

INVESTIGATING CHALLENGES OF SMALL AND MEDIUM ENTERPRISES (SMEs) IN THE UTILISATION OF COMPUTER TECHNOLOGIES, A CASE OF MANSA

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ABSTRACT

Over the years, it has been observed with dismay that most of the small and medium enterprises have failed to incorporate computer technologies in their businesses, leading to many of them remaining static in size and scope of business. This study is therefore, focused at investigating challenges faced by Small and Medium enterprises (SMEs) in the utilization of computer technology in their service delivery, in the urban areas of Mansa district, Luapula province, Zambia. It sort to establish to what extent SMEs are utilizing computer technologies in their operations, to find out how SMEs could benefit from use of computer technology as a tool for service delivery, and finally to determine the challenges SMEs face in the utilization of computer technologies as operation tools for service delivery.

A case study approach was used in the collection of qualitative data; in particular, self-administered questionnaires were mostly used in the collection of data for the study. However, where it was seen to be appropriate respondents were given an interview. Reference was also made to a number of secondary data sources which helped the researcher to come up with a better understanding of the situation with reference to other areas of study and findings.

The sampling technique used was stratified purposeful sampling which allowed respondents to be divided into owners, managers and other workers. The researcher also distributed at least 120 questionnaires to proprietors, managers and employees of the 15 selected SMEs in the urban areas of Mansa, for the purpose of data collection. Data collected was analyzed by use of techniques

after which results were presented in tables, graphs and Charts. The method used was content analysis for in-depth data interpretation.

The findings revealed that the major challenges faced by SMEs were limited financial resource to acquire latest technology, lack of management support, lack of computer skills among most of the proprietors and lack of understanding of the benefits that come with latest computer technologies.

It is imperative that SMEs are encouraged to adopt and use computer technologies in their day to day service delivery. This is because computer technologies largely helped to improve communication; would make it easy and cheaper to advertise, leads to increased productivity, improves quality of service; enhance globalization and increase efficiency and accuracy, among many things.

It is therefore, the recommendation of this study that acquisition of computer technology equipment should be enhanced through encouraging cooperation among SMEs and government support. In addition, there should be also increased awareness and training among owners of SMEs and the youths in the use of ICTs because youths are the next employees, managers or proprietors of the current and future small and medium enterprises.

Owing to the above, it was proposed that the following would be part of the solutions, among other things: Awareness was to be created among owners, managers and employees to enable them realize that use of computer technologies and other ICTs would bring about efficiency, improved quality, and increased productivity among other benefits. Government was to create an enabling environment for SMEs as important contributors to the performance of any economy and as a result they should be helped to be more efficient, competitive and economical through use of computers and accompanying technologies. Government would do well to embark on providing training of the citizens at all levels of education and encourage the SME managements to develop policies to train their employees in the use of computer technologies. Policy makers, investors and SME associations should work together to come up with ways and means through which funds could be made available to SMEs as loans to finance computer acquisition or infrastructure development.

CHAPTER ONE

1.0 Introduction

The study revolved around challenges faced by Small and Medium Enterprises in integrating computer technology in their service delivery in Mansa district. The study about small and medium enterprises (SMEs) is an important one in the senses that the importance of SMEs could not be ignored by any economy in this world, be it developed, semi-developed or developing nation. Small and Medium Enterprises have been effective contributors to the gross domestic product (GDP) of any economy as well as to the reduction of unemployment of a nation, Zambia inclusive.

1.1 Background of the Study

The 21st century had seen a wave of technological advancements in all spheres of life, all businesses and the industry at large. The corporate world had benefited greatly from several of new innovations that had been designed. It was believed that the use of computer technology had drastically enhanced performance in developing countries. Small and Medium enterprises used computer technology as a tool for receiving, storing, processing and producing information in various ways and in decision making. Computer Technologies were also used for communication through emails, Local Area Networks (LAN), Wide Area Network (WAN) and the internet enhances globalization. In today's global market, and in this era of e-commerce, small and medium enterprises (SMEs) employ Computer technologies to increase their competitiveness along with their large counterparts (Beheshti 2004). In spite of all this, a large number of SMEs has not embraced computer technology usage.

In an effort to improve the situation, a number of initiatives had been taken as from as early as the 1990s in the adventure of this new phenomenon, for example, the SPRITE project in Scotland (Lamont & Munro 1993), promoted a number of small scale developments initiated within departments that resulted in extension of technological skills of the staff involved. The Learning Technology Dissemination Initiative (LTDI, 1997) allowed staff to opt to attend staff development events in which a variety of ICT uses were illustrated and encouraged.

According to Yeun (2014) the usage of ICT by SMEs still remained low even though the adoption of such technology was a sure way to boost innovation. Munsanje (2012) observes that utilization of computer technologies would facilitate the flows of information, capital, ideas, people, and products..

The case in Africa was also a source of excitement and at the same time worrying, depending on which aspect of computer technology use you were concerned with. In particular, Zambia was among the first two countries to embrace computer technology but it was at time ranked not even among the first ten countries in Africa that had advanced in the use of the technology (The Accountant 2006). It was even worse when it came to the SMEs as only a few seemed to have

appreciated computer technology and later on, were putting it to good use, though it was highly beneficial for the growth and profitability of such SMEs. Most of the managers of those small and medium enterprises saw such an investment as a huge cost that reduced the profitability of the business.

The use of computer technology had not been fully explored in Zambia, for delivery of industrial and commercial services. The Zambian government had recognized the important role computer technology plays as an enabler of growth, development and competitiveness. This was clearly demonstrated by government's resolve and initiative to develop and launch the national ICT policy (MCT 2007) which incorporated computers. The results had however not been realized as per expectation, rendering the initiative unsuccessful (MCT 2012). Owing to that fact, Zambia had to revise the Sixth National Development Plan (rSNDP 2013) in order to incorporate in the curriculum computer technology, under the education sector. Despite all this, Zambian SMEs had not embraced these computer technology advancements to expected levels. The Ministry of Communication and Transport also confirmed that there was inadequate awareness on the benefits of integrating computers in the administration of the delivery chain (MCT 2006)

That was in spite of the fact that Zambia had several training institutions offering computer technology studies such as The University of Zambia (UNZA), Zambia Centre for Accountancy Studies (ZCAS), The Copperbelt University (CBU) Information and Communications University (ICU) to name but a few.

Zambia had still a lot of businesses especially, SMEs that had not yet embraced these computer technology advancements. The situation was attributable to a number of reasons ranging from lack of appreciation of the benefits that would come with technological advancements, lack of skills and lack of resources to invest in that area, just to mention but a few. The Ministry of Communication and Transport also confirmed that there was inadequate awareness on the benefits of integrating computer technology in the administration of the delivery chain (MCT 2006)

Admittedly, computer technology and SME research in Zambia was still growing with relatively few adoption studies compared to developed countries. Of note, is the report on ICTs and Entrepreneurship (Kew and Harrington, 2009) and academic studies that had recently been undertaken and provided some insights into the research context.

It was no wonder this study was conducted, to show that SMEs needed to be at the top of computer technologies progress in order to be effective in their service delivery and would be efficient at producing customer oriented goods and services that would not only be attractive and consumable to the Zambian market but also the international one. This is important because the current development of the global economy, it was vital that a business, whether small, medium or large puts itself strategically positioned in terms of the use of and appropriate application of computer technologies, to the benefit of its shareholders, employees, the government and the community, through the resultant corporate social responsibility, for the later.

It is with this background that the study of the causes for low utilization of computer technologies by small and medium enterprises should be understood.

1.2 Statement of the Problem

The major problem addressed by the study was that of low utilization of computer technology by small and medium entrepreneurs in Mansa district.

Other problems that were minor included lack of skill in computers by the owners and the employees in addition, to lack of appreciation of the benefits that would come with effective utilization of computer technologies.

It was true that people may have personal computers and other computerized devices but it was also true that very few had adequate skills that were required to fully utilize computers in business. They might also not fully appreciate the benefits that would come with the incorporation of computer technology in service delivery. Computers were mostly used for playing of games, storage of non-business related personal data and at times as social media tools as opposed to being tools to gain competitive advantage and increased profitability.

That had resulted in many of the *Zambian* business to underperform as they were not as highly productive as their competitors in other countries that had fully taken advantage of the efficiency and reliability of the computer based technologies.

The *Zambian* government being fully aware of that sad situation, recognized the disadvantages of such a situation for the nation, in the world of ever advancing technologies which were computer based. It had even embarked on improving the situation by exposing as many *Zambians* as possible to the computer technology literacy, no wonder it had even changed the school curriculum to incorporate computers as a subject or as an imbedded component in the curriculum (rSNDP 2013). Though that had been noticed and efforts made, very little had been done to professionally expose, develop and initiate the owners of small and medium enterprises into use of these computer based technologies in their respective businesses and also to eliminate challenges faced by SMEs in the utilization of computer technology.

1.3 Research Objectives

1.3.1 General Objective

1 To analyze the challenges faced by Small and Medium Entrepreneurs in the utilizations of computer technologies in their service delivery in Mansa district. Awareness must be created among owners, managers and employees on the benefits of computer technology utilization in their

business operations. They should realize that use of computer technologies and other ICTs would bring about efficiency, improved quality, and increased productivity among other benefits.

2 Government must realize that SMEs are important contributors to the performance of any economy and as a result they should be helped to be more efficient, competitive and economical through use of computers and accompanying technologies. That would help them to be more productive and contribute to fighting unemployment increased tax base for the government. This can be done by government's determination in endeavoring to make computers more accessible by providing tax exemptions on hardware and software.

3 As a matter of policy, government should embark on providing training of the citizens at all levels of education and should encourage the SME managements to develop policies to train their employees in the use of computer technologies.

4 SME owners and managers should be encouraged to acquire computer skills and then give importance to the adoption and use of computer technologies by developing computer infrastructure to facilitate the provision of computerized service.

5 Policy makers, investors and SME associations should work together to come up with ways and means through which funds could be made available to SMEs as loans to finance computer acquisition or infrastructure development.

6 Awareness must be created among owners, managers and employees on the benefits of computer technology utilization in their business operations. They should realize that use of computer technologies and other ICTs would bring about efficiency, improved quality, and increased productivity among other benefits.

7 Government must realize that SMEs are important contributors to the performance of any economy and as a result they should be helped to be more efficient, competitive and economical through use of computers and accompanying technologies. That would help them to be more productive and contribute to fighting unemployment increased tax base for the government. This can be done by government's determination in endeavoring to make computers more accessible by providing tax exemptions on hardware and software.

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10 Policy makers, investors and SME associations should work together to come up with ways and means through which funds could be made available to SMEs as loans to finance computer acquisition or infrastructure development.

1.3.2 Specific Objectives

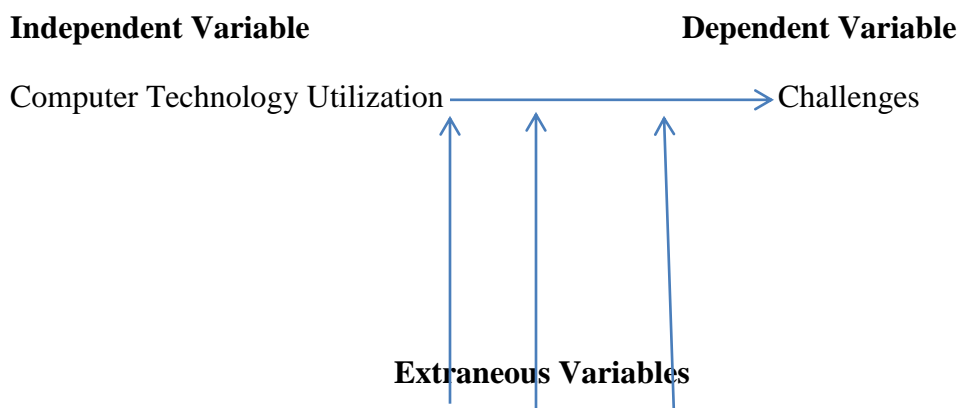
- a) To find out the causes for low utilization of computer technologies by small and medium Enterprises.
- b) To establish to what extent owners and employees of SMEs possess computer skills
- c) To investigate the benefits SMEs get from computer technologies as a tool for increased performance
- d) To come up with measures to promote the utilization of computer technology by SMEs in their service delivery in Mansa district.

1.4 Research Questions

- 1.4.1 What are the major causes for low utilization of computer technology among SMEs in Mansa?
- 1.4.2 To what extent do SME owners and employees possess computer technology skills?
- 1.4.3 How do SMEs benefit from computer technologies as a tool for increased performance?
- 1.4.4 What measures should be put in place in order to promote the use of computer technology by SMEs in Mansa district?

1.5 Research Variables

The research variables identified and conceptualized as follows:



Government Support
SME Management

Source: Self developed (2017)

The framework above attempts to explain the relationship that exists between the dependent, independent, extraneous or intervening variables that all put together, create an impact on SME's performance in any given organization. Considering all the variables mentioned, it is the dependent variable (Challenges) that will be of primary interest to this study.

From this diagram, the computer technology utilization is represented (independent variable) the challenges (Dependent variable) and the extraneous or intervening variables as outlined.

1.6 Scope of the Study

This study concentrated on challenges faced by small and medium entrepreneurs in the utilization of computer technology in Mansa town. It covered 15 selected SMEs based in Mansa urban areas. The research was focused on all SMEs irrespective of whether they were sole traders, partnerships, cooperatives or business incorporated under the company's Act, which were operating in Mansa town. It did not look at other businesses beyond Small and Medium size.

1.7 Significance of the Study

The researcher hoped that the findings of the study would be of use to the policy makers in Zambia as it would provide the information revealing the situation on the ground which would be of good use in decision making and policy formulation, when it came to utilization of computer technology in Zambia. That was expected to bring about measures or policies that would promote the use of computer technologies in SMEs' operations and/or service delivery. The study would also add to the exiting knowledge base of how SMEs could enhance their performance through the use and effective use of computer technology in their operations. Further, other academicians and future researchers may carry out further research on aspects of the study findings. The researcher also believed that the study was of value to the community which was a stakeholder in provision of quality goods and services by SMEs.

Lastly, the study was also a partial fulfillment of the requirements of the Information and Communications University (ICU) for the award of Masters of Business of Administration to the researcher.

1.8 Limitations of the Study

- a) The researcher used a case study design which was an in depth study of 15 SMEs in Mansa urban and there are so many SMEs in Zambia, hence the findings of the study could not be generalized to other businesses in the country as the study only for a few businesses in Mansa.
- b) Limited of literature on study area conducted in Zambia was another limitation.
- b) Time is also another likely constraint. The researcher is a student of a university which as a specific period for his study program which would not allow the study to go beyond the scheduled research period, in addition to, his busy work schedule as he is in a full time formal employment.

c) Some questionnaires may not be returned because of some respondents who would be uncooperative in spite of number of follow ups the researcher may make.

1.9 Theoretical Framework

Diffusion of Innovations theory had been used over a number of years to analyze the rate of adoption of innovations. Rogers' diffusion of innovations theory is the most appropriate for investigating the adoption of technology in business and other non-business disciplines. In reality it could be seen that much of diffusion or adoption research involved technological innovations. Rogers (2003) defined technology as a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome."

He further consented that technological innovation is either accepted or rejected. When accepted, it would be put to full use and otherwise left or ignored. Rogers (2003) described diffusion of an innovation as the process through which an innovation was communicated to the social system.

As explained in change management, an innovation is a change and has to pass through the four stages identified by Rodgers (2003) namely, innovation, communication channels, time, and social system as the four key elements of diffusion of Innovations.

He defined an innovation as "an idea, practice, or project that is perceived as new by an individual or other unit of adoption" (Rogers, 2003.) Whether the innovation had just been created or had been there for some time, it was new if it was perceived as that by the user or intended user of it.

Some businesses were seen to be quick in adopting technological innovations while others were slow in adopting and Rogers categorized them in groups. Fear of risks and uncertainty could be major hindrances to the adoption of innovations. Rodgers (2003) calls the changes that take place to the business due to acceptance and adoption of an innovation or rejection of it as consequences. He further described consequences as desirable or undesirable, immediate or remote, and anticipated versus unanticipated. Good and effective communication of the change being effected and why it was necessary was likely to reduce the uncertainty of adopting the innovation, as that would make all stakeholders aware of the pros and cons.

According to Rogers (2003), communication was "a process in which participants create and share information with one another in order to reach a mutual understanding." Effective communication channels were essential to the adoption process. There were so many channels available to an organization through which information about the innovation and its adoption process could be passed. These could be internal or external to the organization and might include interpersonal communication. Interpersonal channels were more effective in changing imbedded attitudes of a person.

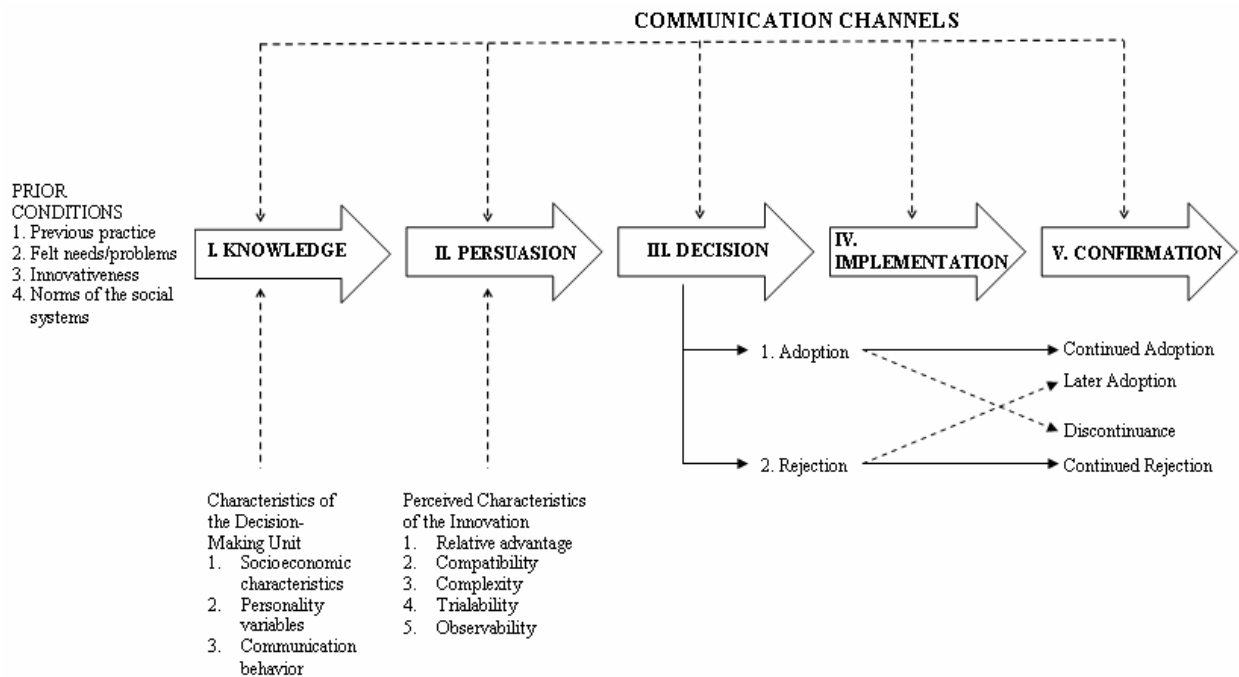
When it came to time, which is the third element identified by Rogers (2003), he argued that including the time dimension was cardinal to any behavioral research though, he admitted that most of such researches strongly ignored it. Businesses are quick, moderate or slow to adopt and

innovations and that could only be explained in terms of time. Analyzing innovation diffusion process and rate of adoptions they both include a time factor.

Rodgers (2003) defined the social system as “a set of interrelated units engaged in joint problem solving to accomplish a common goal.” He pointed out that since innovations take place in the society, there was a very big influence that the society may have on innovativeness and the adoption processes and rate. Adopters find themselves in a setup which was quick, slow or moderate in adopting innovations and acceptance of change.

For Rogers (2003), the innovation-decision process involves five steps: (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation. These stages typically follow each other in a time-ordered manner.

This process is shown in Figure 1.1 below:



A Model of Five Stages in the Innovation-Decision Process (Source: Diffusion of Innovations, Fifth Edition by Everett M. Rogers. (c) 2003)

Knowledge Stage – The stage has to do with awareness and knowledge acquisition. It involved seeking knowledge about the innovation at hand. Advantages and disadvantages should be clearly understood in order to make informed choices. According to Rogers, one needed to understand and eventually provide answers to three types of knowledge questions: What innovations were available and where; How could it be used and with what features; and Why was it needed and reasons for its adoption by our firm?

Though an individual or organization might have heard and acquired substantial information about the product, they might still need to be persuaded to accept and adopt it. This stage was essential if

the adoption was to take place. After being persuaded organizations should then consider decisions making.

At the decision stage of the innovation-decision process, the businesses chose to adopt or reject the innovation. Adoption is accepting and making full use of the innovation. Adoption of technologies like computer technology could be done in three ways namely direct adoption, trial adoption or parallel adoption. Where trial was given, the adoption became so quick. However, rejection was possible in every stage of the innovation-decision process.

At the implementation stage, the innovation is put into full operation. This stage might result in uncertainty which might even affect productivity and if not well managed, might lead in failure of the business. Re-invention may also take place at the implementation stage, so it is an important part of implementation. On completion of implementation a confirmation is needed.

At confirmation stage the business needed to source for support for their or its decision. According to Rogers (2003), depending on the outcome of the comments from different parts of the organization, customers and complaints from customers, the decision could be reversed.

Rate of Adoption of Innovations

As part of the Diffusion of Innovations Theory, the rate of adoption theory discusses the reaction of different businesses to new innovations and what determined the time taken to adopt an innovation. It states that individuals would only adopt an innovation if they believe that it was newer than their current and that it also possessed the following attributes: the innovation must have some relative advantage over the existing innovation or it should maintain the status quo; the innovation must be compatible with the existing values, past experiences, and practices of the adopting firm; the innovation should be user friendly or easy to use; must have trial ability; or be tested as a trial for a short time without adoption; and finally the innovation must offer observable result. Rodgers (1995) observes that, the adopting firm's experience with one innovation influences the business's perception of the next innovation in a technology cluster to diffuse through the individual's system.

1.10 Definition of Terms

Computer Technologies – this is a broad based terminology but for the sake of the study the phrase was used to only include Point of Sale (PoS), Internet, Social Networking systems, Accounting Packages, Human Resource Information Systems, Management Information Systems (MIS), Payroll Management Systems and Materials Management Systems.

Cyber Space – referred to the environment in which communication via computer networks occur.

Information and Communication Technology (ICT) – this referred to new concept of any form of media sources that provide communicative information through the use of any form of technological media.

Integration – referred to combining or including, in the operations of some activity. In business, this could mean to access, acquire, apply and/or make use of. For the purpose of this research, the researcher used the term to combine acquisition and usage of computer technologies.

Macro- Economic Environment - were the political, economic, social, technological, environmental and the legal factors which interact with the business which it should take advantage of in order to survive, grow and compete effectively in this competitive market.

SME – SME definitions vary from country to country and are specifically according to sector. Definitions are based on number of employees and sales turnover. The cut-off point in terms of size for this study was based on a recommendation from Central Statistics Office (CSO 2013), less than 50 employees and annual turnover not exceeding K250 000. For this study the researcher adopts the Small Enterprises Development Act 1996 which defines Small and Medium Enterprises as “any business enterprise -

- a. whose amount of total investment, excluding land and buildings, does not exceed
 - i.) in the case of manufacturing and processing enterprises, fifty million Kwacha (K50 million) or (US\$ 25,000) in plant and machinery; and
 - ii.) in the case of trading and service providing enterprises, ten million Kwacha (K10 million) or (US\$ 5,000);
- b. whose annual turnover does not exceed eighty million Kwacha (K80 million) or (US\$ 40,000); and
- c. employing up to thirty (30) persons; provided that the values under paragraphs (a) and (b) may be varied by the Minister, by statutory instrument."

SMEs’ Service Delivery – referred to the various ways Small and Medium Enterprises conduct their business activities.

Utilization – referred to making practical and effective use of something especially a resource.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter presents the findings of other scholars on this subject under review. It presents the theoretical framework, comparative Analysis, and the conceptual framework. It also takes into account the views of earlier researchers relating to the variables under investigation and personal critique of the study. It is helping the researcher to understand how much work has been done on the subject, how much is yet to be done and also identifying the gap for fresh research to be carried out.

2.1 Background Information on the Use of Computer Technology among SMEs

Over the past 25 years, there had been enough evidence gathered to suggest that there would be positive effects of the use of computer technologies in business, yet even with that knowledge, investment by businesses in computer technology and training programs in the area had been disappointing (Mumtaz 2000).

The rapid advancement of technology had drastically changed the way companies do business and the way they compete with each other. Many business enterprises were implementing computer technology for the purpose of gaining competitive advantage in their doing business. Diabete A. (2014) observed that in this digital age, no business could thrive without better use of ICT. In that vein, computers were used to processes data, gather information, store information, accumulate knowledge and increase the speed communication was done (Chan, 2000). SMEs were not exceptional.

In many, if not all developing countries throughout the world, Small and Medium Enterprises (SMEs) were the key drivers of the economy through provision of employment, increasing the competitiveness of the business environment as well as stabilizing the economies. A small enterprise was considered such wherein the number of employee is 50 or less while that of medium firms employ 100 or less - Oladipupo M. T. & Ajape K. M. (2013).

It was also true that they were many factors that influenced the firm's competitiveness. However, over a number of years research had shown that computer technologies had the largest influence on the competitiveness of the business. The development might be attributable to the fact that introduction of computer technologies into an organization, might call for further technological needs and skills to meet the emerging needs. SMEs like any other profit-seeking establishment must strive for survival through business performance enhancement. They must engage in business strategies aimed at providing competitive advantages in highly competitive societies in which they exist - Oladipupo M. T. & Ajape K. M. (2013).

At global level, most countries had different levels of adoption and later on utilization of computer technologies. It was however, sad to state that in spite of all benefits that computer technologies might bring most of the SMEs had not yet embraced the use of Computer technologies to the acceptable levels which would result into their competitiveness. Jose, Marcel and Batista (2007) carried out a study on the effects of internet use on the performance of SMEs in Brazil. Their study

pointed out that SMEs could act to positively embrace use of computer technologies. The study also found that SMEs continued to deploy computer technologies in a reactive and not proactive, cost reducing manner. It is the reason why Pelgrum (2001) observed that the current belief was that information and communications Technology (ICT) was not only the back bone of the information society, but also an important catalyst and tool for inducing reforms that could change beneficiaries to be productive and Knowledgeable. It was therefore cardinal that SMEs should work hard to embrace computer technologies for increased productivity and efficient service delivery and their competitiveness.

Despite the significant contribution that computer technologies had made to business, many studies indicated that there were a large number of unsuccessful computer technology implementations in SMEs and that the adoption rate was very slow (Shin, 2006). Other studies revealed that the reasons for lack of interest in computer technologies and other ICTs could be that management didn't know why their firms needed to adopt computer technologies to start with, there could also be a misconception toward computer technologies adoption process mainly because managers did not see the need for such technologies in the firm or were uncertain about the opportunities that computer technologies could offer to the business.

The other major reason attributed to that was that most SMEs did not have the capabilities to expand their computer technology resource because of lack of computer technology strategy, limited access to capital resources, emphasis on automating, influence of major customers and limited IS skills (Bruque and Moyano, 2007).

According to the survey by ECLAD (2004), the Singapore market for computer hardware grew consistently from US\$ 1.2 billion in 1988 to its current size of US \$ 5.7 in 2002. Information Technology (IT) penetration in Singapore households and businesses was reported to be high. It was also observed however, that growth in the market, then, was mainly from existing users upgrading or extending their IT, rather than from new users. This was especially true of the SMEs, where there was a high level of usage of basic information technologies.

Computer Technologies were utilized as powerful tools, when used appropriately as part of an overall development strategy to play a key role in the development process. Lucchetti and Sterlacchini (2004) carried out a study on factors affecting the adoption of ICTs among SMEs in Italy and their study revealed that general ICTs usage and adoption rates were very high and do not depend on size (i.e. number of employees) and industry. The study also revealed that when the rate of effective use was measured by the share of total employees with access to those ICTs, the percentages of educated workers exerted a positive effect and, in the case of the Internet, a negative impact of size emerged.

In spite of serious efforts, some 73% of Small and medium sized enterprises in Malaysia did not use computer technology in conducting their businesses. According to Yeun (2014) the usage of ICT by SMEs still remained low even though the adoption of such technology was a sure way to boost innovation. Malaysia is ranked among the top countries in the usage of smart phones; however, it

was rare for businesses especially, the SMEs, to tap into computer technology to solve problems. The same report indicated that a vast majority of companies were yet to use e-banking in paying the salaries of their employees. In Malaysia for instance, the business with about 35 employees would still write 35 cheques to pay employees' salaries instead of using electronic means to make such a payment.

(European Commission (2008 A), Carried out a study on e-Business Systems of ALSA in Spain which revealed that the use of the technology was more important than the mere adoption to obtain positive impacts on the company. Many businesses were seen to have already adopted computer technologies but very few were using them as a tool for growth and competitive advantage.

Coming to Africa, a number of studies had been carried out either on ICTs or IT in relation to adoption and utilization of such technologies in their service delivery. One of such was a study by Faha and Nana (2011) who investigated the effects of ICTs on Cameroonian firm's productivity; the empirical investigation revealed that ICTs did not have a direct positive impact on firms' productivity in Cameroon. Also there were prospects for SMEs development and economic growth with the application of ICT despite the poor state of infrastructures in the country.

Nigeria, whose population was over 150 million people proved to be one of the largest markets for computer technology in Africa and in itself, presented a challenge to Nigeria SMEs to utilize computer technologies to their advantage in meeting the needs and wants of such a big market effectively. Ifinedo (2006) stated that SMEs in Nigeria could increase their market reach, enhance customer service and reduce both marketing and distribution cost through e-business. However, majority of Nigeria SMEs were not utilizing computer technologies which was the foundation of e-business due to some major barriers as identified. In the present knowledge-based economy, it was important for SMEs to adopt processes that would enable them to provide services that would bring about competitive advantage (Apulu I. & Ige O. E. (2011). This was because markets had become so technical that if the firm did not approach them with an appropriate strategy the results might be disastrous.

Study conducted in Cote d'Ivoire (Diabate A., 2014) revealed that there was a high level of awareness of the importance of technology in management of SMEs; He further recommended in that study that ICTs and other technologies could be mainstreamed into SMEs development agenda and that technology was a veritable tool for sustainable development of SMEs in Cote d'Ivoire.

In Cote d'Ivoire, most of SMEs could be classified as informal and were defined by low level organization. African Development Bank (2004) noted that, large number of businesses in that sector was based on family structure and hence in one way or another used resources generated from the family connections to build and launch their businesses. The family acted as a source of capital, if not giving the required support. It was also common to find Family premises or structures been used to operate this kind of businesses.

The most common situation which was indisputable was that most of the businesses were based on personal expertise and most of the owners were often illiterates. Diabate A. (2014) concluded that

most of SMEs in Cote d'Ivoire relied more on apprenticeship and had little personnel to help them run their businesses.

In the survey carried out by Esselaar et al (2007) on ICT usage and its impact on profitability of SMEs in 13 African Countries, it was revealed that ICTs for both formal and informal SMEs contribute positively to revenue generation. The study further showed that ICT use brings benefits which include increased labor productivity; given their prevalence and accessibility; the traditional focus on formal businesses particularly in terms of financial support undermines the role that the informal sector plays in the economy. Critics might indicate that the benefits derived from such a sector could not be measured with accuracy and hence it was difficult to quantify the outcome. The fact that it was more difficult to measure does not diminish its impact on the society and the economy at large. It was a fact beyond doubt that the SME sector was the one providing employment to most of the world's poor people, not only in third world countries but also in giant economies.

Esselaar et al (2007) observed that the SME sector largely exceeded the average economic growth of national economies in many countries and contributed significantly to employment creation. This was the reason why governments and donors alike, have recognized the important role SME sector played in the overall development of an economy. This was evidenced by many governments' policies which were focused on supporting SME sector growth through a variety of programs that ranged from tax incentives to technical assistance, from regulatory provisions to policy interventions, training and other types of business development services offered by both central and local governments, in many African countries as well as the world at large.

It had been observed with dismay that Zambia had generally low utilization of ICTs, especially computer technologies, and this was attributable to lack of investment and well-trained manpower in that area. Most of the employees in Zambia have had little or no exposure to the use of computer technologies. However, in other African countries like South Africa and Lesotho, it was becoming increasingly a requirement that a job seeker should possess a qualification in computers. The acquisition of International Computer Driver's License (ICDL) is mandatory for most of the countries in the world today. No wonder Mwenechanya (2007) noted that, the dilemma for Zambia was that its entrepreneurial and productive capacities were being severely under-exploited in the informal sector while the capacity of the formal economy to generate jobs through the expansion of formal enterprises was limited. Therefore, it was important that Zambia should take advantage of ICTs, in particular computer technologies, to improve the capacity of the informal sector in contributing to national development. It was also important that a country like Zambia should also seriously embark on development of manpower, infrastructure and technologies that were not only suitable for production of goods and services but those with the ability to greatly increase productivity, quality and improvement of general livelihood of nationals.

It was also good that managers and the government have recognized the importance of computer technology opportunities and requirements; that therefore, called for an urgent need for action to

improve the situation on the ground through staff development, infrastructure development and investments in improved technologies, as their budgets would allow. This would also call for awareness of the benefits that come with computer technologies if attitudes were to be changed especially among the investors in SMEs.

To show its commitment, the Zambian government launched a National ICT Policy on 28th March, 2007 which outlined the need to harmonize the existing ICT regulatory bodies into one National ICT Policy. However, the challenge still remained that of successfully implementing the policy for both private and public sectors to be involved in order to improve the ICT sector in Zambia. There was need for the development of ICT incubators and ICT business innovations to accelerate use of ICTs in Zambia (The Post, 2007). This showed that all businesses, especially SMEs, should embrace ICTs (in particular computer technologies) as vital tools for their day to day operations and processes.

In the study on the adoption and use of ICTs in Zambian Road Transport Sector, Munsanje (2012), discovered that the inhibitors revealed included lack of infrastructure, lack of money to purchase ICTs equipment, high ICT illiteracy levels among the employees, etc.

According Ministry of Communications and Transport (2006) some of the challenges to be addressed in the ICT sector included:-

- (a) Low ICT literacy in the country, which was a major obstacle to the development of Zambia information society;
- (b) High cost of technology acquisition, thus making ICT technology and skill development programs inaccessible to most Zambians;
- (c) The Brain Drain problem, which resulted in considerable loss of the few skilled personnel from Zambia to other countries in search of better job opportunities;
- (d) Limited local ICT industry thus offering inadequate services and few job opportunities;
- (e) Lack of standardization and certification programs in the IT field resulting in external courses with little localization to the Zambian education curriculum;
- (f) Inadequate institutional capacity among formal training providers to increase intake and output numbers of ICT graduates.

The situation was worrying though the government and other stakeholders were making strides to curb the situation if Zambia was to remain competitive and relevant to the fast moving global competition, standards of living and technological advancements. However, there was evidence to show that when small and medium sized businesses adopt and use computer technologies, positive outcomes had been seen that related to operational efficiencies, increased revenues, and those put such businesses in better positions within their market niche than competitors. It could be seen that businesses that utilized e-mail to communicate with their customers experienced sales growth per cent greater than those which did not and that there was a positive impact of IT use within small businesses.

The World Bank (2006) observed that if ICTs were adopted and used by most businesses as productive input factors they could increase labor productivity. ICTs could help SMEs to keep up with competitors, increase staff satisfaction, increase operational efficiency, improve communication with suppliers and customers, and enhance joint working in collaborative venture. No wonder Zambia Agricultural Research Institute (ZARI) (2010) noted that the spread of ICT had led several commentators to argue that these technologies were creating a new economy (an information economy) in which information was the critical resource and basis for competition in all sectors. It was thus, important that everyone, including the smallest business in the economy, should embrace if not integrate the ICTs and in particular, computer technologies in their production and service delivery.

Computer technology would improve efficiency and increase productivity by improving efficiency in resource allocation, reducing transaction costs, and technical improvement. This technology could improve access to the knowledge generated by different researchers, academicians, students, workers and other information centers like the central Statistics Office. Computers and computer technologies on the other hand, allow the firm to operate and gain access to real time information for timely but crucial decisions to be made. It was the reason why Abwao (2007) concluded that initiatives for the dissemination of agricultural technologies and the relaying of weather information to farmers to help them in decision-making, was one of the vital uses of ICTs.

It would be sad to see SMEs in developed countries adopting, integrating and later on utilizing computer technologies, while our firms in developing countries continue doing business as usual instead adopting the unusual practices. This was because our SMEs, in developing countries would then lose out on the competition, they would be kicked out of the business and this would result in increased unemployment, inefficient communication and generally poor economic performance.

It was therefore; imperative that SMEs in developing countries like Zambia embraced computer technologies which would play a very important role because it would help SMEs to create or seize business opportunities while fighting competition. UNCTAD (2006) observed that appropriate ICT could help SMEs cut costs by improving their internal processes, improving their product through faster communication with their customers, and better promoting and distributing their products through online presence. In fact, ICT has the potential to improve the core business of SMEs in every step of the business.

2.1.1 Major Causes for Low Utilization of Computer Technology among SMEs

The Zambian ICT policy referred to earlier (MCT, 2006), makes reference to the fact that Zambia was currently facing a shortage in critical computer skills required for development, positioning and application of ICTs in both private and public sector. It could be seen from the foregone, that the problem was not just among small and medium enterprises but it was that of the nation at large. Lack of highly skilled computer manpower or what we could refer to as computer

literacy was the major hindrance to the adoption, integration and later on, utilization of computer technologies.

There were also limited resources to march the ever increasing need for computers. This lack of capital had already seen most of the SMEs failing to acquire and later on utilize computer technologies to the required levels. The lack of computers and knowledge in this area is unhelpful to SMEs in their service delivery (Pelgrum, 2001). It was notable that Pelgrum also mentions lack of knowledge. It could be the knowledge of how beneficial computers could be to the business or how much efficiency it could bring to the performance and quality service delivery. It was disappointing to note that despite the great effort made in the past one and half decades, there was still lack of general awareness of the benefits that come with the effective utilization of computer technologies.

Lack of will among police makers also affect the rate at which computer technologies were adopted and utilized by businesses. In his position paper on the status of ICT in the country presented to the Ministry of Communication and Transport, the then Communications Society of Zambia (CSZ) President Collins Chinyama stated that although ICT had become a vital player in the national development of modern society, lack of a clear and focused implementation framework and strategy, seriously affected the government's efforts in developing concrete programs for turning the ICT policy into reality (MCT, 2006).

It was also true that there was also resistance on the part of the people who were supposed to implement and utilize the computer technologies. This could be attributed to fear to accept change. It was as (Fulham, 1991) believed that the real issue was that people do not have clear understanding of the need for change hence people resisting change, were not rejecting the actual change, but the fact that they were expected to lead developments when they were not well versed and acquainted with the new technologies themselves. It was thus, the fear of which direction to take that would result in the expected standards and results.

Some researchers suggest that early efforts to adopt computer technologies failed because of poor planning (Karsenti et al. 2011) and this appeared to be the case in some SMEs who had computers but had failed to install them or make them operational. Policies could be created, but without a clear plan there would be no vision and implementation amounts to impossibility. This could be the reason why in spite of Zambia being amongst the first two countries in Africa to adopt ICTs, it has lagged behind such that it was not even among the top 30 countries taking full advantage of the computer technologies in their doing business, in Africa.

2.1.2 Computer Technology Skills among SME Owners, Managers and Employees

Availability of computers and computer technologies does not mean successful implementation of computer technologies in the business. Much more was required, in terms of skilled manpower to operate the system and the willingness to support the innovation. Mansa and Zambia as a whole lacks such kind of skills that could meet and effectively support the ever

improving computer technologies. Like it was observed by Irfan et al (2010) in a study on ICTs in Pakistan that most respondents met indicated that employees could not use the software packages properly. In a similar study carried out by Mpofu et al (2010), on ICT adoption and Development of E-business among SMEs in South Africa, it was found that small and medium enterprises lacked the necessary skills, finances and knowledge of the benefits that come with the use of computers and computer technologies in their operations as well as ICTs. It was true then that there should be a deliberate policy by the government and other stakeholders when it comes to enhancing computer skills among workers, managers, owners and jobseekers. Most of the Zambian workers had little or no computer skills. Munsanje (2012) revealed that lack of knowledge among operators and their crew had a negative effect on the utilization of computer technologies. He also found out that there was lack of necessary skills and also limited education among operators and their employees. This largely affected their performance especially if production had to be improved to computerized systems.

It was believed that most of business owners and their workers do not possess any skills in computers or they were computer illiterate. This also affected the way they directed or did business especially in rural areas where most of the business owners had humble education.

The world was sophisticated when it comes to doing business and communication. A business therefore, needed to move at the same pace with its competitors in terms of technology and management skills.

The government of Zambia had recognized this and the initiative to improve the situation was already under implementation. According to rSNDP (2013) every child leaving schools at grade 9 and 12 should have adequate skills in computers that could be utilized by them for economic and social benefit. No wonder it was compulsory for every learner at grade 8 and 9 to have a subject in computer studies.

2.1.3 Benefits of computer technologies as a tool for increased performance in SMEs

Computer technology included the use of various services or programs that came with it such as: Word processors, Spread Sheets (excel), Power point, Publisher, Data base (Access), E-mail, Internet, Skype, etc.

From the foregone, it could be seen therefore, that computer technologies would enable small and medium enterprises to streamline and become more efficient in order to compete with bigger businesses. Through the use of available computer technologies, they had the chance to manipulate activities in order to gain competitive advantage through effective utilizations of such technologies.

Data storage has been made easier and safer as this could be protected by use of passwords and in different gadgets such as hard drives, CDs, DVDs, External drives. Etc. Such facilities provided for ease and quick retrieval of information when required.

Storage capacity of computer technologies was another amazing feature that a business would take advantage of, as computers allow a lot of data to be stored in a very small space hence economizes the cost of storage.

Work done on computers was mostly accurate and reliable than the output of human beings, though this also depended on the input to the same data.

Globalization was another notable aspect brought about by advancing technology. Computer technologies had not only brought the world closer together, but have allowed the world's economy to become a single independent system able to interact as one. It implies that not only could we share information quickly and efficiently but that we could also bring down barriers of linguistic and geographical boundaries. The world had been turned into a global village due to flow of information through computer technologies allowing countries like Canada and Zambia, Tanzania and Malaysia and Australia and Brazil which were not only separated by distance but also by language to share ideas and information with each other and within a flash of seconds.

Communication had improved globally due to improved computer technologies. It had become cheaper, quicker and more efficient. Individuals, nations and businesses were able to communicate almost instantaneously by the use of short messaging service (SMS), E-mailing, video-conferencing or skypeing.

Computer technologies had led to most of the business processes being computerized, streamlining businesses and making them extremely cost effective. This in turn, has led to increased productivity of these businesses, ultimately giving rise to profitability, increased pay and less strenuous working conditions (AAT, 1990).

Computer technology had also helped to close up the gap by helping people from different backgrounds and cultures to communicate with one another, allowing for exchange of views and ideas, thus increasing awareness and reducing prejudice.

Computer technology had also made it possible for businesses to be open 24 hours a day and seven days a week, all over the globe. This means that businesses could be opened at anytime, anywhere, making purchases from any point easier and convenient. On-line shopping was also being supported by the technology and goods were delivered conveniently to one's doorstep without even moving any distance.

Computers have not only simplified jobs and created unemployment through invasion of faster and efficient machines that replaced manpower; they have also created several interesting and challenging jobs such as: Computer programming, System Analysis, Hardware and Software development and Web Designing among many others. Technologies such as Computer Aided Designs (CAD) and Computer Aided Manufacturing (CAM) help to explore 3-D shapes or

technical functioning, as in circuit simulation programs. These were good examples, where computer technology goes beyond just being more effective at what could be done by traditional methods, to extending the capabilities of users, (McCormick, 2004). Both CAM and CAD applications enable users to achieve something they can never achieve by use of traditional or conventional means. They introduce new tools in creative designing, which allow workers to use their innovative and creative skills.

Perhaps the biggest advantage of the improved technology in business communication is the financial savings it accords small businesses and global corporations alike. Tasks that once took huge sums of money may now be completed with a touch of a button for ngwees. This has allowed small businesses to effectively compete with bigger ones on the global market.

Not too long ago, before Voice of Internet Protocol (VoIP) technology, placing a long distance telephone call was an expensive venture. Currently, VoIP and cellular phone technology however, has made flat rates for local and long distance calls a common place, (Student Accountant 2006). The same could be said for correspondence. Not long ago, the only way to send letters or documents from one location to another was to engage a postal or messenger service. Electronic mail (e-mail) however, has eliminated the need to transport hard copies in addition to most of these e-mail services being offered free.

Computer technology had also increased ways in which business could be conducted. This is advantageous to companies that do business with customers in very distance places. Instead of waiting unnecessarily for documentation to be received physically as the situation was before, businesses may now exchange their files in a matter of seconds over the internet.

The expediency provided by business communication technology was also beneficial in interpersonal communication. Previously, businesses had to plan conferences for individuals who lived in separate locations to converge in one place. Currently, parties could be convened from their respective locations or offices as a result of telephone and video conferencing technology (Borrington and Stimpson 2003).

It would be stated that despite all there benefits, computer technologies come with a very huge cost which was not affordable by most of these small and medium enterprises. Many developing countries still had very poor communication infrastructure, outdated equipment and state-owned monopolies often resulted in expensive charges and limited coverage, especially in rural areas. Such situations would discourage SMEs from adopting and later on utilizing even the basic of the computer technologies.

On the other hand, SMEs should focus on the positive part of the computer technologies to engage in international business. A simple website for instance, would connect a business with international markets, in a very cheap and affordable way. Even with this many obstacles would

be met, of doing business at global level but the benefits remain attractive. Technologies have been there and are still being developed that they would suit the SMEs' budget to invest and compete at international level. What used to be very expensive technologies some time ago are now cheaper and affordable to many SMEs. All these things meant that what was once high cost; high risk industries were now much easier places to survive in if you were early adopter of ICTs (Student Accountant, 2006).

2.3 Comparative Analysis

Some countries had done very well in that regard, both at global and national levels. Singapore, Hong Kong, New Zealand, USA and Denmark remain the countries with the most favorable regulations for small and medium enterprises (SMEs). This was according to a report released by the World Bank (2014). This had enabled operations of SMEs in those countries to be easier as compared to those in other countries, especially in Africa. The Small and Medium Enterprises in those countries find it easy to access information, improve their performance and increase their efficiency in operations and service delivery. This was also true for South Africa and Kenya, in Africa. In the report on SMEs operations in African countries (PICMET, 2008), it was shown that these governments had good policies which they had put or were still putting into implementation and those were yielding good results. Almost all registered businesses in South Africa for instance, had employed some ICTs in their operations.

2.4 Personal Critique of Literature Review

This research study might not be that inclusive in the sense that the researcher might not have access to the best library facilities which could have made the research even more inclusive and broad based. The researcher also had difficulties in selecting the appropriate literature to include in the study and thus the literature review might lack that comprehensiveness, as it were. Due to the scheduled formal studies of which the study was primarily done, the researcher did not cover all of the required literature to enrich the study for comprehensive conclusions and deductions to be made.

2.5 Establishing the Gap

A lot of research had been done on various aspects of SMEs especially in relation to ICTs but very few have been done on the challenges SMEs faced in the utilization of modern computer technologies such as Point of Sale (PoS), Internet, Social Networking systems, Accounting Packages, Management Information System (MIS), Payroll Management Systems and Materials Management Systems in their service delivery especially here in Zambia .It is for this reason that the researcher felt he should look at the challenges faced by SMEs in the utilization of computer technologies (in line with dedicated application packages) which leads to low utilization and later on under performance or poor quality of service to their customers.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

In every study it is imperative that a clear vision should be established about how and where the research was conducted. This would guide the researcher and give a broad view of what could be expected during the course of field work. It is also of great importance to clearly show how data was collected. The methodology shows the research journey from design to ethical consideration.

3.1 Research Design

The approach used was non-experimental qualitative method and in particular a case study. The study aimed at collecting information from SME's proprietors, administrators and workers, on their attitudes and opinions relating to the challenges that were faced by SMEs in the use of computer technologies in their service delivery. The qualitative method used helps in identifying who is responsible for these factors, what factors, where they are prominent and how can they be handled (Munsanje 2012;). It used both primary and secondary data. Primary data was collected by use of self-administered questionnaires and interviews in some cases while, secondary data was obtained from the internet and other written sources like books and journals.

3.2 Target Population

The population of the study was from all Small and Medium Enterprises in Mansa urban.

3.2.1 Sample Size

The total population for the study was 120 individuals. Cross sections of businesses were chosen for the study through a combination of Stratified and purposeful sampling which allowed respondents to be divided into owners, managers and other workers. The targeted 120 respondents were from 15 selected SMEs in the urban areas of Mansa, for the purpose of data collection and in order to focus on the central themes related to them.

The businesses involved were from Construction Hardware: Carolden Investments Ltd., Amico Investments Limited, and C & C World Trade Limited; from grocery related were Mwansa General Dealers, Bizorient Enterprises, and Best Choice General Dealers; The furniture and Timber Processing Industry related were Munkanta & Sons Limited, Silaupa General Dealers and Katongo General Dealers; Fuel and Lubricants businesses were Oryx Filling Station, Puma Filling Station and Total Filling Station and Lastly, Hospitality related businesses were Namwandwe Lodge, Chinunchi Lodge and Teja Lodges.

Of the targeted 120 respondents, 20 were owners, 30 managers and 70 other employees. Since the study was cross sectional, the researcher chosen to sample the number.

This was as follows:

Table 3.1 Types of Respondents and their Numbers

Types of Respondents	Number
Owners (Proprietors)	20
Managers/Administrators	30
Other Employers	70
Total	120

Source: Researcher’s own categorization (2017)

According to Amin (2004), the sample size determination was adopted from the sample size table determination as suggested by Kregcie and Morgan (1976). The above table represented how the researcher came up with the total target population based on the different categories and out of which he would arrived at the sample for data collection, analysis and conclusions.

3.2.2 Sampling Technique

As earlier indicated the researcher used stratification and purposively sampled (Amin, 2004) respondents so as to collect data that would be relevant to the study. The researcher then purposefully chose 15 SMEs for the study which gave him 120 targeted participants - Singleton et al (1988)

At least 15 owners were part of the sample and that gave the researcher data that was institution specific and that meant that each of the sampled institutions had the owner or owner representative giving the insight on the business. Managers or Administrators were chosen according to their schedules as some of them were out at the time of the researcher’s visits to the businesses and could not be found at the station. As was planned, at least one manager was approached from each of the participating institutions. Other workers who were picked were those that had worked for at least six months for their respective employers and also following their schedules. Out of 120 targeted population, 101 respondents were successfully approached and were included in the study sample representing 16 owners or their representatives, 24 managers or administrators and 61 from other employees. This was 83.33% of the targeted population.

Table 1 Types of Respondents and their Numbers

Types of Respondents	Target Number	Sample Size	Cumulative %
Owners (Proprietors)	20	16	13.33
Managers/Administrators	30	24	33.33
Other Employers	70	61	83.33
Total	120	101	

Source: Researcher’s own categorization (2017)

3.3 Data collection Tools

Data was collected from various types of proprietors of businesses or their representatives, Managers or Administrators and other employees who were purposefully picked. The two basic data collection instruments were employed so as to collect enough and appropriate data. These were self-administered questionnaires with close ended questions, mainly to avoid wide and unwanted responses and interviews were conducted by the researcher and that mostly helped get in-depth data from key respondents and those that found it difficult to interpret the questionnaire.

3.4 Data Collection Methods

The data collection methods used, were chosen so as to give the best out of the findings. The researcher used self-administered questionnaires and interviews for primary data collection. Where the respondents needed some guidance and clarifications, interviews were used as that gave chance to the researcher to help the respondents reach the understanding of the question by asking the same question differently or rephrasing it. Interviews also gave the researcher an opportunity to meet with the respondents which allowed him to see their facial and body expressions which was not the case with self-administered questionnaires. Self-administered questionnaires were left with those who were able to handle the questionnaire without any difficulties or were busy for an interview. Self-administered questionnaires were also used because they were easier to administer and they were cheaper than other methods.

Secondary data sources were used for references and literature review and these included books, journals and the internet, among other things.

3.5 Data Analysis Techniques

Data analysis was done so as to give an interpretation to the collected data which was able to show some consistence with the rest of the findings. The data was first categorized according to the stratifications and later tables, graphs and charts were made in order of the research questions.

Content analysis was employed as a technique for data analysis in order to give in-depth interpretation of data. The analysis was descriptive in nature and some deductions were made which helped the researcher to make informed judgments hence reaching appropriate conclusions and recommendations. The figures were extensively used for easy understanding of data especially in viewing the findings for the different types of businesses that were chosen. This meant that data was to be analyzed using Excel, graphs, Charts and descriptions for the researcher to make deduction and hence conclude and make recommendations.

3.6 Ethical consideration

The researcher strict observed all ethical issues for the study. The highest level of confidentiality was exhibited throughout the study, prior approval was sort before an interview and a full explanation of the purpose of the study was given in advance to the respondents in addition to the assurance that the study was purely academic and the data collected was not to be used for any other unrelated purpose.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

After having discussed the research methodology used in the collection of data, in the previous chapter, this chapter presents and discusses the results of the study as they were collected, analyzed, described and interpreted so as to establish what challenges Small and Medium enterprises faced in the utilization of Computer technologies in their operations; establish if small and medium business entrepreneurs appreciate the value of computer technology in their business operations and to come up with measures to promote the utilization of computer technology by SMEs in their service delivery in Mansa district. It presents the data through use of charts, tables and graphs.

The use of objectives of the study was found to be the most ideal way of data presentation in order to achieve simplicity and logical data presentation. Each of the headings covered a particular area of the study. Furthermore, graphs and charts were used in data presentation and in some cases further analyzed into percentages.

4.1 Back ground of the Respondents

The description of the data was according to the respondent's characteristics namely the age, sex, level of education as well as work experience at their various work places. Of the 15 SMEs that were selected for the study: C & C World Trade gave the highest number of respondents at 17% while Mwansa General Dealears and Katongo General Dealers were the lowest with only two participants each, representing 2% of the total sample per business. Figure 1 below displays the representation in a chart form of the number of respondents per participating business:

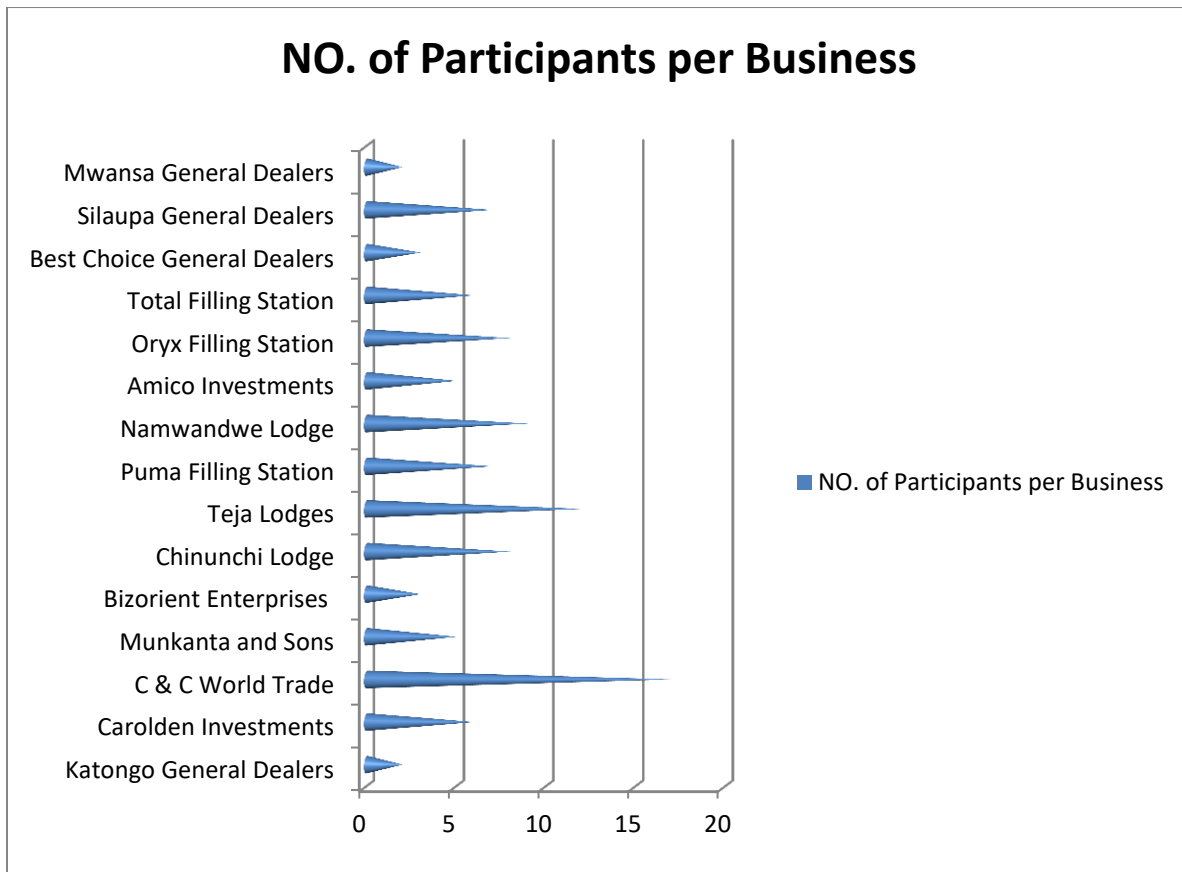


Fig. 2: Participating SMEs

As shown above, the questionnaires were distributed to 120 individuals among them, Owners or their Representatives, Managers and other employees. However, only 101 respondents gave a feed back to the researcher. This was due to the fact that work demanded that some of them be out on duty, a few for studies, and those who were unable to respond due to their busy schedules, this was in spite of the many follow-ups by the researcher. The researcher went ahead with the 101 as an effective sample as it represented 84.2% of the targeted sample.

4.1.1 Respondents by Age

Age Group	Frequency	Percent	Cumulative Percent
18 - 25	59	58.42	58.42
26 - 35	21	20.79	79.21
36 - 45	14	13.86	93.86
46 and Above	7	6.93	100
Total	101	100	

Table 2: Description of respondents by age.

The above table shows the respondents by their various age groups. The age group between 18 and 25 had the highest number of respondents out of the 101 collected questionnaires. In that group there were 59 respondents which represented 58.42% of the respondents. The lowest age group was that of those above 46 which had 7 respondents representing 6.93% of the total number of effective respondents. The other age groups were as follows: 26 – 35 was second with 21 (20.79%) while 36 – 45 was third with 14 respondents representing about 13.86%. The conclusion of the researcher on the respondent’s ages was that SMEs in Mansa has a youthful staff which if well utilized can be very productive to give the best needed performance.

4.1.2 Respondents by Gender

Gender	Frequency	Percentage	Cumulative Percentage
Male	57	56.44	56.44
Female	44	43.56	100
Total	101	100	

Table 3: Respondents by gender

The above data representation about the sex of the respondents showed that both sexes were represented, though the males (56.44%) were more than the females (43.56%). It can be said that gender biasness was not seen in spite of having a number of males more than the females; this was proved because these businesses had 13 of the Managers as females and 17 were males. In addition, among owners and their representatives were also 9 males and 7 females. This showed that SMEs valued both sexes and were both making a positive contribution to the economy of Zambia. The rest of the workers were also fairly represented with both sexes, 31 being males and while 24 were females, out of effective respondents. To the researcher, the implications of this would be that if there were problems in performance would be due to other causes and not from gender inequalities as both genders were actively involved in the SMEs’ productivity and service delivery.

4.1.3 Respondents by Length of Service

The table below is a representation of staff length of stay at their various working institutions:

Length of Service at the school	Frequency	Percentage	Cumulative Percentage
0 – 5 Years	48	47.53	47.53
6 – 10	37	36.63	84.15
11 – 15	12	11.88	96.03
15 and Above	4	3.96	100
Total	101	100	

Table 4: Respondents by Length of Service

The table above shows that, the highest number of respondents were new in their various organizations, 44.2% of effective respondents had not yet been more than five years in their organizations. This could mean that they are not very much acquainted with their various tasks. It could also mean that some of them could also be new to computerized systems and that might also affect their general performance.

4.1.4 Respondents by Level of Education

Qualification	Frequency	Percentage	Cumulative Percentage
Grade 9 Certificate	13	12.87	12.87
Grade 12/GCE Cert	69	68.32	81.19
College Certificate	9	8.91	90.10
Diploma	6	5.94	96.04
Degree	4	3.96	100
Master Degree	0	0	100
Total	101	100	

Table 5: Respondents by Level of Education

The above table shows that respondents were differently educated ranging from Grade 9 certificate holders to first degree holders. 13 (12.87%) were grade 9s, 69 (68.32%) were grade 12 certificate holders, 9 (8.91%) tertiary certificate holders, 6 (5.94%) Diploma holders and 4 (3.96%) were first degree holders. No master's degree holder was approached.

From this, it can be seen that the workers in these small and medium enterprises were not adequately qualified to meet the current trends in this global world. Most of the respondents were grade 12 and below. It can be said that there was need for owners and their employees to upgrade their qualification to at least diploma level and this would give them the competency required to handle various tasks, even computers and the accompanying technologies, with ease. It may be said that if there was an issue of poor performance, employee qualification could be one of the contributing factors as most of the respondents were under qualified.

4.2 Causes for Low Utilization of Computer Technologies by Small and Medium Enterprises

4.2.1 On the question as to whether respondents' jobs involved the use of computers 42 (41.58%) said yes and while 69 (58.42%) said no. This was an indicator that SMEs in Mansa did not use computers and computer technologies to their advantage in their service delivery.

4.2.2 Finding out how often computers or computer technologies were used in doing business for those whose response was yes to usage of computers. Their responses were as shown in the table below:

Computer Usage	Frequency	Percentage	Cumulative Percentage
Very Often	17	40.48	40.48
Often	15	35.71	76.19
Rarely	9	21.43	97.62
Never	1	2.38	100
Total	42	100	

Table 6: Frequency of Usage of computers

Of the 42 respondents, 34 (40.48%) used computers very often in the course of doing business. On the other hand, 15 (35.71%) of the respondents confirmed using computers and the accompanying technologies often, 9 (21.43%) said they only used computers rarely while 1 (2.38%) of the respondents confirmed that though their jobs demanded the use of computers and computer technologies, it was never used. It was thus, observed that low utilization of computers and computer technology was common among SMEs in Mansa. This could be due to lack of sensitization or understanding of the benefits that come with utilization of computers and computer technologies.

On what could be the use of computers and computer technologies in the service delivery, the responses included: storage of information such as names of suppliers and customers 34 (15.67%), internet access 29 (13.36%), email services 7 (3.23%), presentation information at meetings 5 (2.30%), typing of mails and documents 23 (10.60%), preparation of cards and other documents 9 (4.15%), accounting information processing 15 (6.91%), entertainment 42 (20.28%), personal communication 30 (13.83%), point of sale configuration 4 (1.84%) and advertising 17 (7.83%).

Use of computers and Computer technologies	Frequency	Percentage	Cumulative Percentage
Information Storage	34	15.67	15.67
Internet Access	29	13.36	29.03
E-mail Services	7	3.23	32.26
Presentations at Meetings	5	2.30	34.56
Typing	23	10.60	45.16
Publishing of Various Documents	9	4.15	49.31
Accounting Information Processing	15	6.91	56.22
Entertainment	44	20.28	76.50
Personal Communication	30	13.83	90.33
Point of Sale	4	1.84	92.17
Advertising	17	7.83	100
Total	217	100	

Table 7: Suggested uses of computers and computer technology

From the collected data, it could be seen that there was limited utilization of computer technologies by most of SMEs and some did not even use them for anything in their doing business. The highest usage was that of entertainment at 20.28% followed by information storage at 15.67% and the third was internet access (13.36%). Personal entertainment could have been watching movies, playing music or playing games while internet access could also be for personal or business purposes. From this, it could be concluded that use of computer technologies was not to the expected standards as only 2.30% and 1.84% used computer technologies power point presentations at meetings and point of sale data capturing, respectively. Presented as a pie chart, it appeared as follows:

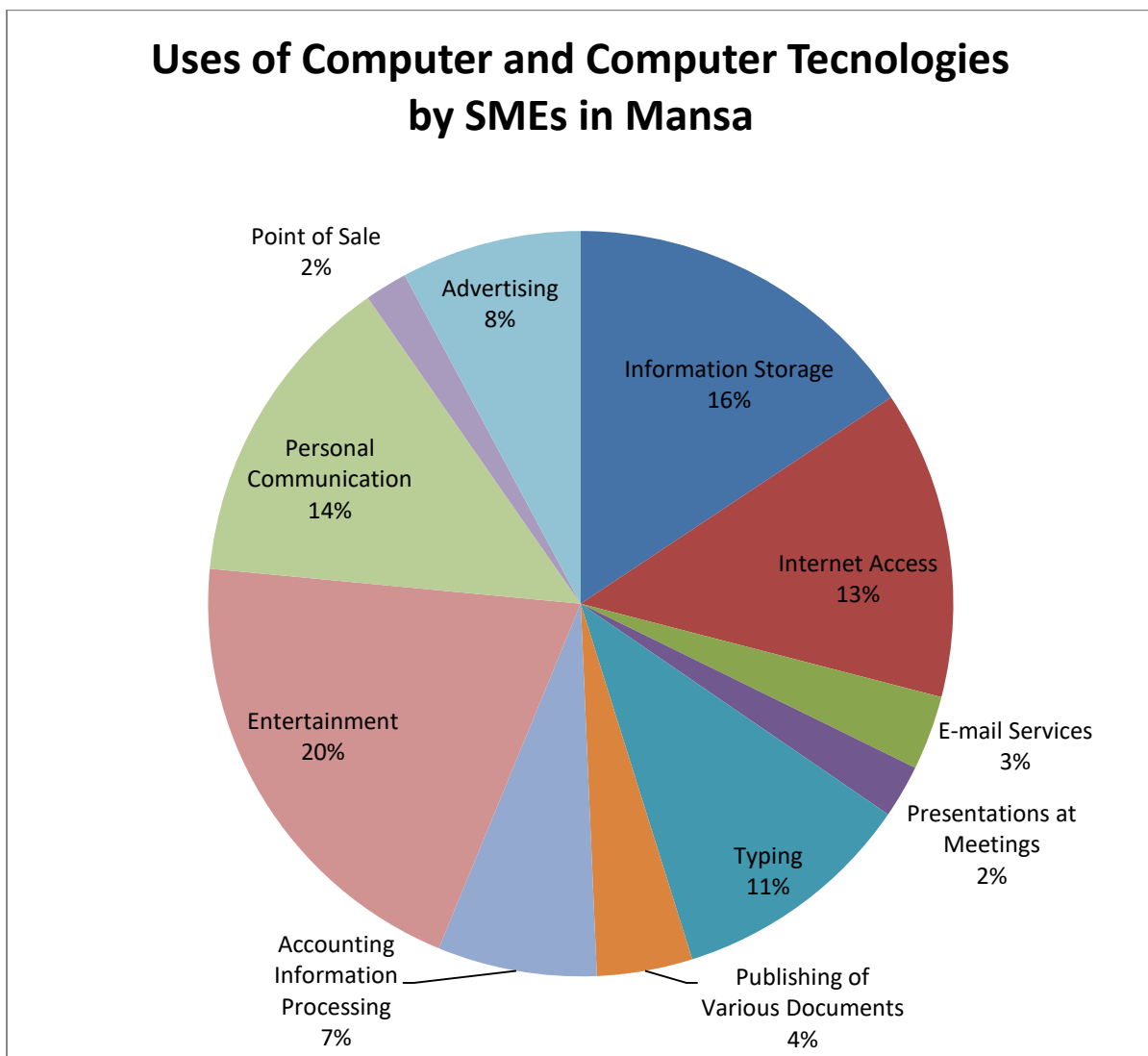


Fig. 3: Uses of computer and computer technologies in Mansa

4.2.3 On what could have been the reasons for not using computers or accompanying computer technologies, the responses included the following: 24 respondents who represented 16.22% of those who did not use computers said it was due to lack of computers, which meant that even though they would want to use computers and computer technologies, it was impossible in their case since no computers were available to them; 29 or 19.59% could not operate a computer meaning they were computer illiterate; 19 or 12.84% lacked awareness which could be on how to use computers in business or did not just understand the benefits that might come with use of computers; 35 respondents or 23.65% of those who did not use computers said it was due to lack of management support; 22 or 14.86% was due to cost involved and 19 who represented 12.84% stated that it was due to resistance to change which could be due to fear that computers might replace them or they might fail to learn them. Table 4.7 and Fig. 3 below display the representation of the responses:

Reasons for not using computers as individual respondents	Frequency	Percentage	Cumulative Percentage
Lack of Computers	24	16.22	16.22
Unable to operate a computer	29	19.59	35.81
Lack of Awareness	19	12.84	48.65
Lack of Management Support	35	23.65	72.30
Involved Cost	22	14.86	87.16
Resistance to Change	19	12.84	100
Total	148	100	

Table 8: Reasons for not using computers by individual respondents

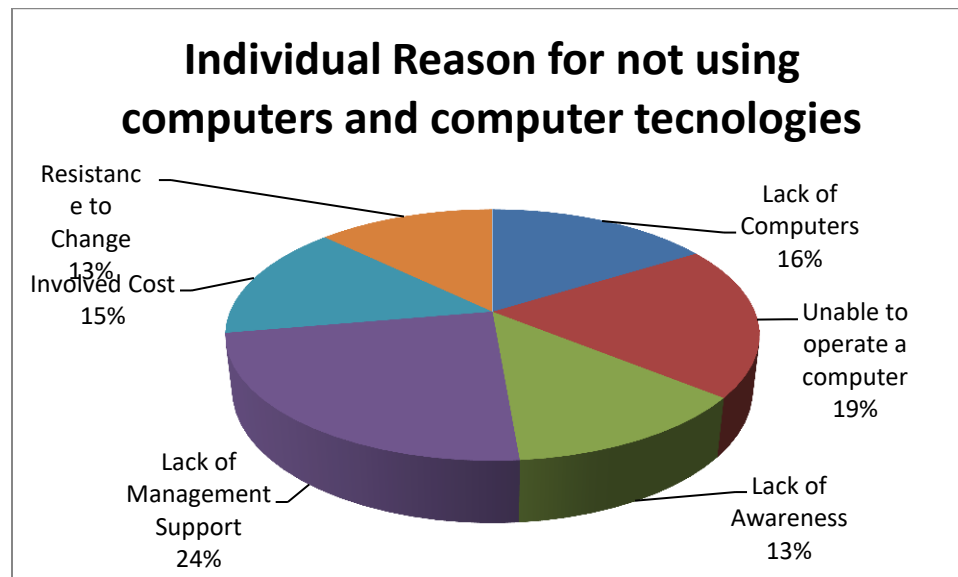


Fig 4: individual reasons for not using computers and computer technologies

On the question on whether businesses as institutions used computers or computer technologies in their operations, the respondents were required to state either “yes” or “no.” 43 (42.16%) agreed that their businesses used computer while (59) 57.84% said no computer technology was employed in their businesses. This was an indicator that SMEs in Mansa had not fully adopted and utilized computers and computer technologies to their advantage in doing their business.

Those Respondents who had said their businesses used computers in their service delivery were further required to give a rating of usage of computer technologies and computer in their businesses. The responses were in a likert form indicating Very high; High; Low; and Very low. 9 rated the utilization of computers in doing their business to have been very high, 11 said it was high, 14 rated computer usage in their businesses as low while 9 indicated that it was very low. This would suggest that computer technology utilization by SMSs in Mansa was generally low as 53.49% of those that positively indicated that their businesses utilized computer technologies in doing business admitted that to have been at low level in their rating. This can be represented as follows in a table:

Rating of Computer Utilization by SMES in Mansa	Frequency	Percentage	Cumulative Percentage
Very High	9	20.93	20.93
High	11	25.58	46.51
Low	14	32.56	79.07
Very Low	9	20.93	100
Total	43	100	

Table 9: Rating of Computer Utilization by SMEs in Mansa

4.2.4 Respondents were also asked to tick the functions for which computer technologies are required in their businesses or organizations. Their response could be represented as follows:

Accounting	43
Inventory Management	21
Sales	48
Human Resource Management	20
Marketing	31
Advertising	45
Purchasing	8
Customer Service	25
Maintenance	6
Communication	67
Others	29
	343

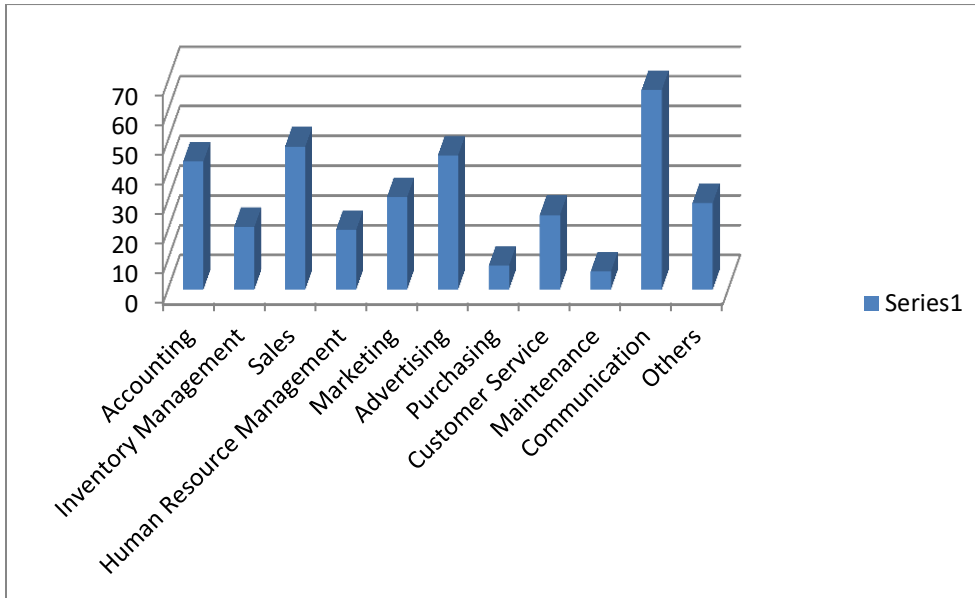


Fig 5. Functions for computer technology use by SMEs in Mansa

From the above, it could be concluded that the major usage of computers among the small and Medium Enterprises in Mansa was communication, sales, advertising and accounting. It could also be seen from the graph that more was needed to be done to increase computer utilization in doing business.

There was generally universal disagreement on the question as to whether SMEs encouraged the use of computer technologies in their operations, 5 (4.90%) strongly agreed, 2 (1.96 %) agreed, 9 (8.82%) disagreed, while 86 (84.31 %) strongly disagreed.

On who owned the computers that businesses were using in doing business, 80.58% of the respondents said the computers were wholly owned by their businesses while 19.42% stated that the computers were not owned by the businesses. This could mean that the computers are either personal or were hired from other organizations.

Coming to the question which sort to find out whether respondents organizations were using computer technologies to expected levels, 3 of the respondents strongly agreed that there was adequate use of computer technologies in their organizations, which represented 2.94% of the effective sample; 3 agreed that computer technologies were adequately utilized in their organization; 39 (38.24%) of respondents disagreed that the utilization of computer technologies in their organizations was adequate, while 57 individuals who represented 55.88% strongly disagreed to that businesses utilized computers to the expected levels. The results clearly indicated that computer technologies were not been adequately utilized by SMEs in Mansa when it came to doing business.

4.3.1 Possession of Adequate computer skills

The researcher sort to find out if respondents had skills in computers, and what were those computer skills they possessed, if at all they did. So a question was asked question was asked as to whether they had some training in computers while at secondary school, college or at their work places. 11 (10.78%) indicated that they had acquired some computer skill while in secondary school, 44 (43.14%) in during their college or tertiary education and 14 (13.73) while at work.

Formal training in computers	Frequency	Percentage
Secondary school	11	10.78
College or Tertiary Education	44	43.14
At Work	14	13.73

Table 10. Formal training in computers

From the above table, it can be concluded that the workforce engaged in the running of SMEs in Mansa were mostly computer illiterate and did not possess any skills that they could apply in their doing business.

A multiple response question was as on what kind of training they underwent in computers, at their various levels of study, the responses receive could be displayed as follows:

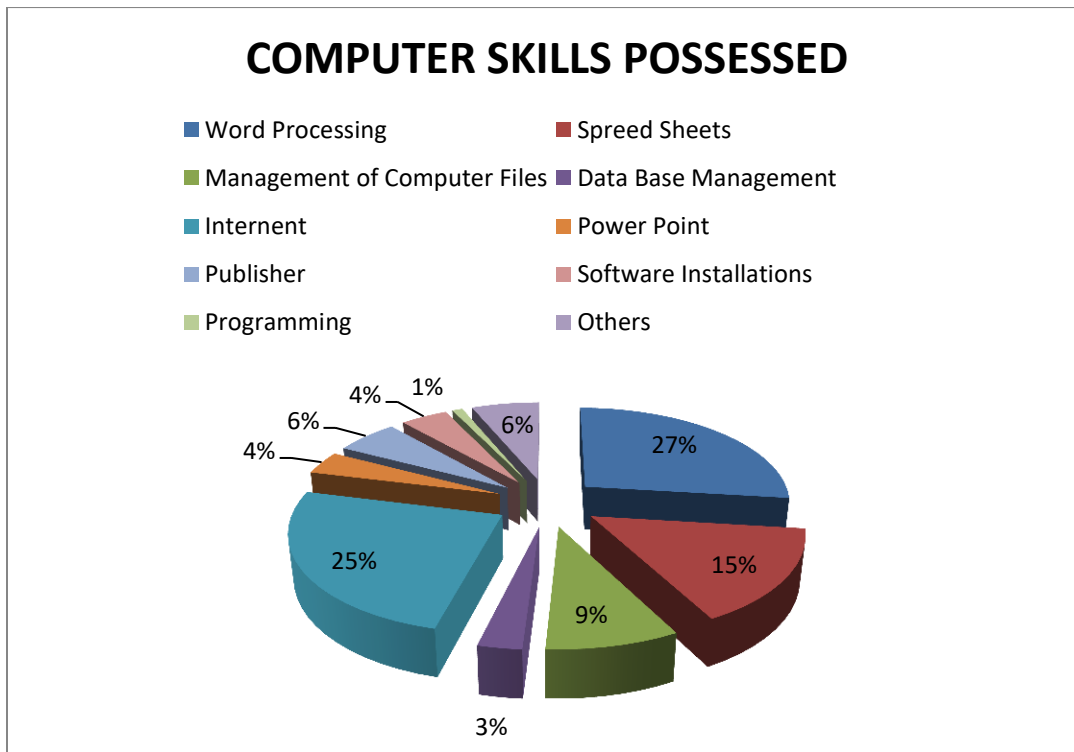


Fig 6: Possessed computer skills

The chart shows that most of the respondents just had some basic computer application knowledge and not advanced skills that could propel the business to higher performance.

Those whose answer was a no, to formal computer training were further asked if at all they had acquired some computer skills in an informal way. 2 (2.99%) said they strongly did, 3 (4.48%) indicated that they did, 13 (19.40%) indicated that they had some basics, 16 (23.88%) indicated that they did not while the other 33 (49.25%) said they strongly did not possess any skills.

A question was further asked on what skills respondents could have acquired informally. They all indicated that it was basic computer knowledge such as word processing, excel and internet. It could be concluded that these skills were inadequate to meet the demands of the industry, especially in this competitive world.

Respondents were also asked whether other employees, managers or owners in the organizations possessed computer adequate skills to cope with the latest computer technologies. They were required to strongly agree, agree, disagree or strongly disagree. This question broke down employees into three to specifically show which of the group in the organization possessed or did not possess adequate skills ideal to meeting the latest technologies. Their responses were represented as below:

Possession of Adequate Computer Skills	Owners/Owner Representative	Manager/Administrator	Other employees
Strongly Agree	2	4	4
Agree	4	45	32
Disagree	34	23	22
Strongly Disagree	62	26	44
Total	102	102	102

Table 11: Possession of Adequate Computer Skills

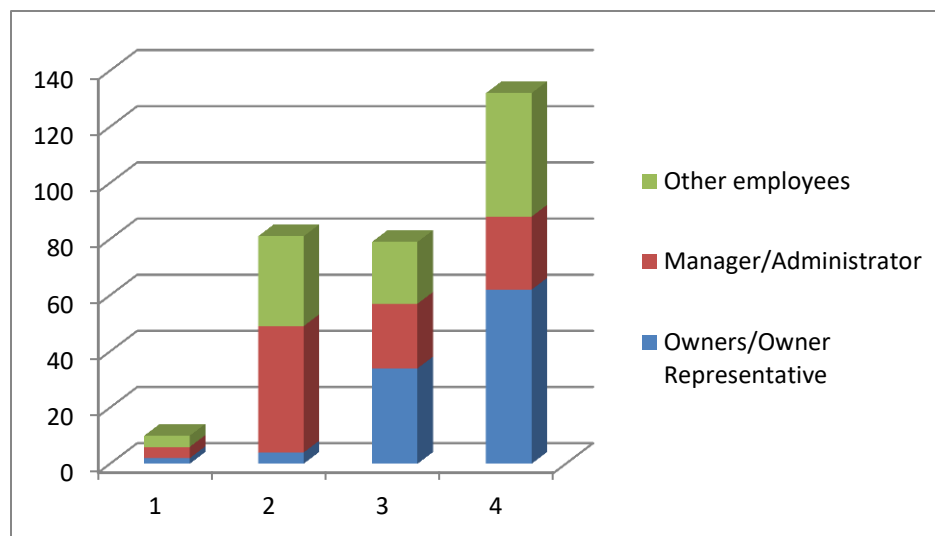


Fig 7. Possession of Adequate Computer Skills

From the responses, it was seen that most of the owners, their managers and other employees did not have adequate skills to enable them cope with the demands of modern technologies.

With the current dynamic world where technological advancements were the order of the day, the respondents were asked whether they would be willing to go for computer training if that was organized for them. This question needed to assess the willingness of the employees to accept change and their adaptability to change. The question demanded for respondents to state whether they Strongly Agreed; Agreed; Disagreed or Strongly Disagreed. The responses were as follows: 46 (45.1%) strongly agreed; 37 (36.28%) agreed; 11 (10.78%) disagreed and 8 (7.84%) strongly disagreed. This would suggest that owners and their employees were ready to accept change and acquire new skills.

On the question as to whether they were willing to spend some money in order to acquire computer skills. 15 strongly agreed, 21 agreed, 40 disagreed and 26 strongly disagreed to using their personal money to acquire computer skills. From that it could be seen that though 81.37% of sample were willing to acquire computer skills, only 43.37% of them were willing to spend personal money to acquire the skills. This would suggest lack of appreciation of the benefits that may result from computer skills even at individual level.

The respondents were also asked as to what could be the reason for their willingness and unwillingness to go for computer skills. Those willing to go for training suggested the following reasons: to acquire a skill; better job opportunities; increased performance; and other reasons. This was a multiple response, open-ended question and the respondents' answers could be displayed as follows:

Reasons for going for computer training	Frequency	Percentage	Cumulative Percentage
Acquire a skill	33	34.74	34.74
Better job opportunities	29	30.53	65.27
Increased performance	24	25.26	90.53
Others	9	9.47	100
Total	95	100	

Table 12 Reasons for going for computer training

Other reasons included: for status 4, to be literate 3, and for promotion 3.

Coming to individual businesses, a question was posed as to whether they had IT, ICT or Computer Technology policy in place. The question called for responses to range from, strongly agree, agree, disagree and strongly disagree. 27 strongly agreed to having a policy in place, 48 (47.06%) agreed, 18 (17.65%) disagreed, 7 (6.86%) strongly disagreed while 2 (1.96%) abstained

from the question.

Another question was asked on whether respondents agreed that their businesses appreciated the benefits that come with the use of computer technologies. The responses were: Strongly agreed 25 (24.51%), agreed 21 (20.59%), disagreed 33 (32.35%) and strongly disagreed 23 (22.55%).

Further a multiple response question was asked on what benefits respondents felt would come with the use of computers in their business. The responses were as follows:

BENEFITS	FREQUENCY	PERCENAGE
Improved Performance	41	12.77
Faster than Human beings	54	16.82
Improved Communication	47	14.64
Increased Markets	26	8.1
More accurate than Human Beings	29	9.03
Quality Product design	18	5.61
Easy data analysis	22	6.85
Cost effective	51	15.89
Competitive Advantage	12	3.74
Improved monitoring of production systems	8	2.49
Enhancing Globalization	13	4.05
Total	321	99.99

Table 13: Benefits of computers

The suggested benefits were then displayed in a chart form to produce figure 4. Below:

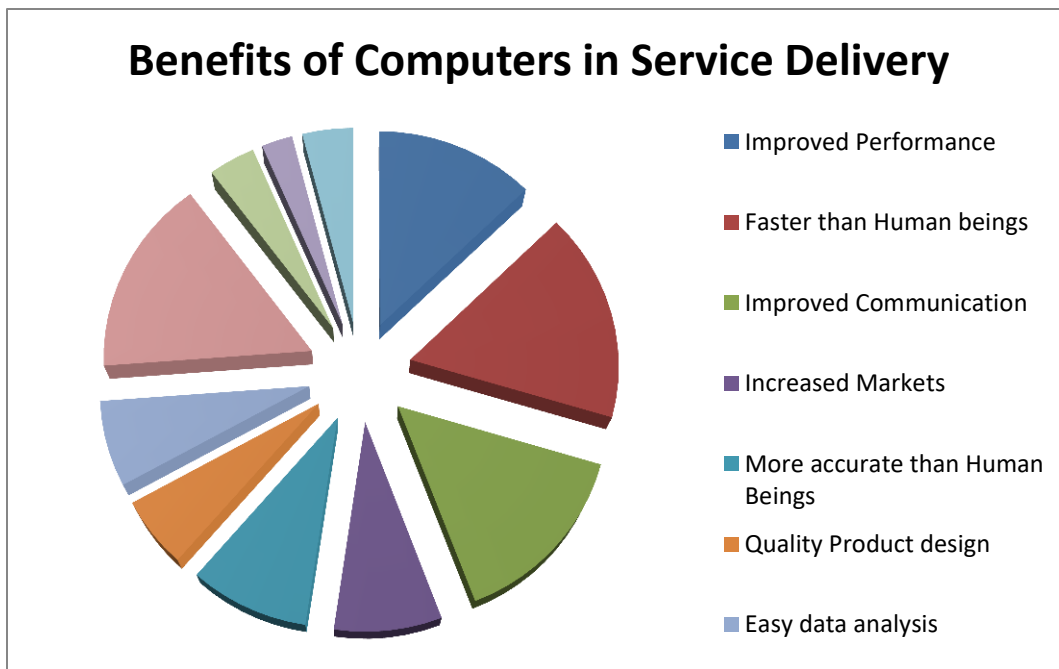


Fig 8: Benefits of computers

Respondents were also asked as to whether they thought workers do better with computer technologies as tools, in their production or service delivery. The responses ranged from strongly agree, agree, disagree and strongly disagree and 77 (75.49%) strongly agreed, 22 (21.57%) agreed and 3 (2.94%) disagreed while there was no choice of strongly disagree.

4.3.2 Challenges of Computer Utilization in SMEs

Respondents were asked to state the challenges employees face in using computer technologies, in their businesses. Their responses included lack of adequate skills to meet the demands of the work 34 (16.27%), low availability of computers 76 (36.36%), lack of training in software application 21 (10.05%), do not understand the benefits 45 (21.53%) and fear of loss of jobs 33 (15.79%).

On challenges faced by SMEs as organization in the utilization of computer technologies, the responses included, risk of uncertainty on the return 21 (15.11%), lack of full understanding of the benefits 22 (15.83%), limited financial resource to acquire the technologies 48 (34.53%), lack of will 19 (13.67%), lack of implementation of policy 12 (8.63%) and limited support from the government 17 (12.23%).

It was also required that respondents give suggestions on how the challenges leading to low utilization of computer technologies could be overcome. The responses were as follows: sanitization of business owners on the benefits that come with computers 46 (29.30%), training of SMEs' workers in computers 39 (24.84%), provision of capital sources to small and medium businesses for acquisition of computers and computer technologies 40 (25.48%) and government support 32 (20.38%).

Suggested to overcome challenges of low utilization of computer technologies	Frequency	Percentage	Cumulative Percentage
Sanitization of Owners on benefits	46	29.30	29.30
Training of workers in computers	39	24.84	54.14
Increased performance	40	25.48	79.62
Others	32	20.38	100
Total	157	100	

Table 14: Suggested to overcome challenges of low utilization of computer technologies

4.4 Measures to Promote the Utilization of Computer Technology by SMEs in their Service Delivery in Mansa district

On measure that would contribute to the increased computer technologies, a question was asked to find out if at all respondents were aware that Zambia had an ICT policy under which computer technologies fell. The question demanded for yes or no. 56 (54.90%) said yes while 46 (45.10%) said no.

A question was asked for the opinion on whether SMEs were doing enough in promoting the use of computer technologies in their service delivery. The question demanded for answers ranging from strongly agree, agree, disagree and strongly disagree. Responses were 18 (17.65%) strongly agreed, 28 (24.45%) agreed, 36 (35.29%) disagreed and 20 (19.61%) strongly disagreed. The responses suggested that respondents felt that SMEs were not doing enough to incorporate computers in their doing business.

On whether respondents felt that the Zambia government is doing enough in promoting the use of computer technologies among SMEs, 13 (12.75%) strongly agreed, 27 (26.47%) agreed, 38 (37.26%) disagreed and 24 (23.53%) strongly disagreed, suggesting that the government might not be doing enough in supporting SMEs in the utilization of computer technologies.

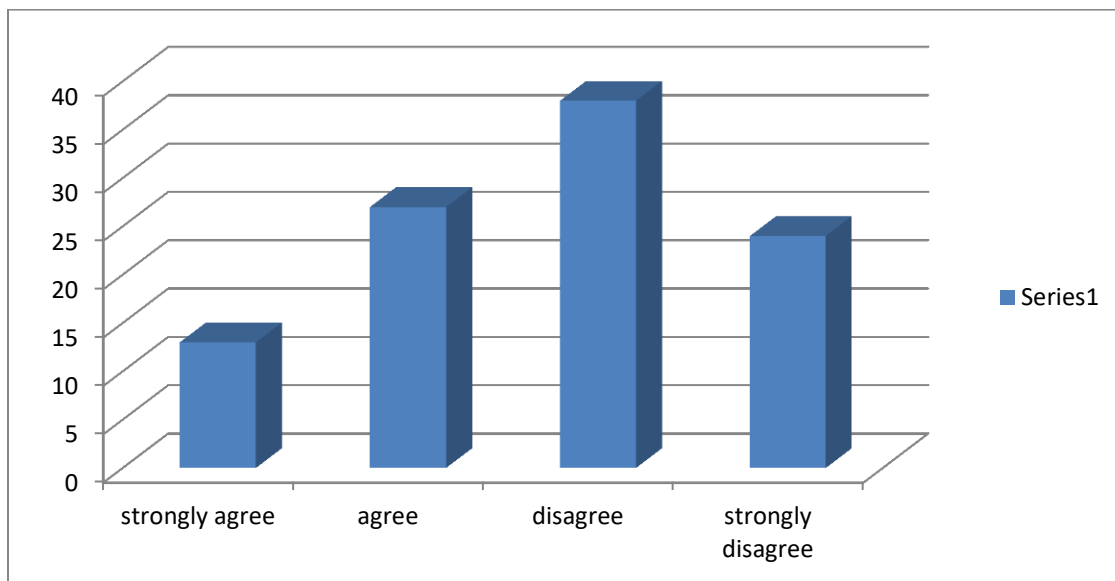


Fig 9: How the Zambia government is doing to promote computer usages

Another question was asked seeking for what SMEs should do to promote use of computer technologies in their operations. Responses included developing and implement a computer policy, sensitization of SME managers and employees on the benefits, invest in computers skills training of employees, invest in purchase of computer hardware and software and seek support from the government and cooperating partners. Being a multiple response answer question, the responses could be represented as follows in a table form:

Suggested to overcome challenges of low utilization of computer technologies	Frequency	Percentage	Cumulative Percentage
Sanitization of managers and employees on benefits	56	25.23	25.23
Training of employees in computers skills	59	26.57	51.80
Develop and implement a computer policy	20	9.01	60.81
Purchase of computers and software	72	32.43	93.24
Seek for government and partners' support	15	6.76	100
Total	222	100	

Table 15: Suggestions to overcome challenges faced by SMEs in the utilization of computer technologies

Lastly the respondents were required to suggest what they thought could be done by the government to promote the use of computers technologies by SMEs in their service delivery. The respondents suggested the following in their responses:

What government should do to promote use of computer technologies	Frequency	Percentage	Cumulative Percentage
Sanitization of owners and managers on benefits	46	25.84	25.84
Training of employees in computers skills	58	32.58	58.42
Implement the National ICT Policy	34	19.10	77.52
Support SMEs with purchase of computers and software	22	12.36	89.88
Provide computer acquisition loans	18	10.11	99.99
Total	178	99.99	

Table 16: Suggestions government can take to overcome challenges faced by SMEs in the utilization of computer technologies

The research findings revealed a number of issues that were of interest to the researcher and made a number of findings to stand out.

1 It was clear from the research findings that SMEs possessed some computers and computer technologies that they use in service delivery though they were not put to effective use in most cases.

2 The findings revealed the benefits that come with the use of computer technologies such as efficiency and accuracy, competitive advantage, increased markets, reduction of costs and increased quality service to customers.

3 Challenges brought out included inadequate financial resource to acquire modern technologies, lack of established computerized infrastructure and lack of adequate computer skills and lack of management and political will. It was even noticed that SMEs in Mansa lacked the needed drive to adopt and utilize computer technologies.

4 Examining the adoption and utilization pattern of computer and computer technologies revealed that most of business owners and their managers were not eager to computerize their operations. They were not risk takers of early adopters but they were reactive and hence could further be looked at in terms of the Diffusion theory by Rodgers (2003).

5 Finally, the findings also revealed that computer literacy has an impact on the adoption and use of technologies. SMEs with more computer literate employees were more eager and better placed to adopt and use computer technologies. Some businesses were seen to be quick in adopting technological innovations while others were slow in adopting. Fear of risks and uncertainty could be major hindrances to the adoption of innovations. Rodgers (2003) calls the changes that take place to the business due to acceptance and adoption of an innovation or rejection of it as consequences. The case of SMEs in in Mansa was typical of the Rogers (2003), the innovation-decision process theory which involves five steps: (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation, before a new technology is accepted. SMEs in Mansa were hesitant to adopt and incorporate computer technologies before going through the processes discussed in the theory.

In most cases, respondents felt that computer technologies were inadequately used. It was clear from the findings that this was mainly due to computer illiteracy which stood at 48% of respondents being completely illiterate.

DISCUSSION

Causes for Low Utilization of Computer Technologies by Small and Medium Enterprises

There was utilization of computers among SMEs in Mansa as only 41.58% of employees in SMEs were using such technologies in their service delivery. Probing further revealed that only 40.48% of those who used computers were using the technology very often in the course of doing business. It was thus, observed that low utilization of computers and computer technology was common among SMEs in Mansa. This could be due to lack of sensitization or understanding of the benefits that came with utilization of computers and computer technologies.

The major uses of computer technologies among these SMES were storage of information such as names of suppliers and customers, internet access, email service, presentation information at meetings, typing of mails and documents, preparation of cards and other document, accounting information processing, entertainment, personal communication, point of sale configuration and advertising. The highest usage was that of entertainment at 20.28%. Personal entertainment could have been watching movies, playing music or playing games while internet access could also be for personal or business purposes. From this, it could be concluded that use of computer technologies

was not to the expected standards as only 2.30% and 1.84% used computer technologies power point presentations at meetings and point of sale data capturing, respectively.

On what could have been the reasons for not using computers or accompanying computer technologies, it was discovered that 16.22% was due to lack of computers, which meant that even though they would want to use computers and computer technologies, it was impossible in their case since no computers were available to them; 19.59% could not operate a computer meaning they were computer illiterate; 12.84% lacked awareness which could be on how to use computers in business or did not just understand the benefits that might come with use of computers: 23.65% of those who did not use computers said it was due to lack of management support; 14.86% was due to cost involved and 12.84% was due to resistance to change which could have been due to fear that computers might replace them or they might fail to learn them - Posci (2017).

The findings also revealed that only 42.16% of SMEs used computers in their businesses. This was an indicator that SMEs in Mansa had not fully adopted and utilized computers and computer technologies to their advantage in doing their business. Those respondents who had said their businesses used computers in their service delivery were further required to give a rating of usage of computer technologies and computer in their businesses. The ratings showed that computer technology utilization by SMSs in Mansa was generally low as 53.49% of those that positively indicated that their businesses utilized computer technologies in doing business admitted that to have been at low level in their rating. And the major business usage of computer technologies among the small and Medium Enterprises in Mansa was communication, sales, advertising, payroll management and accounting.

It was generally observed and concluded that there was poor will by SMEs to incorporate and use of computer technologies in their operations. Further, only 80.58% of the computers were wholly owned by their businesses. This could mean that they were either personal or hired from other organizations.

Coming to the question which sort to find out whether respondents organizations were using computer technologies to expected levels, 94% disagreed that businesses utilized computers to the expected levels. The results clearly indicated that computer technologies were not been adequately utilized by SMEs in Mansa when it came to doing business.

Possession of Adequate computer skills

The researcher sort to find out if respondents had skills in computers, and what were those computer skills they possessed, if at all they did. So a question was asked as to whether they had some training in computers while at secondary school, college or at their work places. It was discovered that the workforce engaged in the running of SMEs in Mansa were mostly computer illiterate and did not possess any skills that they could apply in their doing business.

A multiple response question was as on what kind of training they underwent in computers, at their various levels of study. The chart showed that most of the respondents just had some basic

computer application knowledge and not advanced skills that could propel the business to higher performance. 15% of those who had no formal computer training in way had acquired some basic skills informally. They all indicated that these were basic computer knowledge such as word processing, excel and internet. It could be concluded that these skills were inadequate to meet the demands of the industry, especially in this competitive word. It was also seen from findings that most of the owners, their managers and other employees did not have adequate skills to enable them cope with the demands of modern technologies. Further analysis showed that 81.37% of those with no computer skills were willing to acquire skills but only 43.37% of them were willing to spend personal money to acquire the skills. This would suggest lack of appreciation of the benefits that may result from computer skills even at individual level.

Findings also revealed that 75.43% individual businesses had IT, ICT or Computer Technology policy in place while others did not. Only 45% of the respondents felt that their businesses appreciated the benefits that come with the use of computer technologies, however.

Challenges of Computer Utilization in SMEs

Individual Challenges brought out included lack of adequate skills to meet the demands of the work (16.27%), low availability of computers (36.36%), lack of training in software application (10.05%), do not understand the benefits (21.53%) and fear of loss of jobs (15.79%).

While organizational challenges included, risk of uncertainty on the return (15.11%), lack of full understanding of the benefits (15.83%), limited financial resource to acquire the technologies (34.53%), lack of will (13.67%), lack of implementation of policy (8.63%) and limited support from the government (12.23%).

The study also brought out suggestion to overcome this problem which included training of SMEs' workers in computers, provision of capital sources to small and medium businesses for acquisition of computers and computer technologies and government support.

Measures to Promote the Utilization of Computer Technology by SMEs in their Service Delivery in Mansa district

On measure that would contribute to the increased computer technologies, was to promote awareness (Posci 2017) that Zambia had an ICT policy under which computer technologies fell. It was suggested that the government might not be doing enough in supporting SMEs in the utilization of computer technologies, therefore, the need to wake up and let individuals and businesses understand the need for computer technology usage.

Findings revealed that SMEs needed to develop and implement a computer policy, sensitization among SME managers and employees on the benefits, invest in computers skills training of employees, invest in purchase of computer hardware and software and seek support from the government and cooperating partners. Lastly the government was required to take a leading role in implementing the National ICT policy and supporting SMEs in that area, -Tan and Teo (2000).

Comparative Analysis of Owners, Managers and other employees of SMEs revealed that most of the owners of SMEs lacked computer skills as well as the awareness of how beneficial computers would be to the business, the profitability as well as operational wise. 17% of all respondents lacked any formal training in computers and the accompanying computer technologies. Among them were the owners of these businesses lacked basic skills as well as knowledge of the benefits of computer technology to the business.

The managers had challenges with computers and computer technologies as well; this was because most of them did not have any formal training in the subject at any level of their school journey. But most of them had gathered some skills on the way and were able to perform basic computer operations though they lacked depth in skills. These were also willing to study if opportunities presented themselves.

The other workers were mostly grade 12 school leavers with no tertiary education or experience. They possessed most of the computer skills among the responding SMEs though that was so basic to meet the demands of the business and the economic environment as well. They formed the larger part of the 15% who possessed basic computer skills through informal means. They were eager to learn and even ready to spend a bit more of their personal resources to acquire the necessarily skills should need be.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The study was mainly conducted to investigate the challenges faced by SMEs in Mansa in integrating and implementing of ICTs, in their operations or service delivery. Chapter five concludes the study and also makes recommendations on how best the owners, managers and employees can come on board to help SMEs to adopt, and utilize computer technologies in their doing business.

5.1 Conclusion

The study revealed that computer technology adoption and use among SMEs in Mansa was low especially in the areas of dedicated software for Point of Sale (PoS), Internet, Social Networking systems, Accounting Packages, Management Information System (MIS), Payroll Management Systems and Materials Management Systems. This has greatly affected their competitiveness which largely limited their share of markets and profitability.

It is clear from the study that there were a number of factors that supported the adoption and use of computer technologies in SMEs in Mansa. These included efficiency and accuracy, competitive advantage, increased markets, reduction of costs and increased quality service to customers.

The hindrances included lack of infrastructure, lack of adequate financial resources to acquire modern computers and their accompanying technologies, high computer illiteracy levels among owners, managers and employees, lack of management and political will among others.

Limited financial resource was mostly affecting most small and medium enterprises in Mansa. This was even pointed out by an earlier study on SMEs in South Africa by Harindranath and Ozcan (2009) who observed that “many researchers examining ICT adoption in SMEs however attested to financial constraint having critical influence on SMEs’ adoption efforts”

It was also established that those SMEs who used computer technologies in their doing business, did so in order to offer quality services, faster and improved services, cost effective products and services, globally accepted services, while commanding a stable and increased market share, improved communication, quality product design and ease data analysis, among other things.

Lack of adequately skills came out strongly among the major inhibitors for the adoption and utilization of computer technologies among SMEs in Mansa. Owners, their managers and employees generally lacked key performance boosting skills needed to have full computerized systems in their operations. Most of them possessed basic or totally no computer skills necessary for their organizations’ competitive advantage and a good number were not even formally trained in computer skills. The computer illiteracy part was also a source of concern among owners, managers and the rest of employees.

The study revealed that lack of awareness among owners and their employees of the benefits that come with the utilization of computer technologies were among the major hindrances SMEs faced in the effective use of computer technologies. That could have greatly contributed to low utilization of computer technologies in their service delivery.

Risk or uncertainty of the expected return from an investment in computer technologies was also one of the major challenges faced by SMEs in the utilization of computer technologies. Most of the owners and managers of these SMEs are not risk takers; they are moderate or even averse and would want to maintain a status quo, they do not want to lead the market in innovating new products or services but the normally wait until they are satisfied that the innovation is safe, as was observed by ZiCA (2007).

Management support was also brought out as a challenge to the successful adoption and utilization of computer technologies by SMEs in Mansa. The management willingness and support would not be achieved in most cases unless the owners and their managers are assured of a positive return

from their investment. Lacking such certainty more often than not results in challenges in sourcing the desired support and resources from management especially that the majority of SMEs have serious financial challenges. However, it could also be noted that a few of these SMEs had some good financial standing and such had also a higher presence of technologies.

There was also lack of willingness to embrace change in some cases, the study revealed. This affected both managers and employees. This could be attributed to factors earlier mentioned such as lack of awareness, illiteracy and the fear to lose jobs in some cases.

The government was also pointed as another contributor to slow adoption and in some cases non-utilization computer technologies by SMEs. Though there have been a lot of pronouncements by the government, very little is being achieved on the ground. The government needs to implement more adequately the National ICT policy if SMEs are to be encouraged to integrate computer technologies in their day to day operations.

5.2 Recommendations

Following the study, the researcher makes the following recommendations arising from this study:

11 Awareness must be created among owners, managers and employees on the benefits of computer technology utilization in their business operations. They should realize that use of computer technologies and other ICTs would bring about efficiency, improved quality, and increased productivity among other benefits.

12 Government must realize that SMEs are important contributors to the performance of any economy and as a result they should be helped to be more efficient, competitive and economical through use of computers and accompanying technologies. That would help them to be more productive and contribute to fighting unemployment increased tax base for the government. This can be done by government's determination in endeavoring to make computers more accessible by providing tax exemptions on hardware and software.

13 As a matter of policy, government should embark on providing training of the citizens at all levels of education and should encourage the SME managements to develop policies to train their employees in the use of computer technologies.

14 SME owners and managers should be encouraged to acquire computer skills and then give importance to the adoption and use of computer technologies by developing computer infrastructure to facilitate the provision of computerized service.

15 Policy makers, investors and SME associations should work together to come up with ways and means through which funds could be made available to SMEs as loans to finance computer acquisition or infrastructure development.

Implications for further Research

The researcher recommends that the following should be considered for future research or studies:

Studies should be carried out in different parts of the country in order to get a wider perspective of the operations of SMEs and also in a field specific so as to get the full picture of the sector of SMEs' operations and whether they are doing well in the utilization of computer technologies.

Further research can also be carried out on the same but on a broader area so as to get a bigger sample population, whose findings can easily be concluded to have given a closer representation of the general SMEs population.

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APPENDIX 1

QUESTIONNAIRE AN INVESTIGATION OF CHALLENGES FACED BY SMALL AND MEDIUM ENTERPRISES (SMES) IN THE UTILISATION OF COMPUTER TECHNOLOGIES IN THEIR SERVICE DELIVERY

This questionnaire is intended to collect data solely for academic purpose

INSTRUCTIONS

Kindly place a tick or answer in full each of the questions that follow:

Section A

1. Kindly indicate your gender? Male Female
2. Indicate your age by ticking relevant age group
18 – 25 26 – 35 36 – 45 Above 46
3. Indicate the name of your business or company

4. Tick the appropriate length of your service to this organization
0 – 5yrs 6 – 10yrs 11 - 15yrs Over 15 years
5. What is your position in this in this organization?
Owner/Representative Manager/Administrator Other Employee
6. What is your level of Education?
Certificate Diploma Degree Masters others Specify.....

Section B

7. What job do you do in this organization?

8. Does your job involve the use of computers?
Yes, it does No, it Does not

9. If yes, how often do you use computers or computer technologies in doing your work?

Often [] Not very often [] Rarely [] Never []

10. What could be the reasons for the use of computers and computer technology in your service delivery?

11. If No, to the question in 8 above, what could be the reasons for your not using computers or its technology?

12. Does your business as whole use computer technologies in the operations?

Yes it does [] No, It doesn't []

13. If yes, how do you rate the level of usage of computer technologies in your business?

Very high [] High [] Low [] Very Low []

14. Kindly **tick** some of the functions where computers technologies are used in your organization

- | | | | | | |
|----|---------------------------|----|-----------------------|---|-------------|
| 1 | Accounting, | 2 | Inventory Management | 3 | Sales |
| 4 | Human Resource Management | 5 | Marketing | 6 | Advertising |
| 7 | Purchasing | 8 | Customer Services | 9 | Maintenance |
| 10 | Communication | 11 | Others, Specify ----- | | |

15. Does your organization encourage the use of Computer technologies in its operations?

Strongly Agree [] Agree [] Disagree [] Strongly Disagree []

16. Does your organization own computers and computer technologies used in the business?

Yes it does [] No it does not []

17 Do you think the organization is using computers to the expected levels?

I strongly Agree [] I Agree [] I Disagree [] I strongly Disagree []

Section C

18. Kindly indicate if at all you have had formal computer training for your service delivery?

In Secondary School Yes [] No []

At College Yes [] No []

At Work Yes [] No []

If yes to any of the above, what kind of training or course you under went

19 If **No** to any of the question above, indicate whether you possess computer skills that you acquired informally

I Strongly Do [] I Do [] Some Basics [] I don't [] I Strongly Don't []

20 Kindly indicate what computer skills you acquired informally

21 Do you agree that other individuals in the organization possess adequate skills in computers to cope with the latest computer technology demands?

a) Owners/Representatives

I Strongly Agree [] I Agree [] I Disagree [] I strongly disagree []

b) Managers/Administrators

I Strongly Agree [] I Agree [] I Disagree [] I strongly disagree []

c) Other employees

I Strongly Agree [] I Agree [] I Disagree [] I strongly disagree []

22. Would you be willing to be sent for computer training if that is organized for you?

I Strongly Agree [] I Agree [] I Disagree [] I strongly disagree []

23. Are you willing to part away with some money to acquire some skills in computers?

I strongly agree [] I agree [] I disagree [] I strongly disagree []

24 Give reasons for your willingness or unwillingness to go for computer training

Section D

25 Kindly indicate if your organization has an IT, ICT or Computer Technology policy in place

I strongly agree [] I agree [] I disagree [] I strongly disagree []

26 Does your organization seem to appreciate the benefits that come with the use of computer technologies?

I strongly agree [] I agree [] I disagree [] I strongly disagree []

27 In your own view, what are the benefits of using computers in business?

28 Do you think workers do better in production or service delivery with computer technologies as tools?

I strongly agree [] I agree [] I disagree [] I strongly disagree []

Section E

29 What are some of the challenges employees of SMEs face in using Computer Technologies?

30 What Challenges do you think SMEs face in using computers in their operations?

31 How do you think the challenges in 30 and 31 above can be overcome?

Section F

32 Are you aware that there is an ICT policy for SMEs in Zambia?

Yes [] No []

33 Do you think SMEs are doing enough in the use of Computer technologies in their service delivery?

I strongly agree [] I agree [] I disagree [] I strongly disagree []

34 Do you think the Zambia government is doing enough in promoting the use of Computer technologies SMEs?

I strongly agree [] I agree [] I disagree [] I strongly disagree []

35 What do you think SMEs should do to promote their use of computer technologies in their operations?

36 What do you think the government should do to promote the use of Computer technologies by SMEs in their operations?

APPENDIX 2

INTERVIEW GUIDE FOR THE RESEARCHER

- 1 How long have been with this institution?
- 2 Do you use computers and computer technologies in doing your business?
- 3 Do you see your role as one which would need the use of computer technologies?
- 4 Does your institution support the use of computer technologies?
- 5 Does your management support the use of computers and computer technologies?
- 6 Do you as an individual possess computer skills?
- 7 What skills do you have in computers?
- 8 Did you learn computers formally or informally?
- 9 If you were given chance to acquire skills in computers would you be willing to so?
- 10 Do you think computers would make your job easier?
- 11 How important are computer technologies in service delivery?
- 12 Do you agree that computers would make employees lazy?
- 13 What are you doing personal to upgrade your computer skills?
- 14 Do you think computers will eventually over-power the role of human beings?
- 15 Do think your institution moving into the use of computers soon?
- 16 What do you think are the major factors holding most SMEs from using computer technologies?
- 17 In your opinion, who do you think should fight for computers to be utilized by SMEs?
- 18 Do think computers would make SMEs more competitive if they adopted them?
- 19 If deliberate efforts are made, do think SMEs would change to become more technical?
- 20 Do you think the Zambian government is doing enough in implementing the use of computer technologies by SMEs?

APPENDIX 3

RESEARCH TIME-LINE

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ACTIVITY PLAN	APR -MAY	JUNE -JUL	AUG- SEPT	OCT- DEC	JAN- FEB	MAR- APR	MAY- JUNE
Choosing of a Research Topic, Seeking Authority for Approval and Research Designing	2016						
Proposal Writing		2016					
Submission For Reviews By The Supervisor			2016				
Finalizing the Proposal and Defense				2016			
Field Work and Data Analysis					2017		
Report Writing and Defense of Master's Thesis						2017	
Thesis Finalisation And Submission							2017

APPENDIX 4 RESEACH BUDGET

SERIAL NO.	ITEM	QTY	PRICE/UNIT	PRICE TOTAL
1	Internet bundles			550
2	Proposal Writing and e-mailing			250
3	Data Collection			800
4	Cost of stationery			250
5	Travelling for Proposal defense	4	500	2000
	TOTAL			K3,850