FACTORS THAT DETERMINE INVESTMENT RETURNS OF M-PESA RETAIL OUTLETs IN NAIROBI COUNTY

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OCTOBER 2012
DECLARATION

The undersigned hereby declare that this research project is my original work and has not been previously submitted for any degree in any university.

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This research project has been submitted for examination with our approval as the university supervisors.

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I sincerely appreciate the support of the following people, my family for being there for me when I used to run late researching for this project. Then to my two supervisors, Mr. Dominic Ngaba and Mr. Antony Thuo for their encouragement and for the time they spent correcting me throughout until the completion of this project.
DEDICATION

First I wish to thank God for making it possible to complete this work. To my wife, for support and encouragement. There are many friends I would wish to appreciate for their support, specifically the following stood out, Ms Mugatha computer teacher Moi Nairobi Girls, Fellister Secretary Moi Nairobi Girls. Computer students, like Moureen, Georgina among others.
ABSTRACT

The use of e-banking has become prevalent in the current banking and money transfers. Due to the competitive nature for this industry almost every bank is embracing these services to increase its competitiveness. This led to Safaricom mobile phone service provider to enter into the industry providing alternative money transfer services. The study sought to analyze the factors that affect investment returns of the mobile money transfers popularly known as M-Pesa. The study focused its research on mobile M-Pesa outlet, located in Nairobi County. The general objective of the study was to determine and analyze factors affecting investments returns of M-Pesa outlets in these areas.

Well in Kenya there are several other players in the mobile money transfer as industry for example Zain telecommunications has Zap, Orange mobile has Orange money and most recent Ushindi mobile partnering with Yu, and their product is called Yu-Cash.

In order to carry out the research; the researcher targeted, two areas according to the nature of residents income earning. That is one rich suburb and a relatively poorer suburb. The data was collected by use of a structured questionnaire. The questionnaire was given to the respondent to complete and picked after two weeks. Data collected was analyzed by descriptive statistics which include arithmetic mean, mode. The likert scale was used to determine the weighed average. The findings of the study will assist the Safaricom, management in formulating the Comprehensive Risk Management Policies that will help new M-Pesa outlets to be able to run their business with confidence without fear of liquidity challenges and hence improved investments returns. The study has also contributed to the existing body of literature and form a basis for further research in the finance related discipline.
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# DEFINITIONS OF TERMS

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<tr>
<td>E-float</td>
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<td>Cash-out</td>
<td>Payment made when a customer withdraws money on their phones.</td>
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<tr>
<td>Cash-in</td>
<td>Deposit payment made to a customer’s phone. A customer gives out cash money in exchange for money to be transferred to his/her phone.</td>
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<td>Liquidity</td>
<td>Money in cash form that is notes and coins.</td>
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<td>Fraudsters</td>
<td>Stealing through interfering with mobile networking. Conning through deceit, sending fake SMS M-Pesa shops.</td>
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<td>Outlet</td>
<td>M-Pesa shops.</td>
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<td>Master Agents</td>
<td>The person who originally is registered by Safaricom mobile provider as an agent.</td>
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<td>Sub-agent</td>
<td>Sub-contracted person by master agent to run an M-Pesa business.</td>
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<tr>
<td>Aggregator</td>
<td>Acts on behalf of Safaricom company but under the master Agents</td>
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<td>Super Agent</td>
<td>Banking institutions that are licensed to offer purchase of floats service sub agents.</td>
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ACRONYMS

M-Pesa------------------- M-------------- Mobile
PESA--------- Kiswahili word for money
SMS--------------------- Short Message services
MFI's ----------------- Micro finance Institutions
DFID--------------------- Department for International Development
IBM-------------------- International Business Management
E. float----------------- Electronic float
CGAP------------------- Consultative Group to Assist the Poor
MMO------------------- Mobile Network Operator
P2P--------------------- Person to Person
CBK------------------- Central Bank of Kenya
GDP--------------------- Gross Domestic Prod
C.B.D------------------- Central Business Districts in Nairobi
PC---------------------- Personal contact
ICT--------------------- Information Communication Technology
CCK--------------------- Communication Commission of Kenya
3G--------------------- Third Generation Mobile Phones
CRM--------------------- Consumer Resource Model
UK--------------------- United Kingdom
ROI--------------------- Return on investment
CHAPTER ONE

1.0 Introduction
Safaricom Ltd is a leading mobile operator in Kenya. It was formed in 1997 as a fully owned subsidiary of Telkom Kenya. In May 2000, Vodafone Group Plc of the United Kingdom, the world’s largest telecommunication company, acquired a 40% stake and management responsibility for the company.

As technology develops, both financial institutions and consumers are taking advantage of the efficiencies it brings. On one hand, the cost of financial transaction is becoming lower when using an electronic device than at a bank branch (Garcia-Alba et al.) and the new technology provides consumers with the convenience way to obtain a financial service whenever they may find themselves, provided mobile communication exist (The World Bank 2009).

Consumers value this mobility; it is possible that consumers who are presently transacting online via a PC may also move to transacting via a mobile device. After all, consumers prefer to obtain their services from various channels rather than a single one (Howcraft et al., 2010).

Business practices in Kenya have gone through many changes, the most important being the introduction of information communication and technology (ICT). The mobile phones have been a key ICT product that has affected business practices. This is manifest in various areas including advertisement, marketing, and emergence of new products and new methods of payments. The method 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. Micro business has embraced the use of mobile payments technology in their operations. They view this mode of 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 (Anurag, Tyagi and Raddi 2009).

There is an appeal and utility of mobile banking and mobile payment service across the country as there are probably more people with mobile handsets than with bank accounts (Porteous, 2006).

Mobile phone technology has reduced communication costs in many parts of the developing world from prohibitive levels to amounts that are, in comparison, virtually trivial. Nowhere has this transformation been as acute as in sub-Saharan Africa, where networks of both fixed line communication and physical transportation infrastructure are often inadequate, unreliable, and dilapidated. While mobile phone calling rates remain high by world standards, the technology
has allowed millions of Africans to leap-frog the land-line en route to 21st century connectivity (Ms and Kumar (2008)).

Early on this revolution, cell phone users figured out that they could effectively transfer money across wide distances. Phone companies have long allowed individuals to purchase air-time (that is, pre-paid cell phone credit that can be used for voice or SMS communication) and to send this credit to other users. It was a small step for the recipient user to on-sell the received air-time to a local broker from the initial sender to the recipient.

1.1 M-Pesa money transfer launch
In March 2007, the leading cell phone company in Kenya, Safaricom, formalized this procedure with the launch of M-PESA, an SMA-based money transfer system that allows individuals to deposit, send, and withdraw funds using their cell phone, M-Pesa has grown rapidly, currently reaching approximately 38 percent of Kenya’s adult population, and is widely viewed as a success story to be emulated across the developing world (ww.cgap.org.). The rapid growth of the mobile phone usage in Kenya means that the number of mobile users exceeds by far the number of banked people. Mobile phone users offer easy communication and the current M-Pesa facilities have reduced the average transaction costs for the consumer (Vaughn, 2009). The Safaricom annual report of 2008/2009 showed that person to person transactions stood at Kshs. 120.61 billion for the same year against 14.74 billion for the year 2007/2008. The total cumulative person to person transaction stood at Kshs. 135.38 billion as at 31st March 2009 since inception of the mobile payment service. This indicates that M-Pesa mobile payment is reaching the unbanked (Vaughn, 2009) Omwansa (2009) argues that the benefits associated with M-Pesa are so enormous that those who try to place regulatory pressure on it might feel guilty if they appear to frustrate it.

The extent to which the mobile payment usage would impact on performance depends largely on whether there is an enabling environment (Porteous, 2006). Porteous defines an enabling environment as a set of condition which promotes a sustainable trajectory of market development. Of particular interest are the environments in which widespread access is likely. M-Pesa has widespread access and requires an enabling environment to enhance the success of its consumers. The micro businesses are spread throughout the country with huge clusters in the near shopping centers. This enables them to easily access the M-Pesa service providers for registration and to make cash deposits into their accounts. The mobile payment providers’ agents
are well distributed and easily accessible to the micro business owners for support of their services in Kenya.

When someone believes that the use of a service (such as mobile banking) could result in personal advantages, then its use will be encouraged (Black et al, 2001).

1.1 Background of the study

M-PESA (M for mobile, Pesa is Swahili for money) is the product name of a mobile phone based money transfer service for Safaricom, a Vodafone partner. It was entirely developed by Kenyans and was initially sponsored by the UK-based Department for International Development (DFID) in 2003-2007 (www.Safaricom.co.ke).

The initial concept of M-PESA was to create a service which allowed microfinance borrowers to conveniently receive and repay loans using the network of Safaricom. This would enable microfinance institution (MFI’s) to offer more competitive loan rates to their users, as there is a reduced cost of dealing with cash. The users of the service would gain through by being able to track their finances more easily. But when the service was trialed, customers adopted the service for variety of alternate uses; complications arose with fault of the microfinance institution (MFI). M-PESA was refocused and launched with a different value preposition; sending remittances home across the country and making payment (http://www.financialdeferring.org Feb.20-2009).

M-PESA is a branchless banking service meaning that it is designed to enable users to complete basic banking transactions without the need to visit a bank branch. The system was developed and ran by sagentia from initial development to the 6 million customer marks. The service has now been transitioned to be operationally run by IBM Global Services on behalf of Vodafone (Http://222/Vodafone/com/start/media relation).

The service enables electronic payment through mobile phones. Customers exchange cash through e-float, a form of electronic value, at M-PESA agent points whenever they deposit or withdraw cash. It is a challenge to keep these agent points well stocked with cash and e-float. If the outlet performs too many cash transactions it will run out of e-float, likewise if it performs too many cash-out transactions it will run out of cash. The main obstacle for these outlets is keeping enough cash and e-float on hand to satisfy their customers and this affects their profitability (philanthropy Action, 26 Feb.2009).

The process of Liquidity management is costly in terms of time and risks. Rural agents in Kenya and slum townships of Nairobi find Liquidity management consumes 31% of their M-PESA
commissions, one third of agents say they are considering quitting, primarily due to the inconvenience and robbery risk of moving cash to and from the bank [Consultative Group to Assist the Poor (CGAP 2011)](Mas and Rotman2008).

There are several costs bearing elements of Liquidity management, cash security during transportation to and from the bank, fraudsters, employee dishonesty and sending money to the wrong persons. The cost to the agent will vary between outlets depending on the location of the agents shop. However liquidity management will be one of the top concerns for most agents in the country (Sarah Rotman, Ignacio Mas and Olga Morawczynski).

In her study of M-Pesa, year 2009 Ratan (2008) suggests that the latest demand for domestic remittance is related to urbanization ratios. As of January 2010, Safaricom boast a subscriber base of approximately 12 million most of whom are in the major cities- Nairobi, Mombasa, Kisumu and Nakuru (Safaricom – press release march 5 2011).

Safaricom uses two types of agents, Master agents have at least three sub agents, Sub-agents manage liquidity across agents, by transferring cash and e-float as necessary (www.Safaricom.co.ke.). Over 25 Banks have partnered with M-PESA to allow their customers transfer money between their Bank account and their M-PESA account. With this service, customers are able to move money from their bank account to M-PESA account and vice versa. Through continuous innovations, M-PESA is going to continue to revolutionize the area of mobile money (Betty mwangi-Thuo, GM-Financial services Safaricom Ltd)

1.2 Statement of the Problem.

The M-Pesa Technology enables subscribers to use their mobile phones to carry out transactions such as pay for goods and services, pay bills send and receive money to and from friends and family, withdraw cash for use, top up their own airtime account or top up someone else’s account. The use of floats in M-Pesa transactions meant that there would be no credit risk taken by Safaricom or their agents.

The research done by CBK research department was concerned only in determining whether M-Pesa was a Banking business or not and if the system could be used illicitly for money laundering.

However, there are not much existing studies that have been done to determine the factors that affect investment returns on the mobiles money transfer operators (M-Pesa shop owners).

There are several factors that determine the investment returns on M-Pesa business.
The M-Pesa retail business operators lack sufficient information on these factors that determines the profitability of their investments. The Researcher explored these factors in detail, for instance, the effects of security concern makes M-Pesa retail operators not to keep sufficient cash for transactions in their shops and hence they are unable to effect large sums of money transfers. This leads to loss of profits and customers are not fully satisfied. (Ratan 2008). The process of liquidity management is costly in terms of time and risks (Consultative group to assist the poor (CGAP 2011), (Mas & Toman 2008).

Rural agents in Kenya and slum township of Nairobi claim that due to their location and poor accessibility of cash liquidity, and then they are considering quitting the business (Mas and Rotman 2011).

1.3 General Objective of the Study
The general objective of the study was to determine the factors that affect the investment Returns of M-Pesa retail Outlets (shops) in Nairobi County.

1.4 Specific Objective
The specific objectives of the study were to;

i) Determine how location of the M-Pesa business affects investment returns.

ii) Determine the effect of competition on M-Pesa business returns.

iii) Determine how security factors affect the investments returns of M-Pesa outlets.

iv) Determine effects of cash floats on M-Pesa investment returns.

1.5 Scope and limitations of the study
The study covered two areas of the Nairobi County, one area with high income residents and the other relatively poorer residents. There are 7,054M-Pesa outlets in Nairobi County (Human Resource Department, Safaricom Head Office 2012). The study was carried between out during the month of June and July 2012; the researcher divided the county into two areas and selected 40 M-Pesa business outlets from every area of study. This will gave a total of 80 respondents.

1.6 Significance of the study.
The Safaricom Company Limited will be in a good position to caution the Agents/ Sub-agents on how to manage and minimize on factors that negatively affect their businesses to maximize on
the profits. For example, they will be able to put in place measures that will make the running of
the business less risky.

M-Pesa Agents, Sub Agents and business owners to be able to start, manage and operate their
businesses from an informed point of view. They will be able to take advance care and caution
before starting the business and are able to make informed decisions on business performance
evaluation.

Government, with the aid of police will be able to curb and minimize the M-Pesa crimes, which
are very rampant in this country. This will be possible because the data easily helps them identify
which part of Nairobi is more affected by security concerns. And since the data disclosed to what
extent each factor affects the M-Pesa business, the police will be more informed when tracking
the crimes.

Other mobile banking procedures will benefit from the study, since they would be able to curb
and inform their clients on the factors that are likely to affect their business before they start and
this has created awareness on mobile banking.

1.7 Assumptions of the Study.
The research was based on the following assumptions:

i.) All M-PESA outlets are faced with the same challenges in their shops.

ii.) The rules governing all master agents from Safaricom service provider is the same to all
agents.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction
Mobile Banking means Electronic banking that uses mobile phone technology (or other wireless services) to deliver electronic financial services to consumers. It has been taunted as a powerful new marketing consumer relations method for financial services companies (Sinisalo at 2007). This is true because mobile phones make it simple to communicate with the target market and establish a stronger relationship as banks provide market compelling - needed services (The World Bank 2009). Also mobile devices improve the quality of the service because clients can perform transactions at their convenience wherever and whenever they want it (Lannanen, 2007) provided there is a connection.

M-Pesa was a pilot project of the multinational United Kingdom (UK) mobile operator, the Vodafone group. With support from a UK Department of International Development (DID) grant, the Vodafone M-Pesa team had chosen Kenya as the country in which to pilot a microfinance institution (MFI) based loan disbursal and repayment system. However, early pilots proved too difficult to integrate easily with MFI systems. The Vodafone team persevered; believing in the potential of the mobile device to enable Kenyans to do more efficiently what they already did in large quantities. Send money home from workers in urban areas to family members in rural area.

Based on this simple service offering concept, the success of the M-Pesa product would be dependent on a reliable network of agents and low risk management of electronic value. To offer M-Pesa services, agents would pre-deposit a sum of money (called the float) in a bank account, from which the electronic value was used to guarantee all customer deposits and withdrawals. In order to meet greater customer demand for M-Pesa services, the agent would have to increase the value of the float. The use of a float meant that there would be no credit risk taken by Safaricom or the agent.

The broadening of the vision beyond MFIs led to engagement between M-Pesa project team, comprising both managers form Vodafone and from its Kenyan associates Safaricom. From early days, the CEO of Safaricom, Michal Joseph, had been a firm backer of the potential of this scheme.
In those early meetings, the M-Pesa team had demonstrated a prototype of their funds transfer service and had responded to questions from a CBK team, which had included members of Bank Supervision, Legal, National Payment Systems and research Departments. Based on this engagement, the CBK team had isolated a number of areas of potential concern: Legal Status: was M-Pesa a banking business or not? Money Laundering: could the system be used illicitly for money laundering?

2.1 Impact on investment returns

Impact investing refers to investments made based on the practice of assessing not only the financial return on investment, but also the social and environmental impacts of the investment that happen in the course of the operations of the business and the consumption of the product or service which the business creates. An impact investor seeks to create social good or improve the health of the environment, as well as achieve financial returns.

The investor may take an active role mentoring or leading the growth of the company,[1] similar to the way a venture capital firm assists in the growth of an early-stage company. Impact investors seek to create positive social returns. Criteria to evaluate social and/or environmental performance are an integrated component of the investment process. In contrast, the term socially responsible investing generally refers to minimizing negative impacts; these investors may include negative screening criteria as part of their investment decisions.

2.1 Mobile money transaction and agent banking

Mobile technology is relatively a new practice in Kenya as it was introduced about ten years ago. Nonetheless it is being widely used by large population of the Micro – business therefore making it thrive in midst of many banks. This research will be based on the Global systems for Mobile communication (GSM) provider, Safaricom mobile payments and M – Pesa. The rate of Safaricom M-Pesa mobile payments usage in Kenya has been steadily increasing since M –pesa was introduced in March 2007, with five million subscribers as at 31st Dec. 2008. Out of the Safaricom Mobile Subscriber base of twelve million as at the same date (Business Daily, January 12, 2009). Kenya’s population is estimated at 40 Million.

Safaricom employs over 1500 people mainly station in Nairobi and other big cities like Mombasa, Kisumu, Nakuru and Eldoret in which it manages retail outlets. Currently it has
nationwide dealerships to ensure customers across the country have access to its product and services.

As of January 2010, Safaricom boast a subscriber base of approximately 12 million, most of whom are in the major cities –Nairobi, Mombasa, Kisumu and Nakuru( Safaricom – press release march 5 2011).

Financial services impact the economic life of households by facilitating the management of not only how, but also irregular and uncertain cash flows. Financial diaries have tracked household transactions in Bangladesh, India and South Africa [Rutherford 2000, Collins 2009).

Distribution through mobile networks and third-party agents has dramatically reduced the cost of financial transaction services. The proliferation of wireless communication and information technology has slashed the cost of service delivery and prompted business models to innovation that has dramatically expanded access possibilities over the past decade. The two related trends are transforming the industry at the bottom of the pyramid; (Mas and Morawczynski, 2009)

Banks contract with third-party retail agents such as post offices, grocery or lottery stores to deliver selected services beyond brick and mortar branches. Among the more recent delivery channels introduced is electronic banking (Davis et., al (1989).

Mobile Network operators have Leverage mobile networks with low-cost distribution channels of digital money to complete on person to person (P2P) money transfers and in some countries offers a broader range of banking services (Stefan Jensen CID working paper No.45 April 2010).

2.2 Mobile Money Transfers in Kenya.
The adoption of mobile phones has occurred at perhaps the fastest rate and to the deepest level of any consumer-level technology in history (Ivatury and Pickens 2006). While cumulative forces are of course important, making it difficult to compare directly across innovations, it is nonetheless informative to note that cell phones have been adopted more than five times as fast as fixed lines telephone services, which took 100 years to reach 80 percent of country’s population.

Agents face a non-trivial inventory management problem having to predict the time profile of e-float needs, while maintaining the security of their operations (http//www.Safaricom.co.ke).

In practice, agents are organized into groups; M-PESA required that agent groups operated in at least three different physical locations, so that the probability of imbalances arising within the group could be minimized. There are currently three agent group models in operation. In the
first, one member of the agent group (the “head office”) deals directly with M-PESA, which subsidiary agents, which are owned by the head office; manage cash and e-float balances through transactions with the head office. Both the head office and the agents can transact directly with M-PESA users.

The second model under which agents are organized into groups is the Aggregator model. This model is similar to the first, with the aggregator acting as a head office, dealing directly with Safaricom and managing the cash and e-float balances of agents. However, the agents’ can be independently owned entities, with which the aggregator has a contractual relationship.

A final and more recent model allows a bank branch, referred to as a super-agent, to perform the functions of the aggregator of the second model. The branch manages cash and e-float balances of a group of non-bank M-PESA agents, but unlike the regular and aggregator models, the bank does not trade e-float directly with M-PESA users.

The super-agent model is one example of the integration of M-PESA services into the banking system. Other developments in this vein have seen users with accounts at certain Commercial banks (about 72% of user households in our data have at least one bank account), are able to transfer fund between those accounts and their M-PESA accounts, often via ATMs. Mobile money transfers require issuing digital money, operating a mobile network, maintaining a clearing and settlement platform and setting up an agent network that handles cash in/out services. Therefore its M-PESA accounts that stores electronic money called e-float and handles crediting and debiting of M-PESA transfers made over its proprietary mobile networks among M-PESA account holders (http://www.Safaricom.co.ke).

CBK requires that e-float circulating on the mobile payment platform is backed by an equivalent cash amount in a trust account.

To this end, every M-PESA agent has deposited cash to obtain a corresponding e-float balance that can be traded against cash with clients. This deposit now stands at minimum of 100,000 Sh. (1,350 USD close to Kenya’s GDP capital) (www.Safaricom.co.ke)

2.3 Challenges of Cash Liquidity.
In order for the M-PESA service to be broadly available to the bulk of the population, Safaricom had to design a channel structure that could support thousands of M-PESA stores to offer cash in, cash out service to M-PESA customers. Safaricom was successful in building a channel that
was based on the key requirements of profitability providing incentives for third party retail players involved. Scalability (accommodating rapid growth) and control the large consumer experience and geographic distribution of stores

Cash management has been a major problem for the banking industry forever. It is one of the contributing factors to the high cost of supporting cash as a payment instrument. The developed world has been wrestling with this problem especially since the arrival of ATMs.

The emerging markets do not need to relearn the lesson, for M-Pesa type schemes for them to be truly successful they need to reduce the dependency on cash (Peter Goldfinch, September 16 2009). An agent needs to build a critical mass of transactions every day to make his agency financially viable (Michael Uiari, January 26 2010).

To support the customer facing activities of M-PESA stores, the channel needed to support a range of activities, among the most important of which were: Identification, screening, contracting and training of new stores, Supervision of existing stores distribution of commissions across stores, Liquidity management, enabling stores to periodically rebalance their holding of cash and M-PESA balances.

The Kenyan banking community expressed concern that M-Pesa could not meet the risk management requirements associated with a large payment system network; and that it was dangerous for any institution to operate on that scale outside of regulation. The banks were arguing that there was in fact a double standard with the CBK allowing a non-bank to conduct financial services without the regulatory burden that is imposed on the banking industry. Furthermore, while M-Pesa enabled money transfers using mobile phones, it still relied on using agents relied on the banking system to be able to maintain their floats of electronic money.

As a result of more people sending more money home faster, the pattern of cash flows in the country had changed markedly, and some banks with widespread branches had incurred additional costs of providing liquidity in remote branches where M-Pesa agents would come to get cash.

To safeguard client’s funds, CBK requires independent trustees to manage the cash deposited by agents. This guarantees aggregate liquidity, but fails to ensure easy access to client’s funds at the agent level; about 20% of M-PESA clients have experienced liquidity problems due to cash management challenges and fraudsters (Jack and Surl, 2003)
2.4. Safaricom Investments Returns

Investment in a 22.5% stake in teams’ undersea cable that provides our customers with unprecedented band width capacity and acquisition of 100% stake in packet stream data. Network limited adding signified capacity to the existing wimax business.

Total revenue increased by 19.1% with the proportion of non-voice revenue increasing to 24.5% of total revenue with M-Pesa and broadband data revenues doubling their shares of total revenue from 6.3% to 12.5%. Efficiency was achieved in delivering airtime to subscribers through mere cost effective channels margin to 43.6% (annual report and group accounts 2010). Expansion of retail shops increased from 21 to 30 outlets country wide (Michael Joseph CEO, Safaricom 2010).

In the year 2010 for the second time running M-Pesa was awarded the prestigious best mobile money service award in the best service category at Global mobile awards in Barcelona with a 53% growth rate adding on close to 3.3 million new subscribers in the period, M-Pesa continues to witness phenomena growth (Timothy Harrabin 2010). The number of partners receiving payment via M-Pesa has grown to over 200 million, and more than 50 organizations have partnered with M-Pesa to disburse payment (Michael Joseph 2010). Safaricom and M-Pesa added another first to its long list of initiatives with the first ever dividend disbursement through the service. Safaricom LTD successfully disbursed dividends through M-Pesa to over 180,000 of its shareholders. In the same spirit M-Pesa launched the international money transfer service for the United Kingdom (UK) as the first international money transfer service.

The M-Pesa agents outlets grew significantly over the year from 8,650 to 17,653 by the end of March 2010.

M-Pesa continues to partner with institutions, fuel stations and individuals business owners to promote the service across the country (Michael Joseph 2010). During the year a number of super agents were appointed. They provide cash in / cash out service to agents to enhance float levels in the market.

2.5 M-Pesa commission sharing ratio

M-Pesa is a Safaricom service allowing customers to transfer money using a mobile phone. Kenya is the first country in the world to use this service. M-Pesa is available to all Safaricom subscribers (prepay and post pay). Registration is free and available at any M-Pesa agent country wide. The M-Pesa application is installed on the sim card and works on all makes of handsets.
Revenue from this service is earned from transfers and withdrawals transactions performed by customers. A tariff that is graduated depending on the funds being transacted in applied on all transactions which cumulatively are reported as M-Pesa transactions commission revenue.

Withdrawals from M-Pesa at the ATMs are slightly more expensive than at a retail outlet. This is in fact a recent price change: it used to be the same as regular withdrawals at a store. But PesaPoint, the provider of the ATM network, renegotiated its deal with Safaricom (at the same time as it raised its fees to banks) to get more commission as it claimed to be losing money on such transactions. After the gross commission is reflected at end of the month, Safaricom deducts 10% withholding tax and their profit. Then the remaining is shared between Agents and Sub-agent in ratio of 80% to sub-agent who are M-Pesa outlets owners.

2.6 Electronic Transfer of Value

Person-to-person (P2P) transfers cost a flat rate. This is where Safaricom makes the bulk of its revenue. Thus, customers pay more than twice for a purely electronic transfer than what they pay for the average cash transaction. While this doesn’t necessarily make sense from a cash point of view (it costs a lot more to do transactions involving cash than purely electronic ones), it does make sense from a customer willingness-to-pay point of view: enabling remote payments is the biggest customer pay point which M-PESA aims to address.

M-PESA customers can send money to non-M-PESA customers: money is debited from the sender’s account, and the recipient gets a code by SMS which he can use to claim the monetary value at any M-PESA store. Thus, it’s account-to-phone service, with the receiver’s experience being similar to how Western Union works today. The pricing on this service is interesting: it’s a lot more expensive for a customer to send to a non-customer than to a customer ($1 versus 4), but at the other end cashing is free for a no-customer which is not the case for a customer. This may seem odd: the customer is penalized while the non-customer gets a free service. The logic though, is to put the pain on the sender, who has the money and the understanding of how M-PESA works- hence the clout to insist that the receiver register as an M-PESA user.

Bill payment is analogous to a P2P transfers, except that customers send money to the M-PESA account of institutions. Customers must enter the biller code (a number that uniquely identifies the biller) on the M-PESA phone menu, and also have the option of entering an account number (which is necessary if the biller cannot associate the customer’s phone number with their bill
account number). M-PESA charges the same amount for transfers of money for bill payment as for P2P (that is Ksh 30 per transfer). However, in the case of bill pay the cost of transfer can be shared between the biller and the customer in the proportion defined by each biller. For instance for electricity bill payments, the utility and the customer split the charge (that is customers pay KSH 15 per bill paid). Safaricom does not offer bulk discounts to billers at present, partly because it is still not seeing sufficiently large transaction volumes.

Customers can buy airtime directly from the mobile wallet, at zero cost- but without a discount either. There is some channel conflict here: when a retail outlet sells a retail card, the channel gets 5% on the value of the card sold; if the customer buys the airtime through M-PESA, there is no direct channel commission (though at some point there may been a cash-in-fee of 13.3) M-PESA is very aware of this cannibalization risk for the channel, and does not actively promote the purchase of airtime through M-PESA- unlike many other mobile money schemes, for which airtime purchases is their primary driver of transaction volume.

2.7 M-PESA versus Zap

M-PESA basic customer pricing and retail commission structure against that of Zap, a new mobile money service promoted by Safaricom’s competitor Zain. The channel remuneration structure between the two is not directly comparable since Zap stores are free to set their own commissions for cash-in/ cash-out services; moreover, Zain store commissions are charged directly to the user, not deducted from the customer’s Zap account. Zap charges customers a lower standard fee on electronic (P2P) transfer of Ksh 10, one-third of M-PESA’s charge of Ksh 30.

Zap charges customers for deposits, which M-PESA does not. Zap’s customer deposit charge is roughly the same as the commission M-PESA pays on deposits. Thus, the key difference is that M-PESA subsidizes the customer’s deposits fee, while Zap does not.

Customer withdrawal fees are slightly lower for Zap than for M-PESA, reflecting the fact that M-PESA offsets the customer subsidy on deposits with a higher withdrawal fee. But M-PESA does not remunerate stores on higher-value withdrawals as well as Zap.
2.8 New Kenya mobile money transfer service.

Ushindi mobile money transfers is now the latest entrant in Kenya’s growing mobile money transfers sub-sector. The service is the brainchild of Heart for the City, a Christian charity organization based in Scotland but whose founder and CEO is Kenyan (Tom Mghendi, September 1 2010).

The new system runs on the web and requires a java enabled mobile phone with GPRS connectivity at the very least. According to the service official website, this a secure platform certified by VeriSign.

Ushindi mobile money targets mostly Kenyans living abroad, of course with good reason, Since Kenyans in the Diasporas remit more than $600 million to Kenya every year. Any serious investor in the money transfer industry would want to tap into such a market. M-PESA, Safaricom mobile money transfer service, already offer their service in the UK in partnership with Vodafone and western Union (Tom Mghendi, September 1 2010).

For its launch in Kenya market, Ushindi mobile money partnered with Yu one of the four mobile network operators in Kenya. This means that access to the service will be through Yu-cash. From what developers are saying however, we expect the service to be available through other mobile channels in the near future.

Some of the services Ushindi mobile money promises to provide include local and international money transfers, payment of bills to signed-up organizations, payment of insurance premium and extra. So far Ushindi has listed two commercial Banks-Cooperative Bank of Kenya and Equatorial commercial Bank as its partners. Other partners include CIC insurance company and the Nation Media group.

2.9 Return on investment.

Return on investment (ROI) is the most common profitability ratio. There are several ways to determine ROI, but the most frequently used method is to divide net profit by total assets. So if your net profit is for example is ksh.100,000 and your total invested capital is ksh.300,000, and then your ROI would be 33 percent.

Return on investment isn’t necessarily the same as profit. ROI deals with the money you invest in the company and the return you realize on that money based on the net profit of the business. Profit, on the other hand, measures the performance of the business. Don’t confuse ROI with the
return on the owner’s equity. This is an entirely different item as well. Only in sole proprietorships does equity equal the total investment or assets of the business.

You can use ROI in several different ways to gauge the profitability of your business. For instance, you can measure the performance of your pricing policies, inventory investment, capital equipment, and so forth.

3.1 Inflation and its effects on investment

For world economic markets, inflation is a fairly new experience as for much of the pre-twentieth century there had been little upward pressure on prices due to gold and other metallic standards. These backed currencies limited governments’ abilities to create new money. So at the end of the gold standard strong political pressures often caused governments to issue more money increasing the money supply and therefore the price level.

Inflation reflects a situation where the demand for goods and services exceeds their supply in the economy (Hall, 1982). Its causes could be triggered by the private sector and the government spending more than their revenues, or by shortfalls in output. Price increases could also be triggered by increases in costs of production. For instance increases in prices of imported raw materials will cause inflation if not managed. Whatever the initial cause, inflation will not persist unless accompanied by sustained increase in money supply. In this sense, inflation is a monetary phenomenon.

But what effect does inflation have on the economy and on investment in particular? Inflation causes many distortions in the economy. It hurts people who are retired and living on a fixed income. When prices rise these consumers cannot buy as much as they could previously. This discourages savings due to the fact that the money is worth more presently than in the future. This expectation reduces economic growth because the economy needs a certain level of savings to finance investments which boosts economic growth. Also, inflation makes it harder for businesses to plan for the future. It is very difficult to decide how much to produce, because businesses cannot predict the demand for their product at the higher prices they will have to charge in order to cover their costs. High inflation not only disrupts the operation of a nation's financial institutions and markets, it also discourages their integration with the rest of the world's markets.
Inflation causes uncertainty about future prices, interest rates, and exchange rates, and this in turn increases the risks among potential trade partners, discouraging trade. As far as commercial banking is concerned, it erodes the value of the depositor's savings as well as that of the bank's loans. The uncertainty associated with inflation increases the risk associated with the investment and production activity of firms and markets.
3.0 Conceptual Framework.

The study focused on the factors that affect investment returns of M-Pesa retail owners.

The framework comprises of the internal & external factors that affect the performance of M-Pesa outlets in Nairobi County.

The dependent variable in this study is the investment returns measured by how much commission is received at the end of the month under various circumstances that is factors that affects the day to day operations of the business. In this case independent variables are location, security, cash float, competition, and Safaricom commission ratio. The intervening variables are government legislations, education levels of employees and honesty, Safaricom rules and regulations.

(INDEPENDENT VARIABLE/INTERVENING VARIABLES)

(DEPENDENT VARIABLES)

- Government security setup

Source: Researcher (2011)
CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the research design, target population, sampling procedures and sample size. It also describes the research instruments, validity reliability, data collection and data analyzing.

3.1 Research Design

Research designs are plans and the procedures for research that span the decision from broad assumptions to detailed methods of data collection and analysis (John, 2009). Survey research provides a quantitative or numeric description of trends, attitudes or opinions of a population by studying a sample of that population. It involves cross sectional and longitudinal studies using questionnaires or structural interviews for data collection with the intent of generalizing from a sample to a population (Babble, 1990).

This study adopted an exploration approach using a descriptive design to investigate the factor that effect investment return of M-Pesa business in the Nairobi County and other intervening factors descriptive surveys, design are used in preliminary and exploratory studies (Luck and Ruben, 1992) to allow researchers to gather information, summarize, present and interpret for the purpose of classification Orodho, 2007) Borgant (1989: 5). The researcher collected data to make references about the population of interest at one point in time (Paul, 2011)

3.2.0 Target Population

M-Pesa was launched in March 2007, its growth since then has been phenomenal. As at December 2011, there were over 15million Safaricom subscribers, actively using the M-Pesa service, supported by a nationwide agent network of over 37,000 outlets (MwangiThu, GM-Financial services, Safaricom Ltd.)

The target population consisted of 80 M-PESA outlets (shops) in Nairobi County.
3.2.1 Sample Size
The researcher targeted two areas, one rich suburb of Nairobi Kilimani and Karen. In these areas the sample of 20 M-Pesa shops were done from each area. Then the other was the poorer suburbs of Kawagware and Dagoretti where a sample of another 20 shops was done. This made a total of 80 respondents. The total number of M-Pesa outlets in Nairobi County is approximately 7,054 (Human resource department, Safaricom company Ltd).

3.3 Sampling Techniques
The main purpose of a researcher taking samples is to achieve a practical representation of the members of the population, so that he/she can conveniently observe or study the characteristics of the population (King’oriah George K. 2004).
In this study the researcher used a simple random sampling technique. The county was first divided into two areas and then each area numbered into a number of sections of approximately equal size. A selection then was made of 20 M-Pesa shops from each section. To secure a true random sample for a statistical study, great care was exercised in the selection process. The researcher had to be constantly aware of the possibility of bias creeping in.

3.4 Data Collection
The study made use of primary data which was captured through semi-structured/structured questionnaires. The questionnaires consisted of both closed and open-ended questions. The questionnaire had two sections; one dealing with general information on the participants, and section two which sought information on the factors affecting M-PESA shop, profitability and to what extent. The questionnaire was presented in the form of statement of a 1 to 5 Likert scale for respondents to score statements that describe factors affecting the M-PESA business performance.

3.6 Data Analysis
The researcher used a descriptive statistics method to analyze the data. The major advantage of descriptive analysis is that they permit researchers to describe the information described in many scores with just a few indices such as the mean, the median and the standard deviation, with the help of the statistical package for the social sciences (SPSS).
CHAPTER FOUR
DATA ANALYSIS AND PRESENTATION

4.0 Introduction
This chapter is a presentation of the research findings following the data collection and analysis described in chapter 3. The results are presented in the form of charts, graphs and tables.

4.1 Analysis of the Response Rate
The study distributed 80 questionnaires and had a response of 71 (85.89% response rate). The findings of the study are presented in table 1.0 below.

Table 1.0 response rate

<table>
<thead>
<tr>
<th>Target population</th>
<th>Questionnaires distributed</th>
<th>No of Questionnaires responded to.</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>80</td>
<td>71</td>
<td>88.75%</td>
</tr>
</tbody>
</table>

4.2 Analysis of background information

4.2.1 Gender

Figure 1.0 Gender
The figure below is a representation of the gender distribution of the sample population.

GENDER

28.17%
71.83%
All the respondents were operators of M-PESA outlets better acquainted with the variables under study, the study utilised a sample made up of 71.83% male and 28.17% female as represented in figure 2.0 above.

4.2.2 Position in M-Pesa shop

The respondents were asked to indicate their position in the businesses and the results are shown in table 2.0 below

**Table 2.0 POSITION IN M-PESA SHOP**

<table>
<thead>
<tr>
<th>Position</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid OWNER</td>
<td>7</td>
<td>9.9</td>
<td>9.9</td>
<td>9.9</td>
</tr>
<tr>
<td>AGENT</td>
<td>35</td>
<td>49.3</td>
<td>49.3</td>
<td>59.2</td>
</tr>
<tr>
<td>SUB AGENT</td>
<td>-8</td>
<td>11.3</td>
<td>11.3</td>
<td>70.4</td>
</tr>
<tr>
<td>EMPLOYEE</td>
<td>21</td>
<td>29.6</td>
<td>29.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.0 above indicates that 49.30% of the respondents were M-PESA agents, 29.60% were employees, 11.30% were sub agents and 9.90% were owners of their own M-PESA outlets.

4.2.3 Duration of operating M-Pesa business

In March 2007, the leading cell phone companies in Kenya, Safaricom, formalized the launch of M-PESA, the study sought to find out the duration the respondents have been operating the M-Pesa business and the results are shown in table 3.0 below.

**Table 3.0 DURATION OF OPERATING M-PESA BUSINESS**

<table>
<thead>
<tr>
<th>Duration</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid LESS THAN ONE YEAR</td>
<td>17</td>
<td>23.9</td>
<td>23.9</td>
<td>23.9</td>
</tr>
<tr>
<td>1-2 YRS</td>
<td>28</td>
<td>39.4</td>
<td>39.4</td>
<td>63.4</td>
</tr>
<tr>
<td>3-5YRS</td>
<td>26</td>
<td>36.6</td>
<td>36.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>
### Table 3.0 DURATION OF OPERATING M-PESA BUSINESS

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid LESS THAN ONE YEAR</td>
<td>17</td>
<td>23.9</td>
<td>23.9</td>
<td>23.9</td>
</tr>
<tr>
<td>1-2 YRS</td>
<td>28</td>
<td>39.4</td>
<td>39.4</td>
<td>63.4</td>
</tr>
<tr>
<td>3-5YRS</td>
<td>26</td>
<td>36.6</td>
<td>36.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

A majority of them, 39.40% have been in operation between 1-2 years, closely followed by 36.60% who have been in operation between 3-5 years and 23.90% have been in operation for less than one year forming the lesser percentage of young businesses.

### 4.3 QUALITATIVE ANALYSIS

#### 4.3.1 Location of M-Pesa business

The respondents were asked to indicate the location of their M-Pesa businesses and the results are shown in figure 2.0 below.

**Figure 2.0 location of M-Pesa business**

![Diagram](image)
The study found out that a majority of the M-Pesa businesses were located in low income areas with a 45.07% indication, 38.03% were located in middle income areas as 16.90% of the business are located in high income areas. The study did not utilize a sample from the city center.

4.3.1.1 Location affects investment returns of M-Pesa business
Respondents were asked if the location of their business affects their investments returns in the M-Pesa business, findings are shown in table 4.0 below.

<table>
<thead>
<tr>
<th>Table 4.0 LOCATION AFFECTS INVESTMENT RETURNS OF M-PESA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>Valid YES</td>
</tr>
<tr>
<td>NOT SURE</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Eighty three point one percent majority were of their opinion that it does and 16.90% were not sure, however none of them responded on the contrary.

4.3.1.2 Location determines the amount & number of transactions per day

<table>
<thead>
<tr>
<th>Table 5.0 LOCATION DETERMINES AMOUNT &amp; NUMBER OF TRANSACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>Valid VERY MUCH</td>
</tr>
<tr>
<td>MUCH</td>
</tr>
<tr>
<td>NOT MUCH</td>
</tr>
<tr>
<td>NO EFFECT</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
The study sought to find out if the location determines the amount and number of transactions per day, findings indicate that 78.90% agreed that it very much did so, 12.70% said it only determined as much, 5.60% the influence was not much and only 2.80% were of the opinion that the location has no affect in determining the amount and number of transaction per day as indicated in table 5.0 above.

4.3.1.3 Factors affecting M-Pesa returns due to location of your business.

This section shows findings regarding the factors affecting M-Pesa returns due to the location of the respondents businesses, the influence ranged from very much to does not affect in a likert scale where 1 represented very much and 4 represented does not affect. Findings are shown below.

a) Lack of customers

Table 6.0 LACK OF CUSTOMERS

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VERY MUCH</td>
<td>54</td>
<td>76.1</td>
<td>76.1</td>
<td>76.1</td>
</tr>
<tr>
<td>MUCH</td>
<td>7</td>
<td>9.9</td>
<td>9.9</td>
<td>85.9</td>
</tr>
<tr>
<td>NOT MUCH</td>
<td>5</td>
<td>7.0</td>
<td>7.0</td>
<td>93.0</td>
</tr>
<tr>
<td>DOES NOT AFFECT</td>
<td>5</td>
<td>7.0</td>
<td>7.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

On the issue of location with regard to lack of customers, 76.10% were of the opinion that the variable very much affected the returns due to location, 9.90% said it only did as much, 7.00% were of the opinion that it did not much affect the returns and an equal number of 7.00% said it does not affect.
b) Insecurity

Table 7.0 above indicates the analysis of the extent to which security/insecurity affects the rate of returns with regard to the location of M-Pesa businesses.

Table 7.0 INSECURITY

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VERY</td>
<td>39</td>
<td>54.9</td>
<td>54.9</td>
<td>54.9</td>
</tr>
<tr>
<td>MUCH</td>
<td>13</td>
<td>18.3</td>
<td>18.3</td>
<td>73.2</td>
</tr>
<tr>
<td>MUCH</td>
<td>19</td>
<td>26.8</td>
<td>26.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

A majority of the respondents, 54.90% agreed that it very much affected the rate of returns, 18.30% said it only affected the returns as much, 26.80% were of the opinion that the effects were not much, however none of the respondents indicate that insecurity does not affect the rate of return in relation to location of their businesses.

c) Accessibility to float from agents

Accessibility to float from agents in relation to location was put under study to determine the extent, to which it affects the rate of returns.

Table 8.0 ACCESSIBILITY TO FLOAT

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VERY</td>
<td>6</td>
<td>8.5</td>
<td>8.5</td>
<td>8.5</td>
</tr>
<tr>
<td>MUCH</td>
<td>48</td>
<td>67.6</td>
<td>67.6</td>
<td>76.1</td>
</tr>
<tr>
<td>MUCH</td>
<td>17</td>
<td>23.9</td>
<td>23.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
A majority of the respondents 67.60% indicated that it much affected it, 23.90% were of the opinion that the effect was not as much and 8.50% indicated that it very much affected that rate of returns as shown in table 8.0 above.

d) Competition from other mobile money transfers
The study sought to find out how competition from other mobile money transfers, affects the rate of returns of M-Pesa with regard to location.

Table 9.0 COMPETITION FROM OTHER MOBILE MONEY TRANSFERS

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT MUCH</td>
<td>16</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
</tr>
<tr>
<td>DOES AFFECT</td>
<td>55</td>
<td>77.5</td>
<td>77.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

It was interesting to note that 77.50% were of the opinion that it does not affect the returns and 22.50% of the respondents indicated that the influence was not much.

None of the respondents indicated that there was much effect. Findings are represented in table 9.0 above.

4.3.1.4 Summary of findings on factors, affecting rate of returns, with reference to location.
Table 10.0 below shows the summary of the findings on the factors affecting the rate of returns with reference to location, specifically the lack of customers, insecurity, and accessibility to float and competition from other mobile money transfers.
Table 10.0 Summary of findings with reference to location

<table>
<thead>
<tr>
<th>Factors</th>
<th>Effects</th>
<th>Very much</th>
<th>much</th>
<th>Not much</th>
<th>Does not affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) lack of customers</td>
<td>76.10%</td>
<td>9.90%</td>
<td>7.0%</td>
<td>7.0%</td>
<td></td>
</tr>
<tr>
<td>b) Insecurity</td>
<td>54.90%</td>
<td>18.30%</td>
<td>26.00%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>c) Accessibility to float from agents</td>
<td>8.50%</td>
<td>67.60%</td>
<td>23.90%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>d) Competition from other mobile money transfers</td>
<td>0</td>
<td>0</td>
<td>22.50%</td>
<td>77.50%</td>
<td></td>
</tr>
</tbody>
</table>

In summary (76.10%) of the respondents agreed that lack of customers and insecurity (54.90%) very much affected the rate of returns, accessibility to float from agents only did so as much with 67.60% response rate, whereas 77.50% of the respondents indicated that competition from other mobile money transfers does not affect their rate of returns with respect to location of their business.

4.3.2 Remitting of M-Pesa commissions

Table 11.0 below indicates that 67.60% of the respondents receive their commissions through increase of float in M-Pesa, 25.40 indicate that it’s through cash collections and 7.0% of the population indicated that they receive their commissions by cheque.
Table 11.0 Remitting of M-Pesa commissions

<table>
<thead>
<tr>
<th>Method</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>THROUGH</td>
<td>48</td>
<td>67.6</td>
<td>67.6</td>
</tr>
<tr>
<td>FLOAT IN M-PESA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BY CHEQUE</td>
<td>5</td>
<td>7.0</td>
<td>7.0</td>
</tr>
<tr>
<td>CASH</td>
<td>18</td>
<td>25.4</td>
<td>25.4</td>
</tr>
<tr>
<td>COLLECTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.3.2.1 How fast does Safaricom agent remit the commission?

The study sought to find out how fast Safaricom remits the commission to M-Pesa businesses, findings show that 62.0% of the respondents receive their commissions before or on the 5th day of the month, 38.0% receive their on the third day of the month, none of the respondents indicated that they receive the commissions on the 1st or 2nd day of the month.
The study found out that Eighty four point five percent of the respondents were of the opinion that it did affect as only 15.49% said no to this effect. Findings are represented in figure 3.0 above.
4.3.2.3 Insecurity determines amount kept in M-Pesa for transactions

Respondents were asked what their opinion was on how insecurity determines the amount of money kept in M-Pesa business for transaction purposes and findings are shown in table 13.0 below.

**Table 13.0 INSECURITY DETERMINES AMOUNT KEPT IN M-PESA FOR TRANSACTIONS**

<table>
<thead>
<tr>
<th>Valid EXTENT</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREAT EXTENT</td>
<td>55</td>
<td>77.5</td>
<td>77.5</td>
<td>77.5</td>
</tr>
<tr>
<td>LITTLE EXTENT</td>
<td>16</td>
<td>22.5</td>
<td>22.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Seventy seven point five percent of the respondents were of the opinion that insecurity did in fact determine the amount of cash kept to a great extent as 22.50% indicated that it was but to a little extent none of the respondents indicated that insecurity does not affect the amount of cash kept for transaction purposes in M-Pesa business. This has been shown in table 11.0 above.
1.3.2.4 Insecurity affects customer service

The study sought to find out how much insecurity affects the customer service in terms of deposits and withdrawals of large amounts of money. 74.65% of the respondents were of the opinion that it very much affected the customer service, 18.31% indicated that it only affected as much and 7.04% were of the opinion that insecurity affected customer service but the effect is not much.
4.3.2.5 Commissions paid by Safaricom agent depend on daily transactions

Respondents were asked to indicate whether the commissions paid by Safaricom agent depended on daily transactions and the results are shown in figure 6.0 below.

**Figure 6.0 Commissions paid by Safaricom agent depend on daily transactions**

Findings indicate that 56.34% of the respondents were of the opinion that commissions paid by Safaricom agents depended very much on the amount of money transacted on a daily basis, 38.03% responded that the commissions paid depended on the daily transactions but only as much and only 5.63% of the respondents were of the opinion that the commissions paid did not depend much on the daily transactions. This has been represented in figure 6.0 above.
4.3.2.6 Insecurity concerns affect commissions you receive per month

The study sought to find out the relationship between insecurity and commissions paid per month and the results are shown in table 14.0 below.

| Table 14.0 INSECURITY CONCERNS AFFECT COMMISSIONS RECEIVED PER MONTH |
|---------------------------------|----------------|----------------|----------------|----------------|
|                                | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                           |           |         |               |                  |
| VERY                            | 16        | 22.5    | 22.5           | 22.5             |
| MUCH                            | 42        | 59.2    | 59.2           | 81.7             |
| NOT MUCH                        | 13        | 18.3    | 18.3           | 100.0            |
| Total                           | 71        | 100.0   | 100.0          |                  |

Tabulation indicated that 22.50% of the population were of the opinion that insecurity very much affected the commissions received per month, 59.20% indicated the effect was just as much as 18.30% were of the opinion that insecurity did not have much effect on the commissions. Findings are represented in table 12.0 above.

4.3.3. Factors limiting the amount of cash kept in the M-Pesa shop for transaction purposes

This section shows findings regarding the factors limiting the amount of cash float kept in the M-Pesa shop for transaction purposes in relation to security, lack of customers, access to float from agent and customers, the influence ranged from very much to no affect in a likert scale where 1 represented very much and 4 represented does not affect. Findings are explained and shown below.

a) Security

Table 13.0 below shows that 71.80% of the respondents agreed that security very much affected the amount of cash float kept at the shop for transaction purposes, 11.30% indicated that it was only as much and 16.90% were of the opinion that it did not affect the cash float amounts kept for transaction purposes.
Table 15.0 INSECURITY AFFECTS AMOUNT KEPT FOR TRANSACTION

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY</td>
<td>51</td>
<td>71.8</td>
<td>71.8</td>
<td>71.8</td>
</tr>
<tr>
<td>MUCH</td>
<td>8</td>
<td>11.3</td>
<td>11.3</td>
<td>83.1</td>
</tr>
<tr>
<td>MUCH</td>
<td>8</td>
<td>11.3</td>
<td>11.3</td>
<td>83.1</td>
</tr>
<tr>
<td>NOT MUCH</td>
<td>12</td>
<td>16.9</td>
<td>16.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

b) Lack of money

Table 16.0 LACK OF MONEY AFFECTS AMOUNT KEPT FOR TRANSACTIONS

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY</td>
<td>31</td>
<td>43.7</td>
<td>43.7</td>
<td>43.7</td>
</tr>
<tr>
<td>MUCH</td>
<td>25</td>
<td>35.2</td>
<td>35.2</td>
<td>78.9</td>
</tr>
<tr>
<td>MUCH</td>
<td>25</td>
<td>35.2</td>
<td>35.2</td>
<td>78.9</td>
</tr>
<tr>
<td>NOT MUCH</td>
<td>15</td>
<td>21.1</td>
<td>21.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The study sought to find out whether lack of money affects amount kept for transactions purposes, 43.70% indicated that it very much did so, 35.20% showed that it affected the amount of float kept as much and 21.10% were of the opinion that it did not affect the cash float kept as much as shown in table 14.0 above.
e) Access to float from agent

Table 17.0 ACCES TO FLOAT AFFECT AMOUNT KEPT FOR TRANSACTION

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VERY MUCH</td>
<td>53</td>
<td>74.6</td>
<td>74.6</td>
<td>74.6</td>
</tr>
<tr>
<td>MUCH</td>
<td>9</td>
<td>12.7</td>
<td>12.7</td>
<td>87.3</td>
</tr>
<tr>
<td>NOT MUCH</td>
<td>3</td>
<td>4.2</td>
<td>4.2</td>
<td>91.5</td>
</tr>
<tr>
<td>NOT EFFECT</td>
<td>6</td>
<td>8.5</td>
<td>8.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 15.0 below shows findings that 74.60% of the respondents agreed that access to float from agents affects the amount of cash kept in the M-Pesa shop for transaction purposes, 12.70% agreed that it had much effect, 8.50% indicated that access to cash float had no effect to the amount of cash kept for transaction, however, 4.20% agreed that the effect was not much.

d) Customers

Table 18.0 CUSTOMERS

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VERY</td>
<td>48</td>
<td>67.6</td>
<td>67.6</td>
<td>67.6</td>
</tr>
<tr>
<td>MUCH</td>
<td>17</td>
<td>23.9</td>
<td>23.9</td>
<td>91.5</td>
</tr>
<tr>
<td>NOT MUCH</td>
<td>6</td>
<td>8.5</td>
<td>8.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
According to 67.60% of the respondents customers very much affected the amount of cash float kept for transaction purposes, 23.90% indicated the effect was felt as much as 8.50% were of the opinion that it the effect was not much.

4.3.4 Cash float used on average

Figure 7.0 Average amount of cash float used (capital)

The study found out that 36.62% of the respondents use a cash float capital of 10,000-50,000, 8.45% use an amount between 50,000-70,000, 23.94% use a cash float between 70,000-100,000, 18.31% use an amount between 100,000-150,000 and finally 12.68% use cash float over 150,000.
4.3.4.1 Cash float affects number of M-Pesa transactions made daily.

The study sought to find out if the cash float affects the number of transactions on a daily basis, influence ranged from strongly agree to strongly disagree on a likert scale where 1 represented strongly agree and 4 represented strongly disagreed, 67.61% strongly agreed that it affects, 25.35% agreed, 7.04% disagreed, however, none of the respondents strongly disagreed with this assumption as represented in figure 8.0 below.

**Figure 8.0 cash float affects number of M-Pesa transactions on a daily basis**

4.3.4.2 Cash float affects the commission received at the end of the month

Eighty point two percent of the respondents strongly agree that the cash floats the commission received at the end of the month, 16.90% agree and 2.82% disagree, however none of the
respondents strongly disagreed with this assumption. Findings are represented in figure 9.0 below.

**Figure 9.0 Cash float affects the commission received at the end of the month**

The table below shows respondents reaction to how much cash float affects their monthly Commission returns

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRONGLY AGREE</td>
<td>80.28%</td>
</tr>
<tr>
<td>AGREE</td>
<td>16.90%</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>2.82%</td>
</tr>
</tbody>
</table>
4.3.4.3 Businesses located near respondents M-Pesa shops.

Figure 10.0 Competitors businesses located near M-Pesa shops

**BUSINESS LOCATED NEAR YOUR M-PESA SHOP**

- ZAP: 40.85%
- PESA POINT: 32.39%
- ATM CASH: 18.31%
- EQUITY AGENCY: 5.63%
- ANOTHER M-PESA OUTLET: 2.82%
The study found out that 40.85% of other M-Pesa businesses were located near the respondents M-Pesa shops, 32.39% were equity agencies, 18.31% were ATM cash machines, 2.82% were Pesa point machines, 5.63% were ZAP agents from the mobile service provider ZAIN limited, none of the respondents were located near Orange money or YU cash. Findings are represented in figure 10.0 above.

4.3.4.4 Other mobile money transaction business affect M-Pesa business

Figure 11.0 Other mobile money transaction business affect M-Pesa business

Figure 11.0 above shows findings that 45.07% of the respondents agree that other mobile money transfer businesses affect the day to day transactions, 42.25% said the effect was not much, 4.23% said it very much affected the daily transactions as 8.45% indicated that there was no effect on their daily transactions as a result of the presence of other mobile money transfer businesses.
4.3.5 Satisfaction by the rate used by Safaricom to pay commissions

Respondents were asked if they were satisfied by the rate Safaricom uses to pay their commissions, influence range from very satisfied to not satisfactory. Findings indicated that a majority, 82.3325 were not satisfied with these rates and 12.68% indicated that they were satisfied. None of the respondents were very satisfied by the rates used to pay the commissions. Findings are represented in figure 12.0 below.

Figure 12.0 Satisfaction by the rate used by Safaricom to pay commissions
CHAPTER FIVE
SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter will present the summary of the findings, answers to research questions; conclusion will be drawn from the data analysis performed in chapter four. Implications drawn from the study will be discussed subsequently and the study will end in recommendations reached.

5.2 Summary of findings
The main goal for most businesses is to earn a profit. Generating profits in a business environment often indicates that an organization is offering goods or services desired by consumers at a reasonable price. Developing a strong clientele and a competitive advantage against other companies in the market may require much time and effort on management's part as it seeks to produce desirable goods or services that produce profits. The study sought to find out, factors that determine investment returns of M-Pesa retail outlets in Nairobi county, under study was the location of M-Pesa shops, security/insecurity concerns, accessibility to cash float and competition from other mobile money transfers as variables affecting the rate of returns of m-pesa businesses. The study noted that 40.85% of the businesses were located near other M-pesa businesses as 80.28% strongly agree cash float affects the monthly returns as 67.61% said it affected the number of daily transactions. Security had a high effect on the amount of cash float kept in the shops with 71.80% of the respondents strongly agreeing with this opinion and further indicating that burglary/robbery was a major determining factor on the same.

In terms of location 45.07% of the businesses are located in middle income areas which forms the majority of the sample population, 38.03% were located in low income area and the least population 16.90% are located in high income areas. A cross tabulation of the study indicated that a majority of the M-Pesa shops located high income areas were also next to ATM machines and other mobile money transfer services. It was also clear that 87.32% of the respondents were not satisfied with the rates of commissions paid by Safaricom with only 12.68% indicating that they were satisfied with these rates.
5.3 ANSWERS TO SPECIFIC OBJECTIVES.

5.3.1 Determine how location of the M-Pesa business affects investment returns.

Business needs to be located in an appealing area that is accessible for most transportation and mass transit. If it is not in such an area, the owner will have trouble making a profit or even covering their overheads. The study found out that location affect the number of customers and the daily transactions of M-Pesa businesses with 78.90% of the respondents strongly agreeing to this assumption, 67.60% indicating that the location affected their accessibility to cash float, 54.90% indicating that the location has a major impact on security, 77.50% were of the opinion that the location affects the amount of cash float kept in the shop and 74.65% strongly agreed that it affected the customer service. Businesses that are located in a desirable area will benefit from the exposure and foot traffic of other neighborhood businesses. Moreover, the right setting for a corporation's headquarters can project a positive image that is more inviting for potential customers.

5.3.2 Determine the effect of competition on M-Pesa business returns.

Business organizations that cannot complete these functions may face the prospect of losing money from their operations and dealing with the consequences of financial loss. This study found out that competition does indeed affect the rates of returns on M-Pesa businesses with 45.07% of the respondents indicating that other mobile money transfer businesses affect the daily transactions of these M-Pesa shops. Findings indicate that 40.85% of the sample population is located near other M-Pesa shops and a whooping 32.39% of these businesses are located near an Equity bank agency thus increasing competition hence affecting their rate of returns.

5.3.3 Determine how security factors affect the investments returns of M-Pesa outlets.

Every business faces security risks, no matter its size, products or geographic location. Unmitigated risks can result in lost opportunity, financial losses, loss of reputation, or loss of the right to operate in a jurisdiction. Understanding the types of security risk the business faces is important; it can help determine how to protect the business investment.

This study found out that security does have an impact on the rate of returns of M-Pesa businesses. Findings indicated that 71.80% of the respondents strongly agree that security affects the amount of cash kept in the shop for transactions with 84.51% citing robbery/burglary as a
major factor affecting the performance of M-Pesa businesses. The study also noted that 54.90% of the respondents agreed that insecurity does affect the rate of returns of the businesses.

5.3.4 Determine effects of cash floats on M-Pesa investment returns.

The emerging markets do not need to relearn the lesson, for M-Pesa type schemes for them to be truly successful they need to reduce the dependency on cash (Peter Goldfinch, September 16 2009). An agent needs to build a critical mass of transactions every day to make his agency financially viable (Michael Uiari, January 26 2010). The study found out that accessibility to cash float highly affects the rate of returns with a majority of the respondents, 67.60% strongly agreeing with this assumption. It’s verified that Safaricom deducts 10% withholding tax and their profit. Then the remaining is shared between Agents and Sub-agent in ratio of 80% to sub-agent who are M-Pesa outlets owners. Cash float is the backbone of the mobile money transfer business and its accessibility highly affects the number of transactions in a daily basis as well as monthly basis. Its goes without question that the more cash float one can access the more commissions one gets as this determines the amount of commissions that the agents receive, thus affecting their return on investment in M-Pesa businesses.

5.4 CONCLUSION

The success or failure of a business is influenced by a number of inter-playing factors. This study confirms that the factors of location, security and insecurity, access to cash float, competition from other mobile money transfers and customers are the major factors affecting the return on investments of M-Pesa businesses. In addition the importance of these issues gets more highlighted. Diversification and broadness of service sector including individual and social services, professional and commercial and public increases the role and importance of strategy and increase on profits. Today most of executive managers of companies, profit and non-profit organizations spend considerable time, energy and money for formulating and assigning basic strategies of their organizations, but they more often than not fail to consider the factors that will ultimately in the long run affect the profits and the investments returns. Managers' defined vision is obviously clear for themselves, but perception of the long growth and survival may be gloomy and then they do least effort to achieve objectives derived from this vision. Specifications of
today’s economy based on knowledge and information have severely questioned the success of a business through custom approaches of performance evaluation. External and internal environmental factors are but very crucial to the growth survival and sustainability of a business. Despite of existing attitudes, identifying factors affecting strategies and the rate of return on businesses is important. It emphasizes the role of an evaluation system which undertakes success and it requires managers and decision-makers to identify these factors, while formulating, and by considering them, estimate success rate of strategy and businesses profitability when investing in money transfer businesses during the planning stage phase all through to reaping the profits. This study was able to successfully indicate that the location of a business, the surrounding competition, security and the amount of cash float available to an M-Pesa agent do indeed affect the profitability, the success and the return on investments of these mobile money transfer service.

5.5 RECOMMENDATIONS FOR FURTHER RESEARCH
The above study focused on the factors that affect the rate of returns of M-Pesa businesses by the leading service provider Safaricom, however, further studies should focus and the viability of mobile money transfer services of different service providers like Airtel money and Yu cash, research should also be done on the mobile money transfer service in the banking sector and the overall effect this service has on the banking sector.
Appendix1: Institutions Offering Mobile Banking In Kenya

Mobile Network Operators: Safaricom (M-Pesa)
Zain (Zap)
Orange (Orange money)
Equity Banking (Equity Agency)
Co-operative Bank (Cooperative Agency)
YU cash (Ushindi mobile money transfer)
Appendix 3: Questionnaire

Please note that your views and answers to these questions will be treated with utmost confidentiality. Also know that there is no right or wrong answer.

Instructions on how to fill the questionnaire:

i) Fill in your answer to all Questions in the spaces provided.
ii) Do not indicate your name anywhere in the questionnaire.
iii) It is absolutely important that all questions have a response.
iv) Your response should be based on your experience in the recent past.

A) General/ personal information

Please tick your designation:

1) Gender
   - Male
   - Female

2) Indicate by ticking your position in this M-Pesa shop
   - a) Owner
   - b) Agent
   - c) Sub Agent
   - d) Employee

3) How long have you been operating the M-Pesa business
   - a) Less than 1 yr
   - b) 1 yr – 2 yrs
   - c) 3 yrs – 5 yrs
   - d) 6 yrs – 8 yrs
   - e) 9 yrs to 11 yrs
   - f) Over 12 yrs
B) Factors affecting M-Pesa business investment returns.

4) State the place where this M-Pesa shop is located
a) High income area
b) Middle income area
c) Low income area
d) City Centre

5) Do you think the place where your M-Pesa is located affects the investment returns of M-Pesa business?
Yes
No
Not sure

6) Does this location determine the amount and number of transaction you carry per day?
a) Very much
b) much
c) Not much
d) No effect

7) To what extent does following factors affect your M-Pesa returns due to the location of your business?

<table>
<thead>
<tr>
<th>Effect</th>
<th>Very much</th>
<th>Much</th>
<th>Not much</th>
<th>Does not affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Lack of customers</td>
<td></td>
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<tr>
<td>b) Security</td>
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<tr>
<td>c) Accessibility to float from agents</td>
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<tr>
<td>d) Competition from other mob</td>
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<td></td>
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<tr>
<td>e) Mobile money transfers</td>
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</tbody>
</table>
8) How is your M-Pesa commission remitted to you?
   a) Through float (increasing e-float) in the M-Pesa
   b) By cheque
   c) Cash collection (Agent brings)
   d) Others specify ..............................................................

9) How fast does Safaricom Agent remit the commission?
   a) 1st day of the month
   b) 2nd day of the month
   c) 3rd day of the month
   d) Before 5th day of the month
   e) Others specify .........................................................

10) Do you think robbery/burglary is serious security problem that can affect your M-Pesa business performance.
    a) Yes
    b) No

11) To what extent do robbery/insecurity determine how much cash you keep in M-Pesa business for transaction purposes?
    a) Great extent
    b) Small extent
    c) Little extent
    d) No effect
12) How much this does affect your customer service. That is when customers are depositing large amount and withdrawing large amount of money.
   a) Very much
   b) Much
   c) Not much
   d) No effect

13) Does the commission paid by the Safaricom Agent depend on the amount of money you transact on daily basis?
   A) Very much
   B) Not much
   C) Much
   D) No effect

14) Do you agree that insecurity concerns affect the commission you receive per month?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree
15 Which of the following factors limit how much cash you keep in your M-Pesa shop for transaction purposes.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Very much</th>
<th>Much</th>
<th>Not much</th>
<th>No effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Security</td>
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<tr>
<td>(b) Lack of money</td>
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<tr>
<td>(c) Access to float from agent</td>
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<tr>
<td>(d) Customers</td>
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<tr>
<td>(e) Others specify</td>
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</tbody>
</table>

16) How much cash float on average do you use in your M-Pesa transaction (capital) between

- 10,000 - 50,000
- 50,000 - 70,000
- 70,000 - 100,000
- 100,000 - 150,000
- 150,000 - Over

17) Do you agree that cash (float) used in M-Pesa business transaction affect the number of transactions made on daily basis?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree

18) Do you agree the effect of float (cash) affect the commission received at the end of the month?
   a) Strongly agree
   b) Agree
   c) Disagree
d) Strongly disagree  

19) Identify by tick which of the following business are located near your M-Pesa shop.
   a) Zap  
   b) Pesa point  
   c) ATM cash  
   d) Orange money  
   e) Equity agency  
   f) Another M-Pesa outlet  
   g) YU cash  

   Others specify

20) How much does these other mobile money transaction business affect your day to day M-Pesa transactions?
   a) Very much  
   b) Much  
   c) Not much  
   d) No effect

21) Are you satisfied with the rate used by Safaricom to pay the commission at the end of the month?
   a) Very satisfied  
   b) Satisfied  
   c) Not satisfied
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