

MAKERERE UNIVERSITY

ICT ADOPTION, MANAGERIAL COMPETENCY AND FINANCIAL PERFORMANCE OF SMALL AND MEDIUM-SIZED CONFECTIONERY ENTERPRISES IN WAKISO DISTRICT UGANDA

BY

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PLAN A

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DECLARATION

I Yiga Mathias, do here by declare to the best of my knowledge that this dissertation is my own original work and has never been submitted to any university or institution of higher learning for any award.

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APPROVAL

This is to certify that this dissertation has been submitted with the approval of the following academic supervisors.

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Table of Contents

DECLARATION i
APPROVAL ii
ACKNOWLEDGEMENT iii
LIST OF TABLES vii
LIST OF FIGURES viii
LIST OF ACRONYMS ix
ABSTRACT x
CHAPTER ONE 1
1.0 Introduction 1
1.1 Background of the study 1
1.2 Problem statement 4
1.3 Purpose of the study 5
1.4 Specific objectives 5
1.6.0 Scope of the study 5
1.6.1 Geographical scope 5
1.6.2 Content scope 6
1.5 Research questions 6
1.6 Significance of the study 6
CHAPTER TWO 9
LITERATURE REVIEW 9
2.0 Introduction 9
2.1 An overview of the confectionery enterprises 9
2.2 ICT Adoption by small and medium-sized confectionery enterprises 10
2.2 Managerial competency of confectionery enterprises 14
2.3 Financial performance of confectionery enterprises 16
2.4 Relationship between ICT adoption and financial performance 17

2.5 Relationship between Managerial Competence and Financial Performance.....18
2.6 Relationship between ICT adoption, managerial competence and financial performance.....20
CHAPTER THREE.....21
METHODOLOGY.....21
3.0 Introduction.....21
3.1 Research Design.....22
3.2 Study Population.....22
3.3 Sample size and Sampling method.....22
3.4 Data sources and Collection Instruments.....23
3.4.1 Primary sources.....23
3.4.2 Secondary sources.....24
3.5 Measurement of the variables.....24
3.6 Validity and Reliability.....25
3.7 Data Processing and Analysis.....26
3.8 Ethical considerations.....27
CHAPTER FOUR.....28
PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS.....28
4.1. Introduction.....28
4.2. Response rate.....28
4.3. Background characteristics.....28
4.2.1 Gender characteristics of respondents.....29
4.2.2 Age group of respondents.....30
4.2.3 Education level of respondents.....31
4.2.4 Duration of Service with Organization.....32
4.2.3 Job rank of respondents.....33
4.2.4 Descriptive Statistics for the study variables.....34
4.6. Relationship between the study variables.....41

4.6.1. Correlation Statistics results 41
4.6.1.1. Relationship between ICT adoption and financial performance..... 43
4.6.1.2. Relationship between managerial competency and financial performance 44
4.7.2. Regression analysis 44
CHAPTER FIVE: 47
DISCUSSION, CONCLUSION AND RECOMMENDATIONS 47
5.1. Introduction.....47
5.2. Discussion of findings.....47
5.2.1. Relationship between ICT adoption and financial performance..... 47
5.2.2. Relationship between managerial competency and financial performance 48
5.2.3. Relationship between ICT adoption, managerial competency and financial performance 49
5.3. Conclusion 50
5.4. Recommendations.....51
5.5. Limitations to the study 52
5.6. Areas of future research 53
References.....54
1.0 Appendix I: Questionnaire.....60

LIST OF TABLES

Figure 1.7 Conceptual framework of the study 7

Table 3.1: Validity and reliability statistics for the study variables 26

Table 4.1 Frequency Distribution for Gender of Respondents 29

Table 4.2 : Frequency Distribution for Age of Respondents 30

Table 4.3: Frequency Distribution for Education level of Respondents 31

Table 4.4: Frequency Distribution for Years of Service of Respondents 32

Table 4.5: Frequency Distribution for Job Rank 33

Table 4.6: Descriptive statistics results for the study variables 34

LIST OF FIGURES

Figure 1.7 Conceptual framework of the study……8

LIST OF ACRONYMS

SMEs	Small and Medium sized Enterprises
GDP	Gross Domestic Product
ICTs	Information and Communication Technologies
IT	Information Technology
NITA-U	National Information Technology Authority of Uganda
OECD	Organization for Economic, Co-operation and Development
SPSS	Statistical Package for Social Science
UBOS	Uganda Bureau of Statistic
PSFU	Private Sector Foundation Uganda
MSME	Micro, Small and Medium Enterprise
CVI	Content Validity Index
CAC	Cronbach Alpha coefficient

ABSTRACT

This study attempts to examine the relationship between ICT adoption, managerial competency and financial performance of small and medium sized confectionery enterprises in Wakiso district in Uganda. Quantitative research methods was used to collect, analyze and present the data. Survey questionnaires were used to collect data from a sample of 43 SME confectionery enterprises and data from 5 staff members of each confectionery enterprise was obtained bringing a total of 215 respondents. Out of this only 181 questionnaires were returned constituting a response rate of 84.2%. Data was analysed using descriptive statistics, correlation and multiple regression analysis methods. The data obtained from the field was tested for validity, reliability and analysed using SPSS and results presented based on the study objectives. The empirical findings from the study revealed that there is a positive significant relationship between ICT adoption, managerial competency and financial performance of small and medium sized confectionery enterprises in Uganda. In the findings, both ICT adoption and managerial competency significantly predicted financial performance although managerial competency was found to be a better predictor of financial performance. The study therefore recommends the need for government to support small and medium sized confectionery enterprises, sensitization on the benefits of ICT adoption, the need for the managerial team to be equipped with managerial technical skills, managerial technical knowledge and managerial behaviour so as to improve financial performance of the confectionery enterprises.

Key Words: *ICT adoption, Managerial Competency, Financial Performance of Confectionery enterprises.*

CHAPTER ONE

1.0 Introduction

This chapter presents an overview of the research starting with the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, scope of the study, significance of the study, conceptual framework and the organizations of the study.

1.1 Background of the study

In an era of ever-increasing stiff competition among small and medium sized enterprises (SMEs), achieving steady financial performance has become a key element towards the success of any SMEs. The financial performance among this SMEs has continued to attract the interest of academicians and policy makers across the globe over several decades (Afrifa et al., 2014; Kasekende, 2018; Mangena et al., 2012); because of its implications on the ultimate survival of businesses (Nyabwanga et al., 2012; Gulet al., 2013; Ssekakubo et al., 2014). Financial performance reflects management effectiveness and efficiency in making use of a firm's resources, and this, in turn, contributes to the country's economy at large (Kamukama et al., 2017; Akisimire et al., 2016). In Africa, several SMEs have collapsed, and one of the reasons for such collapses is poor financial performance. 70% of SMEs in South Africa collapse within the first five years of operation (Solomon et al., 2013), 70% of SMEs collapse within 24 months in East Africa (Ojiambo, 2016) were Kenya alone is about 46% of SMEs close within a year of founding, and another 15% in the year after that (Kangethe, 2018). In Uganda, the poor financial performance of SMEs businesses is evident in the continuous collapses, 30% of them do not survive to celebrate even their third anniversary (Afunadula, 2018).

Uganda like most other African and developing nations, SMEs are the vital drivers of economic growth (Rwakakamba, 2011). Uganda being ranked the most entrepreneurial country (GEM, 2009), but the failure rate of businesses is high, with about 30% of SMEs surviving to celebrate their third anniversary (Afunadula, 2018) Failure rates are a reflection of poor financial performance, a concern that cannot be ignored. Since business to survive, it must be in a position to have continuous revenue growth, profitability, ability to meet the obligations when they fall due and accountability (Olowolaju, 2013; Danlami, 2016). In this study, we consider those businesses identified in the census of business establishment 2018/19, which was conducted by the Uganda Bureau of Statistics in the category of bakery firms (Uganda Bureau of Statistics, 2018). Bakery firms also known as confectionery firms dealing in manufacture of confectionery products such as bread, cakes, biscuits, buns, doughnuts, among other processed foods (Uganda Manufactures Association, 2019). According to the Uganda Ministry of Trade, industry and Cooperatives (2019) and the Allied market research (2019), such confectionery enterprises are faced with stiff competition given that they produce daily consumables products which are consumed on a daily basis globally and this industry is rapidly growing. Uganda has over 150 small and medium sized confectionery enterprises dealing in either food processing or dealing in manufacture of confectionery products. Due to the stiff competition among the many competitors in the confectionery industry, efficiency of production and managerial capability has also become a key factor in addition to the diversification of the products which can determine the sustainability of the confectionery enterprise as well as its financial performance (Retnaningsih, 2015) It is from this background that this study draws attention to factors such as ICT adoption and managerial competence and particularly how they influence the financial performance of confectionery firms in Wakiso District in Uganda.

In relation to managerial competence, Mishra et al., (2014), noted that having a competent management with relevant managerial skills, knowledge and behavior is an essential contributor to the financial performance of many confectionery enterprises since it focuses on ensuring that management is effectiveness and efficiency in making use of firm's resources and this in turn contributes to satisfy customers and suppliers. (Kamukama et al., 2017; Akisimire et al., 2016). Further, Ssekakubo et al. (2014) pointed out that managerial competence is a valuable resource since it enables small and medium sized confectionery enterprises to attain financial performance and that it involves knowledge, skills, personal traits and abilities which are predictors of success towards financial performance of confectionery enterprises.

On the other hand, ICT adoption is another determinant of a firms' financial performance that can be considered to be a mean to enable confectionery enterprises to compete on global scale thus leading to improvements in profitability, revenue growth, accountability and reduction of costs (Alam & Noor, 2009). Adoption of ICT is recognized as crucial condition enabling confectionery enterprises to consider information and communication technology as an important implement in their business so as to take competitive advantage from the global markets (Manochehri, Al-Esmail and Ashrafi 2012)

According to Pike and Roos (2004), financial performance is the ability of firms to operate efficiently, profitably, revenue growth, being able to meet it dues when fall due, to survive, and react to the environmental opportunities and threats. In fact, financial performance is a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Bititci et al., 2007)

1.2 Problem statement

In Uganda, SMEs represent over 90% of business firms with many of them dealing in trade, agro-processing, small and medium manufacturing were small and medium sized confectionery enterprises belong (Uganda Bureau of Statistics,2018; Kasekende,2018; Ssentamu, 2016; Turyahebwa *et al.,* 2013). Despite individual firm's efforts in adopting modern management techniques and government's heavy investment in information technology to enhance SME performance, the financial performance of many of these small and medium sized confectionery firms in Uganda has remained poor as indicated by increasing negative net cashflows resulting from high operational expenses in excess of their net sales revenue and undesirable profit margins (Kasekende, 2018; Ojiambo, 2016). Over 70% of SMEs in Uganda exist and collapse barely 24 months in existence for issues relating to accountability, liquidity, profitability, sales performance (Kangethe,2018; Ojiambo, 2016; OECD, 2017:2018).

In his assertion, Mutambi (2013) stated there are several disadvantages that hinder the success and prosperity of many small and medium sized confectionery enterprises making them fail within the initial years of operation. It is further reported that other than poor management strategies, SMEs particularly confectionery firms are also faced with competition amongst themselves and also from major supermarkets who now do in-house baking of their confectionery products (Sserunjogi, 2013). OECD report (2017) also indicated that majority of the small and medium sized confectionery enterprises were lagging behind due to pitiable management skills and despicable digital technologies. Therefore, it is from this background that the researcher sought to investigate whether ICT Adoption and Managerial Competency has an effect on financial performance of selected small and medium-sized confectionery enterprises in Wakiso District Uganda.

1.3 Purpose of the study

This study therefore, sought to examine the influence of ICT adoption and managerial competency on the financial performance of small and medium sized confectionery enterprises in Uganda.

1.4 Specific objectives

i. To examine the relationship between ICT adoption and financial performance within small and medium sized confectionery enterprises in Wakiso District

ii. To examine the relationship between Managerial competency and financial performance within small and medium sized confectionery enterprises in Wakiso District.

iii. To examine the relationship between ICT adoption, Managerial competency and financial performance within small and medium sized confectionery enterprises in Wakiso District.

1.6.0 Scope of the study

1.6.1 Geographical scope

The study was carried out within small and medium sized confectionery enterprises located in Central region of Uganda particularly Wakiso district. This district was chosen because of the available evidence indicating that majority of confectionery firms are located in Wakiso district (UBOS, 2016) and are engaged in production of a wide variety of baked products and majority of the confectionery firms' clients are situated in the Central region of Uganda. This gave the researcher a higher chance of reaching out to many confectionery enterprises and hence studying the problem of financial performance of small and medium sized confectionery enterprises deeper.

1.6.2 Content scope

The study concentrated on three variables, namely, ICT Adoption, Managerial Competency and Financial Performance of small and medium sized confectionery enterprises. ICT Adoption and Managerial Competency constituted the independent variables, while Financial Performance is the dependent variable.

1.5 Research questions

i. What is the relationship between ICT adoption and financial performance within small and medium sized confectionery enterprises in Wakiso District?

ii. What is the relationship between Managerial competency and financial performance within small and medium sized confectionery enterprises in Wakiso District?

iii. What is the relationship between ICT adoption, Managerial competency and financial performance of small and medium sized confectionery enterprises in Wakiso District?

1.6 Significance of the study

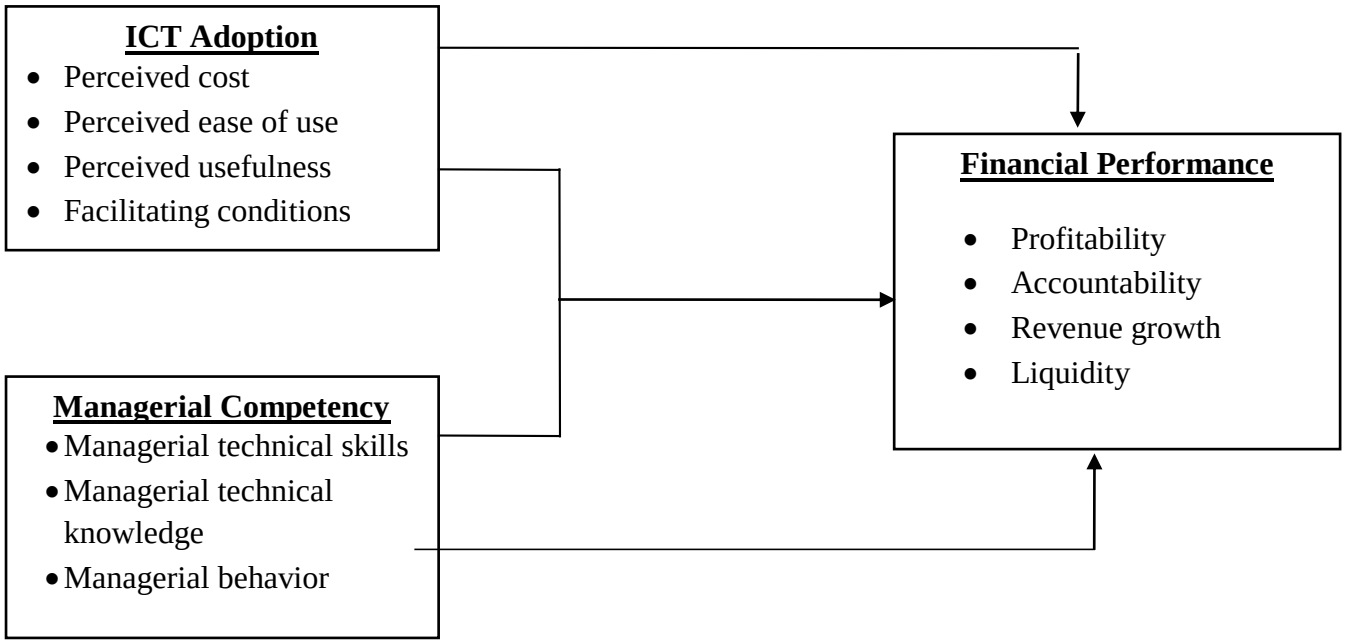
The study highlights key issues that could be affecting the achievement of financial performance targets within small and medium sized confectionery enterprises in Wakiso District, and thus will propose possible recommendations for improvement. These include ICT adoption, Managerial competency and other practices that are core in improving financial performance among small and medium sized confectionery enterprises in Wakiso District.

To practitioners especially management and CEOs of confectionery firms in Uganda, the study findings could be used to identify best strategies for improving financial performance. Similarly, the study findings could be greatly used by responsible authorities and ministries such as ministry of ICT and NITA-Uganda that are responsible for establishing sound fiscal

policies for effective adoption and implementation of ICT among small and medium sized confectionery enterprises in Uganda.

To future researchers and scholars, the literature generated by this study could be used as a source of reference for similar studies using one or more of the variables in the study. Thus they can utilize the literature to extend more examination of financial performance issues within confectionery enterprises in Uganda and beyond.

Figure 1.7 Conceptual framework of the study



Source : *Adopted from TAM model by Davies et al. (1989) ; Bourne & Franco-Santos (2010); Ssentamu (2015); Eniola et al. (2016); UTAUT model by venkatesh et al. (2003) ;* Dess & Robinson (1984)

From the above conceptual framework, it is indicated that financial performance is a function of ICT adoption and managerial competency of small and medium sized confectionery enterprises. In the framework, ICT adoption and managerial competency are the independent variables. The model illustrates that whereas there could be many variables influencing financial performance, this particular one focused on ICT adoption and management competency. Specifically, the framework indicates that for financial performance, ICT adoption in relation to perceived cost, perceived ease of use, perceived usefulness and facilitating condition. These constructs were emphasized by venkatesh *et al. (*2003); *Davies et al. (1989)* as realistic predictors of financial performance of business enterprises.

Similarly, in complete agreement with Mishra *et al.,* (2014); Ssekakubo *et al.* (2014) and Ssentamu (2015), managerial competency will be conceptualized in terms of Managerial technical skills, Managerial technical knowledge and Managerial behavior. Furthermore, the framework illustrates that in order to measure financial performance adequately, aspects of Profitability. Accountability, Revenue growth and Liquidity take centre stage as articulated by Kisanyanya (2018); Eniola *et al.* (2016); Dess & Robinson (1984)

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews what past researchers have done and discussed, the different modes by various authors relating to ICT adoption, managerial competency and financial performance of small and medium sized confectionary enterprise. The different relationships that do exist such as relationship between ICT adoption and financial performance, relationship between managerial competence and financial performance and relationship between Ict adoption, managerial competence and financial performance. Bring out the influence of ICT adoption and managerial competence on financial performance of confectionary enterprise in Uganda. The various elements that contribute to the financial performance of confectionary enterprise will be discussed in this chapter.

2.1 An overview of the confectionery enterprises

According to Wolf, (2001) regardless of size of the industry or business every enterprise contributes a noticeable portion to the economic and social development of the country it operates in. It is similarly a well-known fact that the business sector contributes significantly to the Gross Domestic Product (GDP) of both developed and developing countries. Various scholars refer to these drivers and enablers, or cornerstones for the advancement of the business sector (Apiyo & Kiarie,2018; Billon, Marco, & Lera-Lopez,2017; Cirera, Lage, & Sabetti,2016 Grazzi & Jung,2015). Similarly, the tools are considered as the bedrock for the sector's growth (United Republic of Tanzania [URT], 2018).

In order to mitigate some of these challenges, the government of Uganda has embarked on several initiatives to ensure that the business environment favors all SMEs including small and medium-sized confectionery enterprises as way to attain long term success. For instance, the Private Sector Foundation Uganda (PSFU) is an initiative with the mandate of providing business information, business training, skills development, trade development, and financial support to all players in the private sector including small and medium sized confectionery enterprises (PSFU, 2018). The Uganda ministry of trade, industry and cooperatives also came up with the Micro, Small and Medium Enterprise (MSME) Policy to guide and support the operations of many SMES including small and medium sized confectionery firms in the country (Ministry of Trade, Industry and Cooperatives, 2015), financial institutions such as banks and microfinance institutions offer funding to small and medium sized confectionery enterprises at unfavorable interest rates (Businge, 2017). Available statistics on the other hand indicate ultimately success (Abesiga, 2015)

2.2 ICT Adoption by small and medium-sized confectionery enterprises

ICT adoption in this study refers to the wide range of computerized information communication Technologies such as desktop computers, laptops, mobile devices, business productivity software, such as text editor, spreadsheet, business audit software, data storage, network security and many others, that enterprises such as small and medium-sized confectionery enterprises can adopt and use so as to improve on their efficiency and ultimately financial performance (Enríquez *et al., 2015)*. ICTs adoption has become an integral part and catalysts for business processes for many enterprises, becoming support tools for business management and thus generating financial sustainability of SMEs over time (Stern, 2002). Many businesses today have widely adopted ICTs and these are helping to rapidly change global production,

work, business methods, trade and consumption patterns in and between enterprises and consumers (Alam and Noor, 2009).

According to Alam and Noor (2009) ICT adoption is considered to be a means to enable businesses such small and medium sized confectionery enterprises to compete on a global scale, with improved efficiency, and closer customer and supplier relationships. Therefore the ICT adoption is recognized as crucial condition enabling SMEs such small and medium-sized confectionery enterprises to consider information and communication technology as an important implement in their business to take competitive advantage from the global markets.

ICT adoption and application increase opportunities to find innovative solutions for handling processes and product management, allowing businesses to thrive in competitive markets (Diaz Chao, 2015; Franco & Garcia, 2017; Kossai & Piget, 2014; Organization for Economic Co-operation and Development, 2004). In addition to enhancing business processes such as the production of goods, facilitating the usage of other technologies. Similarly, when looking at businesses in the sense of models, ICT adoption play a vital role in ensuring that all models [such as business-to-business (B2B), business-to-consumer (B2C) and supply chain management (SCM)] function properly (Cirera et al., 2016).

Several empirical studies exist that study the adoption of ICTs by SMEs (Alam & Noor, 2009; Ladokun *et al.*, 2013; Tarute and Gatautis, 2014; Chairoel *et al.*, 2015) and many of these studies have examined the factors that influence adoption of ICTs. For instance, Chairoel *et al.* (2015) examined factors such as Technology/Innovation of ICT, Compatibility, Complexity, Observability, Security, Perceive relative advantage. On the other hand, Alam & Noor, (2009) identified factors such as perceived usefulness, perceived cost, perceived ease of use and facilitating condition as the ones affecting adoption of ICTs among SMEs enterprises in Malaysia. Tarute and Gatautis (2014) also argued that existence of supporting infrastructure,

Skilled ICT personnel, and budget to invest in ICTs directly or indirectly influence adoption of ICTs by SMEs enterprises.

Franco and Garcia (2017) found ICTs as a source of innovative solutions for the competitive development of businesses. ICTs is dynamic efforts towards creating sustainable growth in firms. One of the unquestionable contributions is on the ways ICTs support business processes. Evidently, ICTs provide opportunities for coming up with enhanced and innovative ways of expanding markets and improving performance (Grazzi **& Jung, 2015).**

Unified Theory of Acceptance and Use of Technology (UTAUT)

The models of technology acceptance, Vankatesh, Davis and Morris proposed, UTAUT (Vankatesh et al., 2003). UTAUT has four key constructs which are present as performance expectancy, effort expectancy, social influence and facilitating conditions. UTAUT model is useful for analyzing issues involved in the identification of skills and competencies, and specific training to achieve an understanding of predictors of actual usage of technology. (Sarah and Haddow, 2011). UTAUT theories not only has four main key construct but also there are three additional constructs which are anxiety, perceived credibility and attitude toward using. This construct are theorized not to be direct determinants of intention. (Vankatesh, Morris,Davis, 2003). The UTAUT construct was develop from 8 models which are Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behavior (TPB), Model of PC Utilization (MPCU) and Innovation Diffusion Theory (IDT). Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM)

Most known as technology acceptance model (TAM), was proposed by Davis (1989). The intention of the development of the model TAM resulted from an IBM Canada contract with

the Massachusetts Institute of Technology - MIT, in the 80s to evaluate the market potential to new products of the brand and to make it possible an explanation of the determinants of computers use (Davis; Bagozzi; Warshaw, 1989). Davis (1989) proposed the TAM to focus in the reason the users accept or reject the information technology and how to improve the acceptance, offering, this way, a support to foresee and explain the acceptance. The validation of the TAM model was based in the acceptance of a software text editor (Davis, 1989; Battacherjee, W. (2000). 12 Battacherjee, W. (2000) adds that Davis (1989) on this sample found out that the perceived use had higher impact in the behavior than the perceived facility. The TAM has the advantage of being specific to information technology and has a strong theoretical base, besides the wide empiric support, as claims Davis (1989). The model TAM was designed to comprehend the causal relation between external variables of user's acceptance and the real use of computer, trying to understand the behavior of this user through the utility knowledge and use facility perceived by him (Davis, 1989). For Davis (1989) the people tend to use or not certain technology with the objective to improve his performance at work - perceived use. However, even if this person understand that determined technology is useful, its use may be damaged if it is too complicated, in a way that the effort is not worthwhile the use - perceived facility. This way, the TAM is based basically in two constructs: the perceived utility and the perceived facility, seeing that both measured completely the effects of external variables, such as features systems, development process, training, in the use intention (Davis, 1989). The intention of this model is to represent the impact of external factors related to the information system, under those internals of the individual, as the attitudes and use intentions (Davis; Bagozzi; Warshaw, 1989; Davis 1989; Dillon; Morris, 1996; Lee et al.2003). Davis, 13 Bagozzi, and Warshaw (1989) presuppose that the saved effort, due to the improvement in the perceived usefulness ease may be applied in other tasks, consequently allowing that one

person carry out more work with the same effort, this way having a direct effect in the perceived usefulness. The effects of external factors in the use intention are mediated by usefulness and ease (Davis; Bagozzi; Warshaw, 1989; Dillon; Morris, 1996; lee et al., 2003; Battacherjee, W. 2000; Venkatesh et al,, 2003). The theory of Acceptance Model (TAM) is important to the study as it is aimed at predicting and explaining what causes potential adopters to accept or reject the use of information technology.

2.2 Managerial competency of confectionery enterprises

Asumeng, (2014) define managerial competency as a mix of behavioral, knowledge and skills that are needed for an effective performance of any enterprise. Enterprises such as confectionery companies with a competent management made of traits such as knowledge, skills and behavioral abilities are in position to attain success in their business endeavors. This is because managerial competencies help such confectionery enterprises to be more unified and allowing management to apply a coordinated approach in designing improvements to employees, organizational development as well as career management for better coordination and integration (Hawi *et al.*, 2015). Managerial competency being one of those rare and valuable resources that involves knowledge, skills, personal traits and abilities which are predictors of firm's financial performance (Ssekakubo *et al.*, 2014).

Bhardwaj (2013) on the other hand made an analysis of the different aspects of managerial competency as reviewed from other authors, in his analysis, he found managerial competency by Lala (1986) to involve communication, decision making, humility and love, compassion, vision, team-work, training, stamina, integrity, management, and courage. Whereas Smart (1998) managerial competency aspects included intelligence, analytical skills, strategic skills, judgment and decision making, risk taking, team player, communications, assertiveness, ambition, adaptability, creativity, and balance of work and life. Abraham *et al.* (2001) found

managerial competence to include leadership skills, customer focus, result orientation, problem solver, communication skills, and Team leader.

According to Pundit (2001) managerial competence are commitment, persistence, risk-taking, difference, values, learning, persuasiveness, focus, humility, leadership skills, customer focus, result orientation, problem solver, and communication skills. Tarwirei (2015) defines managerial competence to include Skills (acquired competencies), Knowledge (acquired mental processing skills) and Experience (skills acquired from repetition from which skills refers to those capabilities acquired through practice. Individual ability or capacity acquired through systematic sustained effort, *knowledge* on the other hand being referred to as the contents people have to know in order to perform a task effectively and efficiently such as rules, policies or recruitment process. Whereas, Experience refers to those Manager's skill, practices and knowledge gained from direct observation, involvement, acquaintance or exposure and familiarity with a particular activity.

Ghiselli (2003) determined specific psychological traits considered important to managerial performance. Katz (2004) investigated management competencies and claimed that managers at all levels required technical, human, and conceptual skills. Stewart (2001) identified ''leading-edge competencies'' considered important for effective management these competencies include long term vision, ability to implement change, having customer and market orientation, willingness to empower, entrepreneurial flair, ability to use teams and think laterally, and ability to demonstrate emotional stability and openness.

In Uganda many confectionery enterprises seem to be lacking the requisite managerial competencies mentioned in the earlier paragraph that would enable them to competently manager certain activities within their enterprises (Balunywa, 2003). This is because some of the entrepreneurs of this confectionery enterprises have a poor education background, lack

experience, and are not creative enough, lack business skills and knowledge to perform their work which in turn affects financial performance of the business (Nakiyingi, 2010). Therefore, it can be asserted that majority of the confectionery firms within Uganda do lack the requisite managerial competency and this partly explains why many confectionery firms have closed.

2.3 Financial performance of confectionery enterprises

According to Odongkara, (2016) financial performance involves measuring the result of a firm's policies and operations in monetary terms and this can be measured in terms of profitability, liquidity, accountability, revenue growth and among others (Kisanyanya, 2018; Ssentamu, 2015; Mawanda, 2008). According to Samiloglu and Demirgunes (2008), firm's financial performance is generally regarded as an important precondition for long-term firm survival and success; moreover, the variable significantly affects the firm's achievement of other financial goals thus financial performance cannot be analyzed in its exception.

According to Ssentamu (2015) financial performance is an aspect of control which indicates how far corporate strategies and objectives could have been met. It is also looked at as the ability of an enterprise to meet its specific objectives measured against its known benchmarks (Business Dictionary, 2014; Tarwirei, 2015). It is worth noting that financial performance of confectionery enterprises requires effective strategies so as to achieve maximum growth and profitability. Financial Performance is often measured to ascertain whether there is need to reinforce action or to diverse alternative course of action (Ssentamu, 2015). More so, an analysis of financial performance facilitates comparison, allocation of scarce resources and assessment of the profitability level in order to formulate realistic projections for future performance so as to helps the organization to translate its strategy into results and provides feedback towards achieving the goals of the organization (Simmons, 2000; Abesiga, 2015).

In order to measure the financial performance of confectionery enterprises, proxies like profitability, return on asset, liquidity, solvency, and sales growth as extracted from the financial statements and reports can be used (Githaig and Kabiru, 2015; Tarwirei, 2015). This is in line with Santos and Brito, (2012) who argued that assessment of a firm's financial performance can be carried out on three core areas which include; profitability, growth and market value. These are referred to as objective measures of performance of an enterprise. Other measures of financial performance focus on Liquidity, Accountability and Reporting (Eniola *et al.*, 2016).

Although financial performance measures are regarded as key in measuring the performance of an enterprise (Abesiga, 2015), other authors argue that they are not adequate enough. For instance, performance measurement approaches based on profitability can sometime be misleading given that the profit measure does not change immediately and thus there is a need for leading indicators that capture 'future' performance (Chumba, 2016; Tarute and Gatautis, 2014). It is also argued that financial performance measures give feedback on historical performance of firms, which gives room for manipulation (Amoah-Mensah, 2013).

2.4 Relationship between ICT adoption and financial performance

Universally, studies on the influence of ICT adoption on improving financial performance of SMEs confectionery enterprises have been conducted by numerous scholars and academia with many proponents arguing that ICT adoption are vital in improving financial performance of various SMEs including confectionery enterprises (Alam and Noor, 2009; Ndiwalana, *et al.*, 2009; Tarute and Gatautis 2014; Enríquez *et al.*, 2015; Chairoel *et al.*, 2015). Notably, a recent study by Enríquez *et al.* (2015) revealed that adoption of ICT positively impacts on the financial performance of enterprises. Particularly, enterprises that innovated their processes with ICTs experience a positive effect on their financial performance.

Enterprises that had implemented ICTs in their production processes benefited with better levels of productivity, hence improved profitability resulting from improvements in the management of information technology. Likewise, Chairoel *et al.* (2015) indicated that the adoption and efficient use of ICTs in confectionery enterprises leads to increased enterprise performance, productivity and access to market for which enterprise performance includes increase in revenue growth, market share and profitability hence improved financial performance. This is consistent with Ladokun *et al.* (2013); Tarute and Gatautis (2014) who argued that adopting ICT has a positive effect on firm performance in terms of productivity, profitability, market value and market share hence improved financial performance.

Most scholars therefore argue that there is indeed a relationship between ICT adoption and financial performance (Ndiwalana, *et al.,* 2009; Alam and Noor, 2009). This is because SME profitability, market share, productivity, among others increase due to ICT usage (Ndiwalana, *et al.,* 2009). However, Chowdhury & Wolf (2003) in his survey conducted in Tanzania and Kenya found that there is no significant impact of ICT investments on financial performance of SMEs. Therefore, there is need to take caution that not only ICT adoption could lead to improved financial performance given that other factors too can lead to improved financial performance of SMEs. From the above, we therefore assert that;

H1. *ICT adoption has a significant positive effect on financial performance of small and medium sized confectionery enterprises*

2.5 Relationship between Managerial Competence and Financial Performance

According to Chye et al., (2010); Turyahebwa, (2013) firm's financial performance depends on market imperfections and managerial decisions. Opler and Titman (2004) assert that the efficient use of resources depends on the decisions of the management team. Similarly, Enders

(2004) added that firm differences are therefore outcome of superior management. Dittmar and Mahrt-Smith (2007) also noted that better managed firms generate almost double profitability than poorly managed ones. Kyereboah-Coleman and Biekpe (2006) observed that poorly managed firms have more sustainability issues than better managed ones. In other words the quality of management is an important driver towards the firm's financial performance. Stokes and Oiry (2012) noted that managerial competence being rare and valuable resources it's important to any institution irrespective of the industry they highlighted that whenever the institution is financial performing well, it directly implies that they do have competent managerial staffs that make wise decisions to see the performing.

Managerial competence has been identified as a strategic imperative for improving financial performance among confectionery enterprises (Ssentamu, 2015; Anggadwita and Mustafi, 2013). In support of this view, Hawi *et al.* (2015) pointed out that having middle managers with managerial skills such as Team Leadership, Problem solving and decision making, Strategic skills and customer focusing competency will greatly, positively impact on the financial performance a firm.

Tarwirei (2015) who argued that managerial competence in terms of Skills (acquired competencies), Knowledge (acquired mental processing skills) and Experience (skills acquired from repetition) leads to improved financial performance of confectionery enterprise, because of the efficient execution and practice of managerial competencies.

Likewise, Purohit and Shah (2018) correspond that Managerial competence is an important aspect of management because not only does it improves their financial performance, but also influences other perspectives of balance scorecard. In a nutshell, Ssekakubo *et al.* (2014) stated that there was a significant relationship between managerial competency and financial performance in the sense that an improvement in the skills and knowledge of the Managers for

confectionery enterprises is associated with an improvement in profitability hence financial performance. Whereas a decline in the skills and knowledge of the managers could also lead to a decline in the profitability. Hence our hypothesis;

According to Amit and Schoemaker (2003), firm financial performance depends on market imperfections and managerial decisions about resources. A firm may achieve better rents not just because it has access to resources but because the core competencies of a firm better utilize these resources (Penrose, 2007; Enders, 2004). The quality of management is an important driver of firm performance. Enders (2004) reported that differences in firm performance result from management quality. He argues that management competence can therefore be used as a means to explain these differences. The many suggested characterizations of management competence generally refer to some key constituent elements of competence, such as knowledge, skills, organization, coordination, capabilities, learning, and professional relationships. Several qualitative methods have been used to measure management competence.

H2. *Managerial Competence has a significant positive effect on Financial Performance of small and medium sized confectionery enterprises*

2.6 Relationship between ICT adoption, managerial competence and financial performance

Managerial competence of human resource in terms of knowledge and skills coupled with adoption of modern technologies which brings about improved product quality, new product development, productivity and efficiency remain fundamental aspects in predicting financial performance for any organization (Anggadwita and Mustafi, 2013). In particular, competence of the human resource in terms of skills, knowledge and capabilities as well as technology

adoption coupled with other factors are strong determinants of SMEs financial performance (Anggadwita and Mustafi, 2013). This is also in agreement with Tarwirei (2015) who argued that SMEs performance is significantly affected by appropriate application of innovative technology and managerial experience.

However, while it appears that there is a relationship between ICT adoption, Managerial competence and financial performance, there is a dearth of literature relating these three variables in a single study. This study will therefore attempt to bridge this gap by examining the relationship between ICT adoption, Managerial competence and financial performance of small and medium sized confectionery enterprises in a single study.

It is worth noting that financial performance of confectionery enterprises requires effective management strategies coupled with adoption of appropriate technology to achieve maximum growth and profitability. In management, financial Performance is often measured to ascertain whether there is need to reinforce action or to diverse alternative course of action (Ssentamu, 2015).

H3. *ICT adoption and managerial competence have a significant positive effect on financial performance of small and medium sized confectionery enterprise*

CHAPTER THREE

METHODOLOGY

3.0 Introduction

Chapter three covers the methodological aspects of the study. It covers the research design, study of population, sampling design, source of data, methods of data collection and data collection instruments, measurement of variables, data analysis, ethical issues and limitation to the study.

3.1 Research Design

The study was conducted using a quantitative cross-sectional survey approach where data was collected at a particular point in time. The kind of research design was preplanned and structured, and was typically based on a large sample (Jackson, 2011). It described specific characteristics of the study variables, and data was generated that allowed relationships and associations between two variables to be identified (Sekaran, 2000). The study focused on the nature of the study objectives, a cross sectional survey design which deemed suit abled to gather quantitative data and make statistical predictions and correlations of factors. More so, the finds from cross-sectional study were generalized to the overall population, from which the samples were drawn (Field, 2009).

3.2 Study Population

The actual list of potential respondents from which the sample were selected included all those within the study area (Saha, 2008). The study population comprised of 48 small and medium sized confectionery enterprises based in central region of Uganda, particularly Wakiso district. The choice of respondents included employees (subordinates) involved in the confectionery enterprises such as line manager, supervisor, production officer, sales and marketing officers. The choice of the group was based on the assumption that such people are involved in the day to day running of these confectionery enterprises and therefore steer their confectionery enterprises towards improved financial performance.

3.3 Sample size and Sampling method

The size of the population that was sampled included approximately 48 registered small and medium sized confectionery enterprises in the district of Wakiso (UBOS,2016, and Uganda ministry of trade industry and cooperatives national industrial database-2019). The researcher

used a probability sampling selection technique under which he employed simple random method to select confectionery enterprise the in the study population of Wakiso district. Which data is to be used to represents the whole population of confectionery enterprises.

Forty three (43) confectionery enterprises were used as the representative sample which were supported by Krejcie and Morgan (1970) table of sample size selection, considering a 95% confidence interval and a 5% margin of error. The formula used by Krejcie and Morgan (1970) given in their sample size selection table. Five (5) subordinates were selected from each of confectionery enterprise to participate in the study, which brought the total of the selected respondents to 215.

Purposive sampling method was used to identify respondents involved in the finance departments and the day to day running of these confectionery enterprises. The purposive sample method is where the desired number of sample units were selected based on the subject of study. The main goal of purposive sample was to focus on particular characteristics of a population of interest that best enables us to answer our research questions (Etikan *et al.*, 2016). A sample in the method was selected based on experience and knowledge of the group to be sampled in a given phenomenon of interest (Cresswell and Plano Clark 2011)

3.4 Data sources and Collection Instruments

The researcher used both Secondary and primary sources of data while collecting data.

3.4.1 Primary sources

For the purposes of this research, primary data was collected from selected respondents, who voluntarily to participate in the study. The data collection tool used in the study was closed ended questionnaires. The instrument was adopted because it allows a systematic collection of information about the objectives of the study. The questionnaire was designed based on likert

scale and the values were assigned and graded on the scale of 5 to 1 in order of; 5-Strongly Agree, 4-Agree, 3- Not sure, 2-Disagree and 1-Strongly Disagree. As noted by Johns (2010), a 5-pointer likert scale provides a moderate number of choices for the respondent to select.

3.4.2 Secondary sources

For the purpose of this research, secondary data included textbooks, academic articles, reports from Uganda investment authority, census of business activity, Uganda bureau of Statistics, (UBOS) and journals related to confectionery enterprises and financial performances and a number of online resources to get information for the literature review and among others. These were used by the researcher to search for data as they contained more findings from different authors thus provided a wider source of ideas when analyzing and evaluating the data that was collected from confectionery enterprises in wakiso district Uganda.

3.5 Measurement of the variables

ICT adoption was measured in relation to Perceived cost, Perceived ease of use, Perceived usefulness and Facilitating conditions. These constructs were emphasized by the UTAUT model venkatesh *et al.,* (2003) and TAM Davies *et al*, (1989) as realistic dimensions in ICT adoption measurement. Similarly, in complete agreement with Mishra *et al.,* (2014); Ssekakubo *et al.* (2014) and Ssentamu (2015), managerial competency was measured in terms of Managerial technical skills, Managerial technical knowledge and Managerial behavior. To measure financial performance aspects of Profitability, Accountability, Revenue growth and Liquidity were considered as articulated by Dess & Robinson (1984) who pointed out that such measures may be more appropriate for comparing performance in cross-industry studies since levels of investment vary considerably across industries.

3.6 Validity and Reliability

Validity of the instrument was obtained through the development of the scales with the help of the experts in the field using the Content Validity Index (CVI). Which helped to confirm the dimensions of the concepts under the study which was operationally defined, to ensure appropriateness of results (Polit, 2006). To ensure reliability of the data collection instrument, a pilot study (pretesting) was conducted on 10 respondents to ensure the questions consistent and not vague. A reliability test was also carried out to ensure that the instrument was reliable. The Cronbach Alpha method of internal consistency was used to compute the reliability of the measures of the variables of the study of various questionnaire items that were to be administered to respondents (Sekaran, 2010). Results of validity and reliability as shown in Table 3.1.

Table 3.1: Validity and reliability statistics for the study variables

Study variables	Number of items	Cronbach's Alpha coefficient (CAC)	Content validity index (CVI)
ICT Adoption	9	0.758	0.78
Managerial Competency	8	0.704	0.94
Financial Performance	10	0.773	0.87

Source: Primary data

The results in table 3.1 above revealed that the CAC and CVI were above 0.7, which implied that the instrument is valid and reliable according to (polit, 2006).

3.7 Data Processing and Analysis

It all started by seeking permission from the management of the selected confectionery enterprises. The researcher first informed the respondents about the topic and the objectives of the study, the type of questions to be answered and the possible consequences the research has on the respondents, especially the on the topic. Information collected was only to be used for academic purposes of the research study and not be made available to other people for any reason or purpose. Questionnaires were then given out to the five (5) identify respondents involved in the finance departments and the day to day running of the confectionery enterprise.

Data was collected and gathered, it was examined to detect errors, omissions, contradicting and unreasonable information. There were no scenarios of missing values since we ensured that the questionnaire was fully filled before leaving the respondent's venue. This was achieved by explaining to the respondent the importance of having a fully completed questionnaire to avoid biasness and outliers. Politeness was observed throughout the exercise. Data was then edited,

coded and checked to ensure the quality, accuracy and completeness. The data was tabulated, inputted and analyzed with the help Statistical Package for Social Science research (SPSS version 20) program that provides descriptive outputs. Descriptive statistics analysis using percentages, means and frequencies was employed especially in analysis of background characteristics of the respondents and the study variables. Correlation and multiple regression analysis was carried out to establish the nature and strength of the relationship between the study variables.

3.8 Ethical considerations

In order to prevent falsifications of responses and therefore promote the pursuit of knowledge and objectivity in the study, the researcher sought permission from the management of the said confectionery enterprises before any data was collected, it was treated with high level of confidentiality. The study was subjected to anti-plagiarism procedures by Makerere University to ensure its conformity with the minimum quality benchmarks of the university.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.1. Introduction

Chapter four presents the findings of the data collected from the field. The first section provides descriptive statistics on the background characteristics of the respondents; the second section presents the descriptive statistics of the study variables. This chapter then concludes with referential statistics, where study hypotheses were tested using correlation and multiple regression analysis methods.

4.2. Response rate

From the sample size selection of 215 respondents, 215 questionnaires were administered to staff among the 43 sampled confectionery firms and 181 respondents successfully filled and returned the questionnaires generating a response rate of 84.2% of the total respondents. This is in line with Shaughnessy and Zechmeister's (2010) study, who suggested that a response rate 70% and above is significant when the study's purpose is to measure the cause and effect relationship between variables. Therefore, the responses obtained in this study are fit for generalization since a minimum threshold of 70% was attained.

4.3. Background characteristics

Background characteristics such as respondents 'gender, age, highest level of education, years of service with organization and job rank were analyzed in order to get an understanding of the type, category and nature of people who filled the survey questionnaires as shown.

4.2.1 Gender characteristics of respondents

In the study, gender respondents were analyzed and details are presented in table 4.1 below.

Table 4.1 Frequency Distribution for Gender of Respondents

Gender	Frequency	Percentage	Valid Percent
Male	112	61.9	61.9
Female	69	38.1	38.1
Total	181	100.0	100.0

Source: Primary data, 2020

The results in table 4.1 above revealed that most of the respondents were male constituting 61.9% in comparison to their female counterparts at 38.1%. This implied that the study had majority of male participants willing to provide information about the study. This also implies that majority of the small and medium sized confectioner enterprises workforce has more male gender than the female gender. The category of male gender is regarded as energetic, dynamic and above all hardworking. Similarly, the findings signify that the study was gender balanced since it obtained views from both sexes.

4.2.2 Age group of respondents

The study analyzed the age groups of the respondents who participated in the study as presented in table 4.2 below.

Table 4.2: Frequency Distribution for Age of Respondents

Age bracket	Frequency	Percentage	Valid Percent
less than 25yrs	59	32.6	32.6
25-29yrs	84	46.4	46.4
30-34yrs	23	12.7	12.7
35-39yrs	9	5.0	5.0
40yrs and more	6	3.3	3.3
Total	181	100.0	100.0

Source: Primary data, 2020

Results in table 4.2 above reveal that the study registered the highest age group of respondents being in the range of 25-29 years (46.4%), followed by 25 years old and below at 32.6%, those who are 30-34 years were 12.7%, 35-39 years were 5% while 40 years and above were only 3.3% of the total respondents. This implies that the workforce of confectionery enterprises is majorly youthful. This category is regarded as energetic, dynamic and above all hardworking leading to achievement of revenue targets as set by management of the confectionery enterprises from time to time.

4.2.3 Education level of respondents

In the study, the level of education of respondents was also analyzed and results are presented in the table 4.3 below

Table 4.3: Frequency Distribution for Education level of Respondents

Education level	Frequency	Percentage	Valid Percent
Certificate	30	16.6	16.6
Diploma	42	23.2	23.2
First Degree	92	50.8	50.8
Masters	5	2.8	2.8
Others	12	6.6	6.6
Total	181	100.0	100.0

Source: Primary data, 2020

Results from table 4.3 above reveal the different education levels of the respondents who participated in the study and these include; certificate, diploma, first degree, master and others. Results in respect to highest level of education attained indicated that 50.8% possessed first degrees, followed by diploma holders and certificate holders at 23.2% and 16.6% respectively. Master's degree holders constituted 2.8% while other categories constituted 6.6%. This implies that the respondents were adequately educated and qualified to understand and respond appropriately to the questions asked in relation to ICT adoption, managerial competency and financial performance of their confectionery enterprises.

4.2.4 Duration of Service with Organization

In the study, the duration of respondents with organization was analyzed and results are presented in the table 4.4 below

Table 4.4: Frequency Distribution for Years of Service of Respondents

Service duration	Frequency	Percentage	Valid Percent
2yrs and less	100	55.2	55.9
3-6yrs	56	30.9	31.3
7yrs and more	23	12.7	12.8
Total	179	98.9	100.0
Missing system	2	1.1	
Total	181	100.0	

Source: Primary data, 2020

Results in table 4.4 with regard to duration of service with the firm reveal that majority of the respondents (55.2%) had served with their firm for 2 years and less, followed by 30.9% who had worked for their firm between 3-6 years while 12.7% had worked for their confectionery firm for more than 7 years. This indicates a moderate level of experience among respondents hence making it sufficient to respond to the questions pertaining the study variables.

4.2.3 Job rank of respondents

In the study, the job rank of respondents was also analyzed and results are presented in the table 4.5 below

Table 4.5: Frequency Distribution for Job Rank

Job rank	Frequency	Percentage	Valid Percent
Line Manager	30	16.6	16.6
Supervisor	48	26.5	26.5
Production Officer	16	8.8	8.8
Sales and Marketing Officer	20	11.0	11.0
Others	67	37.0	37.0
Total	181	100.0	100.0

Source: Primary data, 2020

Results from table 4.5 above reveals the different job ranks of the respondents who participated in the study these include; line manager, supervisor, production officer, sales/ marketing, and other job ranks which included accountants, IT officers and receipt officer. When asked about their job rank, majority of the respondents indicated that they were supervisor and line managers constituting 26.5% and 16.6% respectively of all the staff that participated in the study. Whereas 11% indicated that they were sales and marketing officers, 8.8% indicated that they were production officers. Others also indicated that they were accountants, IT officers and receipt officers totalling to 67 respondents. This implied that participants were skilled staff and adequately understood the issues under study. The diverse nature of respondents in the various positions of the confectionery enterprises, also signifies that there is a balance in the responses

collected since the issue of financial performance is critical to every worker of the confectionery enterprises.

4.2.4 Descriptive Statistics for the study variables

The study used descriptive statistics to describe the basic features of the relationship between ICT adoption, managerial competency and financial performance of small and medium confectionery enterprises in Uganda. The results are indicated in Table 4.6 below.

Table 4.6: Descriptive statistics results for the study variables

Variable	Mean	Std. Deviation	N
1) ICT adoption	3.6998	.60948	181
2) Managerial competency	3.9807	.54260	181
3) Financial performance	3.9155	.56763	181

Source: Primary data 2020

Results in table 4.6 above reveal that respondents were positive on questions asked on ICT adoption in terms of perceived cost, perceived usefulness, perceived ease of use, and facilitating conditions (Mean=3.6998, agreed). Respondents also agreed with the questions asked on managerial competency in terms of managerial technical skills, managerial technical knowledge and managerial behavior (Mean=3.9807, agreed). Further in relation to questions asked on financial performance of small and medium confectionery enterprises, responded were also positive in terms of profitability, accountability, revenue growth and liquidity (Mean=3.9155, agreed). Tables 4.7 to 4.9 further provided descriptive statistics on each study variable

Table 4.7 Descriptive Statistics for ICT adoption among confectionery firms

	N	Mean	Std. Deviation
ICTs used in my organization are less costly to acquire and maintain	181	3.9503	.97340
Using internet bundles for market research is less costly	181	3.8011	1.02967
Using ICTs can lead to faster response to clients orders hence improving our efficiency	181	4.0718	.84349
Using ICTs in our enterprise leads to improved customer service	181	3.5691	1.25252
Using ICTs in my organization leads to better decision making as a result of storing, processing and analyzing the sales data	181	3.7735	1.09978
Using ICTs in my organization leads to increased manufacturing productivity	181	4.1713	.92403
I have the necessary knowledge and skills for using computers, mobile devices, laptops and internet for research	181	4.3702	.72341
The government supports confectionery enterprises through subsidizing the cost of computers, internet and other mobile gadgets	181	2.7403	1.24006
The government provides confectionery enterprises with ICT infrastructure for conducting business	181	2.8508	1.18550

Source; primary data, 2020

Table 4.7 revealed that, there was a positive perception about cost of ICTs used among confectionery firms in terms of the cost of acquisition and maintenance (mean = 3.9503; std dev = .97340) and the cost of internet bundles used for market research (mean = 3.8011; std dev = 1.02967). This implies that, confectionery firms generally perceived ICT cost to be affordable especially for acquisition and maintenance as compared to internet cost because of a high variation in the responses to the cost of internet bundles.

In relation to perceived usefulness of ICTs, respondents agreed that the adoption of ICT leads to; faster response to clients' orders, enhancing efficiency (mean = 4.0718; std. dev = .84349); improved customer service (mean =3.5691; std. dev = 1.25252); better decision making as a result of storing, processing and analyzing the sales data (mean = 3.7735; std. dev = 1.09978) and increased manufacturing productivity (mean =4.1713; std. dev = .92403). This implied that confectionery firms perceived ICT adoption to be useful in their operations especially in the area of enhancing manufacturing productivity and faster response to clients' orders.

In relation to perceived ease of use, confectionery firms perceived ICTs as easy to use for the reason that, their staff had the necessary knowledge and skills for using computers, mobile devices, laptops and internet for research (mean = 4.3702; std. dev = .72341)

With regards to facilitating conditions supporting the use of ICTs among confectionery firms, firms disagreed with the government supporting confectionery enterprises through subsidizing the cost of computers, internet and other mobile gadgets (mean = 2.7403; std. dev = 1.24006) and as well disagreed with the government providing thier firms with ICT infrastructure for conducting business (mean = 2.8508; std. dev = 1.18550). This implied that, confectionery firms were prohibited by the lack of facilitating conditions necessary for ICT adoption to thrive.

Table 4.8 Descriptive Statistics for managerial competency

	N	Mean	Std. Deviation
The organization managerial team is equipped with necessary ICT skills to effectively manage the organization's activities	181	4.0608	.94379
The organization managerial team is equipped with necessary project management skills to effectively manage the organization's activities	181	3.8950	.99165
The organization managerial team is equipped with necessary financial knowledge to effectively manage the organization's activities	181	3.9834	.90354
The organization managerial team have the six essential skills of planning, communicating, motivating, delegating, problem solving and decision making	181	3.8343	1.20422
The organization managerial team abide by the universally acceptable ethical standards and organization policies	181	4.0773	.92771
The organization managerial team is customer focused and understands customer needs and expectations	181	4.1492	.84647
The organization managerial team possess the necessary team leadership skills	181	3.9061	.88004
The organization managerial team has strategic skills of determining the weaknesses and strong aspects of the organization environment	181	3.9392	.85742

Source; primary data, 2020

According to table 4.8, findings indicated that the managerial team of small and medium-sized confectionery firms is equipped with; the necessary ICT skills (mean = 4.0608; std. dev = .94379); the necessary project management skills to effectively manage the organization's activities (mean =3.8950; std. dev = .99165); the six essential skills of planning, communicating, motivating, delegating, problem solving and decision making to effectively manage the organization's activities (mean = 3.8343; std. dev = 1.20422); the necessary team leadership skills (mean = 3.9061; std. dev = .88004) as well as the strategic skills of determining the weaknesses and strong aspects of the organization environment. These results implied that, the managerial teams of small and medium-sized confectionery firms were generally skilled to handle business although some gaps were observed in the possession of the six essential skills as portrayed by a high variation in responses.

With regards to managerial knowledge, findings revealed that managerial teams of small and medium-sized confectionery firms were equipped with necessary financial knowledge to effectively manage their organization's activities (mean = 3.9834; std. dev = .90354)

Pertaining to managerial behavior, findings revealed that managerial teams of small and medium-sized confectionery firms abide by the universally acceptable ethical standards and organization policies (mean = 4.0773; std. dev = .92771) and are customer focused, understanding customer needs and expectations (mean = 4.1492; std. dev = .84647). Findings further revealed that, the greatest strength in managerial competency lied in the possession of managerial behavior

Table 4.9 Descriptive Statistics for financial performance

	N	Mean	Std. Deviation
The financial reporting and analysis practices in my organization are computerized	181	3.9503	.97340
My organization regularly prepares financial budgets for running the business operations	181	3.8011	1.02967
The percentage of bad debts in my organization is reasonable and manageable	181	4.0718	.84349
My organization requires me to make periodic accountability for the activities I perform	181	3.5691	1.25252
My organization hires internal and external auditors to follow up on accountability claims	181	3.7735	1.09978
My organization conducts frequent analysis of its financial statements (balance sheet, income statements, statements of cash flows)	181	4.1713	.92403
My organization's profitability has improved in the last 6 months up to date	181	3.7348	1.14327
The product sales of my organization have grown consecutively from the last 6 months compared to the previous months	181	3.8122	.92380
Generally, there has been a growth in revenue in my organization from the last 6 months up to date	181	3.9006	.84397
My organization promptly pays its creditors and suppliers of materials	181	4.3702	.75351

Source; primary data, 2020

Results presented in table 4.9 above revealed that, small and medium-sized confectionery firms conduct frequent analysis of their financial statements (balance sheet, income statements, statements of cash flows) (mean = 4.1713; std. dev = .92403) and computerize their financial reporting and analysis (mean = 3.9503; std dev = .97340). These were observed to be good accountability measures among firms. Although firms agreed with their regular preparation of financial budgets for running business operations (mean = 3.8011; std. dev = 1.02967); their periodic accountability for activities performed by staff (mean = 3.5691; std. dev = 1.25252) and their practice of hiring internal and external auditors to follow up on accountability claims (mean = 3.7735; std. dev = 1.09978), the variance in responses were observed to be high which could indicate some weaknesses in the area of accountability.

With regards to liquidity, findings revealed that, the percentage of bad debts among confectionery firms is reasonable and manageable (mean = 4.0718; std. dev =.84349) and that these firms promptly pay thier creditors and suppliers of materials (mean = 4.3702; std. dev = .75351). These were observed to be good liquidity management practices among confectionery firms for the reason that, proper management of liquidity strengthens the financial soundness of a firm.

Respondents further agreed that product sales of their firms have grown consecutively from the last 6 months compared to the previous months (mean = 3.8122 ; std. dev =.92380) and agreed that generally, their firms' revenue has grown from the last 6 months up to date (mean = 3.9006; std. dev = .84397). Growth in revenue was observed to be a good financial performance indicator among confectionery firms.

Findings further revealed that profitability of confectionery firms had not improved much in the last 6 months up to date (mean = 3.7348; std. dev = 1.14327) as indicated by a high variation in responses.

4.6. Relationship between the study variables

The study conducted correlation and regression analyses to address the objectives and research questions as set out in chapter one. The Pearson correlation coefficient was used to establish the relationship between ICT adoption, managerial competency and financial performance of small and medium confectionery enterprises, as shown in Table 4.13. On the other hand, multiple regression analysis was used to examine the predictive potential of the combination of ICT adoption and managerial competency to financial performance of small and medium confectionery enterprises, as shown in Table 4.14.

4.6.1. Correlation Statistics results

The study used Pearson correlation coefficient as a statistical test to identify whether there was a significant relationship between ICT adoption, managerial competency and financial performance of small and medium confectionery enterprises in Uganda. The results are indicated in Table 4.13.

Table 4.13: Pearson's Correlation results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ICT Adoption (1)	1									
Managerial Competency (2)	.434**	1								
Perceived cost (3)	.653**	.338**	1							
Perceived usefulness (4)	.867**	.421**	.505**	1						
Perceived ease of use (5)	.295**	.139	.031	.130	1					
Facilitating conditions (6)	.662**	.182*	.153*	.315**	.196**	1				
Managerial skills (7)	.423**	.924**	.340**	.422**	.164*	.144	1			
Managerial knowledge (8)	.220**	.685**	.208**	.167*	-.005	.154*	.419**	1		
Managerial behavior (9)	.274**	.545**	.123	.295**	.098	.137	.313**	.336**	1	
Financial performance	.841**	.560**	.717**	.893**	.104	.256**	.553**	.274**	.341**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: primary data 2020

4.6.1.1. Relationship between ICT adoption and financial performance

The Results in Table 4.13 reveal that there is a significant relationship between ICT adoption and financial performance (r=.841**, P<0.01). The relationship was significant because the p value was less than the critical value at 99% confidence level. This finding implies that high levels of ICT adoption among these firms are associate with high levels of financial performance. This finding painted a picture on the possibility of a positive change in the ICT adoption strategies leading to a corresponding positive change in the financial performance of small and medium confectionery enterprises in Wakiso district in Uganda.

Findings further revealed that, three out of four constructs of ICT adoption related significantly with financial performance. Perceived usefulness ($r = 893^{**}$; $p<.01$) related more significantly with financial performance, followed by perceived cost ($r = .717^{**}$; $p<.01$), followed by facilitating conditions ($r = 256^{**}$; $p<.01$). Perceived ease of use ($r = .104$; $p>.01$) did not relate significantly with financial performance.

This relationship implied that there is a possibility that when confectionery firms perceive the cost of ICT to be affordable, perceive ICTs as useful, and supporting facilitating conditions such as Government support are available, there is high likelihood that these firms will experience high levels of profitability, accountability, liquidity and revenue growth as measures of financial performance.

4.6.1.2. Relationship between managerial competency and financial performance

Under this objective, the study established a statistically positive significant relationship between managerial competency and financial performance of small and medium sized confectionery enterprises in Wakiso district in Uganda (r =.560**, P<0.01). Managerial competency was found to have a strongly associate with financial performance of these small and medium-size confectionery enterprises. The relationship was significant because the p value was less than the critical value at 99% confidence level.

Findings further revealed that, all the three constructs of managerial competency related significantly with financial performance. Managerial skills (r = .553**; p<.01) related more significantly with financial performance, followed by managerial behavior (r = .341**; p<.01), managerial knowledge (r = 274**; p<.01).

The implication is that, strengthening the managerial competency of the management of staff of confectionery enterprises in terms of managerial technical skills, managerial technical knowledge and managerial behavior has a high possibility of boosting financial performance of these confectionery enterprises.

4.7.2. Regression analysis

A multiple regression analysis was used to examine the combined predictive potential of the independent variables of ICT adoption and managerial competency on financial performance of small and medium sized confectionery enterprises in Wakiso district in Uganda. This helped in answering the study objective three and research question three. The obtained results are summarized in Table 4.14 below.

Table 4.14: Multiple regression of the combined effect of ICT adoption and managerial competency on financial performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	99.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.375	.170		2.208	.029	-.067	.818
	ICT adoption	.687	.038	.737	17.895	.000	.587	.787
	Managerial competency	.251	.043	.240	5.827	.000	.139	.363
a. Dependent Variable: Financial performance								
R	0.869							
R square	0.755							
Adjusted R square	0.752							
F statistic	273.896							
Significant F	0.000							

Source; primary data, 2020

The regression results in table 4.14 reveal that ICT adoption contributes 0.737 to financial performance of small and medium sized confectionery enterprises. Thus, every unit change in ICT adoption results into an increase in financial performance by 0.737 as in indicated by the Standardized Coefficients Beta result and is significant (P=.000, t=17.895). The findings further show that managerial competency contribute 0.240 to financial performance. Thus, every unit change in managerial competency results into an increase in financial performance by 0.24 (Beta=0.240) and is significant (P=.000, t=5.827). Therefore, ICT adoption and

managerial competency are all predictors for financial performance, though ICT adoption is the most significant predictor of financial performance.

Table 4.14 above also showed statistical results of F=273.896, Sig.=.000 in relation to the predictability of ICT adoption and managerial competency which signifies a statistically substantial and predictive ability of the study variables on financial performance. Therefore, the regression model is fit to be based upon to derive valid findings. ICT adoption and Managerial competency explain financial performance of confectionery enterprises in Wakiso District by 75.2% (Adjusted R^2 =.752). This means that other factors outside this model can explain 24.8% of the variances in financial performance.

CHAPTER FIVE:

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter presents the discussion, conclusion and recommendations of the study findings based on the outlined study objectives and research questions. The objectives of the study included examining the relationship between ICT adoption and financial performance, examining the relationship between managerial competency and financial performance and examining the combined effect of ICT adoption and managerial competency on financial performance of small and medium sized confectionery enterprises.

5.2. Discussion of findings

The findings of this study were discussed in comparison with the reviewed literature to determine if they are in a consensus or in disagreement with findings from other scholars. The findings were presented in an objective by objective manner as shown below.

5.2.1. Relationship between ICT adoption and financial performance

Findings from this study revealed a significant relationship between ICT adoption and financial performance of small and medium sized confectionery enterprises in Wakiso district in Uganda. This relationship was significant mainly for perceived usefulness, perceived cost and facilitating conditions, but not for perceived ease of use. When confectionery enterprises have a positive perception about the cost of ICT, the usefulness of ICT in business and when the necessary facilitating conditions are favourable such as government support, there is a likelihood that firms' financial performance will increase. These findings confirm hypothesis H1.

These findings are in agreement with Enríquez *et al.* (2015) who argued that enterprises that innovated their processes with ICTs experienced a positive effect on their financial performance and this was witnessed from the improved profitability levels resulting from improvements in the management of information technology innovations. Likewise, Chairoel *et al.* (2015) indicated that the adoption and efficient use of ICTs in SMEs lead to increased enterprise performance, productivity and access to market for which enterprise performance includes increase in sales, market share and profitability hence improved financial performance. Tarute and Gatautis (2014) also agreed that adopting ICTs can positively affect a firm's financial performance in terms of increased productivity, profitability, market value and market share.

With this analysis, it can be argued that indeed most scholars including Ndiwalana, *et al.* (2009), Alam and Noor (2009) agree that ICT adoption can positively influence SME financial performance. However, Chowdhury and Wolf (2003) in their survey conducted in Tanzania and Kenya argued on the contrary that investing in ICTs did not significantly impact on financial performance of SMEs and therefore advised need to take caution on relying on only ICT investments as a way of improving financial performance as there are other factors that can directly influence financial performance of SMEs.

5.2.2. Relationship between managerial competency and financial performance

Findings reveal a significant positive influence of managerial competency on the financial performance of small and medium sized confectionery enterprises in Wakiso district in Uganda. In other words, when management of the confectionery enterprises are equipped with managerial technical skills, managerial technical knowledge and managerial behavior, then there is a likelihood that they will become competent in running the confectionery enterprises hence possibly leading to improved financial performance in terms of increased productivity,

profitability, accountability and increased revenue growth. These findings confirm hypothesis H_2 and they are in line with Ssentamu (2015), Anggadwita and Mustafi (2013) who identified managerial competency as a strategic imperative for improving financial performance among SMEs.

In agreement with the above scholars and the findings of this study, Hawi *et al.* (2015) also pointed out that having middle and line managers equipped with managerial skills such as team leadership, problem solving and decision making, strategic skills and customer focusing competency will greatly positively impact on the financial performance a firm. Ssekakubo *et al.* (2014) also identified managerial competency as one of the rarest and valuable resources that can enable firms to attain strong financial performance. Knowledge, skills, experience and personal abilities of managers enables them to run the enterprises in a way that leads to an increase in the profitability of SMEs hence improved financial performance (Tarwirei, 2015), whereas a decline in the skills and knowledge of the managers could also lead to a decline in the profitability and hence decline in financial performance of these enterprises (Ssekakubo *et al.*, 2014).

5.2.3. Relationship between ICT adoption, managerial competency and financial performance

Findings further reveal that, ICT adoption and managerial competency have a positive influence on financial performance of confectionery firms in Uganda. Although ICT adoption significantly contributes more to financial performance than managerial competency, a combination of the two explain a high variance in financial performance. The findings further revealed that this relationship can be explained by the fact that perceived cost, ICT knowledge and skills, perceived benefits, government support coupled with managerial technical skills,

managerial technical knowledge and managerial behavior constitute the most critical strategies applied by enterprises in order to manage their financial performance. For instance management staff of confectionery enterprises with the necessary managerial competency skills are in position to influence the adoption of ICT innovations that can be used to improve financial performance of their enterprises.

This finding confirms hypothesis H3 and is consistent with Anggadwita and Mustafi (2013) who argued that managerial competency of human resource in terms of knowledge and skills coupled with adoption of modern technologies can bring about improved product quality, new product development, productivity and efficiency which are fundamental in predicting financial performance for any organization. Tarwirei (2015) also agreed that SMEs performance is significantly affected by appropriate application of innovative technology and managerial competency.

5.3. Conclusion

The study concludes that, the performance of confectionery firms in Uganda is determined by the degree of ICT adoption. Provided these firms perceive the cost of ICT to be affordable, perceive ICT to be beneficial and perceive facilitating conditions for ICT usage are favorable, then the degree of adoption will increase and this likely contribute to improved financial performance.

Besides ICT adoption, the study concludes that the performance of these firms is determined by the level of managerial competency. Provided management of these enterprises possesses the right skills, knowledge and behavior, there is a high likelihood that their financial performance will increase.

The study further concludes that, although ICT adoption has a higher effect on financial performance, the superior performance of these firms will depend on a combination of both ICT adoption and managerial competency.

5.4. Recommendations

Study findings revealed that there is a significant positive relationship between ICT adoption and financial performance of small and medium sized confectionery enterprises in Uganda. This finding implies that an increase in ICT adoption can lead to a corresponding increase in the financial performance of small and medium sized confectionery enterprises. Therefore, in order to improve financial performance of confectionery enterprises in Uganda, there is need for government to support these small and medium sized enterprises with subsidies on the cost of internet usage since it helps in market research, government should also provide the necessary infrastructure to support the use of ICT innovations such as first and reliable broadband internet. Management of confectionery enterprises should also provide the necessary ICT knowledge and skills training to all the line managers, middle managers and other technical staff. There is also need to sensitize the management of the confectionery enterprises in Uganda on the benefits of using ICTs in running and managing their day to day activities as these benefits can go a long way in reducing the cost of running organization tasks hence improving the financial performance of these enterprises.

The study findings also revealed that managerial competency can influence financial performance of small and medium sized confectionery enterprises in Uganda. This implies that an increase in managerial competency also leads to a corresponding increase in the financial performance of small and medium sized confectionery enterprises. Therefore, there is need for management of the confectionery enterprises to equip their managerial team with the necessary managerial technical skills, managerial technical knowledge and managerial behavior such as

ICT skills, project management skills, leadership skills, financial reporting knowledge, essential skills of planning, communicating, motivating, delegating, problem solving and decision making, encouraging the managerial staff to abide by the universally acceptable ethical standards and organization policies, equip the managerial team with the necessary strategic skills of determining the weaknesses and strong aspects of the organization environment. This can go a long way in improving the financial performance of small and medium sized confectionery enterprises in Uganda.

The study further revealed a combined influence of ICT adoption and managerial competency on financial performance of small and medium sized confectionery enterprises. This therefore means that there is need for deliberate efforts towards strengthening the strategies that promote ICT adoption by confectionery enterprises and improve managerial competency of the managerial team of the confectionery enterprises in Uganda. These factors are seen as significant predictors of financial performance and therefore there is need for a concerted effort from government, SMEs and other stakeholders such as ministry of ICT and NITA-Uganda, Private sector foundation Uganda that are responsible for establishing sound fiscal policies for effective adoption and implementation of ICT and managerial competency strategies among SME confectionery enterprises in Uganda.

5.5. Limitations to the study

Matters of financial performance are very sensitive to private enterprises especially where there is competition. Therefore, some respondents were hesitant to provide the information for fear that they could be implicated if they released the information and secondly they feared that the information could leak to their competitors. This probably explains the fewer returned questionnaires compared to the administered questionnaires. However, the researcher assured potential respondents that the information they provided would be kept confidential. In

addition, the researcher displayed the written permission from the university as a form of approval to allow the data collection exercise since it is for only academic purposes and this helped to minimize any suspicion on the side of respondents.

Additionally, the study was constrained by difficulty in accessing respondents, given their busy schedules and nature of work. This was handled by ensuring that many follow-ups were made in order to achieve timely completion of questionnaires by respondents.

5.6. Areas of future research

Given that the study predicted only 75.3% of the variation in financial performance of small and medium sized confectionery enterprises, there is need to examine other factors that could predict financial performance and this can be investigated by other scholars.

Further research can also be done to examine the mediating effect managerial competence on the relationship between ICT adoption and financial performance of small and medium sized confectionery enterprises in Wakiso district in Uganda.

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1.0 Appendix I: Questionnaire

FOR MANAGEMENT AND STAFF

Dear Respondent,

My name is **YIGA MATHIAS**. I am a Master's student of Business Administration. Student at Makerere University Business School. This questionnaire is designed to generate information on "ICT adoption, managerial competency and financial performance of small and medium sized confectionery enterprises in Wakiso district Uganda". You have been selected as a valued respondent, given your working experience in your business organization. This research is purely academic and your responses shall be used for academic purposes only and shall be treated with utmost confidentiality.

Please be kind enough and respond to following question by ticking or circling one of the alternatives given that suits your answer.

SECTION A

Background information (Please tick the option that best describes you)

1. Gender

Male	Female
1	2

2. Age bracket

Less than 25 years	25 – 29 years	30 – 34 years	35 –39 years	40 years and more
1	2	3	4	5

3. Highest level of education

Certificate	Diploma	First Degree	Masters	Others
1	2	3	4	5

4. Years of service with your organization

2 yrs and less	3-6 yrs	7 yrs and more
1	2	3

5. Job rank

Line Manager	Supervisor	production Officer	sales and marketing officer	Others
1	2	3	4	……

SECTION B

Under this section, the study aims at establishing the relationship between ICT adoption, managerial competence and financial performance metrics.

You are required to use the following keys, for which 1 represents Strongly Disagree (SD), 2- Disagree (D), 3- Not Sure (NS), 4- Agree (A) and 5- Strongly Agree (SA). Kindly select the option that matches the extent to which you agree or disagree with the following statements.

ICT Adoption	SD	D	NS	A	SA
ICTs used in my organization are less costly to acquire and maintain	1	2	3	4	5
Using internet bundles for market research is less costly	1	2	3	4	5
Using ICTs can lead to faster response to clients orders hence improving our efficiency	1	2	3	4	5
Using ICTs in our enterprise leads to improved customer service	1	2	3	4	5
Using ICTs in my organization leads to better decision making as a result of storing, processing and analyzing the sales data	1	2	3	4	5
Using ICTs in my organization leads to increased manufacturing productivity	1	2	3	4	5
I have the necessary knowledge and skills for using computers, mobile devices, laptops and internet for research	1	2	3	4	5
The government supports confectionery enterprises through subsidizing the cost of computers, internet and other mobile gadgets	1	2	3	4	5

The government provides confectionery enterprises with ICT infrastructure for conducting business	1	2	3	4	5
Managerial Competency	**SD**	**D**	**NS**	**A**	**SA**
The organization managerial team is equipped with necessary ICT skills to effectively manage the organization's activities	1	2	3	4	5
The organization managerial team is equipped with necessary project management skills to effectively manage the organization's activities	1	2	3	4	5
The organization managerial team is equipped with necessary financial knowledge to effectively manage the organization's activities	1	2	3	4	5
The organization managerial team have the six essential skills of planning, communicating, motivating, delegating, problem solving and decision making	1	2	3	4	5
The organization managerial team abide by the universally acceptable ethical standards and organization policies	1	2	3	4	5
The organization managerial team is customer focused and understands customer needs and expectations	1	2	3	4	5
The organization managerial team possess the necessary team leadership skills	1	2	3	4	5
The organization managerial team has strategic skills of determining the weaknesses and strong aspects of the organization environment	1	2	3	4	5
Financial Performance	**SD**	**D**	**NS**	**A**	**SA**

The financial reporting and analysis practices in my organization are computerized	1	2	3	4	5
My organization regularly prepares financial budgets for running the business operations	1	2	3	4	5
The percentage of bad debts in my organization is reasonable and manageable	1	2	3	4	5
My organization requires me to make periodic accountability for the activities I perform	1	2	3	4	5
My organization hires internal and external auditors to follow up on accountability claims	1	2	3	4	5
My organization conducts frequent analysis of its financial statements (balance sheet, income statements, statements of cash flows)	1	2	3	4	5
My organization's profitability has improved in the last 6 months up to date	1	2	3	4	5
The product sales of my organization have grown consecutively from the last 6 months compared to the previous months	1	2	3	4	5
Generally, there has been a growth in revenue in my organization from the last 6 months up to date	1	2	3	4	5
My organization promptly pays its creditors and suppliers of materials	1	2	3	4	5

I highly appreciate your time and contribution to this research.

Thank you, very much and best wishes