

**THE EXTENT OF MOBILE COMMERCE ADOPTION BY SELECTED SMALL AND
MEDIUM ENTERPRISES IN THE CENTRAL BUSINESS DISTRICT OF NAIROBI,
KENYA**

BY

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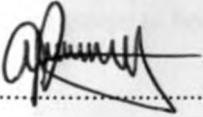


**A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE MASTER OF
BUSINESS ADMINISTRATION DEGREE, SCHOOL OF BUSINESS, UNIVERSITY OF
NAIROBI**

OCTOBER 2011

Declaration

I declare that this is my original work and has not been presented for a degree in any other University

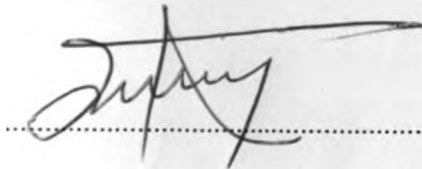


Date..... 2/11/2011

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D61/70133/2009

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Dedication

This project is dedicated to my mother, Margaret Muthoni who has made this possible through prayers, patience and her constant encouragement, and my sister Bernice Mukami who follows in my footsteps to becoming the best she wants to be in life. May God bless you both in all that you do.

Acknowledgement

I would like to thank to first and foremost thank the Almighty God for enabling me to come this far, for the gift of life, strength and endurance. Indeed, it has been a very long journey.

Secondly, I would like to acknowledge and thank my family especially my mother Margaret Muthoni and Bernice Mukami for their encouragement and prayers. I would also like to appreciate my friends for their support and encouragement and for being there for me. I would like to appreciate several people in my life who have believed in my potential and who never ceased to pray for me: Mr and Mrs Martin Wachira Gachuhi, Mr and Mrs Duncan Kihato and my grandparents Mr and Mrs Jacob Gachuhi. Thank you all for your support and prayers.

Finally, I would like to appreciate my supervisor, Dr. Justus M. Munyoki for his guidance and the invaluable advice that he gave me while I was doing this research.

Abbreviations

M- COMMERCE	MOBILE COMMERCE
E- COMMERCE	ELECTRONIC COMMERCE
M- BANKING	MOBILE BANKING
M -PAYMENTS	MOBILE PAYMENT
M – FINANCE	MOBILE FINANCE
EAC	EAST AFRICAN COMMUNITY
SME	SMALL MEDIUM ENTERPRISES
CBD	NAIROBI CENTRAL BUSINESS DISTRICT
ICT	INFORMATION COMMUNICATION AND TECHNOLOGY
WAP	WIRELESS APPLICATION PROTOCOL
WWW	WORLD WIDE WEB
ETACS	EXTENDED TOTAL ACCESS COMMUNICATION SYSTEM

Abstract

The mobile commerce industry is a very vital sector in the development of ICT in Kenya in line with vision 2030. The industry has seen a high number of entrants of SMEs in the last five years within the CBD in Nairobi.

The study sought to find out the adoption of m - commerce by SMEs in the CBD. The objective of this study was to determine the extent of m - commerce adoption by SMEs in the Central Business District in Nairobi. The study adopted a descriptive design in its methodology. The population of this study consisted of 50 small and medium businesses located in Moi Avenue and Kenyatta Avenue streets in Nairobi CBD Area. Out of this a sample of 20 SMEs was stratified to be sampled. 20 questionnaires were sent out and responded by top and middle level management of these organizations because they are most likely to be the ones who make the final decisions about technology adoption in the business. 16 SMEs responded and were used in this study. Primary data was collected by questionnaire method and out of the 20 SMEs, 4 declined hence left out in this study.

The study found out that SMEs are adopters of mobile phone money transfer as an application of m - commerce. The results indicated that m - commerce is in its early adoption stage and SMEs have not fully adopted m - commerce as the single most technology to gain a competitive advantage. SMEs established in the last one year are more than those that have been in operational for over twenty years. This is because SMEs are virtually low revenue based and majority have been established to take advantage of a particular technology and results show that most SMEs use money transfer several times a day. Most SMEs established in the last five years are mobile money transfer agents to aid in money transfer which is a form of m - commerce. All

SMEs studied portrayed an extent of m - commerce involvement and most of them are playing safe on adopting other forms of m - commerce. So majority are early adopters of m - commerce and trying out other mobile commerce applications lightly. SMEs find m - commerce cheaper as a form of making payments, convenient and time saving and are more inclined towards entering the market after the m- commerce industry is well established.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Mobile commerce is the use of handheld wireless devices for purchasing goods and services from any location, Laudon and Laudon (2005). In Kenya M - commerce is where the biggest revolution is happening virtually by the rising adoption of mobiles phone applications.

Kenya is the number one country to watch because of four important factors: its early and leading adoption of m-commerce, large investments in and submarine fibre, the government's strategy to grow the ICT sector and lastly the position of Nairobi as the business capital of the East African Community's common market. These four factors are likely to lead to increased ICT investment flows into Kenya, decent growth in the ICT sector and a shake up in the economy as m-commerce takes root. The commercialization of the Internet and World Wide Web is driving m - commerce to be one of the most prospective channels for trade in developing countries. In 2007 Safaricom introduced M-Pesa – a mobile money transfer service. This was followed by M – Kesho a mobile bank account from Equity Bank and the latest innovation published by a local newspaper, Daily Nation. (2011) is M- Church, a Short message service powered service that Kenyans can receive spiritual information when they need it. All these mobile transactions come at a cost.

With this new wave of innovations in the Kenyan Market, mobile commerce is the latest concept expected to constitute a significant future market worldwide. Before the year 2000, buying something through a mobile was almost a science fiction scene, but today, it is a reality with a very good trend. The reason for the rising trend is that modern mobile

phones have capabilities to do so and have larger screens such that one can do more on them. The general feeling is that the m - commerce channel will achieve in the next three to four years what the e-commerce channel has achieved in the last 15 years.

The growing demand for M - commerce functionality is being driven by the rollout of mobile devices with broadband capabilities by the various services providers in Kenya and is expected to be embraced by many businessmen, entrepreneurs and the corporate world at large.

In Kenya small businesses adoption of m - commerce is rapidly increasing due to the opportunities available in terms of affordable technology. This has been coupled by the opening up of regional trading blocks and economies getting better for example Sudan. In Kenya since 2002 due to changes in the economic and political environment, the economy has risen steadily encouraging more and more investors both large and small scale. The interaction of the two coupled with the quest to take up new opportunities has led to the adoption of affordable technology. Given this rapid growth, Kenyan SMEs should explore their m - commerce options closely and be more robust in investing in research on what is going on around them. This is because customers are becoming more and more aware of browsing and shopping anytime and anywhere whether they are stuck in traffic on the way home or sitting at home. This is becoming the trend factored by the fact that everyone has a mobile device beside them.

1.1.1 The Concept of M Commerce

M - Commerce is a broad term which has several definitions. Durlacher, (2002) defines m - commerce as monetary transactions conducted over a wireless telecommunication network. Tarsewich. (2002) defines m - commerce as all activities related to a potential

commercial transaction through communications networks that interface with mobile devices. Looney, (2004), further notes that one of the main benefits of m - commerce services is the ability to carry out tasks anywhere and anytime. Given such uniqueness, m - commerce has been a huge success in Japan and has enabled users to access the Internet without needing to find a place to plug in. The emerging technology behind m - commerce, which is based on the Wireless Application Protocol (WAP), has made far greater strides in Kenya despite many people being unaware. This concept of transacting business via a mobile phone has been around for nearly a decade in other countries, but very few phone users have had any use for it. However, over the last few years, the mobile and wireless market has been one of the fastest growing markets in the world and it is rapidly growing in Kenya.

1.1.2 The Concept of Adoption

Adoption as defined in Rogers Diffusion theory (1995) is a decision to make full use of an innovation as the best course of action. On the other hand, Rogers, (1995) defined innovation as an idea or a practice that is perceived new by an individual or other unit for adoption. Vuarin & Rodriguez, (1994) note that an innovation is not an invention; it is doing something which did not exist before in a particular territory or technical area. Technologies play an important role in economic development. Adoption and diffusion of mobile commerce technology are interrelated concepts describing the decision to use or not to use and the spread of a given technology among economic units over a period of time. Adoption of any innovation is not a one step process as it takes time for adoption to complete. First time adopters may continue or cease to use the new technology. The duration of adoption vary among different economic units, regions and attributes of

technology itself. Therefore, adequate understanding of the process of technology adoption and its diffusion is necessary for understanding the extent of mobile commerce adoption by SMEs in Kenya.

1.1.3 SME's in Kenya

Abdullah. (1997) argues that there is no one acceptable standard about defining SMEs. As per the recommendation of the European Commission (2003), an enterprise is defined as an entity engaged in an economic activity and Small and Medium Enterprises are enterprises which employ fewer than 250 persons and have an annual turnover not exceeding EUR 50 million or an annual balance sheet total not exceeding EUR 43 million. Kimuyu & Kimiti (2000) on the other define SMEs as likely to be informal, usually start small, use less capital, grow slower if at all, have more limited access to credit and more often operate from less permanent premises and home.

SMEs have always been described as a seedbed to economic development hence need for the Kenyan Government to create an environment that will stimulate small firms' competitiveness in the current globalized markets if the Vision 2030 goals are to be attained. Rutashobya and Janesson, (2004) argue that developing countries like Kenya should realize that globalization and technology have created a still competitive environment and SMEs in Kenya do not seem to be ready to face the challenges and opportunities that Globalization currently present.

In the Kenyan context, SME industry attracts the unskilled persons or rather those retrenched from their formal jobs or those skilled and are unable to find formal jobs in their areas of study. In Kenya this is regarded as the second best option for those unable to find jobs in the modern sector. Aboagye, (1986) noted that employment growth in

Kenya's SME sector has far outpaced growth in the large modern sector. This has so far been proven factual by the massive growth of SMEs in Kenya over the years.

Haans (2001) note that SMEs are more urban than rural-based and some examples of small enterprises are include garment assembly, motorized transport, building & construction and medium-scale industrial agro-processing. Tybout, (2002) further explains that the share of overall SME employment for instance tends to be higher in developing countries which are typically more focused on small – scale production.

1.1.4 M - Commerce in Kenya

M - Commerce in Kenya is dominated by two leading mobile service providers, Safaricom and Airtel. The Kenyan mobile Market is slowly developing to match the global M - commerce market by initially providing the following services: money transfers from mobile to mobile, bank transactions in form of withdrawals, payment of Bills like electricity, water, Dstv, etc and mobile top ups. In the Kenyan Context these are the services available to the consumers and they have been assimilated very fast by the SMEs into enhancing transactions. In Kenya, mobile payments have had incredible uptake because they allow both the banked and those without bank accounts to transfer money more conveniently, more safely, and at a much lower cost than through formal banking services or other money transfer methods. In Kenya, M-PESA, launched in 2007, is the dominant m-payment system provided by the service provider Safaricom.

In Kenya there has been a high mobile phone subscription by the rural and urban populations. [www.cck.go.ke/resc/.../Communications Statistics Report \(2008\)](http://www.cck.go.ke/resc/.../Communications_Statistics_Report_(2008)) reveals that mobile telephone services in Kenya started in 1992 with the analogue system that was widely known as the Extended Total Access Communication System (ETACS),

which was commercially launched in 1993. During this entry period the services were so expensive that it was only a few within the upper rank of the society that could afford them. However this has changed drastically and currently there are four licensed operators, Safaricom, Airtel, Econet Wireless Kenya, (trading as Yu) and Telkom Kenya (trading as Orange Mobile). Henry, (2009) contends that mobile data will be the telecoms fastest growing revenue stream due to the launch of 3G services and growth of mobile data services, particularly mobile money transfers.

This increased accessibility to mobile phones has introduced changes in most sectors of the economy and particularly the urban informal sector. Consequently Jua Kali Business (SMEs) is changing their business and operation environment, thereby creating an impact on Kenya's fastest growing sector and employer.

The research was conducted in Nairobi Central Business District which is under the management of Nairobi Central Business District Association (NCBDA). The central business district takes a rectangular shape, around the Uhuru Highway, Haille Selasse Avenue, Moi Avenue and University Way. It includes many of Nairobi's important buildings, including the City Hall and Parliament Building. The city square is also located within the perimeter. Over time all kinds of SMEs have been licensed to operate in the CBD ranging from General Trade, Wholesale, Retail, Stores, and Shops; Transport, Storage and Communications; Professional & Technical Services; Accommodation and Catering and Private Education, Health and Entertainment Services.

1.2 Statement of the Research Problem

SMEs have a critical role to play in the Kenyan economy. The Economic Recovery Strategy Paper for Wealth and Employment Creation (ERS) 2003-2007 identifies SMEs and in particular Jua Kali expansion as one of those activities that will assist in economic recovery and growth. However their growth is hindered by lack of affordable technology.

Bode & Burn (2002) and Stroeken (2001) observe that despite advances in information technology and acceptance by large organizations of such technologies, the same level of adoption is not evident among SMEs. Because of this and resource limitations, they are unable to develop new technologies or to make vital changes in existing ones. Studies on m - commerce adoption by Anurag, Tyagi and Raddi, (2009), note that small businesses have embraced the use of mobile payment technology in most of their operations and that it is an easier form of cash delivery to suppliers and business partners. Anurag, Tyagi and Raddi, (2009), further note that SMEs that have succeeded because of their adoption of the m - commerce capabilities.

As with many developing countries, there is limited research and scholarly studies about the SME sector in Kenya and their interaction with modern commerce. In Kenya Dinda, (2008) researched on electronic commerce strategies and mobile phones in Kenya, Boaz, (2008) on the concept of mobile banking and Shariff, (2006), on the operations strategies used in mobile banking, the case of M Pesa service by safaricom limited. Other scholars have greatly focused SMEs in other aspects rather than their interaction with mobile commerce. Ekai, (2008) researched on the challenges to the internationalization of Kenyan SMEs. Further research on SMEs in the CBD was done by Muraguri, (2009) on managing challenges facing SME's in central business district of Nairobi Kenya.

Given these scenarios, an understanding of mobile commerce adoption is necessary as the new technology for SMEs that stand to take advantage so as to bridge the current gap faced by SMEs in technology. Given that mobile commerce adoption has not been extensively explored especially in the context of SMEs in Kenya there is need to conduct an empirical enquiry to give an insight in this field. The study therefore sought to establish the extent of adoption of mobile commerce by SMEs in Kenya.

1.3 Objectives of the Study

The objectives of this study are:

- I. To establish the extent of adoption of mobile commerce in the SME sector in the central business district in Nairobi.
- II. To determine the extent in mobile commerce penetration in Kenya's SMEs as a new technology.

1.4 Significance of the Study

The findings of this research will be useful in a number of ways:

Foremost, SMEs in Kenya will be able to use the findings here in to improve their business operations using M - commerce applications.

Secondly, this study will contribute to the body of knowledge on M - commerce adoption by SME in Kenya and will be used by academicians as a basis for further research.

Thirdly my study will be an invaluable source to the management of SMEs on how to take advantage of the imminent opportunities by m - commerce in their quest of breaking the technological challenges that they face, as they seek to put up with competing large corporate firms that will result in sound and more informed decisions.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter highlights the definitions of M - Commerce and SME and the relationship between the two, leading to the adoption of m - commerce by small businessmen. Firstly, adoption as defined in Rogers Diffusion theory (1995) is a decision to make full use of an innovation as the best course of action and literature reviewed will establish the extent of adoption of M - commerce applications by SMEs.

2.2 The concept of E – Commerce and M – Commerce

Turban, (1999) defines electronic commerce as a concept that describes the process of buying and selling or exchanging of products, services and information via computer networks including the Internet. On the other hand, Tarsewich (2002) defines mobile commerce as all activities related to a potential commercial transaction through communications networks that interface with mobile devices.

E-commerce brought a great revolution worldwide making things really easy for people but now m-commerce is what everybody is looking forward to. Introduction of m-commerce has changed the way people use to make e-commerce transactions. Lee, (2003) explains that to support m - commerce transactions which are data-based, is an evolution of these cellular networks from analogue to digital and from circuit-switched to packet-switched networks. They use it for surfing for things on internet, do online shopping through their cell phones and do a lot of more stuff through it. And now paying through their mobile phone is becoming a trend. Looney, (2004) explains that a critical characteristic of m - commerce is that an individual can engage in business transactions

anywhere and at any time thus eliminating the place related restraints associated with traditional e-business.

Sadeh (2002) further explains m - commerce as a technological frontier and an attractive area of research because of its rapid growth and potential applications. Consumers today lead an increasingly fast-paced life and demand smaller, better, faster, and more reliable wireless technology to keep up with their lifestyles. Mobile commerce is the solution to this demand because it makes traditional Electronic commerce tasks available to be performed wirelessly through cell phones.

Nansi, (2004) argues that the crucial challenge or success factor to modern organizations is whether they are able to provide enough useful application that customers can access and are willing to use. Tiwari and Buse (2007) noted that mobile commerce has gained increasing acceptance among various sections of the society in previous years. The need for mobility is the driving force behind mobile commerce.

Laudon and laudon (2005) pinpoint that some challenges of M - commerce are that keyboards on cell phones are tiny, screens are tiny and awkward to use and data transfer speed is slow (2G) hence costly to download.

2.3 The concept of adoption

Rogers, (1995) describes the adoption of a new product (or process) as a decision process that moves through different stages over time. The decision process begins with becoming aware of the existence and learning about the innovation (knowledge). In the next stage, the potential adopters attempt to assess the utility of the innovation (persuasion), and then the decision is made whether or not to adopt the innovation. If the decision is in favour of adoption, the innovation is implemented. Finally, the experiences

with the innovation are evaluated leading to either continuation or discontinuance (confirmation stage).

Bode & Burn, (2002) argues that despite innovations in information technology and acceptance by large organisations of such technologies the same level of adoption is not evident among SMEs. With new innovations and inventions coming up almost every day, the start-up of SMEs has attracted considerable attention due to their potential contribution to innovation. Innovation is a fundamental determinant of value creation in business companies and can also become a key to successful economic growth. The innovative process and innovative effort of companies are explored and evaluated by the different ways in which they adopt new innovations. Rogers (1995) further argues that diffusion is the process, by which an innovation is communicated through certain channels over time among the members of a social system. The existence of a social system is important when considering the uptake of m-commerce and the relative rate of adoption.

2.4 The Concept of M - commerce Adoption by SMEs

The economic review (2005) showed that by 2005, SMEs in Kenya had employed approximately 5.9 million people. Of these, 1.9 million was in the urban areas while the rest was in the rural parts of Kenya. Chogi (2006) explains that out of the total population of 35 millions, which translates to 18.5% of the Kenyans; have a mobile phone compared to 0.84 % of the fixed lines. It is therefore important to note that the adoption, usage and the influence mobile phones have on the SMEs of Kenya. The uses can be categorized as social, business, economic and political. Chogi (2006) further clarifies that for SMEs, just like all other users use mobile phones devices for both



business and social purposes and as a result there have been increased profits in business, and enhanced social networks.

Literature on information user studies by Durrance (1989), Taylor (1986) and Wilson (1981) clearly indicates the need for a better understanding of those who need information and the environment in which they function so that practical useful policies can be implemented. This in Kenya is very practical in the sense that SMEs face a lot of problems especially access to technology.

Ali, Olga, and Oliver (2009), found that nearly 33% of transactions among MTN mobile users in Uganda purchase or sell goods or services, while the remaining two-thirds corresponded to money transfers. They further found that larger formal businesses in Uganda don't accept MTN Mobile Money as a means of payment, so it's likely most of these purchases and sales transactions were conducted by entrepreneurial individuals or small businesses on one side or the other. This is a significant volume, given that Mobile Money has never been marketed in this way and speaks to the high level of need from this group. This not only confirms that M - commerce is mostly adopted by smaller firms but rather explicitly shows the unwillingness of large firms to interact with smaller firms hence inhibiting their growth.

Mobile phones have affected business practices in the recent past. This is manifest in various areas including advertisements, marketing, emergence of new products, and new methods of payments. The methods of payment through the use of mobile phones have been the most recent development in Kenya and have revolutionized how business is conducted among the small-scale business holders. Anurag, Tyagi and Raddi, (2009) argued that mobile payment as an easier form of cash delivery to their suppliers and

business partners, a system which is relatively affordable, personal and can be used anywhere and at any time.

Porteous, (2006) asserts there is a high appeal and utility of mobile banking and mobile payment services across the country as there are probably more people with mobile handsets than with bank accounts. Arunga and Kahora (2007) concluded that sole proprietors and small businesses in Kenya benefited hugely from the mobile phone revolution as they are able to make savings and gain access to more customers and new services.

According to Donner (2005), there have been relatively few studies focusing directly on the way mobile phones are used in enhancing productivity among the users in the developing world. Adeya, (2003) noted some business also lacks the awareness regarding the potentials that exist in the use of mobile phones and ICTs. Donner (2005), Hughes & Lonie (2007) argue that mobile phones provide technological services that reduce costs; increase income and increases reach ability and mobility. They can help to extend social and business networks and they clearly substitute for journeys and, for brokers, traders and other business intermediaries

Saidi (2009) established that banks, mobile phone operators, the central bank and the government are the key stakeholders to drive the implementation of m - commerce in Malawi. Saidi further asserts that Malawi can feasibly deploy m - commerce applications in a number of business domains such as banking, shopping, financial information services, agriculture, marketing, news, health, tourism and insurance banks and mobile phone operators. Saidi (2009) identifies m banking, m-shopping, mobile information

services, m-marketing and m-health as the range of m - commerce applications that can feasibly be deployed.

In Kenya, Salzaman (2001) notes that mobile telephony adoption is on the rise and the related technological innovations have dramatically enhanced the capabilities of the mobile phones. About two billion people worldwide are using a mobile phone. As the number of mobile phone increases there has been a pervasive impact on people's lives. Salzaman (2001) further explains that in Africa particularly it has been said that people in Africa use mobile phones very differently. Michael Joseph, (2009) said also that Kenyan people have peculiar calling habits.

This increased accessibility to mobile phones has introduced changes in most sectors of the economy and particularly the urban informal sector consequently Jua Kali Business (SMEs) changing their business and operation environment, thereby creating an impact on Kenya's fastest growing sector and employer.

2.5 Determinants of M - Commerce adoption in Small Businesses

From the emerging literature on mobile commerce, there are four types of determinants that are used in analyzing the adoption of m-commerce in organizations and they include; Business-to-consumer orientation, Digital nature of the offering, Level of e-commerce adoption and Size of the Firm.

2.5.1 Business to consumer orientation

By definition, mobile commerce offers the possibility to conduct electronic business anywhere and at any time. The nomadic nature of this form of commerce opens a wide range of new business offerings of great value to the mobile users.

Kumar and Zahn, (2003) note that m - commerce allows an itinerant offering of products and services usually accessible via wired electronic commerce, for example plane tickets, movies schedules, stock price, etc. Kumar and Zahn, (2003) further note, geographical related offerings such as location-based products and adoption of mobile commerce initiative Business to consumer orientation Digital nature of the offering Level of e-commerce adoption services are now easy to offer. For instance, Barnes (2002) argues that in an unfamiliar neighborhood, users could search for the location of services such as nearby restaurants, shops, ATMs and public transport through m-commerce.

Anckar and D'Incau, (2002) argue that another opportunity that emerges relates to physical short-ranged transactions. As the majority of people in many occidental economies carry a mobile phone on a permanent basis, this device has the potential of becoming the digital wallet for a good number of transactions. Anckar and D'Incau, (2002) further explain that a good number of mobile commerce opportunities, as presented above, are aimed towards the final customer segment. It therefore appears logical to anticipate that firms targeting this market segment might be predisposed to adopt a mobile commerce initiative.

2.5.2 Digital nature of the offering

Mobility and itinerancy are some of the characteristics final users are seeking when they opt for a mobile device. However, being mobile does not necessarily translate into the use of the technology in a nomadic state. Hoyoung, (2002) found that Korean mobile phone customers use m-commerce interactive functionalities more in a sedentary state (sitting down) than in a nomadic state. The case of WIFI technology is also very interesting in this respect. With downlink connection speeds comparable to fixed wired Internet services, many WIFI adopters now connect wirelessly for their day to-day activities even though they have access to the more traditional technologies.

What distinguishes mobile from fixed electronic commerce is the ability to conduct business transactions from any place at any time. In such, through m-commerce, users might carry out value-added business interactions that are not available through fixed Internet connections. It is therefore clear that not all commercial activities are well suited for mobile commerce. For example, the small graphical interface on the mobile terminal restricts the completion of complex business interactions that may require more information to be displayed simultaneously. However, Viswanath, Shuk and Kwo, (2003) argue that small screen size, limited screen resolution and difficult input mechanisms are some limitations of mobile terminals that have since emerged over time.

2.5.3 Level of electronic commerce adoption

When it comes to mobile commerce initiative, a few questions come to mind: Is it a logical second step for firms already using e-commerce with their business partners? Or do firms that have not yet implemented e-commerce adopt m-commerce initiatives knowing that m-commerce now best suits their value offering?

Naruse and Kim (2002) suggest evidence in favor of the second step presumption. They argue that firms who are using fixed e-commerce more intensively are more inclined to adopt m-commerce. Tsalgatidou and Pitoura, (2001) further confirm that companies adopting mobile commerce already have first-hand experience with electronic commerce; therefore, firms first build their electronic commerce infrastructure and then use mobile commerce as a complementary channel to offer additional value to its customers.

2.5.4 Size of the firm effect

In the diffusion of innovation literature, firm size is often a key adoption determinant. In an m-commerce context, empirical evidence suggests that several factors facilitate the adoption of m-commerce by larger firms. These firms have more available resources to set up m-business initiatives, which enable them to benefit from economies of scale, Zhu (2002). Larger firms also have more power to impose their mobile commerce strategy on upstream and downstream business partners, which is considered an important success factor for interactive innovations Markus, (1990).

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the overall research methodology that will be used in the study.

This includes the research design, population of the study, sample size, data collection methods, research procedures, data analysis and presentation.

3.2 Research Design

This study adopted a survey research design. Survey studies are characterized by systematic collection of data from members of a given population through questionnaires.

This design was deemed appropriate since it involves the procedures of collection and analyzing data from members of a population which in this case is business entrepreneurs whose businesses are located within Nairobi Central Business District in Moi and Kenyatta Avenue streets

3.3 Population of the study

The population of the study consisted of selected SMEs operating in the Central Business District of Nairobi city along the two busy streets; Kenyatta Avenue Street and Moi Avenue Street (formerly Government road). A list of SMEs in these streets was obtained from www.mocality.co.ke. (See appendix ii). This is a business directory designed specifically for the mobile phone and can also be accessed electronically. It is the result of an enormous amount of research into the activity and needs of Africa as a continent and Kenya specifically. Its aim is to generate a massive base of local content that is accessible from your mobile phone and easy to search. The website details businesses on these two locations, clearly indicating their location and it's from the list that the researcher randomly selected 50 SMEs. SMEs in these streets are exposed to mobile phone outlets

due to their location and facilitate the mobile to mobile truncations hence were in a better position to aid the research to attain the objectives set. These streets are dominated by middle class who own stalls and exhibitions selling assorted wares.

3.4 Sample Selection

The researcher employed a stratified random sampling in selecting respondents. Out of possible thousands of SMEs, located within these streets a total of 50 SMEs in the different categories were randomly selected. The SMEs randomly selected were stratified into the different proportionate strata's for purposes of sampling. A sample of 20 SMEs were picked proportionately from each stratum and analyzed.

These categories included: Wholesale and Retail, Transport, Communications; Professional & Technical Services; Tourism, Design, and Entertainment Services.

This method was considered appropriate because of time, budgetary constraints and proximity and ensured a representative sample.

3.5 Data Collection

Data collection was done through self-administered questionnaires. Structured questionnaires constituted both open and closed ended questions designed to elicit specific responses for qualitative and quantitative analysis respectively. The questionnaires were dropped to the various SMEs to enable managers to complete in their own time and to provide access to firms. Respondents were managerial level employees at the respective firms who are privy to the operations of the business. These individuals by virtue of their position are the most conversant with how m - commerce has enabled them overcome challenges. The questionnaire was divided into three parts. Part one questions

related to general information relating to the respondent and the company. Part two questions will relate to company and industry information. Part three questions will relate to the different views relating to m commerce.

3.6 Data Analysis

The researcher collected qualitative data and used descriptive analysis as the most appropriate method of data analysis. This included the use of proportions, and percentages where appropriate. The analysed data was presented in form of tables. The researcher analysed the data obtained and focused on those aspects that highlighted the company's adoption levels of m - commerce by the small medium enterprises.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents analysis and findings of the study on SMEs and their adoption of m-commerce. The questionnaires were directed to top management level because they are most likely to make final decisions about technology adoption. The objective of this study was to establish the extent of adoption of mobile commerce in the SME sector in the Central Business District in Nairobi with specific reference to Moi and Kenyatta Avenue streets. In a population of 50 SMEs used in this study, the researcher stratified the 50 SMEs into different categories to give a sample of 20 SMEs that were grouped as shown in table 4.9.

4.2 Company and Industry Information

The study sought to find out how many years the SMEs have been in operation and the results are given in Table 4.1

Table 4.1: Number of years the company has been in operation

Duration	Frequency	Percent%
0 – 5 Years	8	50
5 – 10 Years	5	31.25
10 – 20 Years	2	12.5
Over 20 Years	1	6.25
Total	16	100

Table 4.1 shows that most companies that participated in the study were established between 2007 and 2011. Results indicate 50% of SMEs have been in operation for the last five years, 31.25% SMEs have been in operation for 5 to 10 years, 12.5% SMEs have

operated between 10 to 20 years and only 6.25% SMEs has operated for over 20years. The trend is that most SMEs were established in the last five years. The findings suggest an unprecedented rate of setting up SMEs almost the same time with the early emergence of the mobile commerce evolution. This can be attributed to the volatile changes that have been taking place in the mobile communications industry since 2006. Most of these SMEs along these streets were found to be facilitating mobile phone transfers. A good example is M Pesa the pioneer mobile money transfer in Kenya established in the same period. This was launched in 2009 and most SMEs from the results were established in the last five years. In addition, since the launch of the bill pay function in March 2009, there are 75 companies using M Pesa to collect payments from their customers. The biggest user is the electricity utility company, which now has roughly 20% of their one million customers paying through M Pesa.

The study sought to establish the revenue earned by the SMEs. These results are given in table 4.2

Table 4.2: Approximate Companies Total Revenue

Approximate Revenues	Percentage%
Less than 1 Million	43
1 – 5 Million	33
5 – 10 Million	17
10 – 15Million	5
Greater than 15 Million	2

The breakdown of the sampled SMEs by their revenue base showed that 43% of the SMEs have a total revenue of less than 1 Million, 33% between 1 – 5 Million, 17%

between 5 – 10 Million, 5% between 10 – 15 Million and only 2% reports their total revenue over 15 Million. Most SMEs in a bid to match their budget allocations, maximize revenue and optimize their costs tend to shy away from investing in uncertainties since they are revenues are low. M - Commerce is a new technology and in this study most SMEs earn revenue of less than a million and will not fully adopt m - commerce but rather slowly evaluate the technology. Revenues earned by SMEs are relatively low since most of the SMEs are involved in small scale and their profit margins are low. The revenue base of most business depicts their size and in this case most SMEs sampled are small virtually dictated by their revenue base.

The study sought to establish from the respondents the different types of m – commerce applications that they use. This study sought to rank from the most to less usable applications. The different forms of m-commerce ranked are shown in table 4.3.

Table 4.3: Ranking of Frequently Used M-Commerce Applications

Applications	Frequency	Percentage%	Ranking
Money Transfers.	10	62.5	1
Pay bills	3	18.75	2
Pay suppliers	2	12.5	3
Data purchase	1	6.25	4

Table 4.3 indicates that money transfer is the most important application used in SMEs where 62.5% of SMEs reported using money transfers. 18.75% SMEs reported paying bills via mobile commerce and with specific reference to electricity bills. 12.5% SME reported using mobile commerce to pay suppliers and 6.25% SMEs reported buying data. The results indicated that SMEs use m-commerce to pay suppliers and buy internet data

bundles. These results portray the skewness of many small enterprises towards accepting mobile commerce technology as a form of transacting in their day to day operations. Money transfers was predominant since most of the SMEs monthly revenue is less than one Million and most of the mobile tariffs allow substantial amounts to be transferred via mobile phones per single day. In addition, most SMEs may prefer to use m-commerce for their money transfers and payment of bills and to suppliers because they find it a cheap form of transacting.

The study sought to find out if SMEs use mobile money transfers as an application of m-commerce due to the high usage of M Pesa in Kenya. This was done to establish if SMEs in Kenya have embraced the innovation of mobile money transfers which was pioneered in Kenya by Safaricom in 2009 as a form of m-commerce. The respondents were asked whether they use their mobile phone for mobile money transfers. 68.75% of SMEs said yes while 31.25% of SMEs said no. This clearly indicates that majority of SMEs have adopted m-commerce in different forms and applications. 68.75% are early adopters and represent SMEs that are willing to fully adopt m-commerce applications once they are comfortable with the technology. Adoption being a step by step process as discussed in Rogers diffusion theory (1995), SMEs adopting mobile money transfers show a first step towards adopting m-commerce by assimilating money transfers. SMEs in CBD have used money transfer as their direct link to m-commerce and a first step in appreciating what m-commerce can and is capable of and SMEs have sought to explore its benefits as a technology.

The study sought to find out the duration of time SMEs have used m - commerce and establish the relationship between the emergence of m - commerce in Kenya and early SME adopters. The results are shown in table 4.4.

Table 4.4: Length of M - Commerce Usage

Length	Frequency	Percentage
Less than 3 Months	2	12.5
3- 6 Months	5	31.25
6 – 12 Months	7	43.75
12 – 24 Months	1	6.25
Greater than 24 Months	1	6.25
Totals	16	100

The respondents indicated the length respondents have been using m – commerce in their running of SMES. 12.5% SMEs have been using m - commerce in the last three months, 31.5% SMEs reported using m - commerce for 3 – 6 months, 43.75% SMEs reported that they have been using m – commerce for 6 – 12 months, 6.25% SME reported using m – commerce for 12 – 24 months and 6.25% SMEs reported using m – commerce for over 24 months. Records from the leading mobile operator in Kenya (Safaricom 2011) indicate that after the increase of the minimum amount of money that one single mobile phone operator can maintain in his M Pesa account was increased last year, the number of transactions went up. This explains why there has been an increase of mobile commerce in the last 6 – 12 months owing to the increased money float that single individual can maintain in his mobile account to facilitate money to and from.. The result of this is that most SMEs found it more convenient to use m - commerce with its customers, for instance allow buyers to pay for purchases or pay suppliers via m-commerce.

The study sought to establish how fast m - commerce is being used over a period of time in a bid to understand if adoption rate is fast or slow. These results are shown in table 4.5.

Table 4.5: Frequency of M - Commerce by SMEs.

M – Commerce Usage	Frequency	Percentage%
Once a day	4	25
Several times a day	7	43.75
Once a week	2	12.5
Several times a week	3	18.75
Total	16	100

The frequency of using m – commerce by SMEs indicated that 43.75% of the respondents reported that their m – commerce usage is several times a day, 25% SMEs reported once a day, 12.5% SMEs reported that they use it once a week and 18.75% SMEs reported their m - commerce usage to be several times a week. Several times a day reflects a high rate of usage considering that these are SMEs. This has been made possible by local mobile network restrictions that allow for a minimum amount of money to keep in a mobile account thus giving room for transactions to take place to and from buyer to seller. This study sought to establish the extent of adoption and from results in table 4.7 the usage of m - commerce is very high showing more and more SMEs are likely to adopt m - commerce in different forms over a period of time in a bid to be at par with competitors especially when it is more convenient for their customers.

The study sought to establish if making payments via mobile phones is cheaper than the other available forms of payment. This study sought to further establish if cost is a block in adoption of m - commerce by SMEs in CBD. The results are given in table 4.6.

Table 4.6: Cost of using M-Commerce

Cost of using M-commerce	Frequency	Percentage %
Yes	10	62.5
No	5	31.25
Neutral	1	6.25
Total	16	100.0

Results indicated that 62.5% of SMEs reported that making payments via mobile phones was cheaper than the other available forms of payment, 31.25% SMEs do not find it cheaper. And 6.25% are neutral on the cost and rather do not consider cost as a factor in using m – commerce. This study explains why 68.75% of the SMEs have adopted use of m-commerce money transfer technology at very high rate in the last five years. In the recent past, most of the mobile phone operators have launched mobile money transfer and payment services hence there's a lot of competition in the m-commerce industry. As a result, the cost of most transactions has reduced over the years with each mobile operator trying to outdo one another other. This has led to more and more adoption of m commerce. Cost is a very important element in adoption of any technology by a business and the lack of the financial capacity to effect implementation of technology will cripple any attempt by any SME to adopt any form of technology. M – Commerce penetration in Kenya in the form of money transfers is modern concept that is here to stay, cheap and user friendly application that has rapidly been absorbed by SMEs in Nairobi's CBD.

4.3: General views on mobile commerce usage

Questions used to measure the degree of preference were structured to fit the specific context of this study. Six independent questions were identified and measured using anchors ranging from strongly disagree to strongly agree with relation to mobile commerce. These were mobile commerce being less costly, usage for business only, time saving and convenient, compatibility with lifestyle, secure and user friendly. This study sought to establish the different perceptions of SMEs towards m - commerce as a channel of receiving payments. Results are shown in table 4.7

Table 4.7: Percentage of businessmen who receive payments via the mobile phones

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	%	%	%	%	%
I use it because it is less costly	0	25	6.25	68.75	0
I just use my phone for business	0	80	0	20	0
I use it because it is time saving and convenient	0	0	20	60	20
Mobile payments method is compatible with my lifestyle	0	0	12.5	62.5	25
I use the mobile phone to receive payments because it is secure	0	0	0	80	20
I use the mobile phone to receive payments because it is user friendly	0	0	0	20	80

68.75% accept to receive payments because it is less costly. 80% of respondents reported they use the mobile phone not only for business alone but for other m - commerce application and other uses. 60% of respondents reported that they use mobile commerce because it is time saving and convenient when it comes to receive payments, 62.5% of respondents reported that using mobile commerce is compatible with their lifestyle , 80% reported that mobile commerce is secure and 80% reported they use m - commerce because it is user friendly. This shows their adoption of the technology in their business. The different views expressed in the study indicate the level of acceptance of mobile commerce in the minds of small business virtually because most SMEs have embraced the technology with a positive mind setting.

This study strongly indicates that being able to receive payment from clients more quickly allows them to speed up the conversion of receivables to cash; similarly, being able to arrange delivery and pay over the phone increases efficiency on the other end by moving cash into inventory more quickly and with less time and cost to arrange. At the same time, because the business owner can more quickly order more supplies, they can reduce the inventory they hold and not wait to run out before ordering more which also speeds turnover.

The fact that many SMEs have yet to take advantage of the mobile commerce trend means that most SMEs have an opportunity to get ahead of the curve. This is the perfect time to help customers develop an m-commerce habit with their brands, so that as they become more comfortable with the medium, you, the retailer, will have the opportunity to gain share of wallet.

Table 4.8: Percentage of businessmen who make payments via the mobile phone

The respondents were asked their level of agreement towards mobile commerce when making payments. This study sought to establish the different perceptions of SMEs towards m - commerce as a channel of making payments in relation to the traditional methods. The results are given in table 4.8

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	%	%	%	%	%
I use it because it is less costly	0	10	10	60	20
I just use my phone for business	0	81.25	18.75	0	0
I use it because it is time saving and convenient	0	0	0	80	20
Mobile payment method is compatible with my lifestyle	0	18.75	31.25	50	0
I use the mobile phone to receive payments because it is secure	0	0	0	50	50
I use the mobile phone to make payments because it is user friendly	0	0	0	80	20

Results in table 4.8 indicate that of respondents who make payments via mobile commerce, 60% of respondents accept to make payments because it is less costly, 81.25% of respondents reported they use the mobile phone not only for business alone but for other m - commerce application, 80% of respondents reported that they use mobile commerce because it is time saving and convenient when it comes to make

payments. 50% of respondents reported that using mobile commerce is compatible with their lifestyle, 50% reported that mobile commerce is secure and 80% reported they use m-commerce because it is user friendly. From the findings most SMEs reported time and cost savings in making mobile payments and considerable efficiency improvements in their logistics and customer service stemming from this medium.

Finally, the relationship of m-commerce and the different factors established in this study indicate that the most adopted applications of m-commerce is money transfer. However for SMEs to adopt money transfer there are several factors that they consider prior to making the decision to adopt an m-commerce. Companies that have been operating for long due to the level of the existing traditional methods of commerce find it easier to adopt any new technology to remain competitive. SMEs that have been established in the last five years, due to the digital nature of the technology of m-commerce and the ability to use m-commerce at the convenience of customers has led to establishments of more SMEs in the last five years. This is because it is convenient and SMEs need to incur huge costs.

The study shows that SMEs were operating with an average number of three to five people. This shows their reluctance to fully adopt m-commerce fully due to their size. Zhu, (2002) noted that larger firms have more available resources to set up m-business initiatives.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

M – Commerce represents a radical innovation in both technological and commercial use.

Out of the 16 SMEs sampled the preference of m - commerce application is prevalent.

The results of this study show that 68.75% of the SMEs businesses have adopted m - commerce. Although most of them have been using the m - commerce just over one year, they access the m - commerce applications several times a day, which is significantly a high frequency usage. Most SMEs have been using m - commerce in the last 6 – 12 months as the world in the recent two years becomes global village. 62.5% represents a substantial number of SMEs who have preferred mobile commerce from the traditional mode of e - commerce and banking applications citing cheaper cost.

Respondents were particularly different in their responses depending on the number of years they have been in operation. This is because those already over five and ten years have experienced the traditional methods of commerce whereas the new SMEs are coming at a time where mobile commerce is already at its early stages of adoption.

In this study money transfers has the highest number of respondents. The results indicate that the most important m - commerce application used in SMEs is money transfer among in CBD. Anurag, Tyagi and Raddi. (2009) argued that mobile payments is a easier form of cash delivery to business partners, as system which is relatively affordable, personal and can be used anywhere and at anytime. From the study this indicates that m - commerce in Kenya's SMEs is at its early stages of adoption and other forms of m – commerce applications will soon be adopted. Moreover, that suggested, the diffusion is

in the stage of early majority. According to Rogers (1995), he describes the adoption of a new product (or process) as a decision process that moves through different stages over time. The decision process begins with becoming aware of the existence and learning about the innovation (knowledge). In the next stage, the potential adopters attempt to assess the utility of the innovation (persuasion), and then the decision is made whether or not to adopt the innovation. From the findings the SMEs are aware of the existing mobile commerce applications but most of the SMEs opted to use mobile money transfers as a start and paying bills as the second most preferred option.

The idea that SMEs use mobile money should come as no surprise, since they have a lot to gain. They need to pay and be paid frequently, sometimes in (relatively) large amounts or over long distances, implying they could lower cost and save time with a cheaper and more convenient way to pay electronically. They also need to manage their working capital to get the most from it, which means turning it over as often as possible - increasing the speed of the cycle from cash to inventory to receivables and back to cash.

The findings of this study indicate that m-commerce is for both business and social purposes. 80% disagree that they use m - commerce for business alone. Chogi, (2006), asserts that the uses of m - commerce can be categorized as social, business, economic and political. Chogi (2006) further clarifies that for SMEs, just like all other users use mobile phones devices for both business and social purposes and as a result there have been increased profits in business, and enhanced social networks.

In this study 68.75%, indicate that there are many business people that are moving forward to adopt the mobile technology in order to provide a responsive time with better

quality enhance service. Furthermore the most important applications used in m - commerce are generally about interaction (Customer service, financial, information and communication). SMEs established in the last five years have moved from e - commerce into very rapidly as the m - commerce channel becomes more and more available.

5.2 Conclusion

Mobile commerce is at the same stage that e- commerce was at in the late 1990s. Mobile commerce is a concept that East Africa are familiar with. This is due to the pioneering of mobile money transfer which remains a source of pride. Some sources equate the size of mobile money transfer to 20 percent of the GDP in Kenya.

M - Commerce is where the biggest revolution is happening. It is starting slowly, but once it catches on there will be no stopping as more people will be buying things with their mobile phones than with their wallets over the next two to three years. Although many people don't remember now, there was a time many people wondered if consumers would really buy products and services online. Some people doubted e - commerce would ever really catch on and take off. Likewise m - commerce will continue to grow in much the same way. If the customers want to shop over a mobile channel and the SME isn't facilitating that, the customers will obviously go elsewhere.

The findings from this research may be benefiting for technology seller or a firm looking for mobile strategies since it shows that the numbers of m -commerce usage is no longer at the beginning stage rather it's growing. To adopt m - commerce by SMEs, it's important to consider costs and benefits in terms of potential returns.

This technology offers benefits for a wide range of business processes. However, investing on technology requires a huge budget, thus an appropriate selection of technology should be made that best suits a company's budget to allow the business to

remain competitive in their industry. Customers are becoming more and more aware of browsing and shopping anytime and anywhere whether sitting on the bus, on the way home or sitting in front of a television in the evening. All these scenarios they have a mobile device beside them. This means m - commerce channel is the new sales channel for SMEs if they want to reach a larger market of customers.

It is also critical to emphasize the strategic advantage of m - commerce. Many companies use m- commerce technology in Kenya for money transfers. However mobile technology is a double edge sword. It opens the door for outside competition to communicate right to the consumers, but that door remains open for those who are willing to compete all around the world.

The key to unlocking m - commerce is to make it easier for people to both search and then consummate the transaction on the mobile device. With mobile phones becoming more prevalent and more businesses optimizing their businesses to accommodate mobile users, SMEs should adopt new strategies and take advantage. M -commerce is the single biggest innovation success that's been bringing worldwide recognition, awards and acclaim. The extent of m commerce adoption by SMEs in this study positions m – commerce as the potential market leader when it comes to providing solutions for people without bank accounts and those at the bottom of the pyramid with specific reference to SMEs.

5.3 Recommendations

5.3.1 Recommendations with Policy Implications

This study found that the main m - commerce platform in Kenya is money transfer by over 68.75% using it. The study therefore recommends that SMEs should enhance its support policy to meet the increasing numbers of m - commerce usage by providing its hardware, device and budget in a bid to be competitive. It is recommended that managers in SMEs should also enhance their employees' perception by integrating the company's network at their workplaces to facilitate access to various m - commerce applications other than money transfers.

Secondly the study further recommends that for those SMEs that are looking beyond money transfers representing 37.5% as shown in this study, there is a much larger market place that is accessible via m - commerce. There will be business challenges unique to today business and there is need to explore all other m - commerce applications. In today's technology era the consumers are gaining more and more autonomy and bargaining power.

Finally, the study recommends that m-commerce marketers may need to take another look at the marketing strategies based on consumer cognition because of the increase in cyber market place. If today's marketers want to appeal to their customers, the study recommends that they must know what the later think and like. In other words, successful consumer relation management should be based on an in depth understanding of consumers demands in faster and better ways to respond. Entrepreneurs all over Kenya who understand that the mobile Internet is a unique business challenge and opportunity will build m-commerce strategies that capture market share.

5.3.2 Recommendations for Further Research

This study found that SMEs are currently adopting m - commerce largely via money transfer and the other forms are slowly penetrating the market. It is therefore recommended to study the Kenyan market entirely to establish the impact of the fast growing mobile commerce sector and its impact on Kenyan SMEs after five years as the world turns into one global village. Entrepreneurs all over Kenya who understand that the mobile Internet is a unique business challenge and opportunity will build m-commerce strategies that capture market share.

Secondly, the population of this research was SMEs in the CBD only and Nairobi is large County and the adoption of m - commerce will go deeper. It is therefore recommended that further research is done to look into the adoption of m - commerce by other SMEs all around Nairobi and its environments with specific reference to the effects of devolution as per the new constitution as most Kenyans in the next three to four years will be purchasing items via their mobile phones.

5.4 Limitations of the study

Top management individuals of four of the targeted SMEs declined completely to complete the questionnaire citing company policy. Consequently, it was left out of this study.

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Appendix 1: Questionnaire

PART A: GENERAL INFORMATION

1. Name of SME.....
2. What is your designation at the organization?
3. Gender: Male () Female ()
4. What is your age bracket? (Tick as applicable)
 - a) Under 20 years () d) 41- 50 years ()
 - b) 21 – 30 years () e) Over 50 years ()
 - c) 31- 40 years ()
5. Length of continuous service with the organization?
 - a) Less than two years () c) 6-10 years ()
 - b) 2-5 years () d) Over 10 years ()
6. What is the number of your staff workers?
 - a) Less than 5 Workers
 - b) 5 – 10 Workers
 - c) 10 – 15 Workers
 - d) Others Specify.....
7. For how long has your organization been in existence?
 - a) Under 5 years () d) 16-25 years ()
 - b) 6 – 10 years () e) Over 25 years ()
 - c) 11-15 years ()
8. What does the business transact in?

SECTION B: COMPANY AND INDUSTRY INFORMATION

1. Do you own a business mobile phone? (Yes) (No)

2. What is your Mobile Network?

3. What do you understand by Mobile Commerce?

4. What is your total revenue base?
 - a) Less than 1,000,000 ()
 - b) Between 1,000, 000 – 5,000,000 ()
 - c) Between 5,000,000 and 15,000,000 ()
 - d) Between 10,0000 – 15,000,000 ()
 - e) Over 15,000,000 ()

5. Apart from purchasing airtime how else do you use mobile money?
 - a) Money transfers
 - b) Pay bills
 - c) Pay suppliers
 - d) Data Purchase

6. Do you use you mobile phone for mobile money transfers (Yes) (No)

7. If Yes how long have you used mobile for receiving or making payments?
 - a) Less than 3 Months () c) 3-6 Months ()
 - b) 6-12 Months () d) 12-24Months ()
 - e) >24Months ()

8. How regularly do you use mobiles to transact?
 - a) Once a day
 - b) Several times a day
 - c) Once a week
 - d) Several times a week

9. Is making payments via mobile cheaper than the other available forms of payment (Yes) (No)

SECTION C:

Questions to be answered by businessmen who make payments via mobile phones. Please answer the question as carefully as possible based upon your frequency on the use of the mobile phone and your belief about mobile use.

Please indicate your level of agreement with the following statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I use it because it is not expensive					
I just use my phone to business suppliers					
Mobile transactions save a lot of time					
I use mobile commerce because it is cheap					
I intend to stop using my mobile phone to transact					
Using a mobile phone to make payments is a good idea					
Mobile payments payment method is compatible with my lifestyle					
A user friendly mobile phone is important for mobile transactions					
To make payments via mobile phone was my idea					
I use the mobile phone in my business because the instructions are easy to follow					

Questions to be answered by businessmen who receive payments via mobile phones. Please answer the question as carefully as possible based upon your frequency on the use of the mobile phone and your belief about mobile use.

Please indicate your level of agreement with the following statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I use it because it is not expensive					
Mobile transactions save a lot of time					
I use my mobile to receive payments because it is cheap					
I just use my phone receive money for business					
I intend to stop using my mobile phone to transact					
Receiving payments via the mobile is compatible with my lifestyle					
Using a mobile phone to receive payments is a good idea					
I use the mobile phone to receive payments because it is secured					
To receive payments via mobile phone was my idea					
I use the mobile phone in my business because the instructions are easy to follow					

Appendix ii: List of SMEs

- 1. Elite book centre, Nairobi** -Located close to Barclays Moi Avenue - retailer
- 2. The Mould International** -A Center for Concept Development. Located close to Interfina House
- 3. Computer pride training center** -Located close to I&m building
- 4. Pop-in Clothing Moi Ave Ltd** -Located **Kimathi** House Nairobi
- 5. Gap Street Marketing Co.** Located close to Ukwala Supermarket opp Ambassador hotel
- 6. Marcos Salon and fitness center** For your health and beauty. Located close to safaricom customer care
- 7. Au Pair Center** - Located Opp. Nandos
- 8. Moi Minerals & Agri-Suppliers Kenya** - Located close to Ajaent Mr. Price
- 9. Falcon Travel Services Ltd** - Located close to Lonro HUse
- 10. Air travel and related studies centre** - Located close to Co-operative Bank Moi Avenue
- 11. Prime Exhibition Center** - Located close to Ambassador Hotel
- 12. oking center phone** - Located close to bird mobile phone
- 13. Aar city centre** - Located close to National Bank
- 14. Hear Better Centre** - Located close to Tuskys Pioneer
- 15. Atushi information center** - Located close to consolidated bank house
- 16. Brand city** - Located close to Nandos near Standard chartered bank
- 17. lavage laundrette city centre** - Located close to textbook centre
- 18. Center for Urban and Regional Planning** - Located close to Opposite Hilton Hotel
- 19. Wall Street Distribution Agency Ltd** - Located close to Hilton hotel
- 20. Shop 69 Moi Avenue** - mens trendy wear - Located close to Opp. Jazz restaurant
- 21. Ink City** - The best in tatoos & piercings. located close to jazz club
- 22. New Horizons Computer Learning Centers** - Located close to Eco Bank
- 23. Superior fone Kenyatta Avenue Mpesa** Located close to I&M BUILDING

24. **City Walk- Kenyatta avenue** Located close to The Sarova Stanley Hotel
25. **National Bank Kenyatta Avenue** Located close to City Centre
26. **Avenue Electronics ltd** Located close to opposite new Stanley hotel
27. **Pac Avenue Travels Ltd**-Reliable tours
28. **Avenue Pharmacy Ltd** - Medical supplies -Located close to Next to Ebrahims, Nairobi.
29. **Extra avenue pharmacy** - Located close to Uganda house
30. **Avenue Service Station Ltd** -Located close to opposite GPO
31. **Ave communications** -Located close to OPP AMBASSADOR HOTEL
32. **Kassanga Music Centre Ltd - Commercial Street** -Located close to Opposite National Archives
33. **Dark knight entertainment** -Located close to parliament
34. **Easy Street Africa International ltd** -Located close to Jeeran Bharati Building
35. **5th avenue unisex salon** -Located close to close to Barclays plaza
36. **Elite book centre, Nairobi** -Located close to Barclays Moi Avenue
37. **Open Sky Technologies** -Located close to Above Uganda High Commission
38. **Gedi Communications** -Located close to Next to IPS Building or opposite Rehema House
39. **Stall 5 Men's Wear** -Located close to Opp. K-Rep Bank
40. **Touchy Creations** -Located close to Chester House
41. **Chris Web Web Design, Creating Concepts, Graphical Design, Networking & Computer Hardware**- Located close to Uganda House
42. **Africa Kenya Safaris** -Located close to opposite 680 hotel
43. **Carelos Executive Chauffers** -Executive car hire executive chauffeurs', airport transfer, day trips, business travel, short journeys, City Centre, Nairobi. Located close to Teleposta Towers (GPO)
44. **Geolan network solutions** -Located close to I&M building
45. **Silicon systems ltd** -Located close to emperor plaza
46. **Planchem gas masters ltd** -Distributors of LPG booking gas, medical and industrial gases. Located close to Seal honey

- 47. **Proxima Limited** -Turning plots into homes. Located close to Between ICEA Building and I&M Building
- 48. **Tekko tours & travel** - Avenue & Icea building
- 49. **Movie Centre** - Located close to opp Jazz Club
- 50. **Skyline Centre Communications Ltd** - Dealers in: mobile phones and accessories. Located close to Ambassador hotel

This table analyses the breakdown of 20 SMEs randomly selected from the population to be used in this study.

Table 4.9: Breakdown of Sample by Business Classifications

Business Type	Frequency	Percentage %
Retailer	7	35
Entertainment	4	20
Wholesaler	1	5
Communications	2	10
Design	1	5
Professional & Technical Services	2	10
Tourism	2	10
Transportation	1	5
Total	20	100.0