor so many of the finance processes in the enterprise" (Company 7). Again, there was a response by another company: "we purchased the technology for the finance department and were to be used for some data monitoring but we realize it provides additional functions and so we have been using for some upgraded task" (company 3) This means that the motive for the adoption of the AIS had changed due to the continuous usage by staff and upon the realization that it performs some upgraded functions for which they could actually execute.

4.3 What factors influence loan officer's decision to provide credit to an SME?

Loan officers have tremendous task of deciding whether to provide credit to institutions or individual when they apply for a loan at a banking institution or financial institution. They are always informed by various factors which determines whether a loan will be granted or not. Table 6 looks at the various factors that influence a loan officers decision to provide a credit facility to SME's.

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Table 6: Factors that influence loan officer's decisions

Loan Officer's decision Variables		Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
My perceived Honesty of the SME financial data is very key in my decision to approve a loan application	Freq.	12	15	13	8	4
	Percentage	23.0	28.7	25.0	15.7	7.6
If I have the perception of the SME being competent with their financial reporting, I approve their loan applications.	Freq.	9	19	11	8	5
	Percentage	17.3	36.5	21.2	15.4	9.6
The SME needs to have a sufficient collateral before I approve the loan application	Freq.	14	12	14	10	2
	Percentage	26.9	23.1	26.9	19.23	3.85
Once the profitability of the SME is okay, I approve the loan application	Freq.	22	15	7	5	3
	Percentage	42.3	28.8	13.46	9.61	5.77
The SME must have a considerable prospect for growth before I approve the loan application	Freq.	9	10	16	10	7
	Percentage	17.3	19.23	30.76	19.23	13.46
There are other factors that determine whether I will approve a loan application or not	Freq.	12	14	14	9	3
	Percentage	23.07	26.92	26.92	17.31	5.76

N = 52

Source: Field data, Amoquandoh (2022)

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From Table 6, the results showed that Honesty of the SME financial data is very key in decision to approve a loan application where 15 respondents which is 28.7% 'agreed' that indeed that Honesty of the SME financial data is very key in decision to approve a loan application while 23.0% which is 12 in number 'strongly agreed' that Honesty of the SME financial data is very key in decision to approve a loan application.

Adding on to that, the results indicate that if the financial institutions have the perception of the SME being competent with their financial reporting, it eases their loan approval. This is because 19 (36.5%) of the respondents agreed that indeed if the financial institutions have the perception of the SME being competent with their financial reporting, it eases their loan approval, 9 (17.3%) strongly agreed on the matter with 5 respondents and 8 of the respondents representing 9.6% and 15.4% strongly disagreeing and disagreeing respectively.

Again, on whether the SME needs to have a sufficient collateral before the loan application is approved, the results revealed that only 3.85% of the employees representing 2 respondents 'strongly disagreed' that the SME needs to have a sufficient collateral before the loan application is approved with 10 representing 19.23% of the employees 'disagreeing. 14 (26.9%) and 12 employees (23.1%) 'Strongly agreed' and 'agreed' respectively.

Furthermore, it is not so surprising to know that 'Once the profitability of the SME is okay, the financial institution intends to approve the loan application" with 22 employees and 15 respondents which is 42.3% and 28.8% 'strongly agreeing' and 'Agreeing' respectively.

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Moreover, the results demonstrated that the financial institution considers the SMEs prospect for growth and other factors in their decisions to approve their loan application.

From the results, it very clear that the SMEs honesty in in the area of financial reporting and competence through the quality of their financial reporting are very instrumental in deciding their fate as to whether their loan applications will be approved by the financial institution or the otherwise.

4.4 The relationship between financial reporting benefits of AIS and access to credit

The Pearson correlation is a measure of the strength of a linear association between two variables and is denoted by *r*. Basically, a Pearson product-moment correlation attempts to draw a line of best fit through the data of two variables, and the Pearson correlation coefficient, *r*, indicates how far away all these data points are to this line of best fit (i.e., how well the data points fit this new model/line of best fit). Table 7 test whether honesty and competence best fit access to credit.

Table 7: Pearson Correlation

Variable Dimensions	Honesty	Competence	Access to credit
Honesty	1		
Competence	.471**	1	
Access to Credit	.763**	.715**	1

**: Correlation is significant at 1% level on a 2 tailed table.

The results in Table 7 indicates a positive and significant relationship between Honesty which is a benefit of using Accounting Information system and SMEs access to credit from financial institutions which shows a positive correlation coefficient of 0.763 and at a significance level of 1% level with P-value < 1%. The results also

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indicate 0.715 positive and significant relationships between competence of a SMEs which is measured by the SMEs competence in terms of quality of financial data and access to credit. The results of the Pearson correlation suggest a strong positive movement between the financial benefits AIS and SMEs access to credit from microfinance institutions.

4.5 The impact of the application accounting information system on SMEs borrowing cost.

Analysis of variance (ANOVA) is an analysis tool used in statistics that splits an observed aggregate variability found inside a data set into two parts: systematic factors and random factors. The systematic factors have a statistical influence on the given data set, while the random factors do not. Analysts use the ANOVA test to determine the influence that independent variables have on the dependent variable in a regression study. Table 8 examines how AIS influence the other dependent variables in the study.

Table 8: Anova

Model	Sum of Squares	DF	Mean Square	F	P-Value
Regression	0.312	4	0.078	8.667	0.000
Residual	0.423	47	0.009		
Total	**0.735**	**51**			

Source: Results: Field data, Amoquandoh (2022)

From Table 8, it can be seen that the independent variables used for the model (AIS, Profitability, Collateral and Growth prospects) are jointly significant since F (4, 47) =0.000 (significant at 1%). This means that AIS, Profitability, Collateral and Growth

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prospects explains of SMEs explain borrowing cost. The **standard error of estimate** = 0.094 with an **R-Square of 42.45%** and an **adjusted R Square of 0.376.**

Table 9: Regression Result: Borrowing Cost as Dependent Variable

Borrowing cost	**Coefficient**	**Standard Error**	**t- value**	**P- value**
Constant	0.492	0.153	3.215	0.002
AIS	-0.099	0.043	-2.302	0.025
PROFITABILITY	-0.212	0.101	-2.099	0.041
COLLATERAL	-0.113	0.049	-2.306	0.025
GROWTH PROSPECT	-0.032	0.013	-2.46	0.017

Source: Results: Field data, Amoquandoh (2022)

From Table 9, AIS has a statistically significant (at 5%) negative relationship with borrowing cost. This means that the more SMEs adopt and use AIS, the lower their borrowing cost. The value of the relationship is depicted by a -0.099 coefficient which implies that borrowing cost of SMEs reduces by 0.099 per every unit addition of AIS. Also, all the control variables used for the model (Profitability, Collateral and Growth prospects) were found to have a negative and statistically significant relationship with borrowing cost at 0.05 significance level. Therefore, the results of the study imply that, SMEs profitability, level of collateral and growth prospects are statistically important in determining their borrowing cost.

4.6 Discussion of Findings

The research centers on the major objective of determining the Impact of Accounting Information system application on SMEs Borrowing Cost and to also achieve some other subsidiary objectives. In determining SMEs motivation for adopting AIS, open ended interview questions were applied and the results after analyzing the responses

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indicates that SMEs adopted AIS is to improve their decision-making quality from the data reported to managers and also to maintain the quality level of this information. This makes the SMEs motivation for adopting AIS purely on performance grounds which is supported by Rikhardsson and Dull (2016), who finds that SMEs are motivated the adopted AIS to help improve their performance in the area of financial reporting. The findings of the study were contrary to Gonzalez et al. (2012) assertion that SMEs motivation for adopting AIS is purely out of social influence and not performance related. Also, the results of the study could not confirm that SMEs motivation for adopting AIS is out of regulatory or compliance issues as indicated by Davidson et al. (2013).

On the second objectives of the study, the results of the data analysis shows that loan officer's perception of SMEs honesty in the area of financial reporting and competence through the quality of their financial reporting are very instrumental in deciding their fate as to whether their loan applications will be approved by the microfinance institution. This is in support Palazuelos et al., (2018) who demonstrated that AIS mediate relationship of trust between the SME and the loan officer by ensuring honesty and competence of the SME (Palazuelos et al., 2018). Also, Profitability, Collateral and Growth prospects were found to be influential in Microfinance Loan Officer's decision to extend credit to SMEs or the otherwise.

The third objective was determining the relationship between financial reporting benefits of AIS and access to credit. The study discovered that there is a positive and significant relationship between honesty and access to credit. There is also a positive significant relationship between competence in terms of quality of financial data and access to credit. AIS put SMEs in a position where credit institution believe they are

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reliable and have credible financial data which makes it easier for them to get access to credit.

Furthermore, in determining the impact of the application accounting information system on SMEs borrowing cost, the study discovered that AIS, Profitability, Collateral and Growth prospects had a negative and statistically significant relationship with SMEs cost of borrowing. This implies that SMEs borrowing cost declines as they adopt and use more AIS holding all other variables constant. The results are very convincing as the use of AIS by firms is expected to ensure accuracy and quality in SMEs financial reporting which will help reduce the problem of information asymmetry.

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CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The This chapter summarizes the study and draws conclusions from the findings and results of the study. The chapter also provides recommendations to SMEs and regulatory agencies as well as recommendations for future studies.

5.1 Summary

Accounting Information systems were primarily designed as a tool in conjunction with Information Technology (IT) to help in the management of the financial and economic areas of the firm. However, the situational report on the application of AIS by SMEs looks undesirable Olatokun and Kebonye, (2010). This is also evident in the adoption of Information Technology in small businesses specifically (Lee and Xia, 2006), a study that was conducted to look into the adoption of information technology innovation in small businesses which suggests a lower adoption of Accounting Information systems by SMEs as the studies confirms that the lower the firm, the more likely it becomes reluctant in adopting Information Technology. The lower patronage of technology especially Accounting Information Systems affects SMEs in ways such as inaccurate cash flow estimations, error-prone financial statements, loss of Accounting Data, and many others ACCA, (2010).

Financing have been one of the challenges of SMEs across the world. Since the 2008–2010 financial crises, lending institutions have become very critical in their release of funds to borrowers due to the experience of default learnt during the period of the crises. Banks and other financial institutions who lend funds have been overly concerned of asymmetric information and so have taken several steps to make sure

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that before the lend to any deficit unit, proper diligence is conducted to make sure that the borrower and the lender are at the same page. As a result of this, financing has been very difficult for SMEs in particular as they are most at times rejected by financial institutions in their quest to access financing from them. This is because of the reluctance of SMEs to adopt and use proper Information Systems that will account for their cash flows, reduce errors in accounting and in the end provide integrity to the financial statement so as to enable banks to have the confidence of providing credit to them. Provided SMEs applications for loans are even granted by banks, they suffer more in terms of the borrowing cost charged by banks and other financial institutions on the loan. This has been already seen to be caused by the lack of transparency in their financial reporting (information asymmetry) and for that matter raising their level of risk. This study intended to prove to SMEs on how the adoption of Accounting Information System on SMEs borrowing Cost.

The specific objectives of the study included to: to explore SMEs motivation for adopting Accounting Information Systems, to examine the factors that influence Loan Officer's decision to provide credit to an SME, to determine the relationship between AIS benefits and access to credit and to ascertain the Impact of Accounting Information system application on SMEs Borrowing Cost.

In order to address the objectives properly, the study collected data from the Chief Accountant or finance officers of 7 SMEs who were purposively targeted manufacturing SMEs in the Ghana Business Directorate who have adopted and use Accounting Information Systems and whose location is convenient to the researcher. Also, the researcher targeted Chief Executive Officer (CEO), deputy CEO, loan officers and deputy officers operating in the head offices of the 13 microfinance

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institutions in the Kumasi Metropolitan Assembly to achieve the other research objectives

5.2 Key Findings

5.2.1 SMEs motivation for adopting accounting information systems

1. It was realized that, SMEs adopt AIS to improve their decision-making quality from the data reported to managers and also to maintain the quality level of this information.
2. Another interesting revelation is the fact that the researcher found most of the SMEs interviewed did not have a separate internal audit and finance functions. The internal audit and finance functions were combined in majority of these SMEs.
3. The SMEs also reported the need to continuously invest in AIS to maintain their shape in good conditions.
4. Again, another important finding was the fact that that the motive for the adoption of the AIS by SMEs sometimes changes upon the realization that it performs other functions that are more valuable through the continuous usage by staff.

5.2.2 Factors that influence loan officer's decision to provide credit to SMEs

1. The results of the study shows that the loan officer's perception of SMEs honesty in terms of financial reporting and competence through the quality of their financial reporting are very instrumental in deciding their fate as to whether their loan applications will be approved by the microfinance institution.

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2. The control variables (Profitability, Collateral and Growth prospects) were also found to be influential in Microfinance Loan Officer's decision to extend credit to SMEs or the otherwise.

5.2.3 The relationship between financial reporting benefits of AIS and access to credit

Honesty and Competence which was conceptualized by the researcher as the financial reporting benefits of using AIS were found to be positively related with SMEs access to credit from microfinance institutions.

5.2.4 The impact of the application accounting information system on SMEs borrowing cost.

1. The results of the study depict a statistically significant (at 1%) negative relationship between AIS and borrowing cost. This means that the more SMEs adopt and use AIS, the lower their borrowing cost.
2. Also, all the control variables used for the model (Profitability, Collateral and Growth prospects) were found to have a statically negative and significant relationship with borrowing cost at 5% level of significance.

5.3 Conclusions

In finding answers to SMEs motivation for adopting accounting information system, the findings of the study revealed that SMEs adopt AIS to improve their decision-making quality from the data reported to managers and also to maintain the quality level of this information.

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Also on the Factors that influence loan officer's decision to provide credit to SMEs, the findings revealed that the loan officer's perception of SMEs honesty in the area of financial reporting and competence through the quality of their financial reporting as well as Profitability, Collateral and Growth prospects were are very instrumental.

Moreover, in determining the impact of the application accounting information system on SMEs borrowing cost the study discovered that AIS, Profitability, Collateral and Growth prospects had a negative and statistically significant relationship with SMEs cost of borrowing.

5.4 Recommendation

The study provided the following recommendations base on the outcomes of the study;

1. The study revealed SMEs adopt AIS to improve their decision-making quality from the data reported to managers and also to maintain the quality level of this information. This implies that the adoption and usage of AIS will help deal with data inaccuracies and other forms of manual-related errors. The study therefore recommends that SMEs who have not adopted or are not applying AIS at the workplace should do so to improve the quality of their financial reporting. This calls for some cash outlays and so as part of the recommendations is that the government should help provide subsidized loans to these SMEs to be able to procure these AIS. This was also confirmed when the loan officer's perception of SMEs honesty in terms of financial reporting and competence through the quality of their financial reporting were influential in their quest to provide credit to SMEs.
2. The findings further revealed the AIS had a negative and statistically significant relationship with SMEs cost of borrowing. This means that the

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application of AIS by SMEs can help lower their cost of debt which will intend shore up their profitability. Therefore, we recommend that the NBSSI (National Board for Small Scale Industries) and other regulators of SMEs in Ghana, in their attempt to sustain businesses and increase employment should put out strategic plans that will see to it that majority of the SMEs in Ghana use AIS.

5.6 Suggestions for Further Research

This study sought to assess the impact of the application accounting information system on SMEs borrowing cost. A sample can be taken from other institutions in other regions in the country to find out what persists there.

Also in assessing the impact of the application accounting information system on SMEs borrowing cost, questionnaire was used as the only instrument for data collection. Future studies should try using interviews as a method of data collection.

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APPENDIX

RESEARCH QUESTIONAIRE

The adoption, credit access and impact of accounting information system on SME's borrowing cost.

PART A (SME): SMEs motivation for adopting Accounting Information System

ISSUE	QUESTION
Introduction	1. What role do you perform on the use of AIS by your institutions?
	2. How would you define AIS and how is it organized?
	3. How would you define Accounting Information Systems?
Motivation for adopting Accounting Information Systems	1. How is information technology used in the field of accounting in general?
	2. what made you implement "name of AIS"?
	a. Resources
	b. easy to use
	c. Legal requirement
	d. comes with so many benefits
	e. Other

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PART B: SOCIO-DEMOGRAPHIC INFORMATION (LOAN OFFICER)

1. Sex: Male [ ] Female [ ]

2. Age: 18-30 years [ ] 31-40 years [ ] 41-50 years [ ] 51-60 years [ ]

3. Level of education

SSCE/WASSCE [ ] HND/Diploma [ ] First Degree [ ] 2nd Degree [ ]

PhD [ ]

4. Number of years operated with the microfinance Institution

Less than 5 years [ ] 5-9 year [ ] 10-14 years [ ] Over 14 year [ ]

PART B1: Factors that influence Loan Officer's decision to provide credit to an SME

Please indicate which of the items below influence your decision to accept or reject a loan from an SME by answering on the scale of 1 to 5 with **1- Strongly agree, 2- Agree, 3- Not sure, 4- Disagree, and 5 – Strongly disagree**

No.	ITEM	1	2	3	4	5
1.	My perceived Honesty of the SME financial data is very key in my decision to approve a loan application					
2	If I have the perception of the SME being competent with their financial reporting, I approve their loan applications.					
3	Once the profitability of the SME is okay, I approve the loan application					
4	The SME needs to have a sufficient collateral before I approve the loan application					
5	The SME must have a considerable prospect for growth before I approve the loan application					
6	There are other factors that determine whether I will approve a loan application or not					

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PART B2: THE RELATIONSHIP BETWEEN AIS BENEFITS AND ACCESS TO CREDIT

Please indicate your level of agreement with the following issues on a rating scale of 1-5 with ***1 being Strongly Agree, 2 means Agree, 3 meaning Not sure, 4 Disagree and % Strongly Disagree***

No.	Factors	1	2	3	4	5
1.	I see SMEs to possess high level of honesty when it has adopted and used Accounting Information System at the workplace.					
2.	SMEs who have adopted and used AIS are competent organization					

PART B3: The Impact of Accounting Information system Adoption on SMEs Borrowing

Please indicate your level of agreement with the following issues on a rating scale of 1-5 with ***1 being Strongly Agree, 2 means Agree, 3 meaning Not sure, 4 Disagree and % Strongly Disagree***

No.	Factors	1	2	3	4	5
1	An SMEs that has adopted and applied AIS gets a relatively lower cost on its loan compared to an SME that has not adopted and applied AIS					
2	SMEs with a relatively better profitability measures gets a lower interest cost on the loan as compared others.					
3	If the SME has relatively good collateral, he gets a lower cost on their loan.					

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4	The quality and amount of Collateral offered by SME is key in determining the cost of loan					
5	An SME with relatively higher prospects of growth gets a relatively lower cost on its loan.					