

# **MOBILE MONEY TRANSFER AND THE GROWTH OF SMALL AND MEDIUM SIZED ENTERPRISES IN KENYA**

## **A CASE OF KISUMU CITY, KENYA**

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### **Abstract**

*Mobile Money Transfer (MMT) has marked a new frontier in mobile phone technology with an ever increasing number of micro businesses using it in their transactions to enhance performance. The number of uses to which Mobile Money Transfer (MMT) can be put keeps increasing with time. However, it is not clear how Mobile Money Transfer use influences the growth of SMEs. The study established that mobile money had made a significant contribution to the SME sector. Majority of the traders rely on it as opposed to the formal banking sector for their day to day transactions. Thus, this study achieved its objectives and obtained detailed information arising from the use of mobile money services by SMEs. In respect to the conceptual framework, mobile money transactional costs, convenience and financial accessibility have all been shown to affect SMEs growth through the service leading to increased enrolment in mobile money services, increased financial transactions resulting in increased sales and therefore perceivable contribution to business growth.*

*Keywords: Mobile Money Transfer, SMEs, SMEs Growth, Financial Accessibility, Kenya*

## INTRODUCTION

Two industries that have seen phenomenal growth and impact in developing countries in recent years are mobile communications and microfinance. Both are acknowledged today as major catalysts for economic growth and social development, bringing opportunities that did not exist before to urban and rural populations (Michaels & Hammond, 2008). In the case of mobile telephony, operators are experiencing adoption rates that far exceed expectations, given the levels of literacy and technological sophistication in emerging markets. While the two industries have grown independently of each other and for different reasons, they share an important characteristic: they broaden the reach and coverage of their respective sectors - communications and financial access - into populations that could not previously access or afford such services.

It is therefore no surprise that efforts have been made to link mobile communications and microfinance through the development of mobile money solutions. The rapid growth of mobile payments technologies in the last few years, particularly in Kenya, South Africa, and the Philippines, has proven that there is latent demand for such services and that there is a willingness to adopt and pay for the technology among low-income users. At the same time, governments, banks and microfinance institutions (MFIs) have realized that extending financial services to the base of the pyramid via mobile technology can significantly lower the cost of delivery, including overhead costs for buildings and staffing branches, as well the costs to customers of accessing services (e.g., travel or queuing time, travel costs, security issues).

Micro enterprise operators in Kenya have adopted the use of the mobile payments as a way of transacting their business because of the relative affordability of mobile phones and the mobile banking services they offer (Mbogo, 2010). "Mobile money" is money that can be accessed and used via mobile phone (Jenkins, 2008). Mobile money can be used to settle a variety of transactions conveniently and it transforms the mobile phone into a mobile wallet. To access Mobile Money Transfer Services (MMTS), a customer must first register at an authorized mobile money transfer retail outlet of a mobile network operator offering MMTS. The customer is then assigned an individual electronic money account that is linked to his phone number and accessible through a SIM card-resident application on the mobile phone.

Customers can deposit and withdraw cash to/from their accounts by exchanging cash for electronic value at a network of retail stores (often referred to as agents). Once money is on the virtual account, the phone becomes a mobile wallet. Micro enterprises view payment through MMT 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 (Anurag, Tyagi and Raddi, 2009).

Mobile money transfer service systems fall in three categories:

- i. Mobile money transfer converts cash into ‘virtual’ money that can be sent through the service provider from one person to another using a mobile phone. Mobile money transfer can be from one person to another person (p2p) like when money is sent to support members of a family back home by a working relative,
- ii. Mobile banking - Mobile banking is service that a bank offers. It requires a bank account. Mobile banking makes use of a mobile telecommunications network as a platform to perform traditional banking activities such as performing balance checks, transferring money between accounts and making payments. Mobile banking is akin to Internet banking and is often included in the package a bank might offer its clients. Besides, there is a new dimension developing in Kenya where there’s phone to bank transfer and vice versa. A case in point is a situation where a large number of financial institutions have opted for Safaricom’s “pay bill” option to allow their customers primarily to deposit into their savings/ insurance/ pension/ investment accounts. Some of the more popular ones appear to be: Pesa Pap (from Family Bank); Pata Cash (from Kenya Post Office Savings Bank) and KCB Connect (from Kenya Commercial Bank). Faulu and SMEP have entered into agreements with Safaricom. Their clients can repay loans and deposit into their savings account using the “pay bill” option of M-PESA. Faulu Kenya, a deposit-taking microfinance institution, and Musoni MFI (microfinance institution) launched withdrawal service as well via *M-Pesa* (Sadana et al, 2011)
- iii. Mobile payments are used for the payment of products and services. This can be C2B transfer, from a customer to a business as when paying utility bills and for purchases from a business, or B2C transfer, where a business disburses funds to customers for instance when a microfinance institution disburses loans to customers.

This transfer of funds from one business to another is done through a verification process, which involves both parties. In the report on ‘Developing Mobile Money Ecosystems’ Beth Jenkins Director of Policy Studies, CSR Initiative, Harvard Kennedy School, says that MMTS (Mobile Money Transfer Service) subscribers in markets such as South Africa, Kenya, the Philippines, Japan, and elsewhere are using mobile money for transactions and services including domestic and international remittances, bill payment, payroll deposit, loan receipt and repayment, and purchases of goods and services ranging from prepaid airtime to groceries to bus tickets to micro insurance. There is no limit to the range of transactions and services for which mobile money could eventually be used.

The uses to which mobile money is put actually shows the three categories of mobile money in use, that is converting cash into virtual money and using it to make mobile payments and also use of M-banking in loan receipt and repayment, thus facilitating financial inclusion through m-banking. It is further observed in this report by Jenkins that it is mobile money's ability to facilitate financial sector inclusion that gives it its enormous potential for development impact.

Given access, financial services can help poor people forge their own paths out of poverty in two primary ways: First, they enable one to obtain through savings or credit sums of money large enough to invest in income generation and asset creation (for example, through enterprise, housing, education or training which improves one's job market prospects, and so on). Second, they help reduce vulnerability to unexpected events such as accident, illness, theft, or drought. These benefits represent the gains of MMTS to SMEs.

Before the advent of Mobile Money Transfer Service (MMTS) that is sometimes referred to as mobile banking, Money Transfer Services (MTS) globally were through formal means that include Commercial Banks, that have been serving mainly businesses that operate across borders and continents; within and between the developed countries, electronic transfer of funds through the internet and instruments such as credit cards have been in use. We have also had organizations that specialize in money transfer globally mainly for individuals working abroad who remit money back home like the Western Union and Money Gram.

In Africa formal and informal means have been in use. Formal means have been through Commercial Banks and informal means have been through friends and agents popularly known especially in the Somali community as Hawalas. In Kenya, money transfer services were offered by entities that fall in three categories: formal providers (that include Commercial Banks and the Kenya Postal Corporation (POSTA), by semi-formal providers (like, courier and bus companies), and by informal services or means (for instance, by bus conductors and friends) (Kabucho, Sander and Mukwana, 2003).

These money transfer services provided by formal and semi-formal providers are charged a high fee, that is, a minimum that is in excess of kshs.100 per transaction. The banks, particularly, do not view the poor as viable customers because often their transaction sizes are small and many live in remote areas beyond reach of branch networks (Wambari, 2009).

The informal means, on the other hand, are riddled with the risks of the money getting lost or being converted to personal use by those entrusted with the task of delivering money. As well, the use of informal providers may lack confidentiality because receipt of money will be known to those delivering and others to whom they may disclose.

These challenges made clear a huge gap that has been filled in part by the Mobile Money Transfer Services (MMTS), which cost less, from as little as Ksh. 20 per transaction

have a nationwide network of agents that make the service accessible to all Kenyans, and the service is largely secure for executing money transfers because a Personal Identification Number (PIN) is used to protect a subscriber account from abuse by other persons. In addition, these favorable features of MMTS account for the rapid adoption of the mobile money transfer services among Kenyans as seen by the ever increasing number of subscribers.

### **Growth of SMEs**

Enterprise growth is the development process that enterprise keeps the tendencies of balanced and stable growth of total performance level (including output, sales volume, profit and asset gross) or keeps realizing the large enhancement of total performance and the stage spanning of development quality and level (Sun, 2004, P.66-69).The growth of an enterprise on the other hand means the ability of enterprise to grow continually, quickly and healthily.

An enterprise is considered to be any organized effort intended to return a profit or economic outcome through the provision of services or products to an outside group (Carland, Hoy, Boulton & Carland, 1983).The operation of an enterprise traditionally requires the investment of capital and time in creating, expanding or improving the operations of a business (Meredith,2001).

Small to medium enterprises are considered those enterprises which have fewer than 250 employees. In distinguishing between small and medium sized enterprises, the small enterprise is defined as an enterprise which has fewer than 50 employees.

These businesses are often referred to as SMEs and are associated with owner proprietors (Meredith 2001; Schaper & Volery 2004) According to Carland *et al.* (1983), an SME owner is an individual who establishes and manages a business for the principle purpose of furthering personal goals. The business is their primary source of income and will consume a majority of the owner's time and resources. The owners perceive the business as an extension of their identity and are intricately bound with family needs and desires.

### **Mobile Money Transfer Service**

Mobile money transfer service refers to the service which allows users to transfer money via mobile phone text messaging. Mobile money transfer service has seen "phenomenal growth", according to Bob Collymore, the CEO of Safaricom Limited, which became the first mobile company to introduce mobile money transfers in March 2007 under the "M-PESA" brand name. The "m" stands for mobile, while "pesa" means money in Kiswahili.

Efficient and affordable money transfer and payment services are an important financial service most people require, including those who do not typically use financial or banking

services (Kamau, Cerstin and Mukwana, 2003). Mobile money transfer has turned out to be efficient and affordable and is therefore preferred by many people, Micro enterprise operators are in the Micro and Small Enterprise (MSE) Sector. Efforts have been made by academics (Mead and Morrison, 1996) in defining Micro and Small Enterprises. Micro-enterprises are those that employ less than ten people and small scale enterprises are those that employ 11-50 workers. According to the 1999 National Baseline Survey and many other prior studies, only a small proportion of MSEs employ 11-50 people. This therefore means that since microenterprises form the bulk of MSEs, when reference is made to MSEs this largely refers to micro-enterprises.

### **Statement of the problem**

Mobile money service, designed to help microfinance institutions streamline their operations (Omwansa 2009), has received overwhelming uptake in Kenya since its introduction in 2007. This success is attributed to the service being affordable and accessible (Mbogo 2010) including low income earners. The technological invention is considered easy to use yet efficient and reliable with the potential to extend financial services to the unbanked or those preferring cheaper financial services. It is an appropriate technological invention for SMEs that continue to face challenges related to limited affordable and accessible financial services to support business operations. SMEs needs for payment and transactional services are not always well served by conventional banks since they do not always find it easy or cost effective to adopt a full-feature package for banking services (Higgins, Kendall & Lyon, 2012).

Data is, however, available to confirm an increase in movement of money from the rich to the poor when schools reopen, which is an indication of money being made available for school fees (Zutt, 2010). The extensive coverage of mobile service providers has not only resulted to high rates of convenience, but has made the service effective and reliable as a form to send money with the interface between agents and customers functioning with minimal complaints from customers. This is even so witnessed as the number of agents continues to increase as more sophisticated banking services are added to the mobile money platform such as M-Kesho, M-Shwari and others according to CCK 2011/2012 Report.

Literature reveals that the mobile money is faster, cheaper, more reliable, and safer (Jack & Suri 2011). The benefits of cashless transaction including less opportunity for fraudulent and criminal activities, and mobile money technology (Wishart 2006) have increased adoption rates among SMEs in the capital city (Mbogo 2010). Even though current research suggests that mobile phone coverage and adoption has a positive impact on risk reduction, market improvement, coordination amongst firms and labor market (Jenny and Mbiti, 2010), empirical

evidence is still limited. Not much has been studied on the influence of mobile money on SMEs growth and this is what this study aims to establish. The study postulated that services provided through mobile money have an impact on the day to day business transactions as outlined above and possibly leads to increased business activity through sales and profits.

### **Objectives of the study**

The general objective of the study is to determine the influence of Mobile Money Transfer on SMEs Growth in Kisumu City.

Specific objectives are:

1. To establish the influence of transaction cost on growth of SMEs in Kisumu City
2. To determine the Impact of financial accessibility on growth of SMEs in Kisumu City
3. To determine if convenience influences growth of SMEs in Kisumu City.

## **LITERATURE REVIEW**

### **Theoretical Framework**

#### ***The Theory of Technology Acceptance Model (TAM)***

Mobile payment procedures are essentially information technology (IT) procedures and channels through which users make various payment transactions. Studies show that the acceptance to use the mobile payments varies with the context in which users are able to use a mobile payment procedure. Moreover, the mobile payment procedures are functional services adopted for utilitarian reasons (Khodawandi, Pousttchi and Wiedmann, 2003). This study focuses on the factors influencing the mobile payments usage by the micro business operators and applies the Theory of Technology Acceptance Model (TAM). TAM is a theoretical model that explains how users come to accept and use a technology (Davis, 1989).

The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it. These factors are perceived usefulness defined as the degree to which a person believes that using a particular system would enhance his or her job performance, and perceived ease of use defined as the degree to which a person believes that using a particular system would be free from effort (Davis, 1989). These two factors are considered to be the primary determinants for adopting and using a new technology and are influenced by other variables such as security concerns, cost, convenience, and satisfaction (Lu, Yu, Liu and Yao, 2003). Perceived ease of use directly affects perceived usefulness and both determine the user's attitude towards use, (behavioral intention to use - BIU) and eventually to the actual use of the system (Viehland and Leong, 2007).

TAM has been widely used to predict user acceptance and use based on perceived usefulness and ease of use (Ndubisi and Richardson, 2002). Consequently, TAM was chosen as the appropriate model and was extended to include other factors such as perceived ease of accessibility of the mobile payment services, perceived low cost of the mobile payment services, perceived convenience, perceived security, perceived support from the mobile services provider and from the government, perceived satisfaction and actual usage of the mobile payments.

### ***Demand & Supply side Twin Theory***

Demand & supply side Twin Theory is a model of twin pillar between Financial Inclusion and Financial Literacy, (Chakrabarty, 2011) While Financial Inclusion acts from supply side providing the financial market/services what people demand, Financial Literacy stimulates the demand side and the two aspects must be present and co-exist in an inclusive growing economy. Gol, (2007) observed that the development of rural economy is imperative for inclusive and equitable growth and to unlock huge potential of the population that is presently trapped in poverty with its associated deprivations.

According to Mehrotra *et al* (2009) there are supply side and demand side factors driving Inclusive Growth in the financial economy. The banks largely are expected to mitigate the supply side processes that prevent poor and disadvantaged social groups from gaining access to the financial system. Despite the risk, financing of first time entrepreneurs is a must for financial inclusion and growth. Apart from the supply side factors, demand side factors, such as lower income and /or asset holdings also have a significant bearing on financial inclusion. Owing to difficulties in accessing formal sources of credit, poor individuals and small and macro enterprises usually rely on their personal savings or internal sources to invest in health, education, housing, and entrepreneurial activities to make use of growth opportunities. Thorat (2008) observes that while there is no doubt that there is a need to stimulate the demand for formal financial sector products among the financially excluded consumers, appropriate and effective supply side interventions hold the key to increasing financial inclusion, especially in the short term.

The current challenges in the supply side include products not customized to informalsector, rigid processes with complex & intensive documentation deter most of the financially excluded population, technology availability & acceptance, outreach by available financial institutions. The study further notes that with the focus on Hand-held devices. While there are many modes of addressing the last mile delivery of financial services including kiosks, rural ATM etc., most of the current financial inclusion delivery models converge on the hand-held devices. These devices have wireless connectivity, bio-metric readers for beneficiary

authentication and micro-printers. The account-holders authenticate themselves typically through bio-metric validation based on their personal data captured during enrolment. The devices typically connect through wireless GPRS/CDMA/GSM protocols. Near field communication technology is also becoming popular.

## **Empirical review**

### ***Transaction Cost***

The transaction costs of sending money through the mobile payment technology are lower than those of banks and money transfer companies (Omwansa, 2009). The cost of a payment transaction has a direct effect on consumer adoption if the cost is passed on to customers (Mallat 2007). Transaction costs should be low to make the total cost of the transaction competitive. The cost of the mobile payments should be affordable to most of the micro business operators and far below what the banks normally charge for their bank transactions. There are many different mobile handsets which are easy to operate and have the functionalities required for the mobile payment technology.

### ***Convenience***

Njenga (2009) states that although the mobile phone balances may seem low, the fact that there are balances proves that there is storage which can be perceived as acceptance of deposits. This is a significant indication of the high value placed on the convenience associated with the use of the mobile payment services. Omwansa (2009) states that a lost or stolen mobile phone does not mean catastrophe as no one can access an M-Pesa account without a correct personal identification number(PIN). He further explains that in a country where majority of people have no bank accounts, M-Pesa provides both convenience and safety. People walk around with their virtual money knowing they can withdraw cash any time at a minimal fee.

In a mobile environment, it is necessary to have perceived security and trust in the vendors and the payment system (Siau, et al., 2004; Mallat, 2007). Security and safety of mobile payment transactions is one of the primary concerns for users (Nam, Yi, Lee and Lim, 2005). They state that safety represents no delay, no transaction incompleteness and no private information disclosure during payment transactions. The use of the pin and secret code for the M-Pesa transactions enhances the security and privacy issues. Key requirements for any financial transaction in an electronic environment should include confidentiality, authentication, data integrity and non-repudiation (Shon & Swatman, 1998). Other security factors important to the users are anonymity and privacy, which relate to use policies of customers' personal information (Jayawardhena & Foley, 1998; Shon & Swatman, 1998; Mallat, 2007).

### ***Ease of accessibility***

Pagani (2004), states that accessibility (ability to reach the required services) is one of the main advantages of mobile payment services. Small and micro businesses are among the greatest beneficiaries of using M-Pesa mobile payment. As at 31<sup>st</sup> March, 2009, there were 8,650M-Pesaagents spread throughout the country offering the mobile payments service (Annual report, 2008/2009). The micro-business operators go to the bank less often and spend more time running their businesses. Equally, many unbanked Kenyans can now receive or send money wherever they are in the country (Omwansa, 2009). Majority of the micro business operators are familiar with the use of the mobile payment services as they are easy to use and require no formal training before use.

### ***Growth of SMEs***

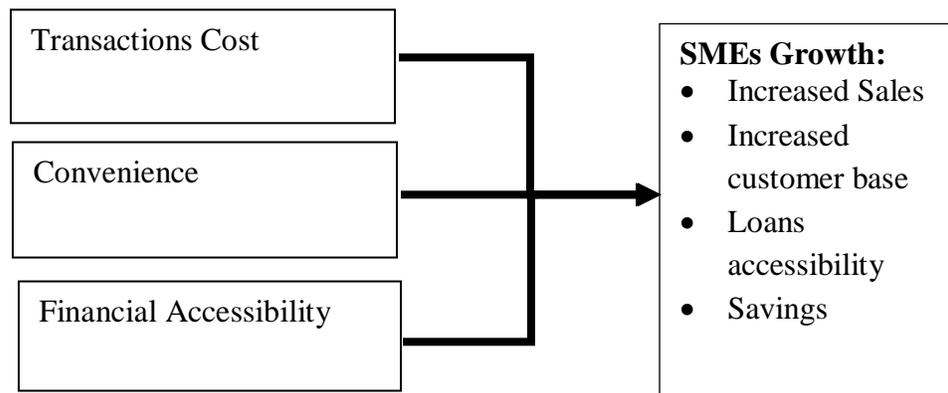
The speed and safety of mobile money services has enabled quick and easy transfer of money. This has sparked the growth of various economic activities, especially in the rural areas, through increased money circulation boosting local consumption (Zutt 2010). It is likely that reduced costs and increased efficiency and reliability of the systems have enabled more people to send money to the rural areas increasing economic activities in those places. For example, it is possible for a farmer to receive money to purchase seeds without unnecessary travel during planting season. However, current data is lacking to support such flow. Data is, however, available to confirm an increase in movement of money from the rich to the poor when schools reopen, which is an indication of money being made available for school fees (Zutt, 2010).

The extensive coverage of mobile service providers as outlined above has not only resulted to high rates of convenience, but has made the service effective and reliable as a form to send money with the interface between agents and customers functioning with minimal complaints from customers. This is even so witnessed as the number of agents continues to increase as more sophisticated banking services are added to the mobile money platform such as M-Kesho, M-Shwari and others. However, these added features will continue to require that the agents have some equipment's and literacy levels to continue support of these functions.

With increased uptake of mobile phone services, more Kenyans have enrolled into a mobile money service. It can, therefore, be argued that most transactions can be performed using mobile money instead of cash. Mobile money provides a service that allows the sender and receiver to obtain information of each transaction making the service transparent. The consistent performance of this service makes transaction data very reliable and most problems arise from input errors from the customer. This feature results in SMEs streamlining their operations to increase efficiency and boost business growth has outlined by Omwansa (2009).

The micro-business operators go to the bank less often and spend more time running their businesses. Equally, many unbanked Kenyans can now receive or send money wherever they are in the country (Omwansa, 2009). Majority of the micro business operators are familiar with the use of the mobile payment services as they are easy to use and require no formal training before use. With more time in the business, more customers are served leading to increased sales and therefore growth of the business. The transaction costs of sending money through the mobile payment technology are lower than those of banks and money transfer companies (Omwansa, 2009). The cost of the mobile payments is affordable to most of the micro business operators and far below what the banks normally charge for their bank transactions. The reduced cost of transactions positively influences the growth of the business.

Figure 1: Conceptual Framework



## METHODOLOGY

### Target Population and Sampling

The target population in this case was all the registered Small and Medium Enterprises and individual users within Kisumu Municipality. There are a total of 13,350 legally registered large, medium and small business Enterprises in Kisumu City of these, 9120 were classified as Small business Enterprises, 4,030 Medium Enterprises and 200 classified as large enterprises. These businesses are clustered under different categories: Transport, Communication, Financial Services, Industrial Plants, Service Contractors and Technical & Professional Services among others (Kisumu City Council Business Registration Database, February 2014).

The Study population consisted of randomly selected SME owners or managers in Kisumu City and the unit of analyses was the SMEs in Kisumu City. The sampling frame was the list of businesses registered by the Kisumu Municipal Council. SMEs were stratified into

small, medium, large and others; a categorization adopted by the municipal council of Kisumu. The manual calculation method was used to arrive at the sample size using the following formula:

$$\text{Sample Size} = n / [1 + (n/\text{population})]$$

$$\text{In which } n = Z * Z [P (1-P)/(D*D)].$$

Where,

P = True proportion of factor in the population, or the expected frequency value

D = Maximum difference between the sample mean and the population mean

Or Expected Frequency Value minus (-) Worst Acceptable Value

Z = Area under normal curve corresponding to the desired confidence level

For our study therefore our sample will be:  $n / [1 + (n) (E)^2]$  where n is the total population (13,350), E is the level of significance.  $13350 / [1 + (13350) (0.05 \times 0.05)] = 388$ . Our sample size therefore becomes 388. Of this, 351 responses were obtained. 301 questionnaires out of 351 were found to be valid and therefore used for analysis. 50 of the questionnaires had either missing data or the questions were misinterpreted hence they were considered invalid.

### **Data collection**

Primary data is information gathered directly from respondents. The research used questionnaires to collect mainly quantitative data. However some qualitative data was collected from the open ended questions.

Secondary data involved the collection and analysis of published material and information from other sources such as annual reports, published data.

### **Data Analysis**

Data collected was analyzed using descriptive and inferential statistics to provide simple summaries about the observations that had been made. Data was entered in Access program first then exported to Stata II statistical Package for analysis. Stata performs most general statistical analyses (regression, logistic regression, survival analysis, analysis of variance, factor analysis, and some multivariate analysis). According to Mugenda and Mugenda (1999) descriptive statistics enable meaningful description of a distribution of scores or measurements using a few indices or statistics.

## Data Validity and Reliability

For a research study to be accurate, its findings must be reliable and valid. Reliability means that the findings would be consistently the same if the study were done over again. Validity refers to the truthfulness of findings. Construct Validity test which is a type of statistical validity that ensures that the actual experimentation and data collection conforms to the theory that is being studied was used to test validity of the results. In particular, convergent validity test which ensures that if the required theory predicts that one measure be correlated with the other, then the statistics confirm this was used to prove that all the independent variables in the study are correlated with the dependent variable. A Test-Retest Reliability method was also used consistency among different administrations. To determine the coefficient for this type of reliability, the same test was given to a group of respondents on at least two separate occasions.

## FINDINGS AND DISCUSSIONS

### Background Information of the Respondents

Background information was collected during the study and this section seeks to present the demographics of the respondents relevant to this study. The types of business, the length of time it has been in operation in years and the size of business in respect of the estimated annual turnover and number of employees of those surveyed are also presented here. The aim is to provide a clear understanding of what criteria was used to assign or exclude business from the characterization as SMEs.

### Respondents Demographics

There were more female respondents to this survey (56%) compared to male respondents (44%). The study sought to know the position of the respondent in the business and found that a significant 45% of the respondents were the business owners. The target for this study was to have more owners as opposed to employees responding to the questionnaire, and this was achieved. However, 32% of the respondents were employees whereas 22% were business partners. The tables below displays the distribution of the findings.

Table 1: Respondent's Demographic

Resp. Sex	Freq.	Percent	Cum.
1	170	56.48	56.48
2	131	43.52	100.00
<b>Total  </b>	<b>301</b>	<b>100.00</b>	

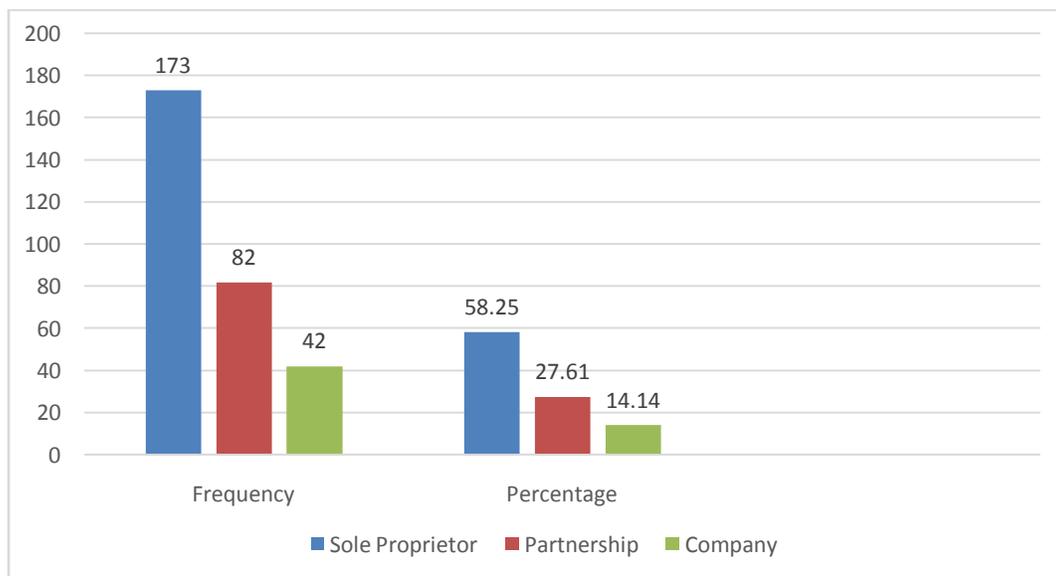
Table 2: Position held in business

Position	Freq.	Percent	Cum.
1(Owner)	136	45.18	45.1
2(Partner)	68	22.59	67.7
3(Employee)	97	32.23	100.
<b>Total</b>	<b>301</b>	<b>100</b>	

### Type of Business

The study sought to find out the form of businesses operated by SMEs within the locality and it was found out that 14% of the businesses had been registered as companies. It was further observed that 28% of the businesses surveyed were partnerships while majority of the businesses were sole proprietorships topping the list at 58% of the sample. This shows that majority of the businesses in the area of study were sole proprietorships.

Figure 1: Business Ownership.



### Business Operations

In order to obtain a more detailed understanding of the SME sector in the locality, the study looked at specific aspects of each business. It was found that 53.49% of the businesses have been in operation for between 1 – 5 years with only 9.3% having exceeded 15 years of business operations.

Table 3: Business duration

<b>B_Duration</b>	<b>Freq.</b>	<b>Percent</b>	<b>Cum.</b>
1-5 years	161	53.49	53.49
6-10 years	48	15.95	69.44
11-15 years	64	21.26	90.70
Over 15 years	28	9.30	100.00
<b>Total</b>	<b>301</b>	<b>100.00</b>	

### Annual Sales

The estimated annual sales were used to ascertain the size of the businesses. The study found out that 17.94% of the businesses had an annual turnover of 10,000 to 100,000 while majority, (49.17%) had an annual turnover of Ksh.101, 000-350,000. Of the businesses surveyed for the study 19.93% had an annual turnover of up to 900,000 with only 12.96% of the respondents recording an annual turnover of over one million. Table 4 is a summary of this information.

Table 4: Estimated Annual turnover.

<b>B_Size</b>	<b>Freq.</b>	<b>Percent</b>	<b>Cum.</b>
10000-100000	54	17.94	17.94
101000-350000	148	49.17	67.11
351000-900000	60	19.93	87.04
Above 1000000	39	12.96	100.00
<b>Total</b>	<b>301</b>	<b>100.00</b>	

### Knowledge of Mobile Money Services

In this session, the results related to respondent awareness of various mobile money services explored at the time this survey was undertaken are presented. The study evaluated the level of awareness of the respondents regarding mobile money services. 78% of the respondents were positive; an indication of widespread knowledge of mobile money services in the locality. On further enquiry into mobile service provider, it was established that Safaricom's M-Pesa service is most widely used followed by Airtel Money.

In order to establish the validity of the above findings, the study sought to find out how the various respondents used mobile money products. It was established that 99% of the

respondents had the correct information on buying airtime, sending money, receiving money, viewing mobile transactions, depositing cash and understanding deposit notifications. In contrast, 84% of the respondents had detailed understanding of how to pay bills, 81% were able to check bank balances while only 75% could understand a bank deposit notification.

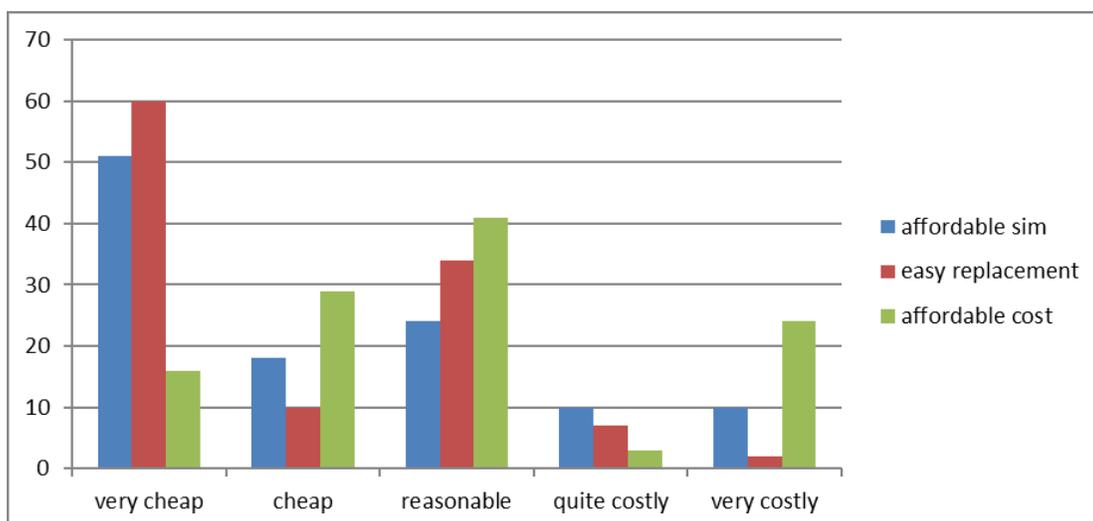
**Transaction Cost**

The study noted that cost was not a major concern for the businesses surveyed. 46.64% perceived the service as cheap and did not mind the cost involved in using it. To show this the study established that 51% praised the service for having an affordable SIM card, 60% indicated that the service providers easily replaced a lost SIM cards and a significant percentage were of the opinion that the transactional cost was reasonable. Figure 5 below shows the perception of the respondents concerning the cost of mobile banking.

Table 5: Transaction Cost

Transaction Cost	Freq.	Percent	Cum.
Very cheap	32	11.31	11.31
Cheap	132	46.64	57.95
NVC and NVE	101	35.69	93.64
Very Expensive	18	6.36	100.00
<b>Total</b>	<b>283</b>	<b>100.00</b>	

Figure 2. Cost of Mobile Money Services



### Cost of Mobile Money Services and Impact on SMEs Growth

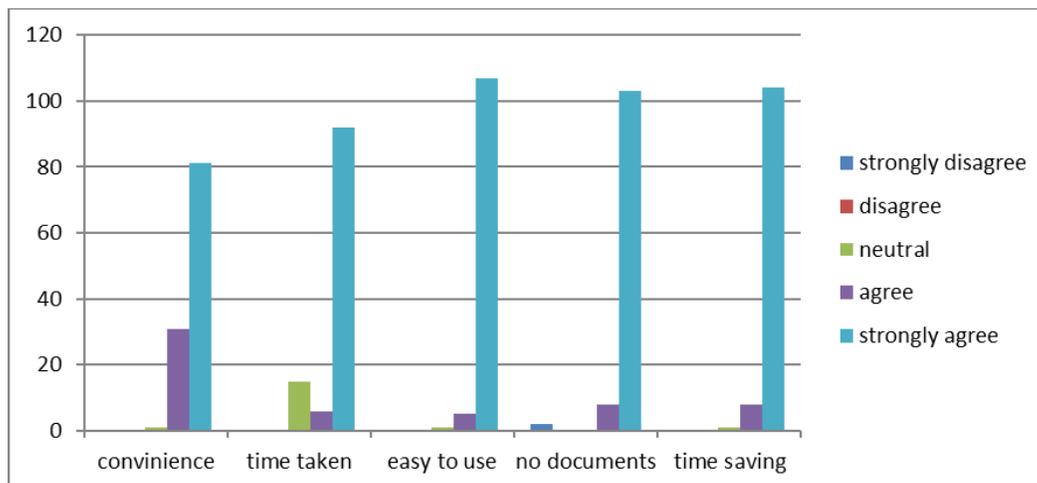
Mobile Money services were generally not considered costly. To determine if cost had a significant had on SMEs, further analysis was conducted on 48% of respondents who initially viewed the service as costly. The findings were such that: those that thought mobile money transactions were expensive, were still more likely to think that mobile money services contributed to business growth through increased customer base and sales.

Further analysis of the responses of those using a particular mobile money service and their opinion on mobile money transactional cost compared to business growth was carried out. It was found that majority of the respondents using a particular mobile money service were likely to rate the transactional cost as expensive. On the other hand, those not using the service were more likely to rate the service as cheap and affordable. Despite rating mobile money service transactional cost as expensive, they were still likely to positively rate the contribution of mobile money to their business growth through increased sales.

### Convenience of Mobile Money

Further to this, the research sought to find out the perception of the respondents on the convenience of mobile money use. Most of them indicated that they strongly agreed that mobile money is convenient for various transactions as shown in the figure below.

Figure 3. Mobile Money Conveniences



### Financial accessibility

The study findings on the influence of financial accessibility through mobile money indicated that majority of the respondents (73.42%) did not use mobile money services to access financial services such as bank statements and cash withdrawals from their bank accounts.

Table 6: Financial accessibility

Fin. Accesa.	Freq.	Percent	Cum.
2	7	2.33	2.33
3	73	24.25	26.58
4	221	73.42	100.00
<b>Total  </b>	<b>301</b>	<b>100</b>	

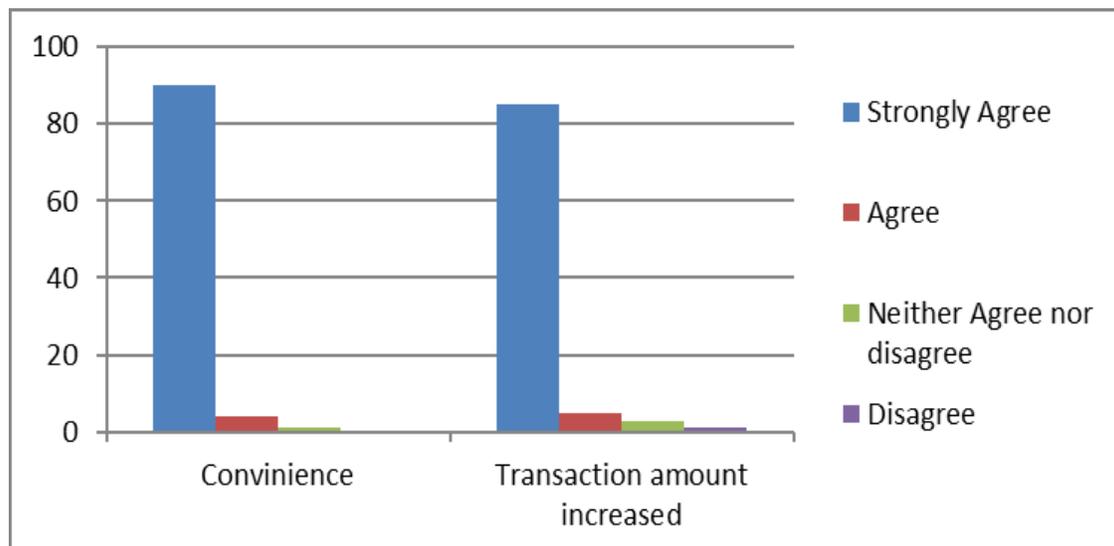
### Mobile Money Services and Business Growth

The study findings on impact of mobile money on SMEs growth are summarized in this session. The respondent feedback is presented in figures and narrative explanation, followed by inferential statistics on the same. This is in attempt to describe how mobile money contributed to SME growth in Kisumu Town, if at all.

### Impact of Mobile Money on SMEs

The study enquired about the extent to which mobile money was perceived to have had an impact on the businesses. It was established that a 100% of the respondents strongly disagreed that mobile money has made loan applications easier while 73% of the respondents strongly disagreed that mobile money has made salary payment and loan repayment more convenient. However 51% strongly agreed that mobile money has had a positive impact on their sales. There was significant variation in the responses to whether mobile money had any impact on payment to suppliers with most businesses strongly agreeing to its positive impact.

Figure 4. How Mobile Money Contributed to Business Growth



It was noted that SMEs in Kisumu Town recognized that mobile money had contributed to business growth. Of those surveyed 90% of stating that mobile money services were convenient and as a result they had increased the amount of money transacted in their businesses when mobile money services were added to the conventional methods of transacting business. These findings are summarized below.

## **SUMMARY OF FINDINGS**

This study recorded more female respondents compared to males. Majority of the respondents were the business owners which was desirable for this study. Most of the businesses were sole proprietorships accounting for 58% of the sample. Moreover, the study established that a significant 53% of the businesses have been in operation for between 1-5 years with only 9% of them having exceeded 5 years of business operations.

All the responses regarding knowledge of currently available mobile money services were positive; an indication of a widespread knowledge of mobile money services available in the locality. The study established that 78% of the respondents had correct information on buying airtime, sending money, receiving money, viewing mobile transactions, depositing cash and understanding deposit notifications.

M-Pesa service was the most widely used service followed by Airtel money. The very low penetration rates of other mobile money services providers like YU-Cash and Orange Money was a unique finding amongst this group.

A simple majority of 51% strongly agreed that mobile money has had a positive impact on their sales. Considering most of the SMEs are small businesses, majority of the transactions are in cash. Mobile money is new and has not penetrated the market which account for 37% of the respondents strongly disagreeing with the concept of mobile money as a mode of payment and 36% being against the idea of mobile money as a model for paying suppliers.

This study demonstrated increased use of mobile money services for various financial transactions in Kisumu town. For those using a particular mobile money service, respondents were likely to rate the transaction cost as expensive. However, those using any mobile money service were more likely than those not using the service to rate it as important to the business. Inferential statistics failed to prove that mobile money had a positive impact to business growth.

Thus, the study concludes that there is no significant relationship between mobile money services and the growth of SME's in Kisumu. This implies that the growth of SME's does not depend upon the mobile

## DISCUSSION

The primary aim of this study was to determine the impact of mobile money services on SMEs growth in Kisumu Municipality which is an urban town in Kenya. This aim to a larger extent was accomplished and is summarized below.

To explore the awareness levels of mobile money services in Kisumu town among SMEs, the study found that respondents had a widespread knowledge of mobile money services in the locality in respect of sending and receiving money, purchase of airtime, viewing transactions and depositing cash, banking services through mobile money such as viewing bank statements or receiving notifications of transactions.

Mobile money services were primarily provided through the M-Pesa platform from Safaricom as opposed to other mobile money services available in the same locality. It is worth noting that we did not assess the number of businesses that have a dedicated mobile money phone/line for the business. Such a survey was undertaken by Financial Sector Deepening (FSD) Insights (2012), who found that few businesses have a dedicated mobile money account for conducting financial transactions resulting in an overlap between personal and business related transactions.

Majority of SMEs were utilizing this service for traditional functions like sending and receiving money, a study finding consistent with Njenga (2010) who also found that mobile money services were mostly used for sending and receiving money. However, those using a particular mobile money services were more likely to rate that service as important to the business.

SMEs in this region do not seem to interact with the banking sector for other or supportive banking services. Linkage to the banking sector from this study was minimal. This could be because respondents viewed mobile money service as a variation of branchless banking with delivery of financial services outside conventional banking. This conclusion made by Wambari and Mwaura (2009) and supported by some of the findings of this study, may warrant further investigation to see if enrolment into mainstream banking has been affected by the introduction of mobile money services.

The first study objective was to establish if mobile money transaction cost influenced growth of SMEs. A finding unique to this study was the positive relationship between the mobile money transactional cost and usage. Those who were more likely to use the service were also more likely to rate the transactional cost as expensive in comparison to those who did not use the service who were more likely to rate the service as cheap or reasonable. This finding could have resulted from many of the mobile money subscribers being on the M-Pesa platform which had recently increased their transaction costs. Those not using the service may not have been

aware of the true cost of using the service after these changes. Mbogo (2010) had determined that low cost positively correlated to the behavioral intention to use mobile money services, but our findings revealed that the perception of transaction cost as expensive amongst actual users of the service had no effect on their use since customers continued to use the service despite this perception.

The Second study objective was to establish if convenience by mobile money transfer resulted in increased SMEs growth in Kisumu Town. We found out that 77% of respondents strongly agreed that mobile money had a positive impact on their sales. The biggest reason for this the convenience of the mobile money services, echoed by 90% of respondents. Those who used mobile money services were more likely to give more informed feedback on the importance of the service to their business compared to those that did not.

The third study objective was to determine if financial accessibility resulting from mobile money transfer had any impact on SMEs growth through increased sales, increased customer base, savings, and loan accessibility in Kisumu Town. The study findings revealed that few respondents were using the service as a savings facility or to access loans even though these services are made available through partnership with the banking sector and mobile money service providers e.g. the M-Shwari product from Safaricom and Commercial Bank of Africa. Some were using mobile money services for business related transactions like to pay bills, pay salaries, deposit or withdraw money from their banks, and to buy or sell business related goods.

This finding needs further investigation to determine how this applies against price elasticity of demand. It will also be important to evaluate if other towns would note similar findings as this region. Equally, considering that M-Pesa was by far the biggest provider of service in this region, it will be useful to evaluate how they have managed to achieve high uptake despite other cheaper providers like Airtel Money.

The majority of the respondents were only using mobile money for services like receiving or sending money, and few were using the mobile money services to pay bills, counter transactions or access loans. As already outlined above, Mbiti and Weil (2011) found that most people used the mobile money service to send or receive money as opposed to savings or other services. High volumes in mobile money transfers have also been well demonstrated by the FSD (2012) report which noted that high volumes of mobile money payments account for over 90% of the Kenya economy compared to other forms of money transfers. These forms of cashless transaction have the benefits of increased financial liquidity which has benefits to the SMEs industry.

Among challenges recorded was the affordability of mobile money services. Majority of the respondents thought that cost of a SIM card and SIM card replacement were affordable

whereas the cost of sending or receiving money was expensive. This could be as a result of most SMEs being on M-Pesa that had increased their transaction cost as a result of taxation. Some of these findings have already been documented by Ndunge and Mutinda (2012) who outlined the current M-Pesa challenges as fraud, network or connectivity problems, mobile money transactional cost that are perceived as expensive and M-Pesa-limiting social aspects of meeting and sharing since one can send money and excuse themselves from social events.

Thus, this study achieved its objectives and obtained detailed information arising from the use of mobile money services by SMEs. In respect of the conceptual framework, mobile money transactional costs, convenience and financial accessibility have all been shown to affect SMEs growth through the service leading to increased enrolment in mobile money services, increased financial transactions resulting in increased sales and therefore perceivable contribution to business growth. We can argue that these factors will increase business competitiveness (increased sales and resultant higher profits) due to a variety of transaction options when applied in a business as compared to those that may not have applied them. Further studies, however, may need to be undertaken to describe the effect and relationships. Mobile money transactional cost may require further evaluation since our study found that even when the perception amongst users was that the service was expensive, they were still more likely to use it and think of the service as important to the business.

## **CONCLUSION**

The study found high knowledge of currently available mobile money services surveyed. Additionally, this study demonstrated increasing use of mobile money services for various financial transactions in Kisumu town. Majority of study respondents agreed that mobile money has had a positive impact on their sales even though fewer respondents are using the service as a savings facility or to access loans services. Some business owners are using mobile money services for business related transactions like to pay bills, pay salaries, deposit or withdraw money from their banks, and to buy or sell business related goods. Majority of SMEs were utilizing this service for traditional functions like sending and receiving money for the business.

Respondents did not find it easy to use mobile money services to access loans even though currently this function is available through collaborations with some banks. Functions like salary payment and loan repayment have not been used or preferred by SMEs in Kisumu. To be noted however, mobile money has a positive impact on sales amongst SMEs in this region and the biggest reason for this was due to convenience of the mobile money services. There is a

positive correlation between SME growth and transaction cost, convenience and financial accessibility even though a weak relation.

This study concludes that mobile money has made a positive contribution to the SME sector since majority of the traders rely on it as opposed to the formal banking sector for their day to day transactions. Secondly, it is evident that all the respondents in this study have a deep understanding of the basic functions of mobile money. However, it is worth noting that majority of the respondents have reservations on the cost of the service. From the findings, it is evident that, mobile money users are not well conversant with mobile-bank transactions on loan applications and repayment and possibly prefer the normal banking system to mobile banking when it comes to loans and advances, or other forms of business loans applicable to SMEs.

## RECOMMENDATIONS

The study recommends an awareness campaign on the services offered by the mobile money services with bias towards loan applications and repayment. Further, given the recent launch of the 'M-Shwari' and 'Lipa na M-Pesa' mobile money services, the study recommends enlightening campaigns of their benefits to SMEs given that majority handle cash and do not use mobile money to pay for supplies and salaries. Kenya is used as a model of an economy rapidly moving towards cashless transactions. The amount transacted in 2012/2013 fiscal year was close to the country national budget (Okutoyi, 2013). With Safaricom creating partnerships with 25 banks in Kenya to provide these services, mobile money will become a progressively more convenient method of financial transaction for SMEs. Educating SMEs on such benefits will lead to increasing use of the service thereby reaping the benefits previously not accessible to them.

Of greater importance are the increasingly user-friendly support services that target SMEs. For example, increased support services have resulted in use of mobile money and mobile internet services on some transport services. These are just some of the examples of the critical role service provider's play with respect to increased use of products that could benefit consumers. Therefore, increasing the service provider and SMEs collaborations and the support of available products is recommended to increase the use of currently available products like M-Shwari and help in the design of more SME directed services.

Financial measures adopted by larger businesses have not been widely adopted by SMEs. Book keeping is erratic, yet it which could be a source of useful information on business turnover, employee information and business growth. Other practical tools may have to be thought of to bridge the gap that exists when looking for data on SMEs. In this respect, the

service from Safaricom 'Lipa na M-Pesa' could have a built in function to undertake simple analyses like total income and total expenditure in a given time.

To minimize the current risks, it is recommended that mobile money service providers identify platforms capable of minimal delays and fast responses to increase adoption rates in other urban towns in Kenya. Of particular interest are systems that minimize the risk of losing money, such as providing a method to confirm the business identity one has registered on their systems, verification using business name as opposed to the business mobile number and a faster method of cancelling a faulty transaction when it arises.

## AREAS FOR FURTHER RESEARCH

An experimental study ought to be done to evaluate the contribution of mobile money services to business convenience and financial management with one group using the mobile money and the other not using the service.

Further follow-up studies on the same topic could identify changes over time especially with the expectation that mobile money services may become the primary platform for cashless transactions especially with services like 'Lipa-na-M-Pesa' rapidly gaining popularity. This study can be replicated in the same setting at a different time, or in other urban towns in Kenya.

## REFERENCES

- Anderson, J. (2010). M-banking in developing markets: competitive and regulatory implications.info, *Vol. 12(1)*, 18 – 25.
- Balkenhol, B., (2007). Access to Finance: The Place of Risk Sharing Mechanisms. *Savings and Development*, 31(1) 69-90.
- Bosi, I., Celly, N., & Joshi H. (2011). The Indian Tiger Prowls in Africa: Bharti Airtel's Acquisition of Zain Africa. *Asian Case Research Center*, University of Hong Kong. HKU952.
- Bowen, M., Morara, M., & Mureithi, S. (2009). Management of Business Challenges Among Small and Micro Enterprises in Nairobi –Kenya. *KCA Journal of Business Management*. 2(1) 16-31.
- Chittithaworn, C., Islam, A., Keawchana, T., & Yusuf, D. H. M. (2010). Factors Affecting Business Success of Small & Medium Enterprises (SMEs) in Thailand. *Asian Social Science*: 7(5), 180-190.
- Communications Commission of Kenya (2011/2012). *Quarterly Sector Statistics Report*; (1<sup>st</sup>Quarter July-September 2011/2012). CCK, November 2011.
- Cooper, D. R., & Schindler, P. S. (2008). *Business Research Methods*. 10th Edition; McGraw-Hill International Edition; Singapore (ISBN: 978-007-12633-7)
- Davidson, N., & Penicaud, C. (2011). State of Industry: Results from the 2011 Global Mobile Money Adoption Survey. *Mobile Money for the Unbanked*.
- Donovan, K. (2011). *Mobile Money in Developing World: The Impact of M-Pesa on Development, Freedom and Domination* (Prepublication Version) Edmund A. Wash School of Foreign Studies Georgetown University.
- Godfrey, F. (2009). Mobile telephone opportunities: the case of micro- and small enterprises in Ghana. *Info*, 11(2), 79 – 94: Accessed 11-10-2012; <http://dx.doi.org/10.1108/14636690910941902>.

Higgins, D., Kendall, J., & Lyon, B. (2012) Mobile Money Usage Patterns of Kenyan Small and Medium Enterprises. *Innovations: Technology, Governance, Globalization, Spring*. 7 (2), 67-81.

Hughes, N., & Lonie. S. (2007). M-Pesa: Mobile Money for the “Unbanked”, Turning Cell Phones into 24-hour Tellers in Kenya. *Nick Hughes and Susie Lonie innovations*; Winter and Spring 2007.

InterMedia (2010). Audiencescapes. Accessed from <http://www.audiencescapes.org/country-profiles/kenya/communication-and-development/personal-finance/case-study-mobile-money/case-s-> 11th Oct, 2012.

International Bank for Reconstruction and Development/The World Bank (2012). *Information and Communications for Developments: Maximizing Mobile*: 1818 H Street NW, Washington DC 20433.

Jamil, C.M. & Mohamed, R. (2011). Performance Measurement System (PMS) in Small Medium Enterprises (SMES): A Practical Modified Framework *World Journal of Social Sciences, Vol. 1(3) 200-2012*.

Jenny, C.A. & Isaac, M. (2010). “Mobile Phones and Economic Development in Africa”, *Journal of Economic Perspectives*, 24(3), 207-232.

Kenya Financial Sector Deepening Insights (2012). Why doesn't every Kenya Business have a Mobile Money Account? *Issue 04 – April 2012*.

Kenya National Bureau of Statistics (2011). Kenya Economic Survey 2011 highlights. Accessed from <http://www.knbs.or.ke/news/econ2011minister.pdf> on 24th Oct, 2012.

Laws of Kenya (2009). Banking Act Chapter 488. National Council for Law and Reporting. [WWW.Kenyalaw.org](http://WWW.Kenyalaw.org) Accessed 18th August 2013

Mbiti, I., & Weil, D. N. (2011). “The Impact of M-Pesa in Kenya”. NBER Working Paper No. 17129. JELL No. E40, 016, 033.

Mbogo, M. (2010). The Impact of Mobile Payments on the Success and Growth of Micro-Business: The Case of M-Peas in Kenya. *The Journal of Language, Technology & Entrepreneurship in Africa*, 2(1), 182-203. ISSN 1998-1279: Accessed 14th Oct 2012 [www2012www.ajol.info/index.php/jolte/article/viewFile/51998/40633](http://www2012www.ajol.info/index.php/jolte/article/viewFile/51998/40633).

Must, B., & Ludewig, K. (2010). Mobile Money: Cell Phone Banking In Developing Countries. *Policy Matters Journal*, Spring 2010, 27-33.

Ndunge, K., & Mutinda, J. (2012). Mobile Money Services and Poverty Reduction: A Study of Women Groups in Rural Eastern Kenya. *Institute for Money, Technology and Financial Inclusion (IMTFI). Working Paper 2011-12*.

Njenga, A. (2009). Mobile phone banking: Usage experiences in Kenya, unpublished MBA thesis of Catholic University of Eastern Africa.

Okutoyi, E. (2013). Mobile Money Transfers in Kenya close to Country's National Budget. Humanipo, Home to African Tech. [www.humanipo/news/2577/mobile-money-transfers-in-Kenya-close-country's-national-budget](http://www.humanipo/news/2577/mobile-money-transfers-in-Kenya-close-country's-national-budget).

Omwansa, T. (2009). M-PESA Progress and Prospects. *Innovations case discussion*. <http://www.strathmore.edu/pdf/innov-gsma-omwansa.pdf> > accessed 19th Oct. 2012.

Rahmat, Megananda & Maulana, A. (2006). The Impact of Microfinance to Micro and Small Enterprise's Performance and the Improvement of Their Business Opportunity. *Working Paper in Economics and Development Studies*; Department of Economics Padjadjaran University: No. 200601.

Renny, M. (2011). Micro and Small Enterprise Sector and Existing Support System with emphasis on High-Tech oriented Entrepreneurship in Kenya: *Journal of Language, Technology & Entrepreneurship in Africa*, 3(1), 99-1108.

Siringi, E.M. (2011). Women's small and medium enterprises for poverty alleviation in Sub-Saharan Africa: Lessons from Kenya. *Management Research Review*, 34(2), 186 – 206.

U.S Agency for International Development (2011). "Demand for Mobile Money Services:Survey Results and Report", *Scaling Usage of Mobile Money to Boost Financial Inclusion in Malawi*

Wambari, A., & Mwaura, P., (2009). "Mobile Banking in Developing Countries (A Case Study of Kenya)". Information Technology, Vaasan Ammattikorkeakoulu University of Applied Sciences.

Waweru, M. G. (2007). "The Different Tax Policy and Tax Administrative Challenges of Micro,Small and Medium Businesses". *A presentation at the International Tax Dialogue Global Conference at Buenos Aires, Argentina*. Kenya Revenue Authority (KRA.)

Wishart, N. (2006). *Micro-Payment Systems and Their Application to Mobile Networks*. Washington, DC: *infoDev / World Bank*. Available at: <http://www.infodev.org/en/Publication.43.html>.

World Bank (2012)/ *Information and Communications for Development 2012: Maximizing Mobile*. Washington, DC: World Bank. DOI: 10.1596/978-0-8213-8991-1; website:

<http://www.worldbank.org/ict/IC4D2012>. License: Creative Commons Attribution CC BY 3.0. Zutt, J., (2010). *Kenya Economic Update: Poverty Reduction and Economic Management Unit Africa Region Edition 3*. World Bank