

**THE ROLE OF MOBILE PHONE USE IN THE SUCCESS OF SMALL AND
MEDIUM SIZED ENTERPRISES: A CASE OF SMES PROVIDING FINANCIAL
SERVICES IN THE KIAMBU SUB COUNTY**

BY

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Table of Contents

Declaration.....	iv
Abstract.....	iii
List of Abbreviations.....	iv
List of tables.....	vii
List Figures.....	viii
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1 Background of the study.....	1
1.2 Statement of the problem.....	4
1.3 Research Questions.....	5
1.4 Research Objectives.....	5
1.5 Scope of the Research.....	6
1.6 Significance of the Research.....	7
1.7 Limitations of the Research.....	8
CHAPTER TWO.....	9
LITERATURE REVIEW.....	9
2.1 Introduction.....	9
2.2 Defining SMEs.....	10
2.2.1 SMEs Key Success Factors.....	11
2.2.2 SMEs Challenges and Opportunities.....	13
2.3 Mobile Phone Devices and SMEs.....	14
2.3.1 Mobile Phone and 3G Evolution.....	15
2.3.2 Mobile Phone Devices Useful to SMEs.....	16
2.3.3 Advantages of mobile phones to users.....	17
2.3.4 Importance of mobile phone use by SMEs.....	18
2.3.5 Factors influencing mobile phone usage by SMEs.....	19
2.3.6 Factors Influencing Adoption of Mobile Phones by Users.....	20
2.4 SMEs Providing Financial Services.....	22
2.5 Conceptual Framework.....	23
CHAPTER THREE.....	26
RESEARCH METHODOLOGY.....	26
3.1 Introduction.....	26
3.2 Research Design.....	26
3.3 Population of Study.....	27
3.4 Sample size and sampling technique.....	27
3.5 Data and Data Collection Techniques.....	28
3.6 Data Analysis Techniques.....	29
CHAPTER FOUR.....	31
FINDINGS AND DISCUSSIONS.....	31
4.1 Introduction.....	31
4.2 Demographics.....	31
4.3 Mobile Phone Uses Relevant to SMEs.....	32
4.4 Critical Success Factors for SMEs.....	35
4.5 Effect of Mobile Phone Use on SMEs' Critical Success Factors.....	36
4.5.1 Model for the Relationships through Regression Analysis.....	37
4.6 Areas to Improve to Enhance Mobile Phone Use by SMEs.....	43
CHAPTER FIVE.....	45
CONCLUSIONS AND RECOMMENDATIONS.....	45
5.1 Conclusions.....	45
5.2 Recommendations.....	46
REFERENCES.....	47
APPENDICES.....	54
Appendix 1: Time Schedule.....	54
Appendix 2: Budget.....	55
Appendix 3: Sample Questionnaire.....	56

Declaration

The Research is my original work and has not been submitted in any other University or by any other person(s) either in part or as a whole.

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Abstract

The global business environment is tremendously changing encompassing myriad of dynamisms driven by the increasingly changing innovations in the area of Information and Communication Technologies (ICT). As a result of the significant innovations that have taken abyss in the business environment, the rules of doing business have significantly been modified. In the modernized information and communication age, there is rapid growth in mobile phone use as a significant component of this vital catalyst of the economic growth globally. In the wake of these important changes, it is undeniable that SMEs play an important role in advancing economies including the Kenyan economy. That notwithstanding the SMEs faces a mix of opportunities and challenges that could steer or impede respectively their performance of this important role in the economy.

It is against this background that this research sought to identify the key success factors for SMEs and how they can leverage on the mobile phone use to enhance their competitiveness in this epically competitive globalised business environment. The research sought to answer the questions and consequently achieve the objectives outlined in the introduction chapter. A case study of SMEs offering financial services within the Kiambu sub-county was used for the purpose of the research. Seven SMEs were selected as sample elements through a purposive sampling technique. Data collection was done mainly through questionnaires and was analysed through Excel statistical applications which included measures of central tendency and regression analysis. The research found that the number of mobile phone uses, the frequency of their use and the support facilities and activities offered by SMEs have a significant positive impact on the critical success factors. In addition, the research identified provision of support facilities, staff training, customer training and promotional activities are important in enhancing the effective contribution of mobile phone uses on the success of the SMEs.

List of Abbreviations

Abbreviation	Meaning
1G	First Generation
2G	Second Generation
3G	Third Generation
ADB	African Development Bank
ICT	Information and Communication Technology
IE	Internet Explorer
MIF – IADB	Multilateral Investment Fund of the Inter-American Development Bank
MMS	Multimedia Message Services
PDA	Personal Digital Assistant
SME	Small and Medium Sized Enterprises
SMS	Short Message Service
UNDP	United Nations Development Program
EMGT	Effective Management
EMKT	Effective Marketing
GCRM	Good Customer Relationship Management

List of tables

<i>Table 1: Definitions of SMEs by Multilateral Institutions (Gibson and Vaart, 2008)</i>	10
<i>Table 1: Critical success factors for SMEs</i>	35
<i>Table 2: Effect of mobile phone use on CSFs for SMEs</i>	36
<i>Table 3: Effective management vs. mobile phone use regression output</i>	38
<i>Table 4: Effective marketing vs. mobile phone use regression output</i>	39
<i>Table 5: Good customer relationship management vs. mobile phone use regression output</i>	40
<i>Table 6: Impact of mobile phone use on SMEs' effective management</i>	42
<i>Table 7: Impact of mobile phone use on SMEs' effective marketing</i>	42
<i>Table 8: Impact of mobile phone use on SMEs' good customer relationship management</i>	43

List Figures

<i>Figure 1: Conceptual Framework</i>	24
<i>Figure 2: Proposed conceptual framework</i>	1
<i>Figure 3: Mobile phone services relevant to SMEs</i>	33
<i>Figure 4: Mobile banking services accessed via mobile phone</i>	34
<i>Figure 5: Areas to improve to enhance mobile phone use in SMEs</i>	44

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The global business environment is tremendously changing exhibiting immense dynamisms, which are driven by the increasingly changing innovations in the area of Information and Communication Technologies (ICT). The innovations have continued to permanently alter the rules of the game and expectations of the new digitized highly inter-linked economies operating in a rather global village. As Cassidy (2002) rightly points out, the notions of trans-boundary trade as practised traditionally have undergone dramatic changes to appreciate and embrace, though at times reluctantly, the rising number of trade-related activities and financial transactions, which occur purely and significantly through the Internet and technologically enhanced tools for information and communication.

In the modern information and communication age, mobile phone use is one of the most rapidly growing areas raising a lot of concern from different quotas. Mobile phone applications are one of the significant components of the ever-changing Information and Communication Technologies, which have played a key role in transforming the manner in which business is done in the current globalised and fiercely competitive business environment. Their impact in the lens of client coverage and the general outlook of businesses cannot be underestimated. Further, the mode, nature and quality of service delivery and the entire process as a key part of the success story of businesses is immensely affected by the level of adoption of the information and communication technologies as enhanced through mobile phone use.

The role of ICTs and specifically the applications supported by mobile phone in advancing the development of national economic activities through enhanced efficiency and

productivity and increased market access, is both irreversible and undisputed. It is within this vein of understanding that adequate and significant strategic intent has to be keenly focused to enable the access to the new opportunities offered by the transformations in the Information and Communication Technologies, not only by the larger enterprises within the national economies but also by the SMEs (SMEs). This indeed is important in enabling the enterprises to compete effectively and favourably with the developed and larger corporations within the national economies (Tomecko and Dondo, 1992).

It is undeniable that the SMEs play a significant role in the Kenyan economy. Eight years ago, an economic survey indicated that the SMEs had contributed at least 50% of the new job opportunities established in the year 2005. In spite of this evident significance of the SMEs, statistics in the past have also indicated that in every five SMEs, three fail within the beginning few months of their operation. Several reasons have in the previous studies been attributable to such failure as exemplified in Longenecker, *et al.*, (2006), with the most prominent reason being poor management of the enterprisers. Generally, poor management of the SMEs affect their operational effectiveness and efficiencies, which creates a setback to achieving their deserved success. In addition, Bokea, Dondo and Mutiso (1999) identified infrastructure as a major constraint in the path towards the development of the SMEs. Specifically, infrastructure in this context includes but not limited to the provision of telecommunication equipment, which is a conspicuous part of the information and communication technologies.

Premised on the fact that SMEs face a myriad of challenges, which to a large extent precipitate into their ultimate failure, adoption and subsequent utilization of Information and Communication Technologies, with specific reference to the mobile phone use, would be a stepping stone towards recording a success story in their operations (Bowen, *et al.*, 2009). To

say the least, mobile phone use would significantly enhance the competitive strength of the SMEs and offer access to new profitable and better promising opportunities. Furthermore, improved operational efficiency would also be a positive outcome of the successful adoption of the technologies by the SMEs. The flow and integration of trade and commerce within the area of operation of the SMEs would also be enhanced with the successful adoption of these technologies.

Kiambu Sub County is one of the major regions in the newly mapped Kiambu County under the three-year old constitution of Kenya. According to the data provided by the County Government of Kiambu as of July 2013, there are numerous SMEs within this region engaging in different business lines. Some of the areas attracting a significant number of SMEs include; general trade, wholesale, retail and stores, informal sector, transport, storage and communications, agriculture, forestry and natural resources and professional and technical services among other sectors. Given the large number of the SMEs investing in the region, the level of competition is significantly high. Consequently, the SMEs within this region are at a critical point in time with regard to the process of adopting Information and Communication Technologies and specifically the use of mobile phone as a device for enhancing their competitiveness in their respective industries and lines of business. It is therefore notable that Kiambu Sub County has a record number of SMEs compared to other regions in Kenya. Given this background, the researcher considered the region as an effective and better placed site for any study involving SMEs as is the case in this study.

In order for the researcher to enhance the efficiency and effectiveness of the research, the research focused on the SMEs in the region dealing with the provision of financial services. According to the public data available from the county government, there are 8 medium sized enterprises and 15 enterprises classified as small scale enterprises providing financial

services. This was the main focus of the research. The choice of this sector was informed by the fact that there are different avenues through which the application of mobile phones is possible in the case of such enterprises.

1.2 Statement of the problem

Encouraging the growth and development and performance of the local SMEs is a welcome idea for the varied stakeholders in the sector including the government. As Mead (1998) notes, this is premised on the fact that the SMEs can be significantly helpful in the fight against poverty, which is a key phenomenon for most developing economies to which Kenya is part. This is particularly so through increasing the level of household income and creation of new job opportunities. However, as businesses worldwide continue to embrace and enhance their reliance on the capabilities facilitated by information and communication technologies to receive, process and disseminate information, SMEs are yet to reap these benefits evenly (Jamal, 2005). Specifically, there has been continuous evolution of mobile phone uses which if well considered would have a significant positive impact on the performance of the SMEs. Consequently, the businesses would be opened up to new and better opportunities in the market in their quest to beat the rising competition in the business platform. It is within this understanding that this paper sought to unravel the role of mobile phone use in the performance of SMEs. Specifically, the research aimed at identifying the key success factors for SMEs, the major challenges and opportunities for the SMEs and how the SMEs can leverage on the mobile phone uses to enhance their competitiveness in their respective lines of operation. The findings of the research provide important insights to the SMEs to embrace the technologically enabled services embedded in mobile phones.

1.3 Research Questions

The various advancements in information and communication technologies and specifically the mobile phone technology avail myriad of advantages to different businesses including the SMEs. The successful performance of SMEs is dependent on a number of key success factors. Furthermore, it is the belief of the researcher that there are specific core activities that differentiate SMEs from other businesses. Based on the understanding of the key success factors and the core activities of SMEs, the specific concern for this research was to determine the role of the mobile phone use in the successful performance of the SMEs. In order to achieve this, the research was guided by the following research questions;

1. What are the key success factors for SMEs?
2. What are the different mobile phone uses that are useful to SMEs?
3. What are the roles that the identified mobile phone uses play in the performance or success of the SMEs?
4. What model can represent the relationship between mobile phone use and the successful performance indicators for SME?
5. Which areas relevant to SMEs need to be improved to enhance use of mobile phones by SMEs?

1.4 Research Objectives

The primary objective of this research was to determine the role of mobile phone uses in the performance of SMEs. In order to build to this primary research objective, the research also aimed at achieving the following secondary objectives;

1. To identify different mobile phone uses relevant to SMEs.

2. To identify the key success factors for SMEs.
3. To determine the effect of the mobile phone use in the successful performance of the SMEs.
4. To model the relationship between mobile phone use and the successful performance indicators for SMEs.
5. To determine different areas to be improved to enhance the use of mobile phones by SMEs.

To achieve its primary objective, the research first identified the core activities and the key success factors of SMEs. The research then identified different uses supported by mobile phone that can be useful to SMEs and their role in the successful performance of the SMEs. As a value addition of the research towards enhancing the performance of the SMEs, the research ultimately identified areas of improvement for effective use of the mobile phone by the SMEs, which will enhance the positive impact of the mobile phone uses to the SMEs. Consequently, in order to build to the main research objective, the research also aimed at achieving the secondary objectives identified above.

1.5 Scope of the Research

This research was carried out within the intents of determining the role of mobile phone usage in the successful performance of SMEs, with a view of determining different areas of improvement for the effective use of these mobile phone uses by the SMEs. In order to effectively focus the research, different critical activities and the key success factors for SMEs were identified in the research. In addition, different mobile phone uses useful to SMEs were also identified during the research, which provided a leeway for linking the mobile phone uses and the key success factors and the critical activities of SMEs hence,

determining their role in the successful performance of the SMEs. The research built on the existing literature both empirical and theoretical studies on the role of mobile phones uses in the performance of SMEs. The research only identified the different areas that need to be improved to enhance the effective use of mobile phone uses by the SMEs. Therefore, proposing or determining the ways of improving the identified areas was outside the scope of this research.

1.6 Significance of the Research

The significance of this research spill over to different stakeholders in the area of business and commerce including the government, policy makers and decision makers in the SMEs. It is commonplace for governments through its state agencies to put in place policies that are aimed at enhancing and encouraging the growth and development of local SMEs. This is because of the tested positive contribution of SMEs in economic development and poverty reduction through creation of employment opportunities and hence increasing income of households. Based on this understanding, the findings of this research will go a long way in providing insights on how the government together with its relevant policy makers would encourage and enhance the performance of SMEs.

By identifying different mobile phone uses useful to SMEs in enhancing their successful performance, the research will significantly contribute to the performance of the SMEs by providing important information for decision making purposes by the SMEs' decision makers. Further, the insights provided through the research will help in the integration of different market participants for instance producers (SMEs) and consumers (customers) by enhancing their interactions within the market context. To this end, the findings are helpful in improving the market efficiency to the advantage of both SMEs and their consumers. Last but not least, the research provides firsthand information and identifies different important areas

to be exploited further through future research. Therefore, the research acts as the building block for future research in the different fields related and connected thereto.

1.7 Limitations of the Research

The research exhibited some limitations, which are inherent to normal research of this kind. First, being a primary research it relied significantly on the information provided by the respondents. In this case, the accuracy and reliability of the findings of the research highly depended on the accuracy and reliability of the submissions from the respondents, which are prone to other distortive factors both internal and external to the respondents. In addition, the research made use of data from a sample of elements from the population, hence prone to the limitations of sampling. Furthermore, the research as per its scope only identified the different areas of improvement for the effective use of mobile phone, but did not go further into providing details both empirical and theoretical of how the identified areas could be improved by the stakeholders involved. In addition, the research focused on the SMEs offering financial services and the findings were generalized to the other SMEs. The applicability and accuracy of the findings of the proposed research to the SMEs in the other sectors is therefore not guaranteed.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Over the recent past, SMEs (SMEs) have attracted significant attention from different quotas including politicians, economic analysts, policy makers and business analysts. One of the most common illuminated aspects of the SMEs is their importance in the economic development of different economies especially in the developing economies. These kinds of businesses play an important role in the economy as engines for economic growth. Further, the author argues that the SMEs are essential in the development of efficient and competitive market. In addition, the author lends out his support to the argument that these small and medium scale businesses are also critical in the eradication of poverty, which is a concern for most governments across the globe. Adding weight to the importance of SMEs, Roldan and Wong (2008) aver that SMEs are helpful in the creation of employment opportunities, redistribution of economic opportunities and the generation of income. However, the author cautions that effective policing and management should be put in place for the SMEs to achieve this essential economic development stepping stones.

As Donner and Escobari (2010) note, there has been emergence of a number of studies in the recent past that have addressed directly how SMEs are making use of mobile phones especially in the developing world rather than landlines and other information and communication technologies. In this section I review the existing relevant literature on the topic. Literature review is an important step in research since it provides the context within which the current research is to be interpreted. Further, literature review helps in focusing the current research to avoid unnecessary repetition of research. In order to pitch the proposed research on the proper understanding of the SMEs, this section begins with an overview of

the SMEs, which entails reviewing their different features and aspects before delving into the different mobile phone uses that could be useful to the SMEs and how this has so far been applied by the current SMEs on both the global and local scale.

2.2 Defining SMEs

Within a society whose work is to enhance its economic growth, the role played by SMEs in the developing economies continues to be a significantly debated topic. Gibson and Vaart (2008) opine that this debate has been based on faulty definitions of SMEs. Bridge, O’Neill and Cromie (2003) observes that enterprise as a word has been used in a wide range of undertakings and contexts. An enterprise as described by Salminen (2000) as a controlled system comprising of a detector, selector and an effector. The detector acquires information from the environment which forms the basis for selecting a behavioural response by the selector, which is executed by the effector. Due to the diversity of small businesses, there are varied definitions for SMEs (Lindne and Bagherzadeh, 2004). The basis for these definitions is also varied including capital investment, economic, social and cultural dimensions and the number of employees as identified by Ahmed and Salaheldin (2005). Different multilateral institutions have developed their own definition of an SME based on various bases some of which are indicated in the table below;

Table 1: Definitions of SMEs by Multilateral Institutions (Gibson and Vaart, 2008)

Multilateral institution	Maximum number of employees	Maximum revenues or turnover (USD)	Maximum asset value (USD)
ADB	50	None	None
UNDP	200	None	None
MIF – IADB	100	3,000,000	None
World Bank	300	15,000,000	15,000,000

As observable in the table above, there are significant disparities in the manner in which different institutions define SMEs. Specifically, there is a substantial difference in the way the World Bank defines an SME compared to other multilateral institutions. The authors have also collated different national definitions of an SME which also indicate significant variances from one country to another. Based on these findings, the authors suggest that the size parameters that are used as defining features for SMEs should be scaled to the economic context of their home base.

2.2.1 SMEs Key Success Factors

Ghosh *et al*, (1998) defines key success factors as those factors which are critical for excellent performance of the business, as opposed to mere survival of the business which is the function of the critical success factors. Several studies have been undertaken on SMEs to identify key success factors attributable to their success businesswise. A cross-national study done by Ghosh and Kwan (1996) covering SMEs from different nations identified a number of factors that contribute to successful SMEs. However, three major factors were identified as standing out including effective management, marketing and good customer relationship. However, research identified that the reason for success of SMEs is that they have developed their ability to identify and focus their synergies on one or a few market niches. The study further identifies the management style and ability for a business to build up effective human resources in terms of both quality and quantity.

This study supports the earlier findings of Evans and Evans (1986), who identified that the success of a business in a highly competitive environment has a direct bearing on the effective development of human resources and developing and sustaining of a technological advantage relative to the competitors in their respective industry and the business ability to identify and focus on profitable market niches. However, the study identifies strong top

leadership, significant mechanism for people bonding, strong strategic customer alliances and strategic information technology use as additional key success factors for small businesses. A similar finding is concluded in the finding of a study by Huck and McEwen (1991) who opine that customer relations and technical knowledge are the most important competencies to propel the success of a small business. Ability to locate a market niche and establish a position in the identified niche was identified by Duncan (1991) as a critical success factor for small businesses.

Other previous studies have indicated varied key success factors for SMEs including a clearly defined mission statement, corporate value system, policy focused on the customer and a commitment from the top management of the business (Campbell, 1991). Generally, prior studies have indicated a wide range of factors that determine the success of SMEs. However, a synopsis of the studies point to the finding that the success of SMEs is dependent on factors categorised into three major categories including effective management, good customer relationship and marketing. Effective management determines the manner in which resources within the enterprises are put into use, through effective strategies. The management is tasked with the responsibility of formulating strategies that would spur their businesses to higher levels by beating the forces of competition in their respective areas of operation. Under this onus, they therefore play a significant role in the successful performance of their respective businesses.

Good customer relationship helps in acquisition, retention and extension of customer accounts with the business. Customer acquisition refers to the process of bringing into the business new customers while customer retention refers to the activities of maintaining the acquired business by soliciting repeat business from the customers and customer extension refers to the activities that lead to an increase in the volume of business held by an individual

customer. Good customer relationship is the product of good customer service that a customer would cherish. In some quotas good customer service is considered as the lifeblood of any business irrespective of its size. This is mainly concerned with bringing customers back for another transaction with the business to become repeat customers. Finally, marketing is an important factor in enhancing the success of a business especially where the business operates in a highly competitive environment. Marketing is defined as the process of determining the wants and needs of customers and going forth to deliver products that meet the identified needs and wants.

2.2.2 SMEs Challenges and Opportunities

Generally, it is evident that small businesses play an integral role in both the developing and developed economies. However, there are a myriad of challenges that the small businesses face. Mundim *et al* (2000) observe that the globalization wave tame both opportunities and challenges for small businesses globally. This challenging global market makes it necessary for small businesses to develop effective ways of coping with competition from both the local and international competitors. Globalisation makes the challenge of big companies real to SMEs. A study by Campbell (1997) suggests that SMEs should develop a niche or specialisation strategy, which is also supported by a number of both prior and subsequent studies as indicated in the above section. The underlying challenge in taking on such a strategy is the fact that big companies have the ability to attack niches easily which may adversely affect the operation of the small businesses focusing on such small market niche.

Mundim *et al* (2000) identify innovations in information technology as an effective way of dealing with the challenge of the intense competition that is brought about by the big companies. According to the authors, incorporating information technology in the operations of the small businesses is helpful in reaching out to new customers and increasing interaction

with existing old customers. Information technology solutions are cost effective tools that could aid in delivering success to the small businesses. However, it is also worth to note that the use of information technology does not automatically turn into a competitive advantage for the small businesses. This argument is supported by the fact that the technologies supporting information and communication exchanges are easily available and accessible by competitors. Therefore, the difference in developing a competitive advantage based on the information technologies lies in the manner in which the information technologies are used by the management of the respective small businesses.

2.3 Mobile Phone Devices and SMEs

As noted by Rao and Troshani (2007) opine that mobile technologies and services are heralded as the viable tools for creating a tremendous spectrum of opportunities in business. The mobile technology is facilitated by the collective use of different communication infrastructure technologies and battery-powered portable devices. These devices encompass various applications which deliver different services, promoting mobility, efficiency and flexibility for the device users in both life and business domains. Mobile services can be categorised severally, providing different functions to the users. The first category of the mobile services include messaging services encompassing Short Message Service (SMS), Multimedia Messaging Service (MMS) and email, which enable the exchange of information in form of text and multimedia. Secondly, mobile information and content services like google maps, entertainment content, personalization and news among others make information available to the users of the mobile devices in various modalities. Thirdly, transaction-based services facilitate the mobile users to undertake various transactions for instance mobile banking. Generally, the ubiquity, portability and the personalised features of

the mobile devices, provide an explanation for their seamless and pervasive use across different spheres of life.

Information and communication technologies to which mobile phone fall are globally regarded in the modern world as powerful tools for socio-economic development. On the other hand Nielinger (2003) opines that SMEs are often than not considered as a major source of productivity in different economies and especially in the developing economies. According to Cooper and Zmud (1990) adopting mobile phones or fixed line provides an important opportunity for the SMEs to effectively link up with their business partners both inbound and outbound. A key strength pointed out by the researchers is that this communication is undertaken without necessarily visiting the brick and mortar organization or individual in person. However, King (2004) hint that the adoption of e-commerce and e-business by SMEs as facilitated through mobile phones, is based on the consideration of the accruing benefits vis-à-vis costs involved including acquisition and maintenance costs in terms of infrastructure and knowledge development.

2.3.1 Mobile Phone and 3G Evolution

Over the recent past, it is observable that there has been an increase in the number of mobile devices used by individuals. A study by Bracey and Culver (2005) identified that the ratio of mobile devices to that of personal computers was about 5 to 10 times then. In the study the researchers identify that the growth of mobile devices is faster compared to personal computers given the increasingly growing information and communication technology sector. The obvious reason given in the study for the increased growth of mobile devices is that they are available easily to most people, hence gaining increasing popularity in the modern world as Geser (2004) points out. Brewer et al. (2005) indicate that even non-IT people are able to own and use mobile devices, which is why their growth is undeniably high. As Chau and

Turner (2001) note, wholesale trading SMEs previously recorded information concerning their trade manually, hence spending a lot of time and human resource through mistakes reflected in the high costs of operation.

Huang (2008) noted that the current cell phone technology has evolved through time, with significant advancements in terms of mobile phone features through different generations. The first generation had voice communication features only while the second generation (2G) cell phones combined the features of the first generation and short message service (SMS). The 2G features were advanced further to include multimedia message services and basic browsing service at a lower speed to form the 2.5G cell phones. 3G generation cell phones combine the 1G, 2G and 2.5G technology, video calling and broad band connection features at a high speed. The main features of the current 3G technology include extensive Internet coverage, packet switching technology, high speed for internet connection and new and better applications and service access. The applications supported by mobile phones through the 3G technology confer different advantages to the mobile phone users.

2.3.2 Mobile Phone Devices Useful to SMEs

Paelke, Reinmann and Rosenbach (2003) and Sarker and Wells (2003) defined a mobile device as a handheld pocket sized device for computing with a small screen for displaying the output and a mini keyboard on either a touch screen or keypad used as an input device. The authors identified a number of devices as examples of the mobile devices including cell phone, PDA, smart phone or any other computing device that is portable. According to Huang (2008) the handheld mobile devices that affect small and medium scale enterprises include PDA, cell phones and the like, which are expected to influence positively the business performance of the SMEs. The author identified that mobile devices that are used

for entertainment purposes for instance Play Station Portable and MP3 players were of less relevance to the performance of the SMEs.

Chu and Ganz (2005) define a cell phone as an electronic telecommunication mobile device that makes use of satellite transmissions or radio waves to communicate over either digital or analog wireless network. They are commonly named as mobile or cellular phones. This device supports Short Message Service (SMS), voice calls, Web browsing, email, Multimedia Message Service (MMS), Address Book, Money Transfer services and Banking. On the other hand a Personal Digital Assistant (PDA) support fax capability, email service and voice communication vide a wireless network connection. It also supports software applications like Internet Explorer (IE). These devices have evolved to include the functions of 3G and cell phone. A smart phone according to Zheng and Ni (2006) is a handheld device combining the functions of PDA and cell phone with advanced operating systems. The applications supported by the mobile devices can be of significant assistance to the SMEs if properly integrated in their business operations as identified by Roldan and Wong (2008).

2.3.3 Advantages of mobile phones to users

The existing literature gives a mention of different advantages that accrue to mobile phone users, who include both businesses and individual users. Kakihara and Sorenson (2002) identified critical characteristics associated with the use of mobile phones to include interactivity, temporal, contextual and spatial mobility. These important features would not be available when using landlines. Barnes (2002) on the other hand observes that users of mobile phones do enjoy some ubiquity, flexibility and connectivity while Henfridsson and Lindgren (2003) add that the users enjoy location awareness. According to Barnes (2002) these attributes facilitate the operations of organizations. Further and more specific the author indicates that use of mobile phones enhances the efficiency of production by business. They also aid in the marketing and distribution of services and products of businesses in addition to

the help they lend in the understanding of the markets by businesses as opined by Hooper et al., (2010).

Esselaar et al., (2007) have also added to the discussion on the use of mobile phones by highlighting the existence of a direct link between reduction in the levels of poverty and the access to electronic communication and information. Ojukwu (2006) even makes it clearer that organizations that undertake investments in the various information and communication technologies have the added advantage of achieving a competitive edge over competitors in their respective sectors and industries. Further, the author opines that use of ICTs helps an organization in enhancing their productivity and general performance by availing to the organizations new ways of organizing, managing and developing new business opportunity (Ojukwu, 2006). Esselaar et al., (2007) sum all these up by averring that the ease at which an individual can make use of a mobile phone makes the impact of mobile phones on the productivity and performance of businesses enormous.

2.3.4 Importance of mobile phone use by SMEs

The importance of mobile phones to SMEs is identifiable in the argument by Roldan and Wong (2008) who identifies three major importances. The authors indicate that mobile phones act as tools for production, are used for information gathering and dissemination and can be used as tools for creating individual and business network opportunities. In explaining the assertions, the authors indicate that mobile phones act as tools of production when they are used by the SMEs to transact business for instance by completing an order or bidding for stock, which saves productive time for the enterprises. As a facilitator of information gathering and dissemination, the authors argue that mobile phones help in eliminating the economic boundary in reaching out to customers and business partners. Supporting the argument for mobile phone use by businesses, Jensen (2007) and Rabayah and Qalalwi

(2011) opine that mobile phones are helpful in achieving better prices for services and hence decreasing the price fluctuations and dispersion.

In addition the use of mobile phones confers five importances to both the consumers and producers as identified by Aker and Mbiti (2010). First, the authors argue that mobile phone usage leads to improvement in the access to and use of information, hence reducing the related costs including search costs. Secondly, the authors aver that mobile phone use enhance the efficiency with which businesses perform their production processes. Thirdly, mobile phones assists in coordinating different business partners and agents for SMEs hence reducing the coordination costs. The fourth importance as identified by the authors is that the mobile phone usage aid in enhancing the efficiency of markets hence reducing the costs resulting from market inefficiency. Fifthly, mobile phones facilitate communication among social networks thus providing an effective response to shocks, hence reduced exposure to risk. Aker and Mbiti (2010) have also noted that the adoption and subsequent use of mobile phones by households has impacted positively in the transformation of their lives.

2.3.5 Factors influencing mobile phone usage by SMEs

In spite of the indisputable evidence of the existence of enormous importance of mobile phones usage to both households and the SMEs, there is still significant proportion of SMEs that are yet to take advantage of the opportunities offered through the enhanced information and communication technologies. Studies have indicated that there are a number of factors that have affected the use of mobile phones by businesses especially the SMEs. For instance, Mundim et al., (2000) identified that the cost associated with the use of the mobile phones as one of the reasons for the slowed adoption and use of mobile phones. Personal attributes of the mobile phone users was also mentioned in the study by Hooper et al., (2010) who also identified that the influence of others and the motivation of the user as other factors that

influence the use of mobile phones. Understanding the mobile phone usage from an enterprise perspective, the benefits perceived by an organization emanate from the use of the mobile phones and the general organizational readiness, which are the major factors that influence the use of mobile phones by enterprises (Hooper et al., 2010).

2.3.6 Factors Influencing Adoption of Mobile Phones by Users

A number of studies have been done based on the intentions of the users for adopting mobile services. Most of these studies are based on a technology acceptance model developed by Davis (1989). However, the model fails to provide an explanation for the behavioural intention of adopting a more complex mobile device by users. As a result of this weakness, the model has resulted to variations in the different studies. Many authors have expanded the model with additional constructs like subjective norm (Hung et al, 2003). Some of the constructs that have been included in the more recent studies include enjoyment, perceived expressiveness and behavioural control (Nysveen et al, 2005), perceived flexibility and perceived entertainment (Bouwman et al, 2007 and Cheong and Park, 2005) and conditions facilitating the device acquisition like the offer price (Pedersen, 2005). Other factors that have been cited as affecting the adoption of mobile devices by users include the compatibility of the prior knowledge of the user with the new mobile device, the innovativeness of the person and security and privacy of the behavioural intentions of the user. Although these factors affect the adoption of mobile phone devices by individual users, they also have a bearing on the use of mobile phones devices by SMEs.

The use of applications supported by the mobile phones by SMEs is significantly affected by the adoption of the mobile phone devices. This is especially relevant where the SME is operating in remote areas as identified by Mundim et al (2000). Consequently, it is also relevant to consider the different factors that affect the adoption of the mobile phone

technologies by the users who form the market for the SMEs. Different researchers have identified different factors as documented in the existing literature. Massey et al., (2005) identifies that internal factors of an individual user of the mobile phone device services affect his or her adoption of the technologies. In this regard the research indicates that personal differences significantly influence the adoption of the mobile phone technologies. As Rogers (1995) points out, it is important for one to identify the individual differences which have an impact on the adoption of technology in order to segment adopters. The internal factors are collectively referred to as user predisposition.

The concept of user predisposition encompasses a number of other factors. The first factor is prior knowledge of the user which has two components, namely expertise and familiarity which would help an individual make use of the applications embedded in the mobile phone adopted. Secondly, the innovation contained in the mobile phone device needs to be consistent with the values held by the potential user. This is what is referred to as compatibility of the technology. Thirdly, adoption of mobile technologies by the users is also affected by an individual's belief with regard to the availability of resources required to adopt the technologies. This refers to constraints of adopting new technologies both external and internal (Yi et al, 2006). Fourthly, the adoption of mobile phone devices is also affected by the image or social status that is gained after the adoption.

Perceived usefulness of the mobile phone also affects the adoption of mobile phones by users. This refers to the extent to which a person believes that by adopting the mobile phone technology, some value will be derived to his or her benefit. In addition, the perceived ease of use of the mobile phone device would also affect its adoption by a potential user. Social influence is yet another factor that affects the adoption of mobile phone devices by users. Herr et al (1991) opine that social influence can be categorised into two namely external and

interpersonal. External influence includes all non-personal influences taken into account by adopters when making decisions to adopt mobile phone applications, while interpersonal influence refers to the personal word-of-mouth influence by different groups probably those who have already adopted the devices.

2.4 SMEs Providing Financial Services

In the recent years, there has been an enhanced understanding of the critical role that access to financial services play in economic growth. In many countries, including Kenya, small and medium sized financial services providers bring these vital financial services to a wide clientele in the rural settings of the countries (The World Bank, 2007). These important organizations are in most cases private, member-owned, locally-based organizations. In some cases these institutions are ran as financial cooperatives. The model that could deliver success to these financial services provider SMEs both at institutional and business level has been at the centre of debate over recent years, particularly because of the renewed improved understanding of their economic role. In 2004 and 2005, the Agriculture and Rural Development Department of the World Bank commissioned case studies in four countries including Brazil, Kenya, Sri Lanka and Burkina Faso (The World Bank, 2007).

As noted by Brusky (2007), the studies identified a number of factors that could be helpful in building good governance in the SMEs providing financial services to support their sustainable growth and outreach. The studies, among other issues, identified internal governance as a critical challenge for the SMEs providing financial services in the rural settings. In addition, the studies did identify that successful financial services SMEs followed a relatively cautious phased approach to increasing the product range and expanding their client base (Desrochers et al, 2005). This is effectively delivered through building of network arrangements. In this sense leveraging on technology could enable the SMEs to deliver on

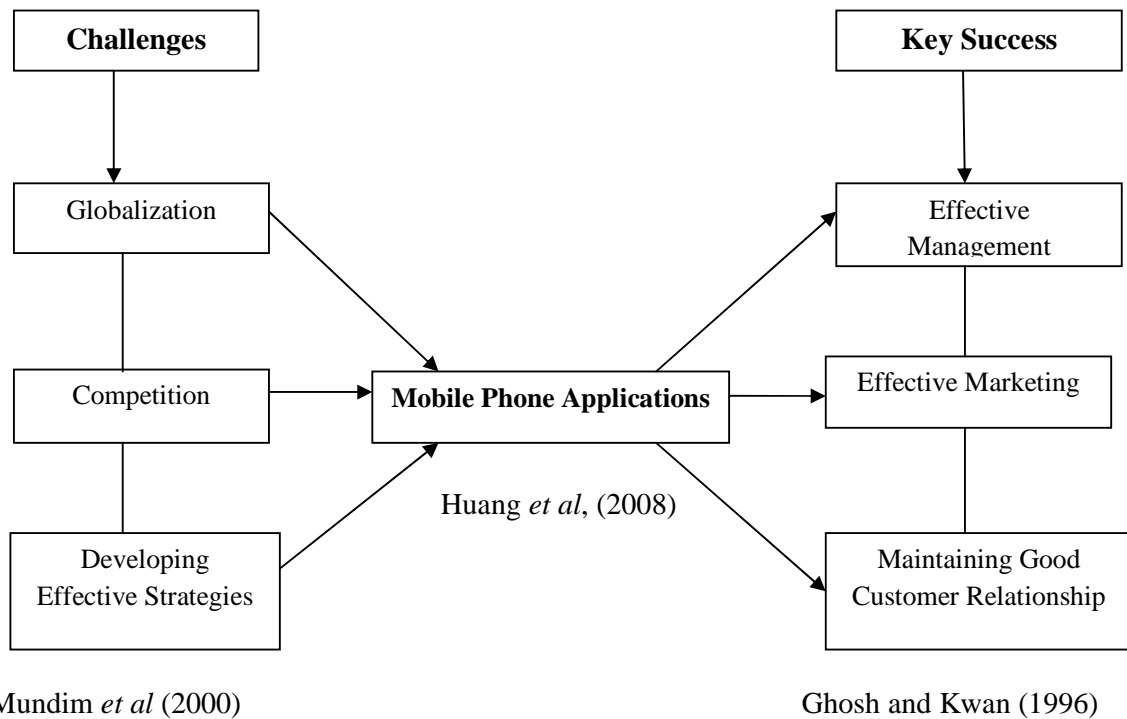
this critical success factor for the SMEs. The use of technology by the financial services is evidently able to facilitate expansion of the product range and the client base for the SMEs providing financial services.

2.5 Conceptual Framework

This study is based on the previous studies to identify the latent role of mobile phone use in the performance of SMEs. As indicated in the literature review, the existing literature has documented a great deal of information with regard to SMEs and their successes. Specifically, there is much literature indicating the key success factors for SMEs and the different challenges and opportunities for this kind of businesses. A synopsis of the existing literatures alludes to the fact that there are three key success factors for SMEs including effective management, good customer relationship and effective marketing. In addition, competition, globalization and developing competitive strategies are the major challenges that the SMEs face in the current globalised highly competitive business world. Furthermore, leveraging on the ever changing advanced information technology is identified as the main opportunity available for the SMEs to develop effective competitive strategies.

Based on the synopsis of the existing literature, this research sought to identify the role of mobile phone uses in the success of SMEs. Mobile phone applications are part of the information technologies identified in the literature review as opportunities available for the SMEs to develop effective competitive strategies. The diagram below depicts the conceptual framework based on the relevant studies cited in the literature review;

Figure 1: Conceptual Framework

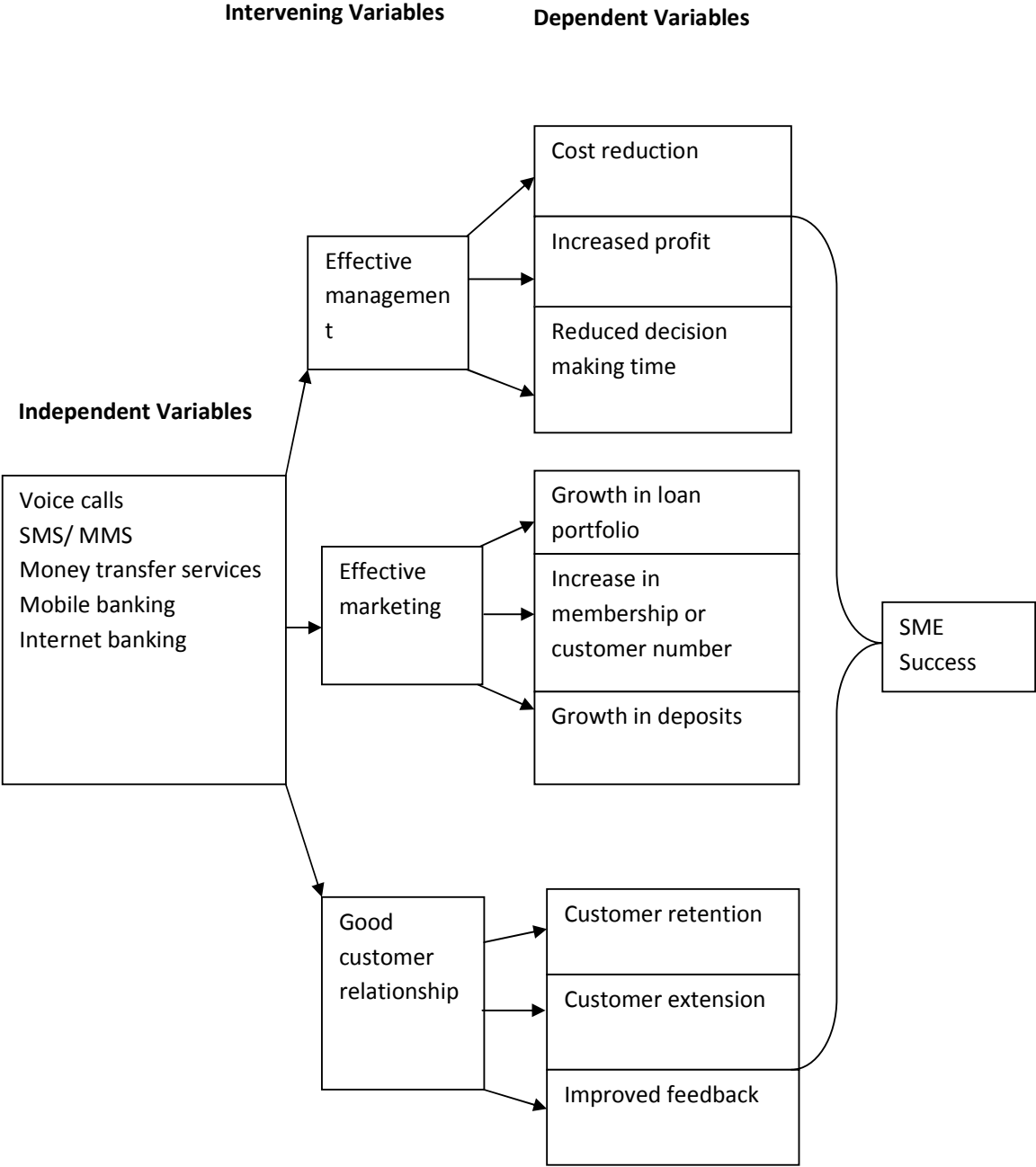


Ghosh and Kwan (1996) identified the key success factors of a small and medium sized enterprise as indicated in the above conceptual framework. On the other hand, Mundim et al (2000) identified three major challenges facing SMEs as also indicated in the conceptual framework. This research is based on these studies in determining the role of mobile phone uses in helping the SMEs to deal with the identified challenges and in enhancing the key success factors as also identified in the framework.

2.5.1 Conceptual Framework for the Research

In my model I endeavor to identify the factors that can be used to measure the key measures of success in SMEs providing financial services. Using these measures one can be able to measure how mobile phone uses contribute to the attainment of the critical success factors including effective management, effective marketing and maintaining good customer relationship. The figure below shows the conceptual framework used in this research.

Figure 2: Proposed conceptual framework



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

According to Kothari (2012) research methodology is a way to systematically solve a research problem. The author further identifies that research methodology is a science of studying how research is undertaken scientifically. It outlines the various steps that are generally adopted by the researcher in studying the research problem under study. In addition, research methodology according to the author does not only consider the research methods but also the logic behind their selection explained in the context of the current research. Consequently, this section outlines the manner in which the research was carried out. The section covers the research design, the population of study, the sample and sampling techniques, data and data collection techniques and the data analysis techniques.

3.2 Research Design

The research was conducted as an exploratory research. This is because the research aimed at discovering insights on the role of mobile phone uses in the success of SMEs. Consequently, the chosen research design needed to be flexible enough to provide opportunity for considering different aspects of the study problem. Kothari (2012) defines a research design as the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the purpose of the research with economy in the procedure. A good research design is characterised by flexibility, appropriateness, efficiency and economy as identified by Yin (1994). In selecting the research design for the proposed research, the researcher is guided by these facts. The research was conducted through a case study research design. Case study research design was chosen because of a number of advantages that come with it. Kothari (2012) noted that being an exclusive study of a social unit, case study method

enables one to understand fully the behaviour pattern of the concerned unit. This intense study of units is not possible using other methods.

3.3 Population of Study

The population of study for this research comprised of the SMEs that provide financial services within the Kiambu Sub-county. There are a total of 8 medium sized and 15 small sized enterprises offering financial services in the Kiambu Sub-county totalling to 23 enterprises.

3.4 Sample size and sampling technique

According to the advice by Mugenda and Mugenda (2003) the larger the sample size the more the accurate the findings of a given research. However, the authors also take into consideration the time and resource constraints and advice that a sample of 10% would be preferable or sufficient for the purposes of research. Based on this advice, a sample size comprising of 30.43% of the population was selected by the researcher for the purposes of the research. Consequently, the sample size constituted a total of 7 SMEs providing financial services within the area of study.

Further, Mugenda and Mugenda (2003) and Kothari (2012) advise that after the researcher has decided on the sample size, the next step is deciding on the procedures of selecting the elements to be included in the sample. There are several sampling techniques including probability and non-probability sampling. In particular, purposive sampling technique was applied for the purpose of the proposed research. Since the research, has specific objectives that need to be achieved at the end of the research as indicated in the introduction section above, the sample elements was selected purposively to ensure that the objectives have been

attained. Purposive sampling allows the researcher to use cases that have the required information with regard to the objectives of his or her study (Mugenda and Mugenda, 2003).

3.5 Data and Data Collection Techniques

The research made use of both primary and secondary data collated. Kothari (2012) defines primary data as the data that is collected for the purpose of solving an existing problem while secondary data refers to that which was collected for some purpose other than helping in providing a solution to the current problem. Consequently, both primary and secondary data collection techniques will be employed in carrying out the research. The research employed mixed data collection techniques, to allow for one method to cover the limitation of the other technique as exemplified in a research by McKenna et al., (2010). Specifically, the research made use of observation and questionnaires for collecting the primary data. On the other hand, the secondary data was collected mainly through data mining technique.

According to Yin (1994) observation as a method of data collection entails systematically noting and recording of behaviours, objects and events in a chosen setting for the purposes of study. The record created out of the observations is referred to as field notes, which are the concrete descriptions of what has been observed by the researcher. The researcher used focused observation to understand relevant facts appertaining to the case study SMEs for the research. Using the questionnaire technique, personnel from different functional departments of the five SMEs were asked to respond to the same set of questions in a predetermined order (Meredith, 2002). Questionnaire method offered a number of advantages for the research. First, it enables a researcher to gather data from many respondents at a relatively low cost. In addition, it ensures anonymity of the respondents hence they are able to provide honest answers to the questions. Further, the technique is less expensive and there are lesser

possibilities of the interviewer bias since the respondents are all given the same questions (Kothari, 2012).

The questionnaires were designed to include three sections aimed at collecting different data for the purpose of the research. The first section aimed at collecting general information about the respondents. The second section aimed at collecting data on the critical success factors of SMEs offering financial services and contribution of mobile phone uses to the critical success factors as perceived by the respondents. Finally, the third section aimed at collecting data on the different measures of the various critical success factors identified important in the SMEs sampled. The questionnaires contained both open-ended and closed questions. To enhance analysis of the sought data where the data envisaged was qualitative in nature, the questions were coded with quantitative codes.

3.6 Data Analysis Techniques

Miles and Huberman (1994) give an outline of the procedures to be followed during data analysis that the researcher used in analyzing the data collected. The questionnaires together with the other data collected were first examined to determine whether they met the set threshold for use for the purposes of the research. The examined data was then classified and reduced based on the similarities and differences inherent in the data. It was the consideration of the researcher to quantify the data collected to enhance objectivity in the analysis of the data and the final conclusions made based on the collected and analyzed data. Consequently, the mean was computed for the different categories of data and presented in graphs and tables for easier interpretation and analyses as pointed out by Mugenda and Mugenda (2003).

Plotting the data in graphs facilitated easier comparison of the different factors identified during the research. The different factors identified during the data collection were then ranked on the basis of the comparative analysis. Further, second order analysis including

regression analysis (Kothari, 2012) was undertaken to establish existence and nature of relationship between the different variables collected. Specifically, the analysis aimed at establishing whether there existed any relationship between the extent of use of mobile phone by SMEs and the level of performance or success as indicated by the different critical success factors identified. Finally, conclusions regarding the collected data were drawn from the analysis.

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.1 Introduction

This section presents an analysis and discussion of the research findings in line with the objectives as outlined in the introduction chapter of this project. The issues discussed include demographic features of the respondents who completed and returned the questionnaires for this research, different mobile phone uses relevant for SMEs, the critical success factors for SMEs, the effect of mobile phone use on the critical success factors and the areas to improve so to enhance mobile phone use by the SMEs. The researcher also models the relationship between mobile phone use and the critical success factors and develops a framework of assessing the impact of mobile phone use in SMEs.

4.2 Demographics

A total of 120 questionnaires were distributed by the researcher to different respondents in seven SMEs providing financial services within the Kiambu sub county. 101 questionnaires were successfully completed and returned representing 84.17% response rate. This was considered as sufficient for the purpose of the research. As far as the sex distribution is concerned, male respondents were 57.43% and 42.57% were females. This means that majority of the respondents for this research, who were employees of SMEs contacted in the sub county of Kiambu offering financial services, were men. Also, majority of the respondents (38.61%) have worked with their respective organizations for two to four years, while the respondents who have worked with their respective organizations for five to seven years and over seven years were 14.85% and 19.80% respectively. Those who have been with their organizations for less than two years formed 26.73%.

Furthermore, 74.26% of the organizations for which the respondents work have been in existence for over seven years. This was followed by those below two years and those

between two to four years tying at 8.9%. Those between five to seven years followed forming 7.92% of the SMEs for which the employees work. What is observable from this finding is that there is a significant rate of employee turnover in the SMEs. This is backed by the fact that majority of the respondents (80.20%) have been with their respective organizations for less than seven years while most of the organizations (74.26%) have been in existence for over seven years. Finally, 33% of the respondents were working in the operations department in the SMEs in which they were working while 30% of the respondents were working in the finance departments, 14% in the marketing department, 13% in the administration department and only 10% were working in other departments other than operations, finance, marketing and administration. According to these findings the operations department of the organizations are critical since most of the respondents were drawn from this department in their respective organizations. This is followed by the finance then marketing and administration departments.

4.3 Mobile Phone Uses Relevant to SMEs

The researcher, sought to identify different mobile phone uses relevant to SMEs. The respondents were requested to indicate in the questionnaire the different mobile phone uses applicable to their respective organizations and the regularity of their use. A scale of 1 to 5 was used where 1 meant never used and 2, 3, 4 and 5 meant rarely, sometimes, regularly and always used respectively. The researcher identified five major uses of mobile phones including making voice calls, SMS/MMS, money transfer services, internet banking and mobile banking. The respondents indicated that voice calls services were regularly used as a medium of interaction between the organizations and their customers. In this case customers would call the customer care desk to inquire on various issues relating to the services offered by the organizations. This was indicated by a mean response of 3.78. This was followed by SMS/MMS services and money transfer services tying at 3.55 response and mobile banking

at 3.02 mean responses. Internet banking is rarely used by the SMEs as indicated by a 2.12 mean response. The findings are presented in figure 3 below.

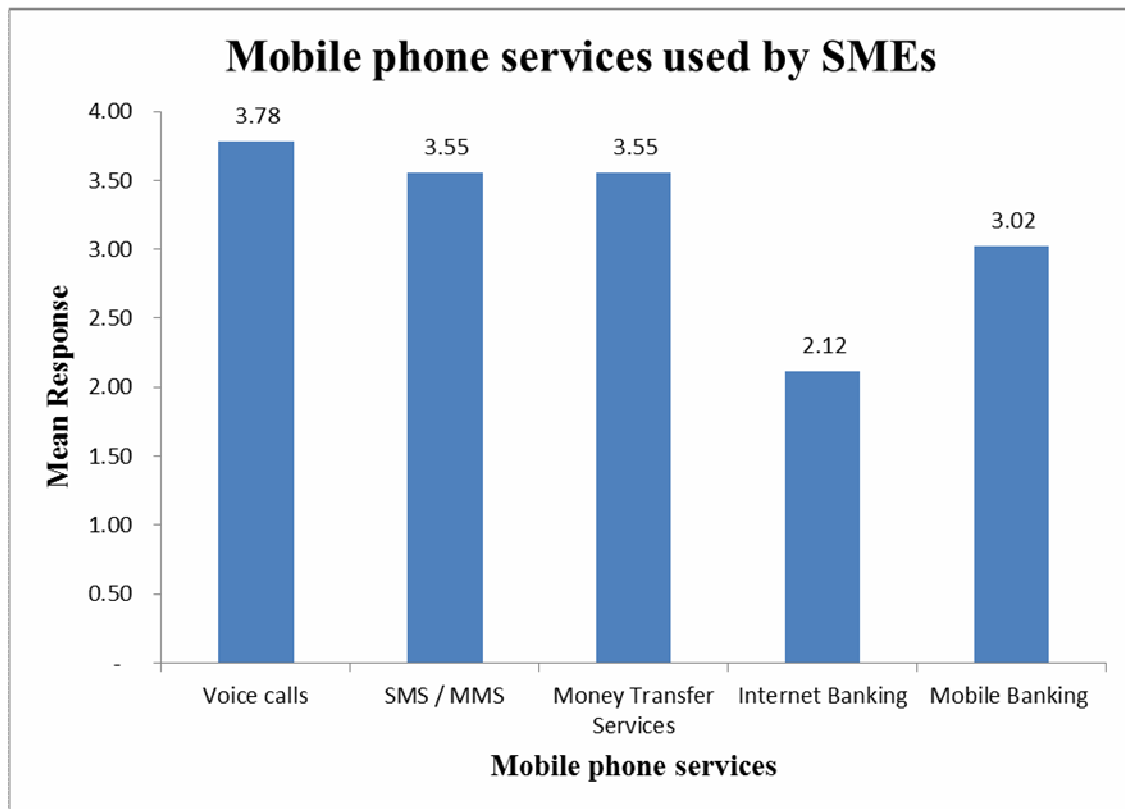


Figure 3: Mobile phone services relevant to SMEs

What can be gathered from this finding is that different mobile phone services can be used by SMEs to spur their growth in business. The findings agree with Rao and Troshani (2007) findings on mobile phone services useful for SMEs.

The researcher also sought to identify different financial services that can be accessed through the use of mobile phones. A range of mobile banking services were identified including balance inquiry, cash deposit, cash withdrawal, airtime purchase, paying bills, money transfer and accessing account statements. According to the mean responses from the respondents, mobile phones are sometimes used to make balance inquiries, money transfers, airtime purchase, cash withdrawal, cash deposit, paying bills and accessing account

statements in that order as indicated by the respective mean responses presented in figure 4 below.

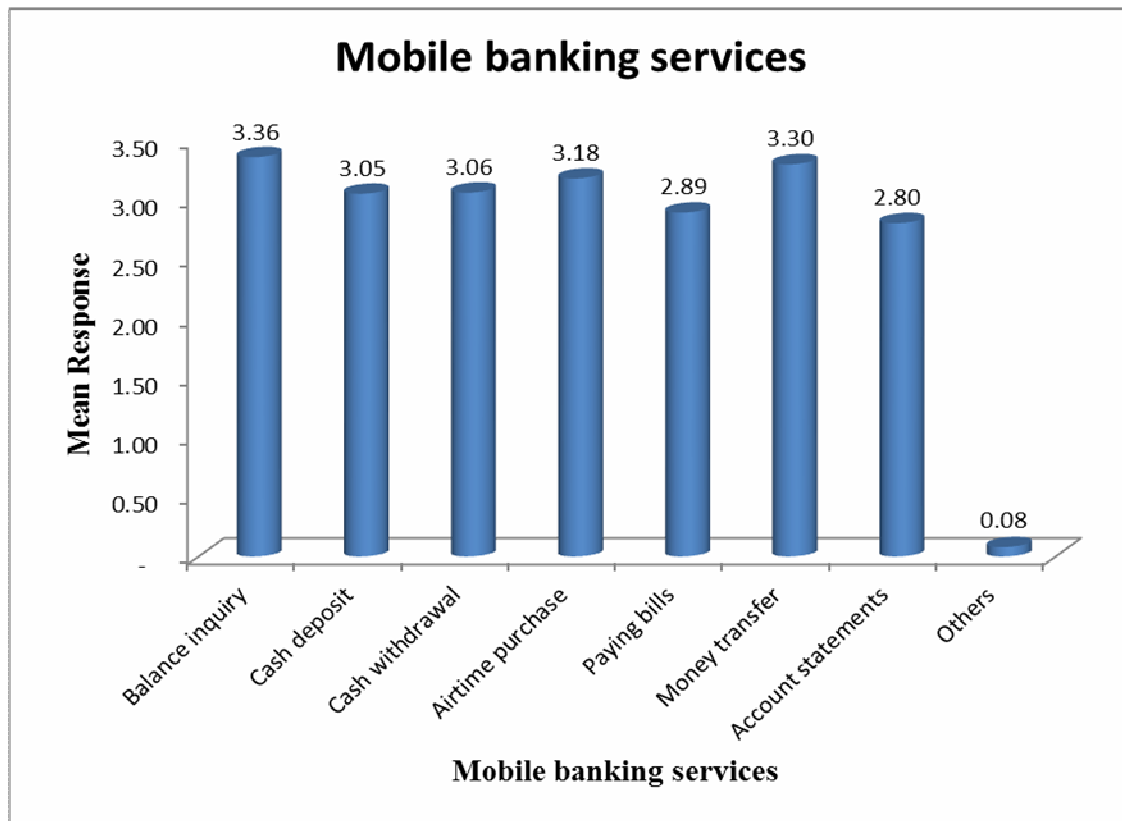


Figure 4: Mobile banking services accessed via mobile phone

It is observable from the findings that there is still low uptake in the use of mobile phones in accessing the different services provided by the SMEs. This could be attributable to lack of awareness on the part of the customers or failure of the SMEs to put in place the necessary infrastructure to support the use of mobile phones by its customers. These results are similar to findings by Mundim et al., (2000) who noted that there are significant portion of SMEs that are yet to take advantage of the mobile uses. However, Mundim et al., (2000) attributed the low uptake to the high cost of the supportive technologies for mobile phone use.

4.4 Critical Success Factors for SMEs

The researcher also sought to understand, the critical success factors for SMEs. As indicated in table 2 below, 76.24% of the respondents indicated that effective management is highly important as a critical success factor for SMEs. This is followed by good customer relationship management at 72.28% then effective marketing at 68.32%. Those who indicated that effective management, effective marketing and good customer relationship management were important critical success factors formed 19.8%, 17.82% and 16.83% respectively. 12.87% of the respondents indicated that effective marketing while 9.9% for good customer relationship management and 1.98% for effective management was fairly important as critical success factors for SMEs. Only 3.96% of the respondents indicated that the three factors were less important in the success of the SMEs.

Table 2: Critical success factors for SMEs

Critical Success Factors for SMEs					
Critical success factors	Importance				
	1	2	3	4	5
	Not important at all	Less important	Fairly important	Important	Highly important
Effective management	0	2	2	20	77
Percentage (%)	-	1.98	1.98	19.80	76.24
Effective marketing	0	1	13	18	69
Percentage (%)	-	0.99	12.87	17.82	68.32
CR management	0	1	10	17	73
Percentage (%)	-	0.99	9.90	16.83	72.28

What one can get out of the findings is that, effective management, effective marketing and good customer relationship are critical success factors for SMEs with effective management and good customer relationship management taking precedence. Similar findings were made by Ghosh and Kwan (1996). However, Huck and McEwen (1991) identified and emphasised

on the importance of technical knowledge in addition to customer relations as the most important competencies that will earn SMEs success in their critical success factors.

4.5 Effect of Mobile Phone Use on SMEs' Critical Success Factors

As noted above, the success of SMEs is based on three major critical success factors. Therefore the researcher sought to understand the effect of mobile phone uses on these critical success factors. As indicated in table 3 below, 39.60% of the respondents indicated that they agree to the fact that effective management is enhanced with the use of mobile phones while 29.70% and 33.66% agree to fact that mobile phone use in the SMEs contribute to the effective marketing and good customer relationship management respectively. Those who strongly agree to the positive effect of mobile phone use to effective management, effective marketing and good customer relationship management represented 50.50%, 54.56% and 59.41% of the respondent respectively.

Table 3: Effect of mobile phone use on CSFs for SMEs

Mobile Phone Use in Achieving the Critical Success Factors						
Critical success factors	Level of agreement					
	1	2	3	4	5	
	Don't know	Strongly don't agree	Don't agree	Agree	Strongly agree	Agree + Strongly Agree
Effective management	2	1	7	40	51	91
Percentage	1.98	0.99	6.93	39.60	50.50	90.1
Effective marketing	2	1	13	30	55	85
Percentage	1.98	0.99	12.87	29.70	54.46	84.16
CR management	3	1	3	34	60	94
Percentage	2.97	0.99	2.97	33.66	59.41	88.07

Overall, the research identifies that mobile phone use by SMEs is important in achieving the critical success factors as indicated by an aggregate of 90.1%, 84.16% and 88.07% of the respondents who pointed out that mobile phone use by SMEs contribute to the achievement of their critical success factors. This means that SMEs are able to enhance the effectiveness

of their management operations, marketing programs and customer relations by investing in mobile phone use.

4.5.1 Model for the Relationships through Regression Analysis

The above findings point to an existing possible relationship between mobile phone use and achievement of critical success factors by SMEs. The researcher sought to establish a model that would define this relationship through regression analysis on the Microsoft excel software. The research aimed at determining the relationship between mobile phone uses on each of the critical success factors for SMEs.

The dependent variables

Regression analysis was performed for each of the critical success factors in terms of their relationship with mobile phone use. These dependent variables included effective management, effective marketing and good customer relationship management. The level of achievement of each of the critical success factors quantified as a percentage was collected from the respondents from each of the seven financial SMEs.

The independent variables

The independent variables were derived from different aspects of mobile phone use in the respondents' SMEs. These aspects which formed the independent variables for the regression analysis included the number of mobile phone uses applied, the frequency of mobile phone use and the support facilities or activities dedicated to the mobile phone use in each of the seven SMEs contacted.

Effective management

The level of effective management as a percentage (dependent variable) for each of the seven SMEs was analysed in relation to mobile phone use variables (independent variables). A summary of the regression analysis from the Microsoft Excel Software is as indicated in table 4 below.

Table 4: Effective management vs. mobile phone use regression output

SUMMARY OUTPUT			
<i>Regression Statistics</i>			
R Square	0.812337597		
Adjusted R Square	0.774805116		
Standard Error	0.017141808		
Observations	7		
	<i>Coefficients</i>	<i>Standard Error</i>	<i>P-value</i>
Intercept	0.792350000	0.024242177	0.00000050
X1 (No.)	0.029259615	0.006289324	0.00557074
X2 (Use)	0.063474625	0.022441948	0.03674412
X3 (Support)	0.042929652	0.013424117	0.02405022

From the regression summary output, 77.48% of the changes in the effective management of SMEs can be explained by the number of mobile phone uses, the frequency of use and the support accorded by the SME to the mobile phone uses. This is indicated by the adjusted R square of 0.7748. This also means that there are other factors other than these three that affect the effective management of the SMEs. Furthermore, the p-values for the respective variables are below 0.05 which is an indication that the independent variables have a significant impact on the dependent variable with a confidence level of 95%. The regression model for this relationship is as follows;

$$EMGT = 0.792 + 0.0293X1 + 0.0635X2 + 0.0429X3 \dots \dots \dots \text{equation 1.}$$

It is notable from the regression model that all the three variables have positive coefficients. This means that there is a direct positive relationship between the level of effective management of SMEs and the number of mobile phone uses, their frequency of use and the level of support accorded to the mobile phone uses. Specifically, a unit change in the effective management of the SMEs is as a result of 2.93% increase in the number of mobile phone uses, 6.35% increase in the frequency of their uses and 4.29% increase in the support accorded to the mobile phone uses. Furthermore, holding other factors constant, effective

management of the SME will be at 79.24% where the SME does not engage mobile phone use in the provision of services to its clients.

Effective marketing

The level of effective marketing as a percentage (dependent variable) for each of the seven SMEs was analysed in relation to mobile phone use variables (independent variables). A summary of the regression analysis from the Microsoft Excel Software is as indicated in table 5 below.

Table 5: Effective marketing vs. mobile phone use regression output

SUMMARY OUTPUT			
<i>Regression Statistics</i>			
Multiple R	0.832050294		
R Square	0.692307692		
Adjusted R Square	0.630769231		
Standard Error	0.035048029		
Observations	7		
	<i>Coefficients</i>	<i>Standard Error</i>	<i>P-value</i>
Intercept	0.681400000	0.049565397	0.000036548
X1 (No.)	0.043130769	0.012859111	0.020237879
X2 (Use)	0.105168092	0.033563656	0.025858288
X3 (Support)	0.062886441	0.024663382	0.051279161

From the regression summary, 63.08% of the variation in the effective marketing of the SMEs is explained by the number of mobile phone uses, the frequency of use and the support accorded by the SME to the mobile phone uses. This is indicated by the adjusted R square of 0.6308, which is also an indication that there are other factors other than these three factors that explain changes in the effective management of SMEs. Furthermore, the p-values for the respective variables are below 0.05 which is an indication that the independent variables significantly influence the dependent variable with a confidence level of 95%. The regression model for this relationship is as follows;

$$EMKT = 0.6814 + 0.0431X1 + 0.1052X2 + 0.0629X3 \dots \dots \dots \text{equation 2.}$$

The coefficients in all the three variables are positive, which is an indication that there exists a direct positive relationship between the level of effective marketing by the SMEs and the number of mobile phone uses, their frequency of use and the level of support accorded to the mobile phone uses. Specifically, a unit change in the effective marketing by the SMEs is as a result of a 4.31% increase in the number of mobile phone uses, 10.42% increase in the frequency of their uses and 6.29% increase in the support accorded to the mobile phone uses. Furthermore, effective marketing by the SME will be at 68.14% holding other factors constant where the SME does not engage use of mobile phones in the provision of services to its clients.

Good Customer Relationship Management

Good customer relationship management as a percentage for each of the SMEs was analysed in relation to the mobile phone use variables as the independent variables. A summary of the regression analysis from the Microsoft Excel Software is as indicated in table 6 below.

Table 6: Good customer relationship management vs. mobile phone use regression output

SUMMARY OUTPUT			
<i>Regression Statistics</i>			
Multiple R		0.9014	
R Square		0.8125	
Adjusted R Square		0.7750	
Standard Error		0.0239	
Observations		7	
	<i>Coefficients</i>	<i>Standard Error</i>	<i>P-value</i>
Intercept	0.72925	0.033764908	0.000003950
X1 (No.)	0.04078	0.008759875	0.005558311
X2 (Use)	0.10483	0.018561656	0.002416036
X3 (Support)	0.05610	0.020881523	0.04346749

From the regression summary output, 77.50% of the variation in the customer relationship management of the SMEs is explained by the number of mobile phone uses, the frequency of use and the support accorded by the SME to the mobile phone uses. This is indicated by the

adjusted R square of 0.7750. However, since the variables do not provide 100% explanation for the customer relationship management, this means that there are other factors that affect good customer relationship management by the SMEs. In addition, the p-values for the respective variables are below 0.05 which is an indication that the independent variables significantly influence the dependent variable with a confidence level of 95%. The regression model for this relationship is as follows;

$$GCRM = 0.7293 + 0.0408X1 + 0.1048X2 + 0.0561X3.....equation 3.$$

The positive coefficients in all the three variables provide an indication that there exists a direct positive relationship between the level of good customer relationship management in the SMEs and the number of mobile phone uses, frequency of their use and the level of support accorded to the mobile phone uses. Specifically, a unit change in the level of good customer relationship management in the SMEs can be attributed to a 4.08% increase in the number of mobile phone uses, 10.48% increase in the frequency of their uses and 5.61% increase in the support accorded to the mobile phone uses by the SMEs. Furthermore, good customer relationship management in a given SME will be at 72.93% holding other factors constant where the SME does not engage use of mobile phones in providing services to its clients.

4.5.2 Assessing Impact of Mobile Phone Use on SMEs Success

The research identified that success in the SMEs can be measured in relation to the three critical success factors including; effective management, effective marketing and good customer relationship management.

Effective management

From the findings as indicated in table 6 below, use of mobile phone by SMEs has an impact on their effective management as indicated by the mean responses from the respondents who agreed to this effect. Furthermore, the research identified that success in the effective

management of the SMEs can be assessed by evaluating reduction in costs, increased profit of the SMEs and reduction in the time taken to make decisions in the SMEs. This is in the order of preference by the respondents contacted.

Table 7: Impact of mobile phone use on SMEs' effective management

Measures of success in effective management						
Measures of success in effective management	Level of agreement					Mean Response
	1	2	3	4	5	
	Don't know	Strongly don't agree	Don't agree	Agree	Strongly agree	
Cost reduction	2	0	10	39	50	4.34
Increased profit	3	0	4	55	39	4.26
Reduced decision making time	3	0	8	51	39	4.22

Effective marketing

Similarly, the respondents indicated that use of mobile phone in their respective organization has had an impact on the marketing effectiveness of the respective organizations. When asked about the measures of success in the effective marketing, the respondents indicated growth in loan portfolio, increase in membership and growth in deposits as the main indicators of this success. Based on the response rate as indicated in table 7 below, growth in deposits was identified as the main indicator of effective marketing followed by increase in membership and then growth in loan portfolio as indicated by the mean response of 3.95, 3.91 and 3.90 respectively.

Table 8: Impact of mobile phone use on SMEs' effective marketing

Measures of success in effective marketing						
Measures of success in effective marketing	Level of agreement					Mean Response
	1	2	3	4	5	
	Don't know	Strongly don't agree	Don't agree	Agree	Strongly agree	
Growth in loan portfolio	6	4	12	51	28	3.90
Increase in membership	4	1	24	43	29	3.91
Growth in deposits	4	1	20	47	29	3.95

Good customer relationship management

Good customer relationship management as one of the critical success factors of the SMEs was identified by the respondents as being impacted by the use of mobile phones. Indicators of this impact in their order of significance include improved feedback with a mean response rate of 4.42, followed closely by customer retention with a mean response of 4.38 and finally customer extension with a mean response of 4.21. These findings are as indicated in table 9 below.

Table 9: Impact of mobile phone use on SMEs' good customer relationship management

Measures of success in good customer relationship management						
Measures of success in good customer relationship management	Level of agreement					Mean Response
	1	2	3	4	5	
	Don't know	Strongly don't agree	Don't agree	Agree	Strongly agree	
Customer retention	3	0	5	41	52	4.38
Customer extension	6	2	6	38	49	4.21
Improved feedback	4	0	5	33	59	4.42

4.6 Areas to Improve to Enhance Mobile Phone Use by SMEs

The researcher sought to identify the different areas that need to be improved to enhance the effective use of mobile phone by the SMEs. The respondents contacted indicated that providing necessary facilities and support for the various mobile phone services was critical to enhance their use in the SMEs. These facilities include for instance provision of good technological platform to support the mobile phone uses. This is indicated by a mean response of 4.03. Staff training followed closely by customer training with mean response rates of 3.64 and 3.61 respectively were also identified as important in enhancing mobile use in the SMEs. Promotional activities for the various mobile phone uses was also identified as

an important measure that need to be put in place to enhance mobile phone use by the SMEs.

These findings are summarised and graphically presented in figure 5 below.

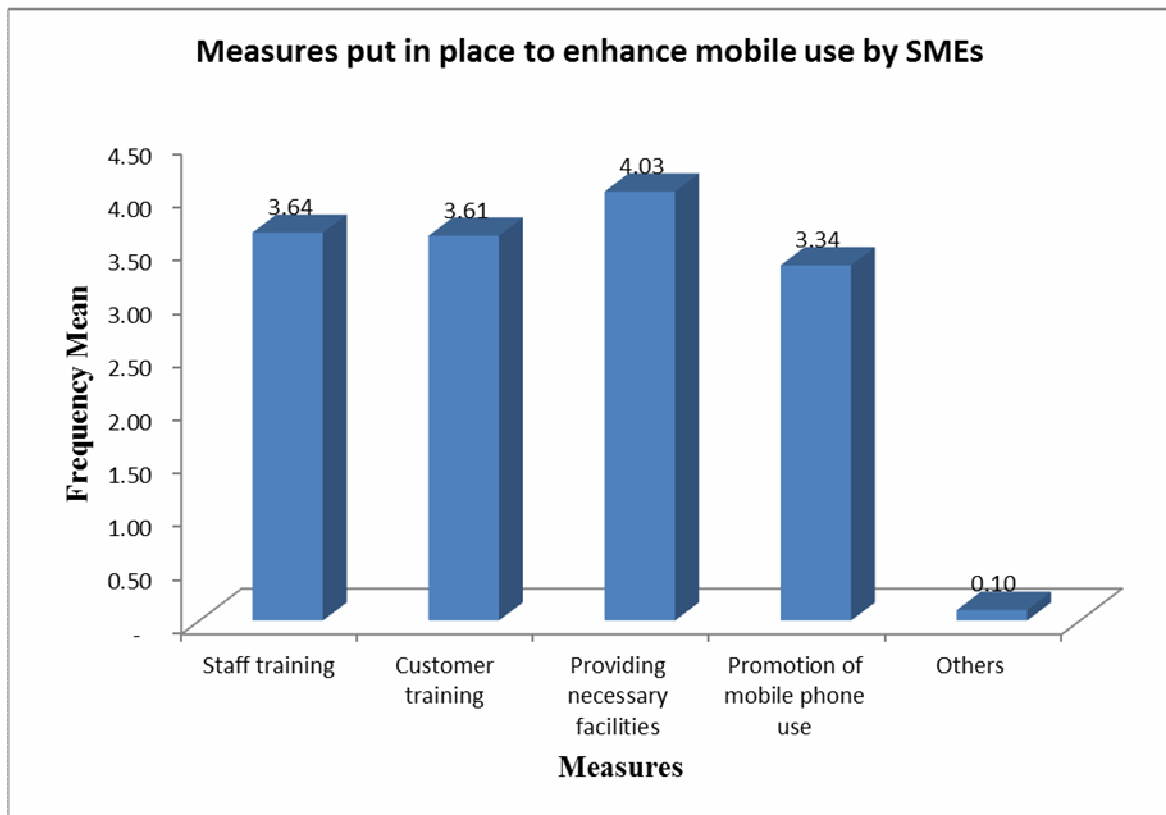


Figure 5: Areas to improve to enhance mobile phone use in SMEs

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The research identified five mobile phone uses that have positive impact on the success of SMEs including voice calls, SMS/MMS, money transfer services, internet banking and mobile banking. However, their effective contribution to the success of the SMEs depends on the number of uses applied and the extent or frequency of their use in the SMEs.

Furthermore, the success of SMEs is dependent on three critical success factors including effective management, effective marketing and good customer relationship management. Mobile phone uses have different positive influence on these critical success factors for the SMEs. However, this is dependent on the measures put in place by the SMEs to support the various mobile phone uses.

Cost reduction, increased profit and reduced decision making time are the major indicators of effective management of the SMEs. On the other hand, growth in loan portfolio, increase in membership and growth in deposits are the major indicators of effective marketing of the SMEs services. Finally, good customer relationship management is indicated by customer retention, extension and improved feedback.

For effective contribution of mobile phone uses to the identified critical success factors it is important for the SMEs to provide necessary support facilities, provide adequate and effective training to its staff and customers on the operation of the different mobile phone uses and promote the mobile phone uses.

5.2 Recommendations

Based on the findings of this research it is recommendable for the SMEs to adopt mobile phone uses in their service provision. This recommendation is informed by the observed positive relationship between the various measures of success in the SMEs and the mobile phone uses, their frequency of uses and level of support accorded to the uses by the SMEs. However, in adopting these uses a cost-benefit analysis need to be carried to ensure that the SMEs' primary objective of making profit is not overshadowed. This is because adopting the use of mobile phones encompasses some inherent costs that the SMEs need to be aware of.

Furthermore, in order to realise a significant positive change in the critical success factors for the SMEs, it is recommended that the SMEs should provide sufficient necessary support facilities for the services. In addition, they should train their staff and customers effectively and promote the use of the mobile phone services to enhance effective adoption by customers.

The research identified that number of mobile phone uses, frequency of their use and the support availed by the SMEs for the mobile phone uses have an impact on the success indicators of the SMEs. However, the three variables do not provide an exhaustive explanation for the changes in the indicators of success. This is therefore an opportunity for future research to be carried out to identify the other factors that affect the success of SMEs.

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APPENDICES

Appendix 1: Time Schedule

Month /Activity	1st Month	1st Month	2nd Month	2nd Month	3rd Month	4th Month
Proposal Writing						
Corrections						
Data Collection						
Data Analysis						
Project Writing						
Submission of Project						

Appendix 2: Budget

Item	Unit cost	Cost (KShs)
Travelling expenses	Item	5,000.00
Data collection assistant	Item	4,500.00
Computer/typing services	Item	1,500.00
Printing and Photocopying of proposal	Item	3,000.00
Binding of proposal 7 copies	150	1,050.00
Printing and Photocopying of Project	Item	6,000.00
Hard binding, 7 copies	280	1,960.00
Miscellaneous	Item	5,000.00
Total		28,010.00

Appendix 3: Sample Questionnaire

INTRODUCTION

This questionnaire is intended to collect information on the use of mobile phone uses and their latent role in the success of SMEs providing financial services. The information provided will be treated with the confidentiality it deserves and will be used purely for academic purposes only. Kindly provide the required information by filling in the below questionnaire.

SECTION ONE: GENERAL INFORMATION

1. Name (Optional)
2. Gender
Male Female
3. How long has your organization been in existence?
Les than 2 years 2 to 4 years
5 to 7 years over 7 years
4. How long have you worked with the organization?
Less than 2 years 2 to 4 years
5 to 7 years over 7 years
5. Which department do you work in within the organization?
Finance Marketing
Operations Administration
Others specify

SECTION TWO: MOBILE PHONE USES AND CRITICAL SUCCESS FACTORS

6. Using a scale of 1 (never) and 5 (always) please fill in the table below by a tick (√) to indicate the most appropriate pattern that describes the use of the listed mobile phone services in your department while interacting with customers.

Mobile phone uses	Frequency				
	1	2	3	4	5
	Never	Rarely	Sometimes	Regularly	Always
Voice calls					
SMS / MMS					
Money Transfer Services e.g. Yu cash, Zap, M-Pesa & Orange Money					
Internet Banking					
Mobile Banking					
Others (please specify)					

7. Indicate in the table below different measures that have been put in place by your organization to enhance the adoption of the mobile phone uses identified in (6) above;

Measures put in place	Frequency of use				
	1	2	3	4	5
	Never	Rarely	Sometimes	Regularly	Always
Staff training					
Customer training					
Provision of the necessary facilities					
Mobile application's use promotion					
Others (please indicate below)					

8. How often are the mobile banking services indicated in the table below accessed by members using the mobile phone uses identified in the above table? Use a similar scale as in 6 above.

Mobile banking services	Frequency				
	1	2	3	4	5
	Never	Rarely	Sometimes	Regularly	Always
Balance inquiry					
Cash deposit					
Cash withdrawal					
Airtime purchase					
Paying bills					
Money transfer					
Account statements					
Others (specify)					

9. Score the following critical success factors in terms of their importance for your department to achieve success in its operation. Use a scale of 1 (not important at all) to 5 (highly important) to fill in the table below;

Critical success factors	Importance				
	1	2	3	4	5
	Not important at all	Less important	Fairly important	Important	Highly important
Effective management					
Effective marketing					
Customer relationship management					

10. Using a scale of 1 to 5 where 1 means don't know and 5 means strongly agree indicate in the table below whether the use of mobile phone has helped your department and overall organization to achieve the following critical success factors;

Critical success factors	Level of agreement				
	1	2	3	4	5
	Don't know	Strongly don't Agree	Don't agree	Agree	Strongly agree
Effective management					
Effective marketing					
Customer relationship management					

SECTION THREE: MEASURES OF THE CRITICAL SUCCESS FACTORS

Using a similar scale as in 9 above, score the following statements in 10-12;

11. Use of the different mobile phone uses has led to effective management which is reflected in the following measures;

Measures of success in effective management	Level of agreement				
	1	2	3	4	5
	Don't know	Strongly don't Agree	Don't agree	Agree	Strongly agree
Cost reduction					
Increased profit					
Reduced decision making time					

12. Use of the different mobile phone uses has enhanced effective marketing which is reflected in the following measures;

Measures of success in effective marketing	Level of agreement				
	1	2	3	4	5
	Don't know	Strongly don't Agree	Don't agree	Agree	Strongly agree
Growth in loan portfolio					
Increase in membership					
Growth in deposits					

13. As a result of use of the different mobile phone uses good customer relationship management has been achieved as indicated in the following measures;

Measures of success in good customer relationship management	Level of agreement				
	1	2	3	4	5
	Don't know	Strongly don't Agree	Don't agree	Agree	Strongly agree
Customer retention					
Customer extension					
Improved feedback					

14. Provide your general opinion on the role of mobile phone uses in the success of your departmental operations and the overall organization.

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THANK YOU

Appendix 4: List of SMEs contacted

1. Dimkes SACCO Limited
2. Metropolitan Teachers SACCO Limited
3. K Unity Savings and Credit Society Limited
4. SMEP
5. Pawdep
6. Kidapu SACCO Limited
7. Kenya Women Finance Trust (KWFT)