THE CONTRIBUTIONOF INFORMATION COMMUNICATION TECHNOLOGY IN THE PERFORMANCE OF SMALL BUSINESSES IN TANZANIA: A CASE OF DODOMA CITY COUNCIL

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Masters of Science in Project Planning Management Degree of the Institute of Accountancy Arusha.

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A Dissertation submitted in partial fulfillment of the requirements for the award of Masters of Science in Project Planning Management Degree of the Institute of Accountancy Arusha.

October, 2023

DECLARATION

I, Maenzi Rashid, declare that this Dissertationis my own original work and that it has been presented to Institute of Accountancy Arusha as a partial fulfilment of the requirement for degree of Master of Science in Project Planning Management of the Institute of Accountancy Arusha and will not be presented to any university for similar or any other degree award.

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CERTIFICATION

I, the undersigned certify that I have read and hereby recommend for acceptance by Institute of Accountancy Arusha a Dissertationtitled **"THE CONTRIBUTION OF INFORMATION COMMUNICATION TECHNOLOGY ON THE PERFORMANCE OF SMALL BUSINESSES IN TANZANIA"** in partial fulfilment of the requirements for the degree of Master of Science in Project Planning Management of the Institute of Accountancy Arusha.

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Supervisor name: (Filbert Rodrick)

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ABSTRACT

Numerous academics in the field of entrepreneurship have demonstrated that Information and Communication Technology (ICT) can unquestionably have a more significant impact on the success of small businesses. To fully understand the complex link between these two variables, more research is still needed. With a focus on Dodoma City specifically, this study aimed to determine the role that ICT plays in the performance of small businesses in Tanzania. The main goals of the study were to determine the degree to which ICT adoption has impacted small business performance, what kind of ICT is most appropriate and accessible to small businesses, and finally, what ICT infrastructure limitations are common among Tanzanian small businesses. Small businesses in the relevant district that employ one or more categories of ICT equipment and applications were the study's target audience of which four Key Informants and a fair representation of 97% of the respondents took part in the study. The results of the survey indicated that the most widely used devices in the study region are the computer, mobile phone, and CCTV camera. The most widely used apps in the study area are the internet, websites, Microsoft Office programs, and statistical software. The majority of respondents believed that ICT had a stronger impact on their organizations' performance, indicating the strong correlation already identified between ICT usage and small business performance. Nevertheless, several limitations prevent the efficient application of ICT to many small enterprises.Financial limitations, ignorance of the newest gadgets and applications, inexperience with certain ICT technologies, high ICT operating expenses, and subpar network services from service providers are some of the most frequently cited barriers.Since small businesses in the study area were found to be lagging behind in the use of modern technologies, these findings are very concerning to activists who specialize in the development of small businesses. As a result, both public and private support is required to take corrective measures in order to help small businesses acquire the maximum benefits from integrating ICT in their businesses.

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LIST OF ABREVIATION

ICT	Information Communication Technology
SB	Small Business
SME	Small Medium Enterprises
SPSS	Statistical Package for Social Sciences
DIY	do-it-yourself
TRA	Tanzania Revenue Authority
PEOU	Perceived ease-of-use
PU	Perceived Usefulness
BI	Behavioral Intention
TAM	Technological Acceptance Model

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the background of the study including the problem and its context. The chapter is composed of the following sections: background of the study, problem statement, research objectives, significance, scope and limitations of the study.

1.1Background to the Study

Small and medium-sized businesses (SMEs) now more than ever operate in unstable and dynamic contexts marked by heightened competition and shifts in people's wants and behaviours (Parida et al. 2016). The export of manufactured goods from Asian nations reflects this. For instance, China and India have lower manufacturing costs and prices and pose a significant challenge to international SMEs in terms of competitiveness (Terziovski, 2010). A further obstacle to SMEs' capacity to compete in the current markets is that, in addition to these challenges, a number of studies have revealed that they also confront challenges in deploying their competencies and obtaining resources (Sok et al. 2016).

Many nations rely heavily on MSMEs for their economic and social growth, and structural obstacles in these businesses might impede such countries' advancement (Hanclova et al., 2015). Researchers have discovered a direct correlation between improved performance in contemporary businesses and the effective use of ICT (Albar & Hoque, 2017). ICT may assist businesses in raising their level of competitiveness and productivity in a number of ways, including by lowering expenses, boosting sales, improving process integration, and offering superior information for decision-making (Ahmad et al., 2015; Albar & Hoque, 2017). Ashrafi, 2012 ICT platforms—such as PCs, cell phones, the internet, etc.—benefit organisations in four key ways: they increase business enterprises' visibility; they provide small businesses access to more

information; they enable businesses to get over old trade barriers; and they ease financial transactions. ICT also affects how adaptable organisations are and businesses; those that use ICT to enhance their performance in the marketplace and make it simpler to distinguish their goods and services (Tarutė and Gatautis, 2014).

MSMEs in developing nations have an even greater impact on their economies than MSMEs in developed nations do because they are the main forces behind economic advancement (Ntwoku et al., 2017), they are more effective at producing high-quality jobs, they are more innovative, and they expand more quickly than large corporations (Qureshi, 2015).

According to Gobakhloo and Tang (2015), businesses in developing nations often have lower productivity than those in industrialised nations. The structural features unique to developing nations, such as poor ICT infrastructure, a workforce lacking in ICT education, and comparatively less dynamic business settings, can account for a portion of this productivity gap (Albar & Hoque, 2017; Panda & Rath, 2018). The slower rates of production in these nations could also be explained by a delay in the adoption of information technology and systems (Albar & Hoque, 2017). SMEs in developing nations also confront a variety of external and internal obstacles, including government policies, technology, marketing, and industry, in addition to working capital constraints, inadequate human resource capabilities, and a lack of technical know-how (Ramli, 2016). Information is a valuable resource that provides small and medium-sized businesses (SMB) with a competitive edge in the new economy, according to Buhalis (2014). However, they draw attention to the fact that a lack of ICT infrastructure makes it difficult for people to obtain information in developing nations like Botswana, Tanzania, and South Africa.

The information and communications technology (ICT) markets of Kenya, Tanzania, Uganda, and Rwanda are situated at varying phases in East Africa with regards to their total size, infrastructure, education, labour force skill level, and degree of development. Because of this, the main obstacles

that ICT SMEs must overcome in order to establish and expand may differ greatly throughout nations. There are shared themes throughout the entire region, even if each country has unique issues. These can be divided into four primary categories: obstacles pertaining to the business environment; obstacles pertaining to financing availability; obstacles pertaining to the absence of an interconnected network of entrepreneurs; and obstacles pertaining to the degree of business acumen among entrepreneurs (EAC, 2017). The Centre for Development's research on the use of ICTs in SB economic performance in East Africa has demonstrated that companies that successfully use ICT can give small businesses a competitive edge that can boost their competitiveness (Bayo, 2017).

In most Sub-Saharan African nations, including Tanzania, information and communication technologies (ICTs) have been becoming more and more popular as a tool for improving rural farmers' access to agricultural information (Benard et al., 2018). Among the main ICTs being pushed, agricultural development organisations are very interested in cell phones. Nonetheless, instances from Tanzania demonstrate that disparities exist in the kinds of ICTs utilised and how they are utilised by farmers engaged in diverse businesses (Benard, et al., 2018).

Access to information is essential to making well-informed decisions, which helps SB make competitively sound decisions with ease. "The ability of SB to survive in an increasingly competitive global environment is largely predicated upon their capacity to leverage information as a resource" (Chyau, 2017, p. 1). In order to exploit ICT's advantages, small and medium-sized businesses must carefully consider where to place it within their organization.

ICT can meet a variety of business requirements, including those that are operational, marketing, strategic, or a mix of all three. ICT use was categorized according to the various business needs, and Dalrymple (2015) divided them into three groups: general users, production integration, and market-oriented organizations. The production-integration group uses ICT in close conjunction

with business operations and commodities manufacturing, whereas the general-user group uses basic technologies like the Internet, email, and phone to do administrative tasks for the SME. ICT is utilized by the market-oriented group to communicate or market to the outside world. The grouping of ICT usage inside SMEs is expressed by many names, but the basic goal of its use is expressed by the above category.

In Tanzania, SB still faces difficulties when utilising ICT for SB. But big businesses like banks, insurance providers, and government agencies like the Tanzania Revenue Authority are reaping big benefits from their ICT investments (Davis, 2019).

As a matter of fact, SMEs account for 90 percent or more of all enterprises in Tanzania and make about 27 to 35 percent of the country's GDP (Citizen, 2022). Over 80% of all jobs in the nation were created by SME's in 2012; of all new positions produced in 2019, 430,000 were created in this sector. SME's also contributed roughly 20% of the GDP of the nation (URT, 2012).

Since the majority of these businesspeople do not use ICT in their daily operations, the goal of this study is to determine whether or not ICT has improved the performance of small enterprises in the city. Therefore, by evaluating the impact of information and communication technology on Tanzanian small enterprises' performance, this study aims to close the identified gap.

1.2Statement of the problem

SB uses information communication technology as a tool to connect and look for information. This tool is also utilised by entrepreneurs in the process of starting profitable businesses. ICT accessibility has opened up fascinating new opportunities for business owners everywhere (Disterer, 2015). ICT is reaching people who were previously shut out of economic prospects by bridging the economic divide more and more. These new users have access to opportunities that would be unthinkable for them without this technology, including collaborating, raising money, improving their education, researching new ideas, and starting their own businesses in addition to

consuming what is already available online. Nowadays, the biggest of these startups—like Google and Facebook—are ranking among the most valuable businesses worldwide (Esselaar, 2016). Nonetheless, the majority of the positive effects of the internet on business endeavours include increased access toinformation via the internet, improve the capacity for contact between business owners and others, assist in achieving the goal of a particular venture firm, boost the effectiveness of the application process, and particularly support marketing strategy (Fishbein, 2015).

The economy of every nation depends heavily on SB. Today's competitive economy requires the growth and assistance of the private sectors, especially the SB. This calls for education, the construction of facilities and infrastructure for the transmission of knowledge, and the use of technology to foster entrepreneurship and innovation. ICT encourages organisational change and is a strong catalyst for the growth of SMEs since it raises awareness, aids in the development of new business models, and reduces costs associated with time, money, and transparency (Gago, 2017).

ICT-using SB continue to have unimpressive results, and the output levels anticipated from ICT investment in these SB do not equate to improved goods and services, increased market share, or lower costs. This is ascribed to a number of factors, including a lack of knowledge on how to effectively use and manage ICT systems, an inflexible market that favours conventional business practises, and the existence of middlemen in the supply chain that impede e-business and complicate the efficient use of ICTs. The Tanzanian government is quite concerned about the impact of information and communication technologies on productivity growth. SB can optimise financial opportunities and gains by adopting a well-informed ICT strategy.

Nonetheless, a large number of SB in poor nations, such as Tanzania, are still sceptical about the benefits of ICT. As mentioned in Msuya et al. (2017), less than 1% of Tanzanian SMEs adopt and use ICT (Naul, 2012; URT, 2012). This argument serves as the foundation for the study's attempt

to evaluate the impact of information and communication technology on small business performance in Tanzania. Specifically, the study looks at the degree to which small businesses in Dodoma city council have adopted ICT, what kind of ICT is most appropriate and available to them, and what ICT infrastructure limitations they face.

1.3 Research objectives

1.3.1 General objective

The primary goal of the research is to evaluate how information and communication technology affects Tanzanian small enterprises' performance.

1.3.2 Specific Objectives

i. To assess the level of ICT adoption in Dodoma City Council small business performance.

ii. To determine what kind of ICT is most appropriate and accessible to Dodoma City Council's small businesses.

iii. To ascertain the ICT infrastructure limitations that small businesses in the Dodoma city council most frequently face.

1.4 Research questions

i. How much have small businesses in the Dodoma city council adopted ICT?

ii. Which ICT tools and resources are most appropriate and accessible for small businesses within the Dodoma City Council?

iii. How much does ICT use improve small business performance in Dodoma city council?

1.5 Significance of the study

The research is beneficial from an academic and practical standpoint. From an academic standpoint, the study will add to our understanding of how ICT is used in SB in Tanzania. More crucially, this work will help the authors earn a master's degree if it is written to suitable standards. In terms of practical utility, policymakers and small business owners may find the findings valuable. Further, Upcoming academics and researchers, In light of this, the study will serve as a review of the literature about the components and factors (ICT and SB performance), which will make it a valuable resource for future researchers looking into the same study variables.

1.6 Scope of the study

The purpose of this study, which will be carried out at the Dodoma City Council, is to determine how ICT usage might help small enterprises survive. Dodoma City Council will provide primary and secondary data for small enterprises that will be used in the study. The city was chosen because it has more small businesses than other districts in the area; as a result, the researcher anticipates obtaining pertinent data regarding the impact of information and communication technology on small business performance.

1.7Limitation of the study

When performing the research, the researcher is likely to run into the following limitations, some of which might be;

Money. Financial resources were required for data collection, material printing, and transportation between locations; however, as the researcher is unsponsored, these resources are probably insufficient to cover all of the activities. To get around this issue, the researcher will look for funding from other sources, such as parents, in order to stay within the constraints of the budget.

Time is extremely limited for this study because it takes longer to cover a high sample size and provide wide coverage. To address this difficulty, the researcher will put in a lot of effort in accordance with the IAA time framework.

1.8Organization of the study

There are five chapters in this study. The problem that guides the study and its context is revealed in Chapter 1. This includes the study's organization, background information, problem description, aims, scope, and limitations. It also highlights the study's relevance. The second chapter provides an explanation of the literature review, which includes conceptual framework description, research gap, empirical literature, theoretical framework definitions, and research gap information. The research technique and the steps involved in gathering and analyzing data are covered in detail in Chapter 3. Further, the fourth chapter presents study findings and discussion and Chapter 5 presents study conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The pertinent literature for the investigation is reviewed in this chapter. The notion of ICT, SB, is introduced at the beginning of the chapter. The chapter also offers a summary of ICT, SB, and performance theories. Innovation and diffusion theory as well as the Technology Acceptance Model were among the theories discussed. In other sections of the chapter, it is explained how SB has adopted ICT in Dodoma City Council, how ICT usage affects SB's growth and expansion, how ICT use affects the quality of SB's products and services, and how the study's conceptual framework works.

2.2 Definition of Concepts

2.2.1 Information and Communication Technology (ICT)

ICT is defined by Ritchie and Brindley (2005) as "the array of primarily digital technologies designed to collect, organize, store, process and communicate information within and external to an organization and, in our case, SB" . Simple telephones, point-of-sale systems, standalone PCs, networked settings, the Internet, and credit card capabilities are all included in ICT.

2.2.2 Small businesses

Are companies, partnerships, or sole proprietorships that generate less money annually and/or employ fewer people than a regular-sized company. The criteria used to determine whether a business is "small" enough to be eligible for government assistance and favorable tax treatment varies by nation and sector.

The National SME Policy of Tanzania (2003) defines SB as micro, small, and medium-sized businesses; however, it is also occasionally written as micro, small, and medium-sized businesses (MSB). The primary uses of SB are in non-farm economic sectors such manufacturing, services,

mining, and commerce. Since there isn't a single, widely agreed-upon definition of a SME, several nations gauge an enterprise's size based on its degree of development. However, there is a standard measurement that includes total investment, total number of employees, and total sales turnover. Micro firms in Tanzania typically consist of four individuals and have a capital of up to Tshs. 5 million. The majority of these businesses are part of the informal economy. Formalized small businesses employ five to forty-nine individuals and have capital between Tshs. five million and Tshs. 200 million, whereas medium-sized businesses employ fifty to ninety-nine people and have capital between Tshs. 200 million and Tshs. 800 million. According to the empirical analysis, in high-income nations, SB account for more than 55% of GDP and more than 65% of all employment. In low-income nations, 60% of GDP and more than 70% of total employment; in middle-income countries, 95% of total employment and 70% of GDP (OECD, 2003).

Indicators of small business performance

Sales growth, employment, profit, and assets are some indicators of small business performance (Shepherd and Wiklund, 2009 as cited in Isaga, 2012).

2.3 Theoretical Framework

2.3.1 Innovation and diffusion theory

Innovation is defined as offering new ways for adopters to solve problems, which encourages organisations to adopt technology (Rogers, 1995: Runge & Lee, 2002; Thong, 1999). A model of the innovation-decision process that highlights the part that individual behavior plays in the adoption of technology was put out by Rogers (1995). The model links decisions and behaviours that occur when a person assesses a novel idea and determines whether or not to integrate it into a current practice. A unique feature of the innovative decision-making process is the perceived benefit of adoption and the corresponding uncertainty. Usually, SB owners and management make the decision on whether to accept an innovation. The owners/managers would try to

ascertain the innovations' utility by gathering data from multiple sources during the decision-making process. To choose whether or not to accept the new invention, they will evaluate its relative advantage, compatibility with current systems, complexity, trial ability, and observability (Kendall, et al., 2001; Rogers, 1995).

2.3.2 Technology Acceptance Model

The most extensively used model of users' adoption and utilisation of technology is Davis's Technology adoption Model (1989) (Venkatesh, 2000). It was created by Fred Davis and Richard Bagozzi and uses the two technology acceptance metrics of utility and simplicity of use to replace a number of TRA (Theory of Reasoned Action) attitudes assessments. An information systems theory called the technology acceptance model (TAM) simulates how consumers come to accept and employ a technology. The point at which individuals really use the technology is called actual system utilisation. One of the things that motivates people to use technology is their behavioural intention. The attitude (A), or the overall perception of the technology, has an impact on the behavioural intention (BI).

According to the model, a variety of factors, including the following, affect users' decisions about how and when to employ new technology when presented with it:

i. Perceived usefulness (PU): According to Fred Davis, this is "the extent to which an individual believes that utilising a specific system would improve their job performance." It refers to whether or not someone believes they can accomplish their goals via technology.
ii. Perceived ease-of-use (PEOU): according to Davis (1989), this is "the extent to which an individual believes that utilising a specific system would require no effort." When technology is user-friendly, obstacles are overcome. Nobody is fond of something if it is difficult to use and has a confusing interface.

Social influence and other external factors have a significant role in determining an individual's mindset. People will use technology with the aim and attitude that these things (TAM) have when they are in place. However, as each person is unique, opinions may vary based on factors like gender and age.

2.4 Empirical Literature Review

2.4.1 The type of ICT suitable and available to the most Small Businesses

The study by Ritz et al. (2019) sought to investigate the reasons behind and anticipated consequences of small businesses' involvement in digital marketing by integrating the technology acceptance model (TAM) and the do-it-yourself (DIY) behavior model. The findings supported the hypothesis that small business owners and managers may be motivated by factors other than technology advantages to engage in digital marketing, which advanced our understanding of small businesses' digital marketing practises. The authors also discover—and perhaps this is even more significant—that small business owners and managers who have to carry out tasks requiring specific knowledge can apply the (DIY)behavior model.

In order to boost profitability and compete internationally, small-to medium-sized firm (SME) leaders in Nigeria use information and communication technology (ICT) adoption as a business strategy, according to a study by Okundaye et al. (2019). The data analysis revealed four main themes: the role of government, ICT adoption factors, ICT functions and benefits, and SME success determinants. The study's conclusions may be useful to government and SME leaders in addressing numerous obstacles to ICT adoption in Nigerian SMEs.

The impact of entrepreneurial innovativeness on the relationship between technology innovation and company performance in Kenya is examined in the study by Chege et al. (2019). The investigation included structural equation modelling and a sample of 240 firms. The results showed that technological innovation had a beneficial impact on business performance.

Adriana (2010) carried out a study in which she tried to determine the kinds of technologies utilised by both large and small businesses, with the majority of the participating companies being SMEs. According to the results, of the six micro firms in South Africa, at least four of them employ wireless technology, company websites, and their own computer networks; one uses an intranet; and none of them use video or audio conferencing. Out of the three small businesses, all three were discovered to use email, their own computer network, and the internet; only two used wireless, their company website for video conferencing, and one used an intranet and audio conference. It was discovered that nearly all medium-sized businesses employ wifi, email, the internet, intranets, company websites, video and audio conferencing, and their own computer networks. This offers proof of the SMEs' adoption of different ICTs, but it does not offer proof of the ICTs' contribution to the SMEs.

Similar findings were observed in the Modemogale (2008) research, which revealed that nearly eight out of ten SMEs questioned about their usage of ICT used at least one type of ICT device or application. Furthermore, the study offers no explanation for the overall and relative contributions that ICT makes to the expansion of SMEs.

Once more, Melchioly and Sabo's (2010) study sought to investigate how the use of mobile phones can aid in the growth of small and medium-sized enterprises (SMEs). The results confirmed that ICT, in this case, mobile phones, can be helpful in a number of ways, including market solicitation, communication with suppliers and customers, social cohesion (bringing people together for both personal and professional issues), and operational cost reduction. The researchers also noted in their closing remarks that a significant number of respondents from SMEs in the study area stated that using mobile phones for business operations had increased their economic efficiency. They further stated that this was made possible by the ensuing free flows of business information.

The study's findings appear to support the previously mentioned ones since they just listed the various ways that ICT can be used, not grading how much of a part it can play. According to Musabila (2012), who conducted a study to determine which ICT technologies SME in Tanzania's tourist sector use most frequently, email services are primarily utilised for customer communication, order receipt, order updates, and supplier communication. However, it was determined that dealing with tourism-related activities was not a common use for the website technologies. These included fielding consumer complaints over the company's goods and services, communicating with clients via information exchange, taking online orders and bookings, and processing online payments. The findings run counter to previous research, including Adriana's, which discovered that nearly all micro, small, and medium-sized businesses use websites and email.

Generally speaking, the study was limited to businesses in the tourism industry and did not specifically seek to reveal general information on the use of ICTs in connection with the expansion of SMEs in that particular field. ICTs' importance in business has been demonstrated, but their impact to SMEs' expansion has not been evaluated.

2.4.2The limitations of ICT infrastructure that are common to small businesses.

Here, licensing and franchising based on intellectual property is combined with an emphasis on global markets (ILO, 2015). Few research have explicitly looked at the relationship between ICT infrastructures and SMEs' access to BDS. First off, (Apulu, 2012) pointed out that one of the obstacles inhibiting SMEs from utilizing BDS through this infrastructure was insufficient ICT infrastructures, which makes it more difficult for SMEs to successfully compete in international markets. Moreover, it seems that accessing ICT business infrastructure in quest of BDS is hampered by ignorance of the presence of different ICT business infrastructures. Some literature, mainly from Tanzania, confirms that SMEs are still unaware of these infrastructures and therefore cannot use them to access BDS information, even with large investments made in ICT business

infrastructures and their role in helping SMEs access business development services (BDS). This literature suggests that more information and sensitization programs should be developed in order for SMEs to efficiently access and utilize the infrastructure (Nyaisa, 2021; Mengstie, B 2016).

On the other hand, one of the factors that keeps SMEs from utilising various commercial ICT services is ICT security concerns. SMEs may be the target of cyber-attacks as either persons or organisations while using ICT infrastructures, when they use their ICT devices, such as computers and mobile phones, to access insecure public networks where they have stored their personal and organizational information (OECD, 2018). According to these research (Pillay 2016; Sianjase, & Libati, 2016), addressing ICT security issues can boost user confidence and trust while utilising ICT facilities to access BDS.

The inability of SMEs to afford ICT-related services and equipment, including computers and internet connection, is another obstacle. If they had access to these resources, it would be simpler for them to use the ICT infrastructure to locate business development services. It is therefore recommended that SMEs receive financial assistance in the form of loan programmes and other agreements so they may make use of infrastructure and purchase services. (Sanjase & Libati, 2016; Pillay 2016).

A different set of research conducted in a few African nations, such as Zambia and South Africa, has demonstrated that one of the obstacles to SMEs'—or rather, businesspeople'—accessing and efficiently utilising knowledge and skills through the ICT infrastructure is a lack of business and ICT skills (OECD, 2018). In fact, these studies show a strong and positive correlation between SMEs' educational attainment and their adoption of ICT, especially when it comes to general-use and production-integrating ICT (Pillay, 2016). In order for SMEs to leverage their current ICT business infrastructure to access BDS, these studies also recommend that they be trained on how to use ICT tools and the internet. (OECD, 2018; Pillay, 2016; Sianjase & Libati, 2016).

According to a different body of study, small and medium-sized enterprises (SMEs) lack access to a range of online business-related information because they are unable to use social media, including websites, Facebook pages, Instagram, Twitter, and WhatsApp. This is partly due to a lack of understanding of social media and an incapacity to use resources such as computers, mobile phones, and the internet due to financial and technological constraints (Munishi, 2022).

2.5Knowledge Gap

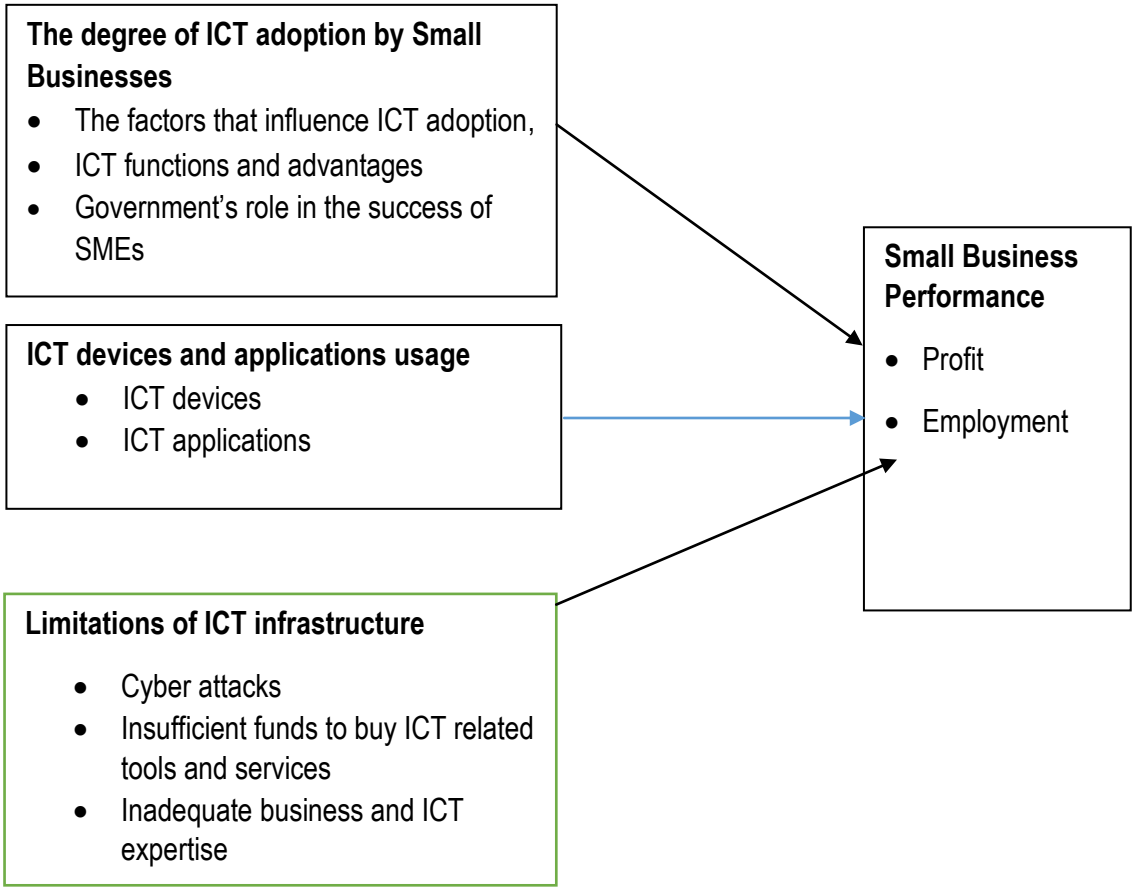
Regarding ICT and SB in Tanzania, numerous researchers have published extensively (Valasseri, 2022; Eze et al, 2019; Chege et al, 2019). The goal of this study is to identify the gaps by examining the impact of information and communication technology on the performance of small businesses in Tanzania. A researcher will fill in these gaps by focusing on MSE adoption of these technologies, which was a major focus of previous research.

2.6 Conceptual Framework

A conceptual framework is defined by Moskal and Leydens (2007) as the primary objects of analysis, including important variables, concepts, and factors as well as any potential interactions between them, whether represented graphically or narratively. A conceptual framework, whether in narrative or visual form, describes the main topics to be investigated, important variables, concepts, and factors, as well as the presumed interactions between them. According to Vaughan (2013), a conceptual framework offers the study's overall structure or substance and is based on both academic research and first-hand experience.

Figure 2. 1 Conceptual Framework Model

Independent variablesDependent variables



Source: Researcher (2023)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the approach and process that will be utilized to gather and analyse the data; in other words, it includes a manual for gathering, measuring, and analyzing data. The first task explained the research design and the methods used to collect data; the second task reviewed the population the study was intended to investigate, the design sample and procedures, the data collection techniques that were used, the data analysis techniques, validity and reliability considerations, and ethical considerations.

3.2 Research Design

"The setting up of conditions for data collection and analysis in a way that seeks to combine relevance to the research purpose with economy in procedures" is what Kothari (2004) defines as research design. The chosen approach used to address a certain research topic is explained by the study design.

This study used a descriptive research strategy in this regard. In this study, a descriptive research design was utilized to observe, record, and characterize phenomena. The variable construct's statistical significance was determined by analyzing the frequency, mean, and standard deviation of the data.

3.3 Area of study

Tanzania's formal national capital is Dodoma, in which the plans were established in 1973 to relocate the capital to Dodoma. Although the National Assembly of Tanzania relocated there in February 1996, the country's commercial center, Dar es Salaam, still houses numerous government buildings. It is situated in the nation's center at 6°10'23°S 35°44'31°E, the town is 486 kilometers (302 miles) west of Dar es Salaam, the previous capital, and 441 kilometers (274

miles) south of Arusha, the East African Community headquarters. Sixty-five square kilometers, or 241 square miles, of its 2,669 square kilometers (1,031 sq mi) are urbanized. The reason for choosing Dodoma Dodoma region is because it is among of the region that benefited from the program of being a city in the country. Further, the city is growing business wise after the public institutions employees move to Dodoma and other people visit Dodoma in order to access the government and other public services.

3.4 Research Approach

Both quantitative and qualitative research methods were used in this study, which followed a mixed research methodology. The gathering of data that may be quantitatively analyzed characterizes a quantitative method, whereas the gathering of respondent narratives characterizes a qualitative approach (Bouma-Prediger, 2010). Thus, the researcher was able to accomplish the primary goal of this study through the use of a hybrid strategy. Because of the complementary nature of the mixed research approach, the researcher was able to correlate the data gathered from respondents.

3.5 Population, Sample Size and Sampling Techniques

3.5.1 Study Population

A population is a collection of units that share certain characteristics and piques the attention of a researcher. SB and Dodoma business officials make up the study's population. The people who live in Dodoma City are the study's target population. Dodoma city is located in the Dodoma area. As of right now, the city has a total population of 765,197, of which 373,440 are men and 391,739 are women. The population included by the study is anticipated to be aged 18 to 60+. As a result, 475,647 people aged 15 to 64 or older were the study's target demographic based on the 2022 National demographic and Housing Census Report (URT, 2022).

3.5.2 Sample Size

The term "sample" describes the quantity of subjects or observations that make up a study. According to Alvi (2016), it is a representative sample of the population to whom the study's conclusions are applied. The Yamane (1967) formula for estimating sample size was used in this study, and it provides; n = $\frac{N}{1+N(e)^2}$

Where,

n Sample size

N Population Size

e Desired precision (5-10%)

Sample size = $\frac{N}{1+N(e)^2}$, where N= 475,647 and e= 5%,

Thus$n = \frac{475,647}{1+475,647\ (0.05)^2} \approx 400$

Therefore, the sample size was 400.

3.5.3 Sampling Techniques

3.5.3.1 Probability Sampling Procedure

The purest form of probability or chance sampling is random sampling, specifically simple random sampling. Every member of the population has an equal probability of getting chosen in this sampling (Kothari et al., 2014). Random sampling was used in this study to pick the sample of SB since the population of SB is so huge that it was necessary to utilize random sampling to obtain a representative sample. This method removes any possibility of bias in the selection of a representative sample.

This method was used to choose Small Business since it completely removes bias from the process of choosing a representative sample.

3.5.3.2Non-probability sampling procedure

The business officials that was included in this study was chosen through the use of purposeful sampling. In order to provide more context for the study, the researcher asked each of the corporate officials listed to take part. The researcher gathered all relevant data regarding how Tanzanian small enterprises' performance is impacted by the issue of information and communication technology non-use. Additionally, since it would be their area of expertise, the researcher was certain that they can readily access the participants, which is another reason they picked this purposive sampling strategy.

3.6 Data Collection Methods

For this project, primary and secondary data was both used. Primary data is defined as information that has been gathered newly and for the first time, making it unique in nature. In order to address research issues, they make reference to the data gathered from the field by the researcher or by research assistants (John, 2016). Thus, questionnaires and interviews were used to get this data.

3.6.1Interview

The researcher employed interviews as a means of gathering data for this investigation. Using this strategy, respondents or interviewees are interviewed face-to-face by the researcher or interviewer. Information from the respondents that could not be obtained through questionnaires was obtained through interviews. In order to ensure uniformity in questioning, the researcher created interview guides, which were utilized by Dodoma City Council business executives. In order to assess the interview guides' validity, a pilot study was conducted in which the subjects' responses were compared to the study's goals.

3.6.2 Questionnaires

These are the questions that the researcher created and delivered straight to the field respondents to complete. There are two categories of these questions: open-ended and closed-ended.

In this study, questionnaires were chosen over other methods because they allow the researcher to contact the target group at the lowest possible time and resource cost. According to a researcher, respondents were permitted to disclose information via questionnaires at their own risk or discretion. As a result, it assisted in avoiding any direct influence, in contrast to other techniques like interviews where the researcher might directly shape respondents' responses. The SB in the research area completed questionnaires.

3.6.2.1 Pre-testing of the Questionnaire

The tool in this study was pre-tested by the researcher before to usage. According to Neunert et al. (2011), the testing had the following goals: to gather data for the research objectives; to determine whether the questions were written in a way that was understandable to the respondents; to develop an appropriate method for administering the instrument in light of field conditions; and to determine whether the instrument's content was sufficient and relevant. Additionally, the purpose of pre-testing the questionnaires was to determine whether or not they are substantial, answered, clear, specific, and related (Baxter and Jack, 2008). The entire procedure allowed the researcher to refine the questions; in addition, certain unclear questions were eliminated and others were reworded. The questionnaires were revised and then replicated so they could be used.

The researcher pretested the tool before using it in this investigation. Neunert et al. (2011) state that the testing aimed to collect information for the research objectives, assess whether the questions were written in a way that the respondents could understand, devise a suitable administration strategy considering field conditions, and ascertain whether the instrument's

content was adequate and pertinent. Pre-testing the questions also served the objective of ascertaining their relevance, substantiality, clarity, answers, specificity, and clarity (Baxter and Jack, 2008). Throughout the process, the researcher was able to clarify and improve the questions; those that were not clear were removed, while others were rephrased. After revisions, the surveys were duplicated for use.

3.6.3 Secondary Data

Alludes to information that has previously been gathered by another party. These data were only used by the researcher as a supplement to other techniques of data collecting, such as surveys and interviews. Books, minutes from meetings, newspapers, dissertations, letters, files, the internet, and a report from the Dodoma City Council were the sources of the data.

3.7 Data Analysis Technique

Two kinds of data from the study needed to be examined. Descriptive statistics including frequencies, percentages, means, and standard deviation were used to analyse quantitative data. SPSS version 20 was used to enter and code quantitative data. Utilising content analysis, qualitative data was examined. The data was analysed into groups based on the themes into which it was grouped. Respondents' direct quotes were used to support their responses. The researcher demonstrated how the data from content analysis and descriptive statistics link to one another in the presenting of findings.

3.8 Validity and Reliability of the Instruments

3.8.1 Validity

According to Njagi and Kombo (2014), the degree to which a study accurately represents the particular notion that the instruments were designed to measure is known as validity. Expert review was used to determine whether the tools used to collect the study's data were valid. Research specialists examined the data collection tools, and any necessary corrections or

modifications were made in light of the study's focus. This made the data collection tools legitimate. Additionally, the supervisor reviewed the interview guides and questionnaires to ensure that the language used was understandable to all of the study participants.

The validation of the research instruments benefited greatly from the advice and comments given by the research supervisors and other authorities in the field of business management.

3.8.2 Reliability

The degree of consistency and stability in a test's measurement of a certain construct is known as reliability. The same test must be given to the same respondents twice in order to be considered reliable (Kothari, 2011). Following the pilot study, SPSS was used to test the data and make sure there was internal consistency.

To improve dependability, the instrument was pre-tested via a pilot study before to the real data collection. In order to clarify the instrument and language appropriateness, as well as to detect potential issues during the primary study, the research instruments were evaluated. According to Creswel (1999), the purpose of pre-testing a questionnaire is to assist the researcher in comprehending the meaning of the questions to be answered by respondents and the process by which they arrive at their response. Using ten SB, the researcher conducted a pilot study. The test-retest approach was used, giving the same respondents the questionnaires twice over the course of two weeks.

As to Leedy and Nelms (2006), an internal consistency dependability is considered excellent when the Cronbach alpha value is larger than 0.9, or >0.9. The reliability is good when it is larger than 0.8 (>0.8), and it is still acceptable when it is greater than 0.7 and 0.6. Internal consistency is considered bad when it is between 0.5 and 0.58, and undesirable when it is less than 0.5.

3.9 Ethical Considerations

The researcher obtained a data gathering permit from the Institute of Accountancy Arusha and government authorities. The following ethical difficulties were noted during the study. The investigator made certain that every respondent gave their consent to engage in the research and that the data gathered would be kept private and utilised exclusively for that purpose. Before beginning any data collection sessions, the researcher always notifies the respondents.

Mason et al. (2013) assert that ethical considerations in research are not only vital, but also required to guarantee that study participants receive the respect and dignity they deserve. These moral precepts direct researchers in carrying out and disclosing their research without lying or intending, consciously or inadvertently, to do harm to study participants or members of the public. To ensure that research is legitimate, ethical standards must be followed both throughout the study process and in the reporting of the findings.

CHAPTER FOUR

FINDINGSANDDISCUSSION

4.1 Introduction

The research results and discussions are presented in this chapter by considering the economic charateristics of the respondents such as response rate, age, gender, business experience and financial capital. Further, the findings were presented based on the specific objectives. The results where gathered by questionnaire and interview with a sample size of 400 respondents.

Also, the study on how ICT affects small firms' performance is presented, examined, and discussed in this chapter. In order to provide a clear image of the population under study in relation to the topic under discussion, the chapter is divided into sections. The response rate, respondents' demographics, the most readily available and preferred ICT devices, the current relationship between ICT usage and small business performance, as well as the amount of contribution ICTs make to performance, are all covered in this chapter. Finally, barriers to ICT usage by small businesses are presented. The reflection of the empirical literature review that was provided in chapter two was also discussed.

4.2 Response Rate

The study included 400 questionnaires in its sample size; 40 of them were pilot studies, and the questionnaires that were used in the pilot study were not included in the final analysis. This resulted in the issuance of only 360 questionnaires; of those, 350 were completed and returned, yielding a response rate of 97%, which was adequate in and of itself.The findings are presented in Table 4.1.

Table 4.1 Questionnaire Return Rate

Number of questionnaires Distributed	Number of questionnaires returned	Return Rate
360	350	97%

Source: Field data (2023)

4.3 Demographic Characteristics

4.3.1 Respondents' Gender

According to Table 4.1's data, there were more men (60.9%) than women (39.1%). This suggested that men are more likely than women to own small enterprises.

Table 4. 1 Gender

Gender	**Frequency**	**Percentage**
Male	213	60.9
Female	137	39.1
Total	**350**	**100**

Source: Research findings,**(**2023).

4.3.2 Respondents' Age

Regarding the age range of the respondents, 39.1% fell between 21 and 25, 31% between 26 and 30, 14.3% below 20, and the remaining frequencies were insignificant. The findings indicate that young individuals between the ages of 21 and 30 made up the majority of the respondents. This age range supports the findings of the World Youth Report (2003), which said that youth have greater global exposure and are best positioned to adopt new technologies. The results are shown in table 4.2 below;

Table 4. 2 Age

Age	Frequency	Percentage
Below 20	50	14.3
21- 25	137	39.1
26- 30	109	31
31- 35	30	8.7
Above 35	24	6.9
Total	**350**	**100**

Source: Research findings,**(**2023).

4.3.3 Business Experience

In order to compare their business experience with their ICT usage experience, respondents were questioned about it. Only 17.3% of respondents had less than a year's worth of business experience, compared to 38.6% who had one to five years' experience and 36.1% who had six to ten years. These findings show that most respondents had sufficient experience to adequately address the topic about ICT use in business. The results were illustrated in the table 4.3 below;

Table 4. 3 Experience

Business Experience	Frequency	Percentage
Below 1 year	61	17.3
1- 5	135	38.6
6- 10	126	36.1
11- 15	28	8
Total	**350**	**100**

Source: Research findings, **(**2023).

4.3.4 Financial Capital

To assist the researcher in determining the size of business firms that the respondents operate in, the capital question was posed to the respondents. According to the statistics in table 4.4 below, 44.3% of respondents have capital that falls between Tsh 5 and 200 million, 53.6% have capital

between Tsh 5 and 200 million, and 2.1% have capital between Tsh 200 and 800 million. This implies that right sample was selected and involved mostly Small Businesses (micro and small) and medium enterprises.

Table 4. 4 Capital

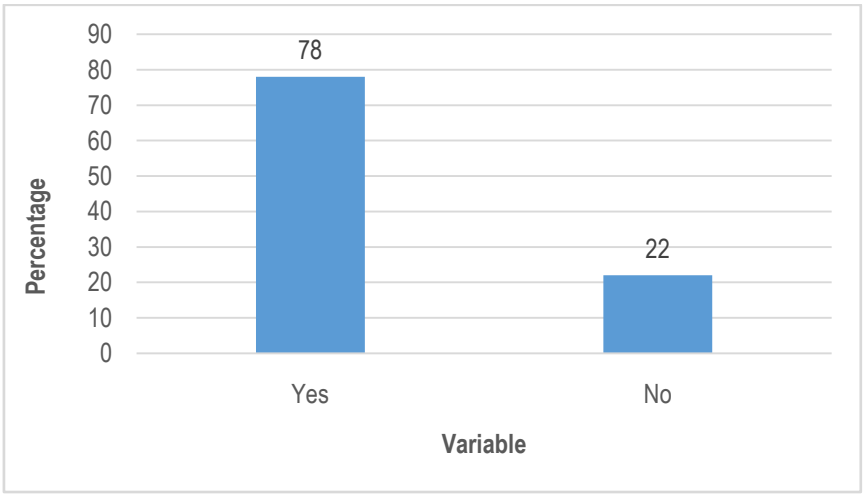
Capital in TZS	Frequency	Percentage
Below 5 millions	155	44.3
5- 200 millions	188	53.6
200- 800 millions	07	2.1
Total	**350**	**100**

Source: Research findings, (2023).

.4.4The level of ICT adoption in Dodoma City Council small business performance

The respondents were questioned on the impact of ICT adoption on the performance of small businesses in order to assess the extent of this adoption on SMEs' performance. They classified their answers as either yes or no.

Figure 4. 1 Respondents' responses on the extent ICT contributed on the performance of Small Businesses



Source: Research findings, (2023).

Figure 4.1's results indicate that 78% of respondents felt that ICT improved the performance of small businesses. A small minority of respondents—22%—thought that ICT had no bearing whatsoever on the performance of small businesses. Increased sales, profit, assets, and employment, as measured on a five-point Likert scale, are among the performance benefits of ICT adoption for small businesses.

Table 4. 6 Adoption of ICT helps to Increase Sales

Variable	**Frequency**	**Percentage**
Agree	150	43
Strongly agree	109	31
Disagree	52	15
Strongly disagree	32	9
Not sure	7	2
Total	**350**	**100**

Source: Research findings, **(**2023).

Table 4.9's results showed that while 150 respondents (43%) agreed that the use of ICT enhanced sales, 109 respondents (31%) strongly agreed, 52 respondents (15%) disagreed, 32 respondents (9%) severely disagreed, and a small percentage of respondents (2%) were unsure. It is evident that the vast majority of respondents, 259 in all (74%) agreed that using ICT in their business has positively impacted sales growth because it allows them to advertise their products online and use ICT tools like mobile phones to improve customer communication.

Table 4. 7 ICT Adoption help to Increase Profit

Variable	Frequency	Percentage
Agree	203	58
Strongly agree	77	22
Disagree	52	15
Strongly disagree	7	2
Not sure	11	3
Total	**350**	**100**

Source: Research findings, **(**2023).

The results of the study on how ICT adoption affects small business performance are shown in Table 4.10. The findings showed that while 203 respondents (58%) agreed that the use of ICT can improve profit, 77 respondents (22%) strongly agreed, 52 respondents (15%) disagreed, 7 respondents (2%) strongly disagreed, and 11 respondents (3%) were unsure. The results show that 280 (80%) of the respondents, in the majority, agreed that ICT use improves small businesses' performance.

Table 4. 8 ICT Adoption help to Increase Number of assets

Variable	Frequency	Percentage
Agree	144	41
Strongly agree	137	39
Disagree	28	8
Strongly disagree	24	7
Not sure	17	5
Total	**350**	**100**

Source: Research findings, **(**2023).

The results also revealed that 144 (41%) of the respondents agreed, whereas 28 (8%) disagreed and 137 (39%) strongly agreed that ICT helps to expand the number of assets. Of the responders, 24 (7%) strongly disagreed with the statement, and 17 (5%) were undecided (Table 4.11).

Table 4. 9 ICT Adoption help to increase Employment

Variable	Frequency	Percentage
Agree	**130**	**37**
Strongly agree	**161**	**46**
Disagree	**21**	**6**
Strongly disagree	**17**	**5**
Not sure	**21**	**6**
Total	**350**	**100**

Source: Research findings, **(**2023).

According to the study's findings, 130 respondents (or 37%) agreed that ICT makes it easier to get a job by creating more employment opportunities; 17 respondents (5%) strongly disagreed; 161 respondents (46%) strongly agreed; 21 respondents (6%) were undecided; and 21 respondents (6%) disagreed with the assertion (Table 4.12).

4.5 The type of ICT suitable which are appropriate and accessible in Dodoma City Council's small businesses.

Finding out which ICT tools and applications Small Businesses use and would prefer to work with is a prerequisite to identifying appropriate and accessible ICT tools and applications in the chosen sample. The current gap will give a clear picture of the issue at hand.

Table 4.10 below presents the results of the survey about the devices that small businesses now utilise. Of the respondents, 47.3% are mobile phone users, 22.1% are computer and mobile phone users, and 27% are computer, mobile phone, and CCTV users. This suggests that the majority of the participants in the survey have access to mobile phones, computers, and CCTV cameras as their primary devices. But the study found that most mobile phone users are micro firms, small businesses are computer and mobile phone users, and some medium-sized businesses utilize CCTV cameras in addition to all of the aforementioned gadgets. These results

were found to be at odds with Adriana's (2017) study in South Africa, which reported that 100% of micro businesses there used both computers and cell phones. This could be caused by differences in the study areas' technological proficiency as well as other current barriers, which will be discussed later.

Table 4. 10 ICT Devices used by Small Businesses

ICT Devices	**Frequency**	**Percentage**
Mobile phone	166	47.3
Computer	13	3.6
Mobile phone and computer	77	22.1
Mobile phone, computer and CCTV camera	94	27
Total	**350**	**100**

Source: Research findings, **(**2023).

Furthermore, table 4.11's results indicate that 73.1% of respondents use programmes other than Microsoft Office and accountancy suites. 9.6% of the remaining people use accounting software, while 17.3% use the Microsoft Office package. This means that although if office and accounting software are the most often used, there are a plethora of other apps that are equally useful for the majority of business operations. Nevertheless, Adriana's (2017) study discovered that while all small businesses used email and the internet, the majority of businesses also used a wide range of other technology and applications. Adriana (2017) highlighted other applications in her investigations, including websites, intranets, own computer networks, video/audio conferencing, and company websites. This demonstrates Tanzania's continued technological behind-the-curve in ICT usage for business.

Table 4. 11: ICT Applications used by Small Businesses

ICT Applications	Frequency	Percentage
Ms. Office package	166	17.3
Accounting software	13	9.6
Others	77	73.1
Total	**350**	**100**

Source: Research findings, **(**2023).

Additionally, it was found that internet-related activities, such as email and other social networking sites, are among the other apps that small businesses use a lot. This is demonstrated by the results in table 4.12, which show that 47.3% of small businesses utilize the internet and email. This result addresses the left (skipped) item on table 4.11 above, where the majority of respondents selected the “others” option when asked what kind of applications their companies now utilize.

Table 4. 12 Type of technologies used by Small Businesses

Type of ICT	Frequency	Percentage
Internet and e mail	165	47.3
Company web	4	1.1
Wireless	6	1.7
All three above	7	1.9
None	168	48
Total	**350**	**100**

Source: Research findings, **(**2023).

On the other hand, 58.7% of respondents said they would like to work on a computer, 19.2% said they would prefer to work on a website, and another 18% said they would rather work on "none" when asked to choose appropriate devices and applications. This supports the idea that computers are the most popular gadgets, which is why they are listed among the most readily

available and appropriate devices, right after mobile phones.On the other hand website and email found to be the most suitable and available applications as revealed in table.

Table 4. 13 Devices and applications Small Businesses would prefer to work on

Devices and Applications	Frequency	Percentage
Computer	205	58.7
e-mail	15	4.1
Website	67	19.2
None	63	18
Total	**350**	**100**

Source: Research findings, **(**2023).

4.6 The ICT infrastructure limitations that small businesses in the Dodoma city council most frequently face

This section of the study sought to comprehend potential ICT infrastructure barriers that Small Businesses may encounter when deciding whether to use ICT as a tool for growth and when using it. Regarding the topic of whether or not respondents encounter difficulties when using ICT, the results indicated that just 28 percent of respondents acknowledged facing some barriers, while 72 percent reported facing none at all. This suggests that the respondents are knowledgeable about the use of ICTs, and it's possible that government initiatives played a significant role in this situation.

When asked what prevents them from employing very suitable equipment, however, table 4.14's data reveal that 66% of respondents cite cost restrictions, 20% cite a lack of knowledge of certain devices, and the other percentages relate to lower frequencies. This suggests that financial restrictions and a lack of knowledge about the technologies available for use in the workplace to support the modern corporate environment are two of the biggest barriers to ICT utilization.

Similar findings were found in the research conducted by the OECD (2020), Modemogale (2018), and Mattehews (2017).

Table 4. 14 ICT infrastructure constraints

Variable	Frequency	Percentage
Financial constraints	231	66
Knowhow	70	20
Availability of ICTs	10	3
All Three	25	7
None	14	4
Total	**350**	**100**

Source: Research findings, **(**2023).

Regarding external barriers to ICT use, it was discovered that 75.6% of respondents said they saw none, 17.1% complained about the services they received, and 7.3% were hampered by a slow network. As table 4.15 below illustrates, these data suggest that there are relatively few external obstacles impeding small businesses' adoption of ICT. Consequently, it is predicted that most of these hindrances are user-related. This may also demonstrate how successfully the government and other private entities carry out their mandate to encourage small businesses to use ICT.

Overall, the results have demonstrated that the main internal barriers to small businesses' use of ICT are their limited resources and their familiarity with ICT tools and applications; external barriers include slow networks and subpar network provider services.

Table 4. 15 Complaints regarding to ICT usages

Variable	Frequency	Percentage
Slow network	25	7.3
Poor services provision	60	17.1
None	265	75.6
Total	**350**	**100**

Source: Research findings, **(**2023).

4.7 Data presentation from Key Informants

Key informants were questioned in order to get their opinions, to clarify things further, and to add to the information gathered from other respondents via questionnaires. There was a semi-structured interview with the use of guiding questions to start discussions. Out of the five Key Informants that the researcher had suggested, four were interviewed, and one responder was unable to attend the interview at the designated time for the study.

Since the institutions were entirely in charge of the entrepreneurship-related issues in the area, the researcher assumed that they would have credible data for the study and used a random technique to choose Key Informants. The responsible officers were then delegated by the heads of the institutions to go interview the researcher. To start the interview conversations, guiding questions were posed to the informants, to which they gave the following answers:

When asked which ICT devices and apps were most frequently used by small businesses, most respondents listed their computers and mobile phones along with the apps that went along with them, like voice calls, SMS, and email. And when asked to recommend the best gadgets and uses for the previously listed ICTs, they listed a variety of ICTs such as smart phones, tablets, local area networks (LANs), wireless networks, and websites. These results are consistent with the information that small business owners and their assistants provided, which listed computers, cellphones, and email as the most readily available devices in addition to smart phones and tablets. Networking, office suites, and Quick Books were added to the list of the most appropriate software.

All of the key informants confirmed the presence of a direct relationship between the variables when asked if there is one between ICT usage and business performance. They also ranked the contribution of ICT to business performance as extremely high. They did, however, voice their dismay at the fact that the majority of small businesses do not employ ICTs to improve their

performance. This suggests that despite ICT's greater potential to improve business performance, Key Informants are dissatisfied with the way small businesses employ it.

However, when asked about the most frequent complaints and complaints they always received from small businesses regarding ICT investment and usage in the business, they listed a number of challenges, such as low customer awareness of modern ICT, customers' reluctance to engage in online transactions, unstable network services, higher operating costs, and frequent power outages. Nevertheless, a few Key Informants mentioned that the majority of small business owners in the region were hesitant to invest in ICTs because they find it difficult to use ICTs in their operations. This might confirm the information indicated in the 4.5 above that 72% found to face no obstacle in ICT usage and it is likely to be so because they do not use them. This adds to the list of limitations that other responders have already stated.

Discussion of the findings

The discussion of the findings based on the application of the ideas from the relevant empirical literature review and theoretical review as discussed in chapter two. The discussion is based on research objectives as presented and analyzed from the previous chapter. The study findings revealed that majority of the respondents had been using ICT to run their business. The common type of ICT used was Tigo peas as many respondents had access on it. On the other hand few respondents proclaimed that they also use internet to extend market and advertise their products.

It was observed that SMEs owners use these ICT tools most frequently as all financial transaction made through Tigo Pesa. The contributing factors toward the use of ICT include improvement of communication with the customer, work flow and business processes, simplify distribution and supplier as well as improve productivity. These factors linked to the advantages of ICT adopted in SMEs, which ranges from management support to personal attitude on the use of Internet, computer and mobile phone to smoothen trading activities. Anthony et al, (2020) argued that, ICT usage is vital in Small business enterprises in Tanzania, especially in their daily activities in the

productivity, market accessibility and profitability which include increase of their business functionality, increased profit margin and enable them to advertise their product and services worldwide. Contrary to this study by Adnan and Hoque (2019) on the factors that influence the adoption of ICTs among SMEs in rural areas of Saudi Arabia found that relative advantages, top management support, culture, regulatory environment, owner/manager innovativeness and ICT knowledge had a significant relationship with ICT adoption among SMEs in Saudi Arabia. The study findings indicate that ICT adoption had numerous effects on performance of SMEs. Among the effect raised were: Increase of market share and profit, increase sales, increase online marketing product, and advertising and buying goods. It is clearly revealed that many respondents were in agreement that adoption of ICT 39 contributes to an increase of market share and profit by opening the business to many customers and suppliers. This is attributed by the use of mobile phone and internet in communication and ordering products. Similarly study by Nyangarika and Zacharia (2020) on Role of ICT usage in marketing Accessibility of SMEs in Tanzania revealed that, 62.5% of the respondents agreed that ICT widens marketing coverage. However, the interview discovered that only 5% uses ICT in their marketing campaign. Thus, despite agreeing only 5% of the respondents had in some respects used ICT in the marketing campaign. Furthermore, the study findings revealed that majority of the respondents ICT help to increase sales. This is linked to the wide use Tigo pesa, M-pesa and Airtel money to reduce transaction costs and increasing the speed and reliability of transaction. On the other hand few respondents strongly disagreed that ICT use does not contribute to an increase of sales. This is due to the fact that most of them were reluctant to accept technology in their business. Majority of the respondents agreed that adoption of ICT contributed to an increase in customer satisfaction. The finding is in line with Masenge (2014) who argued that to a great extent use of information and communication technology has led to better quality of goods and services of business by customer satisfaction as expressed by a mean score of 3.734.

Furthermore, majority of the respondents reported that adoption of ICT enhance access to market. This is attributed to the wide use of mobile phone and internet to advertise their product. In doing so SMEs owners are able to improve their business productivity more efficient. Alberto and Fernando (2007) argued that the use 40 of ICT can improve business competitiveness with internet providing numerous opportunities for SMEs to compete equally with large corporations. With respect to the status of ICT adoption the findings indicated that mobile phone is highly used by SMEs owners to run their business followed by computer, but internet represents low percentage in use. This is linked to accessibility, knowledge and skills of operating the devices and affordability of the said technology as most of the respondents had no access to internet. To add majority of the respondents accept mobile phones because it allow them to communicate with their customers and ordering products with minimum costs unlike internet as their customer do not have access to internet. Similarly the Study by Dr.Bitrina, (2012), entitled Impact of ICTs Adoption and Application on Innovation in Selected Manufacturing Firms in Tanzania found that the entire respondent group (100%) on this study indicated use mobile phone. The study findings further revealed that majority of the respondents were satisfied with the chosen ICT tool (Mobile phone) as it is useful to communicate with their customer, ordering product and advertising their product. This is because most of the respondents had smart phone, which is more efficient and effective in advertising their product in a distant manner. The use of mobile phone associated with the perceived usefulness like communication purpose. On the other hand the use of internet linked to the extension of marketing in customer services, facilitating online marketing as well as marketing research, though this is adopted by few respondents with skills and access to internet services. Similarly, the study by BMG et al (2015) on Digital Capabilities in SMEs: Evidence Review and Re-survey of 2014 Small Business Survey, Durhan University find out that, 98% of SMEs use the internet for business purposes, 85% do so at home, 82% at work, and 67% via smart phones. The

study findings further indicated that 91% of SMEs have broadband. The study observed that adoption of ICT in performance of SMEs facing a number of challenges. These challenges were ICT knowledge, financial constraints, unreliable power supply, lack of training, inadequate internet services and lack of management support. These challenges projected to prohibit SMEs owners from the use of ICT and may result into low firms productivity and efficient. Similarly, study by Wahid (2017) on ICT adoption in SMEs in Tanzania: An Evaluation indicates that ICT adoption among SMEs face the number of challenges including lack of management support and commitment influenced, supportive infrastructure, limited imported machines and inadequate support from government, challenging the quality of works usage, capital, in-built attitude, risky technology and low skilled labor and awareness, willingness, readiness, knowledge and IT skills.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter covers the study's overall overview, its conclusion, and the researcher's suggestions based on the information the findings have revealed.

5.2 Summary of the Study

Evaluating the role of ICT in small business performance was the main goal of the research. The purpose of the study was to investigate the facts in the chosen field of study within the Tanzanian environment. After reviewing a number of publications from different sources, it was discovered that ICT and company performance in the modern world are directly related. Four Key Informants from various institutions were contacted for the interview, and 350 respondents from various types of small businesses were questioned through questionnaires in order to obtain unique data from the study region.

The study was carried out in Dodoma City, where the bulk of small businesses are crowded, and the researcher believed that the appropriate sample would be chosen. The researcher's judgment and the primary inquiry into respondents' ICT comprehension guided the sample selection process. Those who answered negatively were eliminated from the research.

Depending on the type of data, field data were collected and subjected to both quantitative and qualitative analysis. Data from the surveys were analyzed quantitatively, and content analysis was utilized to examine the Key Informant responses. Then, the required data were presented, analyzed, and discussed.

The majority of small businesses are aware that information and communication technology (ICT) can have a stronger impact on their company's success, and they have extolled the virtues of this high degree of ICT contribution, according to the analysis's findings. Mobile phones and PCs with

basic features like email, voice calls, mobile money services, and limited access to office apps, the internet, and webpages were among the most widely used technology.

But these low-tech tools are more for personal use or as a luxury than they are for improving corporate performance. Their understanding of the significance of ICT is impeded by this perspective. This became apparent when the respondents were questioned about the amount of money spent on ICT operations as well as if they employed special people to handle these tasks. For the first question, there were no responses, and for the second, there were few. The studies by Yonazi (2018) and Souter (2019) found the similar perspective of ICT use.

The study's identification of current barriers, such as those pertaining to finances, inadequate information, and desire to engage in ICT, may be the root cause of this circumstance. It was also noted that, despite government efforts to encourage the use of ICT, small businesses continue to receive inadequate institutional support in this area. Small businesses were found to be interested in working with the most appropriate devices and applications accessible in the area, despite the current obstacle of inadequate awareness about contemporary ICT.

5.3 Conclusions

The study's scope, according to the researchers, included a wide range of businesses that use different ICT. Contrary to what was implied by the data, the majority of small firms in the area were found to be basic ICT users who did not give the use of ICT any thought. The kinds of ICT tools and applications that these small businesses utilize, as well as their readiness to make investments in it, serve as evidence of this. The majority of small businesses were found to use disconnected computers and cellphones, whereas in the real world of business, small businesses have access to an endless supply of devices and applications that they can use to expand their operations and gain a competitive edge. This means that these small businesses are not going to benefit much from the technologies that are now available, thus more work has to be done to

ensure that they get the most out of the technologies as well as a competitive edge and business growth.

ICT is more important to business performance than has been previously acknowledged by numerous academic works and by every study participant. The results demonstrate how the use of ICT impacted several aspects of the company, including employment and revenue. The results are still up for debate because the majority of small businesses were found to continue using outdated technology and to be uninterested in investing in information and communication technology, even though they had a favorable opinion of it. According to (Musabila, 2012), small businesses have a lot to accomplish when it comes to utilizing ICT to obtain a competitive edge. For instance, as was also discovered in the study by Jensen (2022), the majority of small businesses recognize the importance of using ICT, but they continue to use disconnected mobile phones. When they can connect them, they only use them for short texts and voice conversations, and sometimes for using computers and other gadgets. Other small businesses are in the same position. This scenario might at least reveal that, despite the usage of basic technology, ICT has a significant growing contribution to small business growth. This means that small businesses' performance will rise by over 100% if advanced ICT is employed since it will enable them to transition from one stage of growth to the next.

Furthermore, the fact that the majority of respondents reported facing no barriers to the introduction and use of ICT in their businesses is somewhat consistent with the information provided by some Key Informants, who stated that most small businesses avoid using ICT because they are uncomfortable doing so, as opposed to focusing on the already-existing constraints. The results also show that most of these small businesses are unwilling to make the necessary investments. The results show that small businesses themselves are responsible for the majority of hurdles, as opposed to outside obstacles. This demonstrates that more work is

needed to persuade small businesses to use ICT to their advantage, even in spite of government efforts to make it freely available and accessible.

5.4 Recommendations

One of the questions asked of the Key Informants during the interview included suggestions for enhancing the current state of ICT utilization as a tool for business performance. Based on the condition that has been seen, the researcher concurs with these recommendations as well. The following is an explanation of these suggestions;

Increasing efforts by the government to improve infrastructure, such as fibre optic projects, in order to provide a favorable environment for the use of ICTs. This was brought up because of the current infrastructure-related limitations, as both Key Informants and other responders brought up.

To assist small businesses, the government should set up Small Business Development Centres that are fully furnished with ICT services. This was done in an effort to lower the barrier to entry for small businesses into the use of sophisticated and costly devices and apps. Moreover, through experience sharing within the centers, it will facilitate interactions between entrepreneurs and assist them choose how effectively to leverage ICT for growth.

To help small businesses realize the value of investing in ICT, stakeholders should conduct frequent training sessions on the subject. This will close the investment gap that exists between small businesses' embrace of ICT and its availability. Despite the government's friendly policy governing ICT gadgets, it was discovered that there is a lack of guidance for small businesses on how to use these devices to further their expansion. Therefore, it's important to recognize the role that institutions play in helping small businesses use ICTs more effectively. This is due to the possibility that the current environment is driven by the so-called "resistance to change," which makes small businesses believe it is worthwhile to continue operating in the traditional manner.

5.4.1. Areas for Further Studies

This particular study was based on the evaluation of how information and communication technology affects Tanzanian small enterprises' performance.It is the wish of researcher to see many researches that by following recommendations made in this study are conducted in the following tone:

- Similar study should be conducted in other SMEs found in Tanzania for comparison purposes.
- To examine SMEs owners perception on the use of ICT.

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APPENDICES

Appendix i:

Questionnaires for Small Business

Dear Madam/ Sir,

My name is **Maenzi Rashid,** a MSc-PPM (Master of Project Planning and Management) candidate. In order to meet the requirements for the Institute of Accountancy Arusha (IAA) Master degree award, I must do a study in order to fulfil the designation. The focus of the study will be on how Tanzanian small enterprises function in relation to information and communication technologies. For this reason, I need your help filling out the questionnaires that are included below. The study's findings will be kept as private as possible and used exclusively for scholarly purposes.

Instructions:

1. *Selects the best response by checking the box (√) in the bracket.*
2. *Unless otherwise indicated, each question should only have one tick (√) next to the option you choose.*
3. *Type your response in the designated space.*
4. *Please fill out this questionnaire with a pen.*

PartA: To assess the level of ICT adoption among Dodoma City Council's small businesses. Agree, Strongly Disagree, Neutral, and Strongly Agree on a scale. To indicate how much you agree with each of the following assertions, please tick the box (). Please provide a score of 1 to 5 to your response. (1 being Very Disagree, 2 being Disagree, 3 being Neutral, 4 being Agree, and 5 being Strongly Agree)

Response	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree
High					
Moderate					
Low					

PART B: To determine which ICT is most appropriate and accessible for Dodoma City Council's small businesses. Please tick the box corresponding to the amount of money you have invested in the following IT tools for your company. Utilizing a one to five point rating system. To the extent that you agree with the following claims, please indicate by a (√).

Computer hardware and soft ware	5	4	3	2	1
Computers (desk tops)					
Copiers, printers and scanners					
CDs and flash disks					
Laptops					
Entertainment devices					
Mobile phones services					
Presentation tools (projectors)					
Security appliances					
Internets and online media profiles					
Free or paid-up websites					
Computer networks					
Mass media advertising (TV & Radio)					

PART C: To ascertain the ICT infrastructure limitations that small businesses in the Dodoma city council most frequently face.

To indicate how much you agree with each of the following assertions, please tick the box (). Please provide a score of 1 to 5 to your response. (1 being Very Disagree, 2 being Disagree, 3 being Neutral, 4 being Agree, and 5 being Strongly Agree)

	5	4	3	2	1
Cyber attacks					
Financial resources to purchase ICT-related equipment and services					
ICT skills					
ICT infrastructures					

PART D: How much do you think your company's products and services have improved as a result of using information and communication technology? Apply a scale. To indicate how much you agree with each of the following assertions, please tick the box (). Please provide a score of 1 to 5 to your response. (1 being Very Disagree, 2 being Disagree, 3 being Neutral, 4 being Agree, and 5 being Strongly Agree)

	5	4	3	2	1
Sales					
Assets					
Profit					
Employment					

THANK YOU FOR YOUR TIME