

**THE CONTRIBUTION OF INFORMATION AND
COMMUNICATION TECHNOLOGIES (ICTs) IN THE GROWTH
OF SMALL AND MEDIUM ENTERPRISES (SMEs)
IN TANZANIA
A CASE OF URBAN DISTRICT – ZANZIBAR**

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A CASE OF URBAN DISTRICT – ZANZIBAR**

**By
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**A Dissertation Submitted in Partial/fulfillment of the Requirements for the Award
of Master Degree in Entrepreneurship Development of Mzumbe University –
Morogoro, Tanzania
2014**

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University a dissertation entitled “The contribution of Information and Communication Technologies (ICTs) in the Growth of Small and Medium Enterprises (SMEs) in Tanzania – a case of Urban district, Zanzibar”, in partial /fulfillment of the requirements for award of the degree of Master of Entrepreneurship of Mzumbe University.

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Accepted by the Board of.....

DEAN/DIRECTOR, FACULTY/DIRECTORATE

DECLARATION

I, MOHAMED MERALI MOHAMED, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university for similar or any other degree award.

Signature _____

Date_____

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DEDICATION

I dedicate my dissertation work to my beloved wife Amina Mbarak and to my children Ummul – Ayman Mohamed and Merali Mohamed for the inspiration they provide me whenever I try to spotlight their future life.

Also I dedicate this dissertation to my family with special feeling of gratitude to my loving parents, Merali Pira and Zaina Sheikh for their tireless and painful efforts, courage and support in taking care of me and bringing me up both morally, spiritually and academically. My sister and young brothers have never left my side and are very special. May Allah bless them with love peace and enjoyable long life.

ABBREVIATIONS

ICTs	Information and Communication Technologies
SMEs	Small and Medium enterprises
ICRW	International Center for Research on Women
BC	Before Christ
CCTV	Closed Circuit Television
ATMs	Automated Teller Machines
CIS	Commonwealth Independent States
ITU	International Telecommunication Union
WYR	World Youth Report
UN	United Nations
NICTBB	National ICT Broadband Backbone
TNICT	Tanzania National ICT policy
TCRA	Tanzania Communication Regulatory Authority
TTCL	Tanzania Telecommunication Company Limited
OECD	Organization for Economic Co – operation and Development
URT	United Republic of Tanzania
POS	Point Of Sales
EFD	Electronic Fiscal Device
SMS	Short Message Service
MMS	Multimedia Message Service
SBP	Strategic Business Partnership
SBU	Strategic Business Unit
USA	United States of America
CCA	Customer Centric Approach
CRM	Customer Relationship Management
ERP	Enterprise Resource Planning
ETQM	Enterprise Total Quality Management
NBS	National Bureau for Statistics

KIs

Key Informants

ABSTRACT

It is undeniable that Information and Communication Technologies (ICTs) can play a greater role in the growth of Small and Medium Enterprises (SMEs) as revealed by many scholars in the Entrepreneurship field. Yet, more studies are to be done in order to uncover deep relationship between these two variables. This study seeks to find out the contribution that ICTs have to the growth of SMEs in Tanzania with a special case of the Urban district of Zanzibar.

The study was basically attempting to answers three questions. The first question based on finding out the most suitable and available ICT devices and applications to most Tanzanian SMEs. The second question was about exploring the relationship and level of contribution ICTs provide to the business growth. The last question aimed at finding out various obstructions to the ICT usage by the SMEs.

The study was targeted to the Micro, Small and Medium enterprises in the respective district that are in use of one or more types of ICT devices and applications. Of which 75% of the respondents participated in the study with fair representation plus four Key Informants (KI) from Zanzibar Chamber of Commerce, Zanzibar Labor Commission, Zanzibar Youth Vision Center and the Ministry of Trade, Zanzibar, one member from in each institution.

Study findings have shown that mobile phone, computer and the CCTV camera are the most available devices, while internet, websites, Microsoft office applications and statistical applications are the most available applications in the study area. The existing relationship between ICTs usage and the SMEs' growth found to be very high to the extent that majority of respondents agreed on the greater contribution of ICTs to the growth of their businesses.

However, there are some barriers hindering the effective use of ICTs as a growth tool to many enterprises. Among the most mentioned barriers are; financial constraints, lack of awareness of the most modern devices and application, lack of knowledge on how to use some of the ICT technologies, ICTs operational costs and poor network services from service providers.

These findings are very alarming to activists specialized in the SMEs development since the SMEs in the study area found to be lagged behind in the use of modern technologies and therefore, both public and private support is required to take corrective measures in order to help SMEs acquire maximum benefits from integrating ICTs in their businesses.

TABLE OF CONTENTS

CERTIFICATION	i
DECLARATION	ii
COPYRIGHT	iii
ACKNOWLEDGMENT	iv
DEDICATION	v
ABBREVIATIONS	vi
ABSTRACT	viii
LIST OF TABLES	xiii
LIST OF FIGURES	xiv
 CHAPTER ONE	 1
INTRODUCTION AND PROBLEM SETTING	1
1.1Introduction	1
1.2Background Information	1
1.3Statement of the Problem	5
1.4Research Objectives	6
1.4.1 General Objective.....	6
1.4.2 Specific Objectives.....	6
1.5Research Questions	6
1.6Significance of the Study	7
1.7Scope of the Study	7
1.8Limitations of the Study	8
 CHAPTER TWO	 9
LITERATURE REVIEW	9
2.1 Introduction	9
2.2 Theoretical Literature Review	9
2.2.1 Definition of the Terms and Concepts	9
2.2.2 ICT Adoption in SMEs in Developing Countries	12

2.2.3 Barrier to ICT Adoption by SMEs	12
2.2.4 Contribution of ICT to SMEs growth	13
2.2.5 Theories of Enterprises Growth	14
2.3 Empirical Literature Review	14
2.4 Conceptual Framework	17
CHAPTER THREE	19
RESEARCH METHODOLOGY	19
3.1 Introduction	19
3.2 Research Design.....	19
3.3 Area of Study	19
3.4 Study Population	20
3.5 Sample Size.....	20
3.6 Sampling Techniques	21
3.7 Types and Sources of Data.....	21
3.8 Data Collection Techniques	21
3.9 Data Preparation and Analysis	22
3.9.1 Data preparation	22
3.9.1.1 Data Editing	22
3.9.1.2 Coding and Transcription.....	22
3.9.1.3 Data Cleaning.....	23
3.9.2 Preliminary Data Analysis	23
3.9.3 Data Analysis	23
3.10 Validity Issues	24
CHAPTER FOUR.....	25
PRESENTATION OF RESEARCH FINDINGS AND DATA ANALYSIS.....	25
4.1 Introduction	25
4.2 Demographic Characteristics of the Respondents.....	25
4.2.1 Respondents' Gender	25

4.2.2 Respondents' Age	26
4.2.3 Business Experience.....	26
4.2.4 Capital Range of the Enterprises.....	27
4.3 The Suitable and Available ICTs to most Tanzanian SMEs.....	28
4.4 The ICTs Usage and the SMEs Growth.....	31
4.4.1 The idea to introduce ICT in SMEs	31
4.4.2 Impact of ICTs to the Business Growth.....	32
4.4.3 The Rate of ICTs Contribution in Business	33
4.4.4 SMEs' willingness to invest in ICT	34
4.5 Barriers that Tanzanian SMEs face with respect to ICT Usage as a Growth Tool	36
4.6 Correlations	38
4.6.1 Correlation between satisfaction of ICT devices and applications and preference of those devices	38
4.6.2 Correlation between the ICTs impact to the business and the level of contribution it provide.....	40
4.6.3 Correlation between ICT devices and applications and ICT barriers	41
4.6.4 Correlation between customer use of ICTs and customer complains	42
4.7 Data presentation from Key Informants.....	43
CHAPTER FIVE.....	45
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	45
5.1 Introduction	45
5.2 Summary of the Study.....	45
5.3 Conclusions	46
5.4 Recommendations	48
BIBLIOGRAPHY	50
APPENDICES	54

LIST OF TABLES

Table 4.1 Respondents' Gender	25
Table 4.2 Age	26
Table 4.3 Respondents business experience	27
Table 4.4 Capital	27
Table 4.5 Devices used by SMEs.....	28
Table 4.6 Application used by SMEs.....	29
Table 4.7 Type of technologies used by SMEs.....	30
Table 4.8 Devices and applications SMEs would prefer to work on	30
Table 4.9 Motivation for the introduction of ICT in business	32
Table 4.10 ICTs impact to the business growth.....	32
Table 4.11 Aspect of business affected by the use of ICTs	33
Table 4.12 Rate of ICTs contribution in business.....	34
Table 4.13 Enterprise ICTs expenditure per month	35
Table 4.14 Special person employed to deal with ICTs	35
Table 4.15 Factors hindering SMEs usage of suitable ICTs	36
Table 4.16 Complaints regarding to ICTs usages	37
Table 4.17 Cross tabulation for satisfactions of current ICTs and the preferred ICT devices.....	39
Table 4.18 Cross tabulation for the impact of ICT and the level of contribution it provide to the business.	41

LIST OF FIGURES

Figure 2.1 Conceptual Framework Chart.....	18
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CHAPTER ONE

INTRODUCTION AND PROBLEM SETTING

1.1 Introduction

This study intended to investigate the contribution provided by adopted Information and Communication Technologies (ICTs) in the growth of Small and Medium Enterprises (SMEs). It focused on identifying the most widely used ICTs by most enterprises on the way to exploring the relationship between ICT usage and the growth of SMEs. The study also aimed at identifying some barriers that most SMEs face toward ICT use. This chapter will consists of information regarding to general background of the study title, statement of the problem, research objectives, research questions, significance and scope of the study and the limitations.

1.2 Background Information

Information and Communication Technologies (ICTs) have become a catchphrase in the business environment both locally and internationally. It refers to all tools, devices, and resources used to communicate and to create, manage, and share information. These include hardware for example computers, modems, and mobile phones and Software for example computer programs, mobile phone applications and networks, wireless communications and Internet (ICRW, 2012). The development of ICTs was marked by four basic periods; Pre - mechanical, Mechanical, Electromechanical, and Electronic period (Butler 1997). The period range from the 3000 BC to 1940 and started from the invention of abacus, mechanical calculator, electronic calculator towards the current digital technology. This modern digital technology is moreover, passed through four other generations according to Butler (2007) from 1951 to 1971 which resulted into modern Information and communication devices and technologies as they are used today. These generations were marked by various technologies such as Vacuum tubes as their main logic elements, Punch cards to input and *externally* store data, rotating magnetic drums for *internal* storage of data and programs, magnetic tapes, magnetic cores, integrated circuit to the modern personal computer we used now days. Currently,

there is increasing number of technological devices and applications which are either invented or improved from the old technologies. These devices and applications range from simple to complex which includes mobile phones, computers, CCTV, VISA machines, ATMs, radios, TV, Mobile money, websites, email mail and other social networks.

The rate of ICT penetration varies from one country to another. The current global status reveal that it is greater in Europe for about 75 percent followed by America 61percent, Commonwealth of Independent States (CIS) 52 percent, Arab states 38 percent , Asia & Pacific 32 percent, Africa 16 percent (ITU 2013). Of all ICT devices and applications, the most dominant and the mother ICT device is the mobile phone. It was also revealed that currently there are 6.8 mobile subscribers globally which left a very small percentage from the total population of 7.1 that are unsubscribed. Moreover, 40 percent of the world population is online. That means; they are connected to internet (ITU 2013), where youth take a lead in the ICTs adoption than adult. Naomi and Charles (2007) and the World Youth Report (2003) found that young people are more globalised. They confirmed that it is so because their youth itself gave them advantage when it comes to adopting new technology. This age group has been given various names such as informational age and techno culture.

The use of ICTs has grown relatively rapid in most urban areas in Africa. “Five years ago, only a handful of countries had local Internet access, now it is available in every capital city” (Jensen 2002). As it has been revealed in the global figures, mobile cell phone deployed much compared to fixed line and compared to all other ICT applications. It has experienced an impressive growth in almost all African countries. Other growing ICT application which is currently growing very fast is the digital television in response to global policy toward digitalization. It is said that efforts to promote universal access to ICTs in Africa have been discussed among high-level policymakers since the early 1990s. “Official recognition was in 1996 when the

Conference of African Ministers of Social and Economic Planning requested the UN Economic Commission for Africa to set up a “high-level working group” to chart Africa’s path onto the global information highway” (Jensen 2002). In spite of such efforts and the greater percentage of mobile phone subscribers in Africa, ICT penetration rate is still smaller compared to other nations and it is mostly congested in urban area and the majority of subscribers remain unconnected. For instance Wade (2004) held that at least one in five Africans owns a phone meanwhile the ratio might be small in Tanzania of about one in two owns mobile phone based on the total number of mobile phone users. Also Jensen (2002) has reported that the environment for networked readiness has improved relatively rapidly in most urban areas in Africa. Five years ago, only a handful of countries had local Internet access or mobile telephones; now, devices and access are available in virtually every major city. Hundreds of new radio stations and newspapers have been licensed over the last few years and digital satellite television has also become widely available. In 2001 the number of personal computers in Africa put the total at about 7.5 million.

Tanzania found out the importance of ICT in boosting its economy like many other developing countries. Yonazi (2012) explained that Tanzania has already built a high capacity state-of-art National ICT Broadband Backbone (NICTBB) that offers high quality services at utility prices, having reduced the backhaul tariffs by 99 percent. However, it is yet to grasp the importance of ICTs based on the people’s perception. It is mostly regarded as a luxury rather than an important developmental tool (Souter, 2010). Generally, ICT in Tanzania is governed by various policies which include; National Telecommunications Policy (1997), the National ICT Policy (2003), The National Postal Services Policy (2003) and the National Information and Broadcasting Policy (2003). All these policies aim at enabling the country to be a hub of ICT Infrastructure and ICT solutions that enhance sustainable socio-economic development and accelerated poverty reduction both nationally and globally (TNICT Policy 2003).

According to Tanzania Communications Regulatory Authority (TCRA) the country was home to a total of 25.827 million fixed and mobile subscriptions at the end of 2011, up from 21.158 million a year earlier. The operators include, the market leader - Vodacom, Airtel (formerly Zain), Tigo, Zantel, Tanzania telecommunications Company Limited (TTCL) and Benson Informatics Limited (<http://www.itu.int>). The current ITU statistics show that based on the Tanzanian population in 2012 fixed telephone was 0.37 percent, mobile cellular 57.12 percent, mobile broadband 2.13 percent, individual using internet 13.08 percent, fixed (wired) broadband 0.01 percent, and the households with computer 4.00 percent. In 2009 the percentage of internet users in Tanzania was only 1.3 (Souter, 2010).

Information and Communication Technologies (ICTs) play greater role in the global and the individual states economies in the so called market globalization and the knowledge economy. Small and Medium Enterprises (SMEs) on the other hand are the focal point in the modern global economy. They account for over 95% of the total firms which intern account for 60 percent to 70 percent of employment in most countries (OECD 2000). They play a key role in the economic growth of any country (Melchioly and Sabo 2010). ICT revolution implies the revolution within the business environment which is much associated with improved infrastructures for the SMEs performance (Modimogale, 2008, Musabila 2012, Ritchie & Brindley, 2005). Although it is not necessarily that most performing and fast-growing firms are highly ICT users as concluded by Locke (2004), SME need to upgrade their management skills, their capacity to gather information and their technology base through the use of ICTs (OECD 2000).

Galloway and Mochrie (2005) also portrayed that there is evidence that ICT is the driver of economic growth, which in turn drives many governments around the world to encourage SMEs to adopt ICTs. “The main reason for this drive is that governments acknowledge the considerable contribution of SMEs toward GDP and employment figures. Small and medium enterprises (SMEs) are considered to be an important source

of generating employment opportunities” (Safdar, & Saddiqi, 2011). However, they are slower than large ones to adopt new Technologies as explained by (OECD, 2004). And the government must foster appropriate business environment for e – business and ICT uptake such as to diffuse broadband and enhance competition OECD (2004). Bentellis & Boufaïsa (2008) as quoted in (Steyn, 2010) notes that over the last twenty years, the market have been changing fast, which has led to the evolution of the business environment. Entering the market as a small competitor, you need to adapt and implement some kind of ICT strategy in order to ensure that they connect with the right target market.

“In Tanzania the SMEs history goes back to the period after its independence in 1961. However, most of the Tanzanian SMEs were established in the late 1990s (Musabila 2012). He had also shown that before the enactment of the SMEs policy (2003) in Tanzania, the institutional organization of SMEs was fragmented across several government institutions and agencies. The government institutions addressed only SMEs issues related to their institutions (Musabila 2012). Currently, they are all regulated under the URT SMEs policy 2003 which still believed that the full potential of the SME can only be achieved through well established infrastructures which include the ICT as briefed by (Ngasongwa, 2002).

1.3 Statement of the Problem

The number of Information and Communication Technology devices and applications in Tanzania is tremendously increasing from the last decade. Their application spread vastly within the Tanzanian personal and business environment due to various reasons including the government efforts to make ICTs available to all such as the Tanzania tax relief on hardware scheme in the mid 2000. Melchioly and Sabo (2010) found that there is still lack of studies on mobile phones adoption, usage and impact within SMEs in Tanzania as well as in other developing countries. Yet the same apply to other ICT devices and applications which pose a difficulty in identifying the type of ICT devices

and application used by SMEs for the competitiveness, productivity and growth. Although little is known about the growth of SMEs as put forward by Deakins and Freel (1998) still ICTs believed to play a greater role in the growth of SMEs as suggested by OECD (2004), Musabila (2012), Ritchie & Brindley (2005) and others. However, it still brings a debate on the level of ICTs contribution in the growth of SMEs. This study therefore, attempt to explicitly find out to answer such a question and the associated facts as to improve clear understanding of the phenomenon which will in turn help SMEs to find the right path regarding the ICTs adoption.

1.4 Research Objectives

1.4.1 General Objective

The general objective of this study is to investigate the contribution of ICTs in the growth of SMEs in Tanzanian context.

1.4.2 Specific Objectives

The specific objectives of the study are;

- a. To discover the type of Information and Communication Technologies (ICTs) suitable and available to the most SMEs in Tanzania.
- b. To explore the level of relationship between ICTs usage and the SMEs growth.
- c. To identify barriers to ICT adoption as a growth tool by SMEs.

1.5 Research Questions

To be able to meet the above objectives, the study adopted the following key guiding questions.

- i. What ICT devices and applications suitable and available to most Tanzanian SMEs?
- ii. To what extent ICTs usage enhance SMEs growth in Tanzanian business context?

- iii. What are the barriers Tanzanian SMEs face in their way towards the use of ICT as a growth tool?

1.6 Significance of the Study

The study will primarily contribute to the body of knowledge and facts concerning the ICT adoption in relation to SMEs growth which will in turn help entrepreneurs in the respective levels reaching the rational decisions on the acceptance or declining of the ICTs adoptions in their enterprises. *Second*, it will help in improving the clear understanding about the level of ICT contributions toward the growth of Tanzanian SMEs as the study itself attempt to specifically encompass the Tanzanian business environment. This will also have impacts on the improvement in entrepreneurs' confidence toward ICT adoption meanwhile help planners, policy makers and decision makers to come up with rational decisions for sustainable economy. *Third*, it will help to identify mostly available and appreciated ICT devices and applications within Tanzanian context to enable entrepreneurs choosing the right ones for their enterprises strategic plans. This is due to the fact that ICTs perform differently in different countries and context. *Fourth*, the study findings will provide the empirical evidence of ICTs contribution to the SMEs growth and on the other hand stimulate active discussions to academicians and activists on matters related to ICTs and role it play toward SMEs growth and therefore, more researches in this case will be triggered.

1.7 Scope of the Study

The study was conducted at Urban – West Region in Zanzibar Tanzania, and covered only the urban district where most enterprises of all sizes can be found. It was in the researcher's opinion that there was sufficient and right population for the study compared to any other district or Region since the area is historically known to be a market centre for east/central Africa and the coast of Indian Ocean. Moreover, the area is the most congested by ICT users compared to other areas and therefore the researcher expected to identify representative target population.

1.8 Limitations of the Study

The study faced some limitations which include;

- a. Budget constraint in which researcher had to fund the entire study without any support from any other source except from himself. This has resulted into prolonged period of the study as to allow researcher spending sometimes looking for the required amount.
- b. Another limitation based on the respondents' willingness to participate in the study in which some of them considered the study as the most profitable funded project and therefore they were asking for some amount of money for their participation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter consists of three parts. Theoretical reviews which is also constituted by definition of terms and concepts, and the related theories, the empirical reviews and the conceptual framework. Reviews of both domestic and international literatures were intertwined to make the study more justifiable.

2.2 Theoretical Literature Review

2.2.1 Definition of the Terms and Concepts

i) Information and Communication Technologies (ICTs)

There are many definitions of ICTs as revealed by different scholars of this field. However, they are referring to more or less the same thing as they tries to describe the applications and devices which are associated with the information and communication sharing and transfer. Barba-Sanchez (2007) as quoted from Zhezhu (2008) has defined ICT as a broad term for a wide range of software, hardware, telecommunications and information management techniques, applications, and devices that are used to create, produce, analyze, process, package, distribute, receive, store and transform information. ICT encompasses all technologies that facilitate the processing, transfer and exchange of information and communication services. It is the modern ways in which information is processed, communications conducted, and services available (Adu 2002). Generally, it is regarded as an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as video conferencing and distance learning (Margaret Rouse 2005, ICRW 2012).

For the purpose of this study, all business associated devices and applications were considered. Such devices include; cell phones, smart phones, tablets, laptops, desktops, Automated Teller Machines (ATM), Point of sales devices (POS), Electronic Fiscal Devices (EFD), CCTV cameras. Application include; internet, websites, mobile money services, video/ audio conferencing, voice call, SMS, MMS social networks such as jamii forums, facebook, whatsApp, etc., blogs and computer networking.

ii) Small and Medium Enterprises (SMEs)

Small and Medium Enterprises (SMEs) does not confine itself to a single definition. There is no sufficing definitions ever produced by many literatures and this is, therefore, there is no “one-fit-all definition” for the term in question. “SMEs definitions vary between countries and authors” Matthew (2007). This means that different countries and authors define SMEs using their own set criteria which fit their context. “There are many factors that make SMEs different, such as turnover, industry, number of employees and format of business” (Charles and Frank 2012). Based on various literatures reviewed, it is revealed that the most widely used criteria for categorizing SMEs are; Capital investment on plant and machinery, Number of workers employed, Volume of production or turnover of business. Yet, each of the mentioned criteria has its distinctive definition to different countries and authors. For example, small enterprise in South Africa comprises of not more than 200 employees (Adriana 2010), while in Tanzania it comprises of employees not more than 50 employees (Tanzania SME Policy 2003) and the case is true to other categories. Moreover, in some countries such as Malaysia the same categories of enterprise differ from one sector to another. For example micro enterprises in primary agriculture is an enterprise with full-time employees of less than 5 or with annual sales turnover of less than RM200,000 while a micro enterprise in manufacturing (including agro-based) is an enterprise with full-time employees of less than 5 or with annual sales turnover of less than RM250,000 and a micro enterprise in services is an enterprise with full-time employees of less than 5 or with annual sales turnover of less than RM200,000 (Abu Bakar et al. 2011).

Although SMEs is abbreviated from the words Small and Medium Enterprises, in some cases it connotes Micro, Small and Medium Enterprises and can be used interchangeably with the abbreviation MSME. Adriana (2010) revealed that in German and Australia SMEs have to be divided even further, namely micro, small and medium sized, with micro being one to five employees, small being six to 20 employees and medium between 20 and 500 employees. Tanzania SMEs Policy (2002), has shown similar category, however, it differs in definition in which Micro enterprises are those engaging up to four people in most cases family members or with an investment not exceeding 5.0 million TSHS the majority of which fall under the informal sector. Small enterprises are mostly formalized undertakings engaging 5 to 49 employees or with capital investment of TSHS.5.0 million to TSHS.200 million. Medium enterprises employ about 50 to 99 employees and use capital investment from about 200 to 800 million TSHS” (Tanzania SMEs Policy 2002).

In this research project, the abbreviation SMEs was also applicable to all sizes of enterprises which include micro, small and medium as considered by the Tanzanian SMEs Policy of 2003.

iii) Growth of SMEs

Small and Medium enterprises do not differ at all with micro and large enterprises with respect to their growth. There is no straight forward definition but they are greatly assumed to grow by focusing on the growth indicators. Although Mohamed and Amr (2011) found that growth of small and medium enterprises (SMEs) is a concept that has not been adequately developed in the literature; yet, Huiyuan (2009) consider enterprise growth as the term used to describe a development process of enterprise from small to big and from weak to strong. He went on explaining that the growth involves performance level of output, sales volume, profit and asset gross. SBP (2013) has identified “change in turnover and change in employment” as two major indexes for SMEs’ growth. These indicators suggest a correlation between turnover and employment

growth. It is approximately 50 percent of firms that experienced turnover growth also reported an increase in their employment base as revealed by (SBP Alert, 2013).

In this study, the researcher has also chosen to use the very same indicators while addressing the SMEs growth and considered factor such as an increase in business assets, revenue, Strategic Business Units (SBUs), number of employees and entrepreneur – employee welfares.

2.2.2 ICT Adoption in SMEs in Developing Countries

The concept of ICT adoption refers to the usage and application of ICT devices and applications by enterprise. ICT adoption by SMEs has been driven by many factors such as globalization, government policy, innovation, flexibility and competitive advantage (Modimogale 2008). As explained earlier that the rate of ICT adoption and penetration varies from one country to another. The current global status reveal that it is greater in Europe for about 75 percent followed by America 61percent, Commonwealth of Independent States (CIS) 52 percent, Arab states 38 percent , Asia & Pacific 32 percent, Africa 16 percent (ITU 2013). In the year 2000, 539 million computers were being used with 410 million in USA, European Union and Asia, leaving 129 million in developing countries (ITU 2013). Generally, SMEs adopt technologies more slowly than the average firms. However, the rate is much slower in the developing countries compared to developed countries as revealed in many literatures already explained.

2.2.3 Barrier to ICT Adoption by SMEs

There is several obstacles SMEs face while trying to adopt ICT for their different purposes in business. Charles and Franck (2012) found that the barriers to ICT adoption by SMEs can be grouped in to two. Technology related and business related. Moreover, Modemogale (2008) add budget and power shortage as other challenges for ICT adoption. Matthews (2007), identify three ICT inhibitor classifications that obstacles to SMEs in developing country which include; financial, infrastructure and organizational.

The organizational inhibitor comprises the internal barrier to ICT adoption by SME as suggested by OECD (2000) and it include the limited understanding of the complexity of electronic operations, inadequate skills and high initial, investment required to develop a viable e-commerce strategy.

2.2.4 Contribution of ICT to SMEs growth

ICTs play a greater role in the growth of SMEs. It helps SMEs to meet the contemporary need of the global marketing which requires the improvement of Customer Centric Approach (CCA), Customer Relations Management (CRM) and the Enterprise Resource Planning (ERP) which will result into Enterprise Total Quality Management (ETQM). It is however, suggested by (Matthew 2007), that in order to understand exactly how ICT adoption relates to growth, then, it is necessary to consider how it can contribute, what factors enable or prevent this contribution from being realized, and how growth can be sustained and supported by increasing ICT sophistication. Nonetheless, “SMEs must outweigh investment and maintenance costs of the ICTs both in terms of knowledge and infrastructure, business environment, commercial considerations and potential returns drive the ICTs adoption” (Melchioly and Sabo, 2010). This proves that assessing the level of ICT contribution in SMEs is something which needs a thorough investigation rather than depending on few factors. However, among the reviewed contribution of ICT in the growth of SMEs are explained hereunder.

ICTs help SME to not only increase in productivity, but also change in communication and coordination styles among those who use the technology, improve quality, develop new business opportunities, connect to global networks and make the way business operate less complicated and time saving (Zhezhu et. al 2008, Charles and Frank 2012, ICRW, 2012). It also helps to improve the performance of SME by reducing communication costs (Melchioly and Sabo 2010). The advent of Internet-based electronic commerce offers considerable opportunities to SMEs to expand their customer base enter new product markets and rationalize their businesses (OECD 2000).

Moreover, it enhances the ability of firms to gain competitive advantage not only locally, but also in the international markets as stated by (Musabila 2012). The same was emphasized by Charles and Frank (2012) and added that it providing SMEs with valuable information, increase knowledge, improved performance, improve relationships with customers and suppliers, increase efficiency and reduce cost of production among others. Nevertheless, Bond and Houston (2003) showed that ICT help SMEs to gain access to a vast quantity of relevant and up-to-date information quickly, easily and cheaply. And Prasad et al. (2001) suggest that ICT endow marketing with an extraordinary capability to target specific groups of individuals with precision, and enable mass customization and one-to-one strategies by adapting communications and other elements of the marketing mix to consumer segments. Although many literatures identified the ICT contribution in SMEs, they are mostly interrelated. It should be taken into consideration that countries differ in types of technologies which include devices and applications, the rate of ICT penetration, the government policy and effort toward ICT adoption and so forth and therefore the impact assessment has to be done subjectively from country to country.

2.2.5 Theories of Enterprises Growth

The study confined itself to the stage model theory which assumes that an enterprise has to pass through various stages during its growth from development to maturity where some sort of technologies are required by SMEs to cross the border of each stage. Huiyuan (2009) revealed that for the firm to move to another stage it depends on survival ability of an enterprise which in turn depends much on the new technology. Stage model theory was therefore, used to test the contribution of ICTs in the growth of SMEs.

2.3 Empirical Literature Review

Adriana (2010) conducted a study which involved at least 10 companies many are SME except for few large companies attempted to find out the type of technologies used by

both SMEs and large companies. The findings have shown that out of six micro enterprises in South Africa at least all use internet and email while three and four enterprises use wireless technology, company websites and own computer network, one enterprise use intranet and none of them use Video/audio conferencing. For the Small enterprises, all three found to be in use of email, own computer network and internet, only two enterprises use wireless, company website video conferencing and only one company use intranet and Audio conferencing. Almost all medium enterprises found to use email, internet, intranet, wireless, company websites, video/audio conferencing and own computer network. This provides evidence on the adoption of various ICTs by the SMEs but it has not provided evidence on the contribution of ICTs to the SMEs.

Similar results were found in the study of Modemogale (2008) where by almost 8 out of 10 interrogated SMEs concerning the use of ICT found to use at least certain form of ICT devices or application. Moreover, the study has explained nothing on the general contribution and the level of contribution ICT provides to the growth of the SMEs.

In the study of (Matthew, 2007) which aimed at gathering further evidence of how expanding SMEs view the contribution and potential of ICT, an electronic survey was conducted in August 2006 and distributed via various ICT communities. The survey was not only targeted at SME owners but also other employees of SMEs and external consultants who knew an SME well. Hundred and fifteen (115) responses were received from 46 countries. Predominant sectors were professional services (33), Information (19), Education (16), manufacturing (10) and retail (8). SME sizes varied from 1 – 200 employees. The findings has revealed that within the previous year, 42% of respondents reported growth in terms of employee numbers, 43% in terms of turnover and 17% in profits. The respondent continued to believe in more growth in the next year. With respect to *ICT use* only 3% of respondents reported using no forms of ICT at all in their business, with 63% classifying themselves as moderate or heavy users (several PCs, a networked environment and a telephone system). 19% of respondents used ICTs for

their core business (ICT service providers). Moreover, it was revealed that among the *factor inhibiting ICT* adoption include; cost in various aspect such as cost of new or replacement hardware and broadband subscriptions (Box 2). Technical literacy was also frequently mentioned, not only within the SMEs themselves but also within their locality. The study has also addressed the issue of *support for ICT adoption* in which some schemes were cited included tax relief on hardware (Tanzania).

Although study findings have identified percentages of SMEs reported growth upon the use of ICT, yet, it does not precisely reveal the height and angles of business growth contributed by the use of ICT similarly to the study of Adriana (2010). Nevertheless, the study was conducted in Asian countries where the level of technology is higher and the ICT penetration rate is twice more than that of Tanzania and Africa in general and therefore, the result might not apply to all environments.

Again, in the study of Melchioly and Sabo (2010) which attempted to explore how mobile phones usage can contribute to the development of SME, the findings approved that ICT (mobile phone in this case) help in various aspects including; communication with suppliers and customers, market solicitation, social cohesion (bring people together for both business and personal issues) and operational cost reduction. In the concluding remarks the researchers also mentioned that many respondents in SMEs in the research area claimed to have improved their economic efficiency as a result of using mobile phones in business operations and they also claimed that this was possible due to the subsequent free flows of business information.

The study results seem to concur with those of the above as it only identified different aspects ICT can take its role without rating the level of contribution they play.

In his study to find out the most used ICT technologies among SME in tourism sector in Tanzania, Musabila, (2012) has found that e-mail services are mostly used for communication with customers, receiving orders from customers, updating customers on their orders, and communicating with suppliers. On the other hand, it was concluded

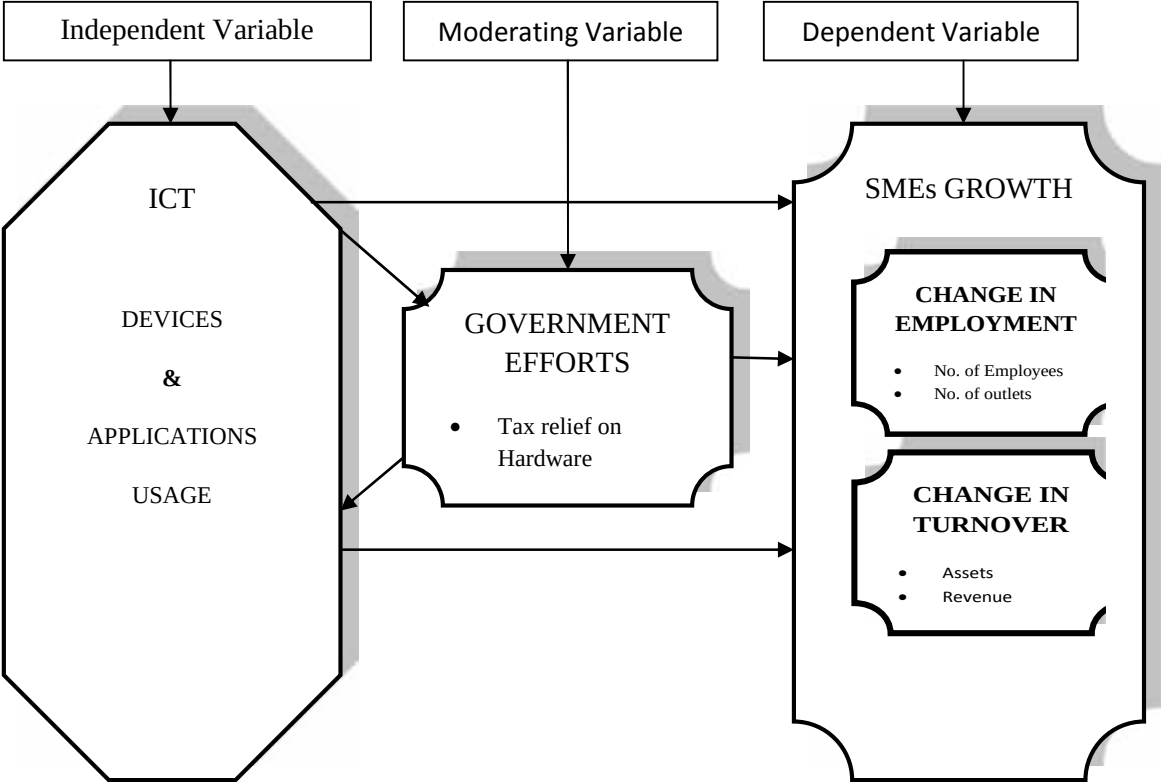
that the website technologies were rarely used in dealing with tourist activities. Such activities included receiving complaints from customers about the firm products and services offered, exchanging information with customers, receiving online orders and bookings from customers and making payments using on-line facilities. The results contradict with other studies such that of Adriana where it was found that almost all micro, small and medium enterprises use email and websites.

Generally the study restricted itself to the enterprises in the tourism sector and did not directly aim at exposing the general fact regarding ICTs usage in relation to SMEs growth in that specific area. Although it has shown the role ICTs play in the business yet it had not rate the contribution it provide to the growth of SMEs.

2.4 Conceptual Framework

A conceptual Framework represented below has been developed by a researcher in a way that explains the relationship between different concept and variables as they have been used by the study. Two major categories of variables have been used in the model, independent variable and dependent variable. The dependent variable “SMEs Growth” depends on the independent variable “ICT Usage”. The dependent variable is identified by change in employment and the change in turnover while the Independent variable is marked by the use of various ICT devices and applications. Furthermore, the moderate variable which is the Government effort have been included due to the fact that apart from the independent variable the ICTs usage might also be geared by the government by creating the conducive environment for the SMEs, so the moderate variable will balance the relation between the two major variables.

Figure 2.1 Conceptual Framework Chart



Source: Author's construct (2013).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology which was used. The structure of this chapter is as follows; research design, the study area, size of sample studied, techniques used to choose the sample, different types and sources of data collected, and data collection and data analysis techniques.

3.2 Research Design

The study is a correlation descriptive quantitative research design, however, the researcher also applied some qualitative tools such that of interview in order to improve the quality of findings. This design was used because the nature of the problem to be investigated demanded so. “Descriptive research design is the most appropriate as it geared more toward providing answers than generating initial insights” (Cohen and Manion, 1989).

3.3 Area of Study

The study was conducted in the Urban district in Zanzibar. The district is a part of the Urban/West Region in Zanzibar which constitutes one of the thirty regions of Tanzania. It is located on the island of Unguja at six degrees ten minutes ($6^{\circ}10'$) south and thirty nine degrees fifteen minutes ($39^{\circ}15'$) east. The district is the host of the Zanzibar Capital “the Zanzibar City” which is famously known as Stone Town, the historic centre and the World Heritage Site which is claimed to be the only functioning ancient town in East Africa. Moreover, the district serves the business centre of the entire Zanzibar since colonialism. It has a population of 223,033 out of 593,678 which is the total population for the Urban/West region and the remainders 370,645 constitute the population of the West district (NBS 2012). Generally, the Urban/West region has a total size of 230 km² (90 sq mi) with a population density of 2,600/km² (6,700/sq mi). The main economic

activities in the area are business and fishing. The study area was purposely selected with the researcher's opinion that enterprises of all sizes might be found.

Map of the study area



Source: Google.com

3.4 Study Population

The population studied in this project consisted of SMEs owners and some operational staff who are in use of various forms of ICT devices and applications in their day to day operation on one hand. And on the other hand the study consisted of the Key Informants from public and private sectors who know SMEs well and who were in position to provide the right data. Researcher has found that this population was able to provide the required data.

3.5 Sample Size

Forty respondents were selected from each category of micro and small enterprises which form 80 respondents, 15 respondents from medium enterprises and 5 respondents were the Key Informants who were selected based on the researcher's opinion. The total

sample size consisted of 100 respondents in which the researcher believed to be sufficient and representative due to the nature of the study, the time and the budget.

3.6 Sampling Techniques

The study used Stratified Random Sampling which is a probability sampling to collect data from respondents in different categories of micro, small and medium enterprises and each member from these categories assumed to have equal chance to participate in the study. A stratified random sample used to provide precise information than a simple random sample of the same size (<http://stattrek.com>). Purposive sampling techniques also applied to select Key Informants of the study to ensure right respondents are pinpointed by researcher.

3.7 Types and Sources of Data

Primarily, quantitative data were collected in this study. However, qualitative data were also collected to supplement its precedence. The study used primary source of data alone that enabled the researcher to obtain novel and unique information from respondents. Primary data thought to be most appropriate as it help to avoid biasness. Data were collected through structured questionnaires and semi-structured interviews using checklist of guiding questions.

3.8 Data Collection Techniques

- i) *Structured Questionnaires*: They were used to collect information from SMEs owners and the operational staff. Questionnaires were developed to obtain survey data that allows an understanding of the contribution of ICTs on the growth of SMEs. Both closed and open ended questions were used to allow researcher explore much from his respondent.
- ii) *Semi-Structured interview*: This technique was used to collect information from the Key Informants (KIs) from the public and private sectors who know SMEs well in order to gather clear understanding as proposed by (Myer, 2007). Key Informants

will be purposively selected because they are knowledgeable about various issues related to SMEs and their growth factors.

3.9 Data Preparation and Analysis

3.9.1 Data preparation

The data preparation process started by making data editing, followed by coding then data classification and finally tabulation before analyzing the data.

3.9.1.1 Data Editing

Is the process of examining the collected raw data (specifically in surveys) to detect errors and omissions and to correct these when possible (Kothari, 2004). Editing was done by making a carefully scrutiny of the completed Questionnaires in order to ensure that the data are accurate, some questions were mistakenly entered for instance, 22 which was not in the list of values to be entered. The researcher corrected by writing number 2 only once and hence data were uniformly entered and completed and then well arranged to facilitate coding and tabulation.

3.9.1.2 Coding and Transcription

As agreed by Kothari, (2004) that Coding is the process of assigning numerals or other symbols to answers so that responses can be put into a limited number of categories or classes. Basically coding decision in this study was taken at the designing stage of the questionnaire. In this study SPSS was used to make coding by assigning variables names such as Q001a, Q001b, Q001c, and Q001d to represent gender, age, experience and size of the enterprise respectively. Then all variables were assigned, values, and label. Setting of data type was done and some were ordinal, others were scale. Finally data were entered in SPSS.

3.9.1.3 Data Cleaning

In data entry process there were minor errors such as entering for example; number 2 twice and become 22 instead of 02 or, entering number 4 in the first column and then 3 in the next column of the same raw to become 43 instead of 4 and 3 to two different column of the same raw. All these were detected and corrected accordingly. The solution for these problem involved removing from the log file every line (record) that contained one or more null values in relevant attributes used, because nulls do not identify any kind of profile. So, 06 questionnaires were considered invalid because respondents skipped many items. The data obtained from the survey were analyzed for descriptive frequency analysis.

3.9.2 Preliminary Data Analysis

Out of the 100 distributed questionnaires a total of 75 or a response rate of 75 % was returned. The strategy used to collect questionnaire was to take the respondents mobile phone number at the time of giving him/her the questionnaire. Then after a certain period (two to three days), respondents were reminded by requesting them to return the questionnaire after they had completed answering them. After removing the invalid questionnaires, 75 questionnaires were used in the analytical stage.

3.9.3 Data Analysis

Quantitative data was analyzed, presented and interpreted through SPSS computer software. Quantitative data collected through interview with Key Informants was analyzed by using content analysis. This is to give summary of each topic discussed and identify the content of discussion. The analysis of data involved calculation of descriptive statistics (means, frequencies) for participant responses. Finally, correlations technique was used to test the relationship among variables and the results were presented in tables and charts.

3.10 Validity Issues

Validity issue is an important element in research as it is concerned with the accuracy of scientific findings (Margaret and Judith, 1982). For the purpose of minimizing the likelihood of getting wrong result findings, more focuses was to ensure its accuracy. Several efforts were carried out by researcher such as the use of quantitative data which had complemented the qualitative data. Questionnaires were tested before data collection to minimize errors and improve researcher credibility on collected data.

CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS AND DATA ANALYSIS

4.1 Introduction

This chapter involves the presentation of the findings and data analysis as to draw a clear picture of the studied population in relation to the topic in discussion. It will present and analyze findings related to; demographic characteristics of the respondents, the most available and preferred ICT devices and applications, the existing relationship between ICTs usage and the SMEs growth together with the level of contribution ICTs provide to the SMEs growth and will end up with the presentation of barriers related to ICTs usage by the SMEs. The findings from questionnaires will start to be presented and analyzed followed by those from key respondents.

4.2 Demographic Characteristics of the Respondents

4.2.1 Respondents' Gender

Among respondents, 60 (80%) were males and 15(20%) were females. The weighting of this sample does not equate to an equal distribution between males and females. This indicates that there is high possibility of an effect from gender bias to occur as it can be seen in table 4.1below;

Table 4.1 Respondents' Gender

		Frequency	Percent	Valid Percent
Valid	MALE	60	80.0	80.0
	FEMALE	15	20.0	20.0
	Total	75	100.0	100.0

Source: Research findings, (2014)

4.2.2 Respondents' Age

In terms of respondents' ages: (38.7%) had the age of 21 – 25, 32% between 26 – 30, and 14.7% was below 20 the rest were small frequencies. The results show that, most of the respondents were young people with age range between 21 – 30. This age group proves the fact revealed by the World Youth Report (2003) that young people are more globalized and that they are the most advantageous group when it come to adopt new technology. The results are shown in table 4.2 below;

Table 4.2 Age

Age Group		Frequency	Percent
Valid	below 20	11	14.7
	21-25	29	38.7
	26-30	24	32.0
	31-35	7	9.3
	above35	4	5.3
Total		75	100.0

Source: Research findings, (2014)

4.2.3 Business Experience

Participants were asked about their business experience as to make comparison with their experience in ICT usage. 38.7% of respondents were found to have 1 – 5 years experience and 36% has 6 to 10 years experience while only 16% found to have lower business experience which is below a year. These results reveal that majority of the participants have higher experience to effectively respond to the question regarding the ICT use in the business. The results were illustrated in the table 4.3 below;

Table 4.3 Respondents business experience

Experience		Frequency	Percent
Valid	below 1 year	12	16.0
	1-5 years	29	38.7
	6-10 years	27	36.0
	11-15 years	7	9.3
	Total	75	100.0

Source: Research findings, (2014)

4.2.4 Capital Range of the Enterprises

The question about the participants' capital range was asked as to help researcher identify the size of enterprises to which they operate in. The results in the table 4.4 below show that 40% has capital range which is below Tsh 5 million, another 40% has capital of Tsh 5 - 200 millions and the rest (15%) has a capital of Tsh 200 – 800 millions. This implies that right sample was selected and involved all categories of micro, small and medium enterprises respectively.

Table 4.4 Capital

Capital Range		Frequency	Percent
Valid	below Tsh 5 millions	30	40.0
	Tsh 5 to 200 millions	30	40.0
	Tsh 200 to 800 millions	15	20.0
	Total	75	100.0

Source: Research findings, (2014)

4.3 The Suitable and Available ICTs to most Tanzanian SMEs

To discover ICT devices and applications suitable and available in the selected sample we must first find out the devices and application used by the SMEs and those they would prefer to work on. The existing gap will provide us a clear picture of the matter in question.

In responding to the question regarding to devices currently used by the SMEs the findings in table 4.5 below has shown that 54.7% of the respondents are mobile phone users, 26% are both mobile phone and computer users and 12% are mobile phone, computer and CCTV users. This implies mobile phone, computer and CCTV cameras are the most available device to majority of the questioned participants for this case. However, it was observed in the study that majority of the mobile phone users are micro enterprises while small enterprises are the mobile phone and computer users and some of the medium enterprise use all mentioned devices with addition to CCTV cameras. These findings found to contradict with the fact revealed by the study of Adriana (2010) in South Africa where 100% of micro enterprises were in use of both mobile phones and computer. This might be due to the variations in the level of technology within the study areas and other existing barrier as will be presented later.

Table 4.5 Devices used by SMEs

ICT Devices		Frequency	Percent
Valid	Mobile phone	41	54.7
	Computer	5	6.7
	mobile phone and computer	20	26.7
	mobile phone, computer and CCTV camera	9	12.0
	Total	75	100.0

Source: Research findings, (2014)

Moreover, findings on table 4.6 show that 72% of the participants use various other applications out of microsoft office and accounting packages. The remaining 20% use microsoft office package and 8% use accounting software respectively. This entails us that in spite of the highest familiarity of the office and accounting packages there are many other applications available and suitable to most enterprises operations. Nevertheless, the study of Adriana (2010) found that majority of enterprises were in use many other technologies and applications where email and internet were used by all SME's categories including micro enterprises. Other applications identified by his studies were websites, video/audio conferencing, own computer network, intranet and company web. This proves us that Tanzania is still lagged behind in the use of ICTs in the business context.

Table 4.6 Application used by SMEs

		Frequency	Percent
Valid	Ms. Office package	15	20.0
	Accounting software	6	8.0
	Others	54	72.0
	Total	75	100.0

Source: Research findings, (2014)

Also, it was discovered that among other applications that are highly used by SMEs are the internet related activities including email and other social networks services as shown by findings in table 4.7 that 44% use internet and email. This finding answers the left questions on table 4.6 above where majority of the participants chose the “others” option while responding to the question regarding to the type of applications currently used by their enterprises.

Table 4.7 Type of technologies used by SMEs

ICT Technology		Frequency	Percent
Valid	internet and e mail	33	44.0
	Company web	1	1.3
	Wireless	2	2.7
	All three above	2	2.7
	Non	37	49.3
Total		75	100.0

Source: Research findings, (2014)

It is however, when participants were asked to select suitable devices and applications they would prefer to work on, 57.3% prefer to work on computer, 20% web site and another 20% reply to “none” from the options. This concurs to the fact that computer is believed to be the mostly preferred device and therefore included in the list of most available and suitable devices followed by the mobile phones as shown in table 4.5 above. On the other hand website and email found to be the most suitable and available applications as revealed in table 4.7 above and 4. 8 below;

Table 4.8 Devices and applications SMEs would prefer to work on

Devices and Applications		Frequency	Percent
Valid	Computer	43	57.3
	e mail	2	2.7
	web site	15	20.0
	Non	15	20.0
	Total	75	100.0

Source: Research findings, (2014)

4.4 The ICTs Usage and the SMEs Growth

SMEs' growth is the horizontal or vertical expansion of an enterprise measured by an increase in enterprise income, assets and employment. To find out the degree to which ICTs enhance SMEs growth, several questions were asked to participants including the question regarding the idea for introducing ICTs in the business, the ICTs impact to the business, the rate of ICT contribution to the business growth and the willingness to invest in ICTs.

4.4.1 The idea to introduce ICT in SMEs

The question about the motive to introduce ICTs in the businesses was asked to participants as to test their perception toward ICTs. The findings show that 57.3% introduce ICTs to simplify communication and time saving, 25.3% made two additional reasons; to simplify money transactions and data storage, 8% wanted to simplify their financial transactions only, and the remainder 5.3% mentioned all the above reasons with addition of two more; security reason and online marketing. This implies that majority of entrepreneurs introduce ICTs in their business to simplify communication, financial transactions and data storage while very few of them use ICTs for other functions such that of security and online business activities. Generally, ICTs seem to be used to simplify the operations and not for creating competitive advantage as viewed by (Musabila, 2012). The results are shown in the table 4.9 below.

Table 4.9 Motivation for the introduction of ICT in business

Reason for introducing ICT		Frequency	Percent
Valid	Simplify communication and time saving	43	57.3
	Easy money transactions	6	8.0
	Data storage	1	1.3
	No. 1,2 and 3	19	25.3
	Security issues	1	1.3
	Online marketing	1	1.3
	All above	4	5.3
	Total	75	100.0

Source: Research findings, (2014)

4.4.2 Impact of ICTs to the Business Growth

Participants were also asked to show whether ICTs have any impact to the business and it was confirmed positive by 84% of the total participant. 16% has no idea whether there is an impact achieved or not while non of them said that ICTs has no impact to the business. The results entail us that it is the fact that there is significance relationship between ICTs usage and the business growth. However, there are some SMEs found to be left behind from being benefited by the use of ICTs since they pay no attention to the contribution it provide as shown in the table 4.10 below.

Table 4.10 ICTs impact to the business growth

		Frequency	Percent
Valid	YES	63	84.0
	No idea	12	16.0
	Total	75	100.0

Source: Research findings, (2014)

Moreover, when participants were asked about the aspects of business affected by the ICTs, the results is revealed in table 4.11 that, 52% has increased their income, 18% increased their income and assets, 10% increased their asset alone, 10% has no idea on the aspect of their businesses affected and only 2.5% has increased in employment. This implies that ICTs have greater impact to the income and little to the assets and employment. These findings support the fact revealed by SBP (2013) that ICTs have impact on the income and assets but differed in the fact that 50% of the firms experienced turnover growth also reported increase in their employment as revealed by SBP Alert (2013).

Table 4.11 Aspect of business affected by the use of ICTs

Aspect of Business Growth		Frequency	Percent
Vali	Asset turnover	8	10.0
	Income turnover	42	52.5
	Employment	2	2.5
	Asset and income turnover	15	18.8
	All three aspects	2	2.5
	No idea	6	7.5
	Total	75	93.8
System		5	6.2
Total		80	100.0

Source: Research findings (2014)

4.4.3 The Rate of ICTs Contribution in Business

Despite the participants acknowledgement of the greatest impact of ICTs usage to the business as revealed in table 4.11 they were again asked to rate the ICTs contribution to their enterprises. Of all participants, 37.3% said it has very high contribution, 30.7% said it has satisfactory contribution and 32% have no idea to what extent ICTs contribute in their business. This concurs with the fact that ICTs has greater impact to the business as revealed in table 4.10 above when participants were asked about the ICT impact. Table 4.12 below reveal the discussed facts.

Table 4.12 Rate of ICTs contribution in business

Contribution Rate		Frequency	Percent
Valid	very high	28	37.3
	Satisfactory	23	30.7
	No idea	24	32.0
	Total	75	100.0

Source: Research findings, (2014)

4.4.4 SMEs' willingness to invest in ICT

The questions regarding to the participants monthly expenditure on ICTs was asked to derive the fact that they really acknowledge the contribution of ICTs to the extent that they are willing to invest in it. However, the results show that only 28% expend greater than Tsh.20, 000/- while the majority 58.7% spend less than Tsh.20,000/- and the remaining frequencies are very minor as shown in table 4.14 below. These results show that participants' willingness to invest in ICT is very low and therefore contradict to the facts revealed on table 4.12 above that ICTs contribute greatly in the business growth. It was expected that the more SMEs understand about the ICTs contribution the more they would be ready to invest in it. This might be obstructed by some barriers SMEs face as will be explained later.

Table 4.13 Enterprise ICTs expenditure per month

Monthly Expenditure on ICT	Frequency	Percent
less than Tsh. 20,000/-	44	58.7
Greater than Tsh. 20,000/-	21	28.0
Not sure	8	10.7
Nothing	2	2.7
Total	75	100.0

Source: Research findings, (2014)

Similar situation was observed when participants were asked whether they have special person employed to deal with ICT associated activities in their businesses. The results in table 4.14 below show that only 4% has special employees for ICT operations and the remaining 96% does not have. These results have similar implication to the results explained in table 4.13 above that despite the acknowledgment of the ICTs contribution, the willingness to invest in it is still poor.

Table 4.14 Special person employed to deal with ICTs

		Frequency	Percent
Valid	YES	3	4.0
	NO	72	96.0
	Total	75	100.0

Source: Research findings, (2014)

4.5 Barriers that Tanzanian SMEs face with respect to ICT Usage as a Growth Tool

This part of the study aimed at understanding possible barriers SMEs face in their decision toward using ICT as a growth tool and during their usage. When participants were responding to the question of whether they face barriers when using ICTs or not, the findings show that only 28% have agree to face some barriers while 72% found to face no barrier. This implies that participants are well conversant with the ICTs usage and possibly the government efforts contributed a lot in this instance.

However, when they were asked what hinders them from using very suitable devices, the findings in table 4.15 show that 62.7% face financial constraints, 22.7% lack awareness about those devices and the remaining percentages are smaller frequencies. This implies that among the very big constraints toward ICTs usage are finance and awareness to the devices that can be used in the business to support the current business environment. Similar facts were revealed in the study of Modemogale (2008), Mattehews (2007) and OECD (2000).

Table 4.15 Factors hindering SMEs usage of suitable ICTs

	Hindrance	Frequency	Percent
Valid	Financial	47	62.7
	Knowhow	17	22.7
	Availability of ICTs	2	2.7
	All Three	6	8.0
	Non	3	4.0
	Total	75	100.0

Source: Research findings, (2014)

In the case of external hindrances to ICTs usage, it was found that 78.7% seem to face no obstacle, 14.7% complained about the service provisions and 6.7% obstructed by the slow network. These results reveal the fact that there is very small number of external factors hindering the ICTs use by SMEs as shown in table 4.16 below and therefore, it

predict that majority of the hindrances attached themselves to the users' side. This might also prove the fact that government and other private institutions play their role of mobilizing ICTs usage by SMEs very effectively.

Generally, the findings have shown that financial constraint and knowledge of the ICT devices and applications which are the internal factors act as the major hindrance to the ICTs usage by the SMEs while poor service provision by network providers and slow network contribute to the external hindrance.

Table 4.16 Complaints regarding to ICTs usages

		Frequency	Percent
Valid	Slow network	5	6.7
	poor services provision	11	14.7
	Non	59	78.7
	Total	75	100.0

Source: Research findings (2014)

4.6 Correlations

4.6.1 Correlation between satisfaction of ICT devices and applications and preference of those devices

Correlations

		Q006a: Are you satisfied with the current devices and application s your business uses?	Q006b: Devices and applications preferred
Q006a: Are you satisfied with the current devices and application s your business uses?	Pearson Correlation	1	-.729**
	Sig. (2-tailed)		.000
	N	75	75
Q006b: Devices and applications preferred	Pearson Correlation	-.729**	1
	Sig. (2-tailed)	.000	
	N	75	75

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

A Pearson correlation coefficient was calculated for the relationship between satisfaction of ICT devices and applications and preference of those devices. A strong negative correlation was found ($r(1) = -0.729$, $P < 0.01$), indicating a linear relationship between the two variables. This means that most of respondents do not prefer the devices and applications used in their businesses as it can be seen in table 4.17 below. That is out of 43 respondents, only 3 prefers computer usage and 40 do not.

Table 4.17 Cross tabulation for satisfactions of current ICTs and the preferred ICT devices.

		Q006a: Are you satisfied with the current devices and application s your business uses?		Total
		YES	NO	
Q006b: Devices and applications preferred	Computer	3	40	43
	e mail	1	1	2
	web site	6	9	15
	Non	15	0	15
Total		25	50	75

4.6.2 Correlation between the ICTs impact to the business and the level of contribution it provide

Correlations

		Q008: Has the use of ICTs had any impact to your business?	Q012: How do you rate the contribution if ICTs in your business?
Q008: Has the use of ICTs had any impact to your business?	Pearson Correlation	1	.260*
	Sig. (2-tailed)		.024
	N	75	75
Q012: How do you rate the contribution if ICTs in your business?	Pearson Correlation	.260*	1
	Sig. (2-tailed)	.024	
	N	75	75

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

A Pearson correlation coefficient was calculated for the relationship between the respondents' views on ICTs' impact to the business and the level of contribution ICTs provide to their businesses. The results have shown the existence of weak positive correlations that is $(r(1) = .260, P < 0.01)$. This implies that there is a significant relationship between ICTs usage and business growth since most of the respondents, about 26 out of 63, concurred to the notion in question and rated the level of contribution as very high, while 21 rated it as satisfactory as shown in table 4.18 below;

Table 4.18 Cross tabulation for the impact of ICT and the level of contribution it provide to the business.

		Q008: Has the use of ICTs had any impact to your business?		Total
		YES	No idea	
Q012: How do you rate the contribution if ICTs in your business?	very high	26	2	28
	Satisfactory	21	2	23
	No idea	16	8	24
Total		63	12	75

4.6.3 Correlation between ICT devices and applications and ICT barriers

Correlations

	Q015a: Do you face any barrier while using ICT devices and applications in your business?	Q015b: What are the barriers do you face?
Q015a: Do you face any barrier while using ICT devices and applications in your business?	Pearson Correlation Sig. (2-tailed) N 75	1 .847** .000 75
Q015b: What are the barriers do you face?	Pearson Correlation Sig. (2-tailed) N 75	.847** .000 75 75

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

A Pearson correlation coefficient was calculated for the relationship between ICT devices and applications and ICT barriers. A strong positive correlation was found ($r(1) = 0.847$, $P < 0.01$), indicating a linear relationship between the two variables. This indicates that the presence of ICT barriers significantly hinders the usage of ICT devices and applications in the business.

4.6.4 Correlation between customer use of ICTs and customer complains

Correlations

		Q017a: Is there any complaint/feedback mechanism from customers in using ICTs devices and applications in business?	Q017b: If yes identify those complaints
Q017a: Is there any complaint/feedback mechanism from customers in using ICTs devices and applications in business?	Pearson Correlation Sig. (2-tailed) N	1 75	.929** .000 75
Q017b: If yes identify those complaints	Pearson Correlation Sig. (2-tailed) N	.929** .000 75	1 75

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

A Pearson correlation coefficient was calculated for the relationship between customer use of ICT devices and applications and customer complaints. A strong positive correlation was found ($r(1) = 0.929$, $P < 0.01$), indicating a linear relationship between the two variables. These complaints indicate the presence of some obstacles hinder the usage of ICT devices and applications in the business.

4.7 Data presentation from Key Informants

Key Informants were interviewed as to give out their views and to provide more clarification and to supplement the data collected from other participants through questionnaires. Semi structured interview was conducted where guiding questions were used to activate conversations. Four Key Informants were involved in the interview out of five as proposed by researcher while one respondent was unable to go for interview in the respective time of the study.

The procedures for selecting Key Informants was random where the researcher approached the institutions which assumed to have reliable data for the study as they are fully responsible with the entrepreneurship issues in the area. The heads of institutions then assigned responsible officers to go for the interview with the researcher. These institutions included the Zanzibar Chamber of Commerce, Zanzibar Labor Commission, Zanzibar Youth Vision Center and the Ministry of Trade, Zanzibar. Guiding questions were asked to the informants to activate the interview conversations and the following responses were provided;

When participants were asked about the ICT devices and applications mostly used by the urban district SMEs, majority of the respondents mentioned the computer and mobile phone together with their associated applications such as email, short messages (SMS), and voice calls. And when they were to suggest the most suitable devices and applications out of those mentioned above they mentioned a list of various ICTs including; mobile smart phones, tablets, websites, Local Area Networks (LAN) and wireless networks. These findings concur with the responses as provided by the SMEs owners and their assistants that computer, mobile phone and email as the most available devices with addition to smart phone and tablets while networking, office package and the Quick book were supplement to the list most suitable software.

When they were asked whether there is a direct relationship between the ICTs usage and the business growth, all Key Informants acknowledged the existence of direct relationship between the variables and they rated the ICTs contribution as very high to the business growth. However, they have expressed their disappointment that most of the SMEs do not effectively use ICTs for their growth. This indicates that Key Informants are not satisfied by the way SMEs use ICTs in spite of the greater contribution it can play to business growth.

Nevertheless, when they were asked about the common complaints and the complaints they always received from SMEs with respect to ICTs investment and usage in the business they mentioned several obstacles including; poor awareness to the modern ICTs, customers' readiness towards online transactions, unreliable network services, higher cost of operation and regular power cutting. However, some of the Key Informants added that most of the SMEs owners in the area are not very much comfortable to work on ICTs in their business and therefore they seem to be reluctant to invest in ICTs. This might confirm the fact revealed in the 4.5 above that 72% found to face no barrier in ICTs usage and it is likely to be so because they do not use them. This add to the list of barriers as mentioned by other participants above.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter is concerned about the summary of the whole study, the conclusion and the researcher recommendations from the fact revealed by the findings.

5.2 Summary of the Study

The primary objective of the study was to investigate the contribution of ICTs in the growth of SMEs. The study was specifically designed to explore the facts within Tanzanian context in the selected area of the study. Several literatures from various sources were reviewed and it was found that ICTs have direct relationship with the business growth in the contemporary world. In order to find unique data from the study area 75 respondents from different categories of SMEs were questioned through questionnaires and four Key Informants from different institutions were consulted for the interview.

The study was conducted in the Urban district of Zanzibar where majority of SMEs are congested and in the researcher's opinion right sample would be picked. The sample selection based on the researcher's opinion and the leading question of whether the participants understand the ICTs or not. Those replied no to the question disqualified themselves from the study.

Data were gathered from the field and analyzed both quantitatively and qualitatively depending on the nature of the data. Quantitative method was used to analyze data from the questionnaires while Key Informants replies were analyzed through content analysis. Data were then presented, interpreted and discussed in the appropriate manner.

Generally, the information obtained from the analysis revealed the fact that majority of the SMEs are aware of the fact that ICTs can play a greater role in the growth of their firms and they have glorified the level of ICTs contribution as very high. Among the most used technologies were the mobile phones and the computers with simple applications such as email, voice calls, mobile money services and little to the office applications, internet and websites.

These simple technologies used are, however, not primarily aimed at enhancing business growth but for the personal use or as a luxury. This perception hinders them from grasping the importance of ICTs. This was revealed when participants were asked on whether they have special staff employed to deal with ICTs operations and the amount spent in ICTs operations. The responses were non for the first question and little to the second. The same perception of ICTs use was discovered in the study of Yonazi (2012) and that of Souter (2010).

This situation might be caused by the existing barriers as identified in the study which include those related to financial, poor information and the willingness to invest in ICTs. It was also observed that in spite of the government effort toward ICTs usage there is still poor institutional support to the SMEs with respect to the ICTs usage. Despite the existing barrier of insufficient information about the modern ICTs, SMEs found to be interested to work on the most suitable devices and application available in the area.

5.3 Conclusions

The area of the study was thought by researcher to have comprised with the vast of enterprises which are in use of various ICTs. It was proved differently by the findings that most of the SMEs in the area found to be simple ICTs users and do not put much consideration on the ICTs usage in their businesses. This can be proved by the types of ICT devices and application used by these SMEs and their willingness to invest in it. Majority of the SMEs found to be in use of computers and mobile phones which are not

connected where as in the real world of business there are infinite devices and applications to be used by SMEs as gain competitive advantage and the business growth. This entails us that these SMEs are very far from being benefited by the existing technologies and therefore there more efforts should be done to help them achieve maximum benefits.

The fact that ICTs play a greater role in the business growth was not only revealed by many literatures but also by all respondents involved in the study. The findings show that several areas of the businesses were affected by the ICTs usage such as income and employment. The findings are still debatable since most of the SMEs found to remain in the use of simple technologies and have shown to have little interest to invest in ICTs despite the positive perception they have toward it. There is a lot to be done by SMEs in the use of ICTs in order to gain competitive advantages as suggested by (Musabila, 2012). For example most of the SMEs that are categorized as Small understand the role played by the use of ICTs but still they remain in the use mobile phones which are not connected as it was also found in the study of (Jensen 2002). They only use them for voice calls and short messages service while they are capable of connecting them or to use other devices such as computers. The same situations apply to other SMEs categories. This situation may provide an insight at least that in spite of simple technologies used still the contribution of ICTs to the SMEs' growth found to be very high. This entails us that if sophisticated ICTs will be used, SMEs growth will increase by more than 100% as they will be able to cross from one stage of growth to another as required by the SMEs growth theory.

Moreover, the fact that most of the respondents found to face no barriers related to ICTs introduction and usage in their enterprises is more or less related to the truth revealed by some Key Informants that majority of the SMEs are not comfortable in using ICTs in their business hence they do not use them rather than on the existing barrier as they have mentioned. This can also be traced in the findings that the majority of these SMEs are

not willing to invest in it. The same can be found in the findings that most barriers are associated by SMEs themselves rather than the external hindrances. This shows that in spite of the government effort to make ICTs easily available and accessible still it calls for more effort to encourage SMEs to use ICTs on their favor.

5.4 Recommendations

During the interview with Key Informants there was also a question related to recommendations they could provide to improve the existing situation of ICTs usage as a business growth tool. Researcher is also concurring to these recommendations based on the observed situation. These recommendations are explained hereunder;

- a. Increases in government effort to create conducive environment for the ICTs usage by improving infrastructures such as fiber optic project etc. This was raised due to the existing barriers related to infrastructures and mentioned by both Key Informants and other respondents.
- b. Government should establish Business Development Centers highly equipped with ICTs services to help SMEs. This aimed at cutting down the cost barrier which is related to sophisticated and expensive devices and applications to be used by SMEs. Moreover, it will help entrepreneurs to interact with each other and to find how they will best use ICTs for the growth through experience sharing within the centers.
- c. Stakeholders should run regular trainings to SMEs with regards to ICTs usage to make them understand the worthiness of investing in it. This will bridge the gap between the availability of ICTs and the acceptance by the SMEs to invest in it. It was found that despite the amicability of the government policy guiding ICT devices, there is a weakness in guiding SMEs how to use these devices for their growth. Therefore, institutional supports should not be underestimated in enhancing the use of ICTs by the SMEs. This is because the existing situation

might be geared and propelled by the so called “resistance to change” that SMEs find it worth working on the old fashion of doing business.

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APPENDICES

Appendix 1: Work Plan (in months, 2013/2014)

Activity	Duration in Months					
	October	November	December	January	February	March
Proposal Development and Submission						
Data collection and Analysis						
Report Writing and 1 st Draft Submission						
Final Submission						

Appendix 2: Budget (in T.shs.)

Research Budget

ACTIVITIES	BREAKDOWN	SUB-TOTALS
1.SHUTTling COSTS IN ZANZIBAR	A: Shuttling expenses will cover the transport expenses in ZANZIBAR during data collections. A: Data collection: 30 days X 10,000/-	300,000/-
2.TRAVELLING EXPENSES	From ZANZIBAR to MOROGORO: 48,000 X 4 That is to and fro to see the supervisor.	192,000/-
MEAL-AND ACCOMODATION	45,000 X 10 meals and accommodation expenses in MOROGORO during consultation with the supervisor.	450,000
3.REPORT WRITING	Stationeries Secretarial services Photocopy: Questionnaires: 100 copies X 400/- (4 pages) Other Documents: Printing : Questionnaires: 4 pages X 600/- Proposal:35 pages X 600/- Report: 70 pages X 600 X 4 (DUP) Draft printings (proposal & report) Binding expense: 4 copies X 1,500/-	50,000/- 40,000/- 40,000/- 10,000/- 2,400/- 21,000/- 168,000/- 200,000/- 6,000/-
CONTINGENCIES		100,000/-
GRAND TOTAL		1,579,400/-

Appendix 3: Questionnaire

Dear Respondent,

Mr, Mohamed Merali Mohamed is a Msc. in Entrepreneurship student from Mzumbe University in the school of Business administration. As a requirement for the fulfillment for his studies he is conducting a research with the title “THE CONTRIBUTION OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs) IN THE GROWTH OF SMALL AND MEDIUM ENTERPRISES (SMEs) – CASE OF URBAN DISTRICT ZANZIBAR”

This questionnaire intends to deduce your opinion with regard to various ICT devices and application used, their contribution to the SMEs growth and challenges SMEs face while opting for any ICT devices or applications.

I assure you that, the contents of this questionnaire are absolutely confidential; the answers will go only to the researchers and information identifying respondents will not be disclosed in any way. Please, tick the relevant answers and be as full and comprehensive as possible with your other answers. The information obtained from you will only be used for academic purpose and treated with utmost confidentiality. Thank you in advance for your cooperation and valuable time.

QUESTIONNAIRE

GENERAL INFORMATION

Q1. Interviewee gender: Age:

Years in the Business: Size of capital

Q2. Are you aware of ICT devices and applications? YES () NO ()

Q3. Do you have any ICT device for your business? YES () NO ()

Q4. What type of ICT device (s) do you have in place?

A. Mobile phone () B. Computer () C. Others (Specify)

.....

Q5. What type of application software you are working on your business?

A. Word processing () B. Accounting software () C. Statistical ()

D. Networking software () E. Others (Specify)

.....

Q6a. Are you satisfied with the current devices and applications your business uses?

YES () NO ()

Q6b. If NO, What type of ICT devices and applications would you prefer to have and work on?

A. B. C. D.

.....

Q7. How did you get the idea to introduce ICT devices and applications in your business?

A. To simplify communication with customers () B. To reduce time consuming ()

C. To help in financial transaction () D. Others (Mention

Q8. Has the use of ICTs had any impact to your business?

A. YES () B. NO () C. No idea ()

Q9. Which aspect of your business significantly affected by the use of ICTs?

A. Asset turnover () B. Income turnover () C. Employment ()

D. All three aspects () E. No idea ()

Q10. Is there any special person employed to deal with ICTs related operations?

YES () NO ()

Q11. What is your current cost expenditure on ICT per month?

A. Less than Tsh.20, 000/- () B. Greater than Tsh.20, 000/- () C. Not sure () D.

Nothing ()

Q12. How do you rate the contribution if ICTs in your business?

A. Very high () B. Very Low () C. Satisfactory () D. No idea ()

Q13a. Who are your immediate competitors in the market?

.....

Q13b. What are their strengths?

.....

Q14. Which of the following technology do you use?

A. Email (), B. Internet (), C. Intranet (), D. Wireless (), E. Company Web ()

F. Video Audio Conferencing (), G. Other (Mention)

Q15. Do you face any barrier while using ICT devices and applications in your business?

YES () NO (). If **YES** what are those barriers?

.....

Q16. What hinders you from using the most suitable ICT devices and application in your business?

A. Financial () B. Knowhow () C. Availability of ICTs () D. All three ()

E. Others (Mention)

Q17. Is there any complaint/feedback mechanism from customers in using ICTs devices and application in the business? YES () NO (). If **YES**,

Identify.....

Q18. What complaints/feedback would you give towards the use of ICT devices and applications in your business?

.....

.....

Thank you

Appendix 4: Guiding questions for interview

GUIDING QUESTIONS FOR THE KEY INFORMANTS' INTERVIEW

Name of Institution:

Q1. What ICT devices mostly used by SME in the urban district of Zanzibar? And what would you consider to be most suitable devices to the Tanzanian SMEs?

Q2. What hinder SMEs from using the suitable and sophisticated ICTs in their enterprises?

Q3. What is the existing relationship between the ICTs usage and the business growth? And how do you rate that contribution?

Q. What recommendation would you provide towards ICTs usage for the SMEs growth?
