

INFLUENCE OF MPESA CASHLESS PAYMENTS PRODUCT ON THE
OPERATIONS OF EAST AFRICA BREWERIES DISTRIBUTORS IN
NAIROBI COUNTY

BY

CAROLINE NYAMBURA THUO

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DECLARATON

This project is my own work and that it has not been submitted anywhere for any award. Where other sources of information have been used, they have been acknowledged.

Signature..... Date.....

Caroline Nyambura Thuo

L50/64883/2010

This project has been submitted for examination with my approval as the University supervisor

Signature.....Date.....

Prof. J.M Khalagai

School of Mathematics

University of Nairobi

DEDICATION

I dedicate this project to my parents Phillip and Jane Thuo for their encouragement and support throughout my academic journey.

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ACRONYMS AND ABBREVIATIONS

ICT Information Communication Technology

IT Information Technology

MMT Mobile Money Transfer

AFDB African Development Bank

EABL East African Breweries Limited

FMCG Fast Moving Consumer Goods

GDP Gross Domestic Product

EFT Electronic Funds Transfer

MTN Mobile Telephone Network

UNEP United Nations Environmental Program

ATM Automated Teller Machine

CBK Central Bank of Kenya

NPCI National Payments Corporation of India

SPSS Statistical Package for the Social Sciences

ABSTRACT

The pace of transformation in the use of mobile phone transactions is attributable to the high levels of mobile phone penetration in developing countries. M-Pesa allows users to exchange cash for "e-float" on their phones, to send e-float to other cellular phone users, and to exchange e-float back into cash. This study intended to investigate the influence of Mpesa Cashless Payments Product on the operations of East Africa Breweries Limited distributors. The following objectives were used to guide the study: to investigate how cost has influenced the use of M-Pesa cashless payments production the operations of East Africa Breweries Limited distributors; to establish how security has influenced the use of M-Pesa cashless payments product in the operations of East Africa Breweries Limited distributors; to establish how convenience has influenced the use of M-Pesa cashless payments product in the operations of East Africa Breweries Limited distributors; to investigate how Book Keeping Volumes have influenced the use of M-Pesa cashless payments product in the operations of East Africa Breweries Limited distributors. Descriptive study design was used. The total number of clients on the Mpesa cashless product is 625 as at 23rd Oct 2013. A census conducted. The entire EABL Mpesa cashless payments product constituted the sample, they were 88 in total. Data was collected using questionnaire method. Data was analyzed using frequency distribution tables and percentages. After receiving the online questionnaires, data coding was done by creating dummy variable names. This was then followed by data entry according to the assigned codes. The keyed in data was subjected to the SPSS processor which computed the data results. The study found that Mpesa Cashless Payments Product influenced the operations of East Africa Breweries Limited distributors. The study found that cost had reduced due to the use of Mpesa cashless. The study found that security had increased due to the use of Mpesa cashless. The study found that convenience had increased due to the use of Mpesa cashless. The study found that Book Keeping Volumes had reduced due to the use of Mpesa cashless. The study concludes that cost had reduced due to the use of Mpesa cashless. The study concludes that security had increased due to the use of Mpesa cashless. The study concludes that convenience had increased due to the use of Mpesa cashless. Mpesa cashless use had reduced the amount of printing papers purchased. Recommendations were to have EABL sensitize their customers to encourage customers to pay bills through Mpesa other than cash. The government should sensitize and encourage people on use of plastic and cashless money. Safaricom need to reduce the Mpesa transaction costs to encourage everyone to use Mpesa to pay for their goods and services. The government needs to put in place measures to fight online fraud.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Modern businesses in the developing world are increasingly deploying the use of alternative payment methods to enhance the quality of services to their customers and increase growth. These are methods other than the exchange of cash at the point of sale. The pace of transformation in the business sector has sped up with more businesses realizing the potential of using alternative modes of payments to ease their transactions. They are increasingly deploying the use of mobile payments to enhance the quality of their services and increase growth (Mbogo, 1998).

This research elaborated the backdrop of the state of affairs relating to Mpesa cashless payments product and its influence on the operations of East African Breweries distributors. The pace of transformation in the use of mobile phone transactions is attributable to the high levels of mobile phone penetration in developing countries. In sub-Saharan Africa it is said that there are more mobile telephones than pit latrines (Wang, 2013). In Nigeria, mobile service provider MTN launched MTN money, a money transfer service conducted from a mobile phone. In the Congo, Celpay is a mode of banking enabled by mobile phones. At the Ivory Coast as well, Orange money is also a mobile money transfer system in use. MTN money is also in use in Uganda (Menekse, Gencer, 2009). Orange money, Airtel money and Yu cash are some of the money transfer services offered by mobile phone service providers in Kenya.

In Kenya the business community has undergone many challenges with the introduction of Information Communication Technology (ICT). Mobile phones are in the centre of this development. The mode of payment through mobile phones has impacted the way in which business conduct their transactions. Mpesa is at the forefront of these mobile phone transactions. The businesses 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 at any time (Anurag, Tyagi and Raddi, 2009). There's appeal in mobile banking and

mobile payment services across the country as there are probably more people with mobile handsets than bank accounts (Porteous, 2006). M-PESA was developed by mobile phone operator Vodafone and launched commercially by its Kenyan affiliate Safaricom in March 2007. M-PESA (“M” for mobile and “PESA” for money in Swahili) is an electronic payment and store of value system that is accessible through mobile phones. To access the service, customers first register at an authorized M-PESA retail outlet. They are then assigned an individual electronic money account that is linked to their phone number and accessible through a SIM card-resident application on the mobile phone. Customers can deposit to and withdraw cash from their accounts by exchanging cash for electronic value at a network of retail stores or agents. These stores are paid a fee by Safaricom each time they exchange these two forms of liquidity on behalf of customers. Once customers have money in their accounts, they can use their phones to transfer funds to other M-PESA users and even to non-registered users, pay bills, and purchase mobile airtime credit. All transactions are authorized and recorded in real time using secure SMS (Safaricom, 2007).

M-Pesa allows users to exchange cash for "e-float" on their phones, to send e-float to other cellular phone users, and to exchange e-float back into cash. The story of the growth of mobile telephones in Africa is one of a tectonic and unexpected change in communications technology. From virtually unconnected in the 1990's, over 60 percent of Africans now have mobile phone coverage, and there are now over ten times as many mobile phones as landline phones in use (Aker and Mbiti, 2010). Even with the story of mobile phones' growth as a background, the growth of M-Pesa is startling. Within eight months of its inception in March 2007, over 1.1 million Kenyans had registered to use M-Pesa, and over 87 million United States Dollars had been transferred over the system (Safaricom, 2007). By September 2009, over 8.5 million Kenyans had registered to use the service and 3.7 billion United States Dollars (equivalent to 10 percent of Kenya's GDP) had been transferred over the system since inception (Safaricom, 2009). This explosive growth was also mirrored in the growth of M-Pesa agents (or service locations), which grew to over 18,000 locations by April 2010, from a base of approximately 450 in mid-2007 (Safaricom, 2009 and Vaughan, 2007). By contrast, Kenya has only 491 bank branches, 500 Postbank branches, and 352 ATMs (Mas and Ng'weno, 2009).

While the mobile telephone is within sight of becoming a mature business, e-money services like M-Pesa are still in their early days and are continually evolving in response to competitive pressures and customer needs. The proliferation of M-Pesa in Kenya has generated research attempting to explain the roots of the phenomenon and to understand its effects. Kaimenyi and Ndung'u (2009) attribute the rapid growth in mobile money in Kenya to four factors: a conducive legal and tax environment, private-public policy dialogue, strategic and prudent macroeconomic policies, and a guarantee of the existence of a contestable market discouraging dominance by initial entrants. Comninou et al. (2008) argue that the initial success of Kenya's mobile money industry can be attributed to the high demand for remittances generated by rural urban migration, while its rapid scaling is due to the mobile providers' growth strategy. The use of mobile payment technology requires basic knowledge to operate. As a result, majority of the businesses in Kenya have embraced its use in their daily operations. The number of people owning mobile phones in Africa has grown to 735 million, setting the stage for mass adoption of Kenya's money transfer model by countries keen to enhance access to financial services. A policy brief from the office of the African Development Bank's (AfDB) chief economist MthuliNcube relies on the annual average growth of 30 per cent in mobile telephone use on the continent since 2000 to arrive at the figure. (AfDB,2013) Africa had 620 million subscribers at the close of 2011, 19 million of them in Kenya.

The rapid adoption of mobile money transfer services in Kenya since Safaricom launched its M-Pesa in 2007 has quickly caught the attention of other mobile telephone operators on the continent (Business Daily, 2012) since inception; Mpesa has evolved in service offering. M-PESA'S initial main offering was peer to peer money transfer enabling users to send money to anyone with a mobile phone. M-PESA filled a niche which previously was essentially handled via informal channels- through personal trips, friends, relatives, and public transport. Safaricom based the initial launch of the M-PESA service on the 'send money home' proposition. This targeted city dwellers with the need to send money to their relatives in the rural areas. In recent months Safaricom has increasingly opened up M-PESA to offer more services. Since its launch in March 2007, M-PESA has spread quickly, and has become the most successful mobile-phone based financial service in the developing world. M-PESA customers can now pay bills, pay for goods and services, deposit and withdraw money from bank, pay loans, buy water, pay school fees, buy air tickets and even buy insurance. This evolution of the M-PESA service

has enabled up to 40 per cent of the adult population in Kenya get access to financial services. M-PESA is definitely on the right path, and my hope is that the service will keep evolving until the problem of financial inclusion in Kenya is successfully tackled (Business Daily, 2012)

For Fast Moving Consumer Goods companies, cash is expensive and inefficient. A company has to worry about protecting cash from theft, receiving fake currency, and transporting cash. All of this security, processing time and transportation entails costs. Safaricom is partnering with Fast Moving Consumer Goods (FMCG) companies in Kenya to deploy cashless payments with M-PESA. Safaricom's deal with FMCG companies in Kenya represents what could be the first successful cashless distribution networks in the world. The FMCG companies are using the M-PESA Buy Goods payment option to receive payments from bars, restaurants and other retail outlets countrywide. Majority of these bars, restaurants and retail outlets also accept M-PESA payments from their customers. (Gakure, 2013) With Mpesa cashless, the business sales teams or distribution tracks are given till numbers, which they use to buy stock from EABL, receive payments from bar owners and deposit the cash into the bank (Business Daily, 2012)

The distributors are not levied any transactions fees, however, bar owners are charged Sh9 for every crate they buy through the system. Beer distributors can transact between Sh50, 000 and Sh70, 000. The average monthly value transacted through system stands at Sh2 billion, which is bound to rise as the distributors embrace the system fully. Between 3pm and 4pm every day the tracks distributing beer rush back to their depots to secure the cash they had instead of continuing with the beer distribution, which not only affected the products availability in the market but also sales. Safaricom provided a proposal on how the distributors could use the M-Pesa buy goods platform to remit cash, do purchases and bank deposits. The service though available on the M-Pesa platform had some challenges. Earlier, it took 72 hours for a transaction made through the buy goods service to reflect on the third parties accounts. This made it impossible to use the service in the beer distribution business that requires real time transactions. Safaricom fixed this by reducing first the waiting period to 48 hours and eventually to less than a minute, giving birth to the cashless payments system. Other than reducing security risks, the system make it possible for the distributors to do the purchases themselves, avoiding diversion of business cash (Business daily, 2012). The distributors now receive payment on a phone that acts as the till. All the funds from various distributor routes are consolidated by a single Mpesa number that is owned by the

business, usually in the accounts or finance office. An online web portal reflects all the transactions carried out by the tills immediately (Safaricom Intranet, 2014)

1.2 Statement of the Problem

Cashless economy does not refer to an outright absence of cash transactions in the economic setting but one in which the amount of cash-based transactions are kept to the barest minimum. It is an economic system in which transactions are not done predominantly in exchange for actual cash.

In Kenya, Distributors of fast moving consumer goods such as alcoholic and nonalcoholic beverages handle large amounts of money during the ferrying of these goods to hotels and bars. In the past East African Breweries distributors have faced problems in security of the funds in transit. As the bars and hotels pay for the product, the point of sale is the distribution truck. This had led them to welding the cash box to the truck, handcuffing the driver to the cash box and even employing security agencies to guard trucks during these rounds (Business Daily, 1012).

However, the global use of cash payment is still endemic, especially for low-value retail transactions. But while cash may be convenient, it makes taxation less transparent, and it is costly to distribute, manage, handle and process. It therefore follows that; cash as a mode of payment is an expensive proposition for any business. As a result, many businesses are seeking to reduce these costs and encourage the use of non-cash payment means.

This accounts for the high rate of penetration for mobile phone related services such as mobile money transfer. (Jack, Suri 2010). The mobile phones have been a key ICT product that has affected business practices. In April 2007, following a student software development project from Kenya, Safaricom' s launched a new mobile phone based payment and money transfer service, known as M-Pesa. The qualitative studies on M-Pesa such as Morawczynski and Pickens (2009) have suggested that M-Pesa serves as a partial substitute for the formal banking system. Due to this it have had a lot of effects on business operations. It is due to this that this study examined the ways Mpesa cashless product had influenced the dangers of cash in transit for East African Breweries distributors.

1.3 Purpose of the Study

This study intended to investigate the influence of Mpesa Cashless Payments Product on the operations of East Africa Breweries Limited distributors.

1.4 Objectives of the Study

The following objectives were used to guide the study

1. To investigate how cost of operation has influenced the use of M-Pesa cashless payments product by East Africa Breweries Limited distributors
2. To establish how security of operations has influenced the use of M-Pesa cashless payments product by East Africa Breweries Limited distributors
3. To establish how convenience in operations has influenced the use of M-Pesa cashless payments product by East Africa Breweries Limited distributors
4. To investigate how Book Keeping Volumes in operations have influenced the use of M-Pesa cashless payments product by East Africa Breweries Limited distributors

1.5 Research Questions

1. How has the cost of operations influenced the use of M-Pesa cashless payments product by East Africa Breweries Limited distributors?
2. How has the security in operations influenced the use of M-Pesa cashless payments product by East Africa Breweries Limited distributors?
3. How has the convenience in operations influenced the use of M-Pesa cashless payments product by East Africa Breweries Limited distributors?
4. How have Book Keeping Volumes in operations influenced the use of M-Pesa cashless payments product by East Africa Breweries Limited distributors?

1.6 Limitation of the Study

The study demanded a lot of time that was hard to get but the researcher managed to get a research assistant to help. The respondents delayed in filling in the questionnaires but the researcher followed up with phone calls to get them to submit the feedback.

1.7 Significance of the Study

The importance of the study was as follows; there is some evidence showing that the introduction of the Mpesa cashless to the EABL distributors has influenced their business operations in terms of increasing convenience, reducing costs, reducing book keeping volumes increasing security. This could be a solution for other businesses that use distributors or ferry large amounts of cash. The study could also be used to encourage businesses to come up with innovative ways of avoiding cash transactions in favor of non cash methods such as Mpesa and credit cards for safety.

1.8 Delimitations of the Study

The study covered 88 EABL distributors in Nairobi County who employ M-Pesa cashless in their transactions. This however does not mean that it is only EABL distributors in Nairobi that have employed Mpesa cashless in their transactions. It also does not mean that only EABL distributors use Mpesa cashless. However due to the bulk of the cashless customers being EABL distributors they were chosen as the area of the study proposal.

1.9 Assumptions of the Study

The distributors would accept to be interviewed. The respondents would offer honest and accurate information. The time and resources would be sufficient to complete the study

1.10 Definition of Significant Terms

East African Breweries: A Kenyan born company dealing in beverages of alcoholic and non-alcoholic nature.

Mpesa Cashless:	An Mpesa based product launched in 2012 by Safaricom that allows payments to be made through a mobile devices acting as a till and comes with an online interface reflecting all transactions made. Several tills can be controlled by one Mpesa account.
Cost:	Fees associated with the operations of the EABL distributors.
Book Keeping Volumes:	Amount of work that goes towards keeping financial records and document management in the operations of EABL distributors.
Convenience:	The ease with which EABL distributors operate.
Security:	The level of exposure to dangers of cash in transit in operations of the EABL distributors.

1.11 Organization of the study

The study has five chapters. Chapter One the introduction has subheadings; background to the study, problem statement, purpose and objectives of the study, research questions, justification, limitations, delimitations, and assumptions of the study and definition of significant terms. Chapter Two has literature review, it has been organized according to the objectives of the study. A theoretical framework and conceptual framework are at the end. Chapter Three has presented the research design, target population, sampling procedure and sample size, research instruments, data collection procedure and analysis and operationalization of study variables. Chapter Four presents the data analysis, interpretation, discussion and presentation of the findings. Chapter Five has presented the summary, discussions, conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter delves into the available literature on ‘non-cash’ modes of payment. In so doing the researcher starts with literature on a global perspective proceeding to the regional view and finally the country down to Nairobi. It is based on the research objectives being the influence of Mpesa cashless on the costs, convenience, security and book keeping volumes for EABL distributors. The theoretical back ground in light of the study variables is also discussed. The conceptual framework and interpretation of the variables therein is also expounded on.

2.2 The Origin and Rise of Cashless Payments

According to the Federal Government (2013), In the United States of America payment systems have evolved into a near cashless society. This is encouraged by the high development in ICT, Federal laws and presence of a financial industry both public and private offering monetary clearing services such as banks, credit card companies and automatic clearing houses. These forms of cashless payments are credit cards, cheques, debit cards and electronic money transfers. Credit cards are the most frequently used electronic payment instrument in the United States. These cards combine a payment instrument with a credit arrangement. There were 20.5 billion credit card transactions processed during 2000, valued at USD 1.5 trillion. Bank credit cards are generally issued by a bank under a license from a national organization, such as Visa or MasterCard, and typically involve a revolving credit agreement. There were 9.5 billion bank credit card transactions during 2000. In addition to bank-issued cards, a number of other companies offer credit cards directly to businesses and consumers. These include Discover Card; national travel and entertainment cards, such as American Express; and limited-use proprietary cards, such as those issued by retail stores and oil and telephone companies.

A 1998 survey of consumers indicated that 68% of US households have at least one general purpose credit card, a 21% increase since 1989. In 1998, limited-use cards issued by retail

stores and oil companies (generally limited to in-store use) were held by 50% and 19% of US households, respectively.

According to the World payments Report (2012) compiled by the Royal bank of Scotland, the global volume of non-cash payments continues to show healthy growth, with the largest gain in volumes occurring in developing markets. Volumes grew by 7.1% to reach 283 billion in 2010, the most recent year for which official final data is available for all regions. Volumes jumped 16.9% in developing markets, boosted by an increase of more than 30% in both Russia and China. That growth far outpaced the modest increase in volumes in developed markets, which were still suffering the effects of the financial and economic crisis. Even in developed markets, though, the growth in non-cash payments volumes, at 4.9%, outpaced the rate of growth in gross domestic product (GDP), and developed markets still accounted for about 80% of all non-cash payments transactions globally. Cards (debit cards and credit cards) are still the biggest driver of non-cash payments volumes globally. Cards accounted for 55.8% of all non-cash payments in 2010, up from 53.4% in 2009 and 35.3% in 2001.

Debit cards alone accounted for more than one in three of all payments, partly as the use of cards for smaller-ticket transactions becomes more widespread. The aggregate use of checks continued to decline (down 6.7% in 2010), while the outright volume of credit transfers and direct debit transactions continued to increase in 2010, though the relative usage of these instruments is gradually declining compared to cards. Global payments volumes are expected to have reached 306 billion in 2011. When global data are finalized for 2011, it is expected to show the growth rate among developed economies rising only slightly, by 5.6%, but the increase in developing economies is expected to be a more robust 18.4%. As a result, the share of payments volumes from developed markets will have slipped again, to 77.7% in 2011 from 79.5% in 2010. Electronic and mobile payments maintain their rapid growth trajectory. Industry estimates show the number of online payments for e-commerce activities (e-payments) is forecast to reach 31.4 billion in 2013, after growing by a sustained 20.0% a year in 2009-13. Analysts believe the number of payments using mobile devices (m-payments) could grow even faster, by 52.7% a year to reach 17 billion in 2013. Widespread innovation in customer-focused m-payments solutions, especially by non-banks, is rising to meet the growing demand. With these markets growing so rapidly, there is a mounting need for central banks to make sure

reliable market data is being collected and monitored with the same rigor for emerging payment channels as for legacy instruments (Royal Bank of Scotland, 2012)

India is currently the 13th largest non-cash payments market in the world, but has the potential to grow significantly. Volumes have been growing about 10% a year as the National Payments Corporation of India (NPCI) continues to drive infrastructure improvements and the development of cheap and efficient electronic payment instruments for instance m-payments, the RuPay domestic cards scheme, and a biometric authentication card system that is currently being rolled out.. The market share of checks has continued to decline gradually, however—to 59% of all transactions in 2010 from 93% in 2001—during which time the market shares of cards and credit transfers have increased. China is the eighth largest payment market, and volumes jumped 30.3% in 2010. The use of cards now predominates, though cash is still used heavily for retail payments—as it is in India and Russia. Credit transfers are the next most commonly used and reliable method of settlement, as concerns persist about the security of e-banking, and even the use of cash, given the flow of counterfeit currency. Still, online shopping is becoming more commonplace, especially among residents of major cities. The payment options on Taobao.com, the most popular on-line shopping website in China, include multiple card and non-card settlement options. The directive on electronic payments, enacted by China in 2005, also guided banks on providing e-payment services, and adopted measures to handle checks electronically, and improve check processing efficiency.(Royal Bank of Scotland, 2012)

In the Middle East, Hawala is one of several Informal Funds Transfer Systems, according to the Journal of Language and Entrepreneurship in Africa (2010) that is used in different countries in many parts of the world. Hawala is generally associated with the Middle East and the Indian Subcontinent where it is called Hundi. Hawala is believed to have arisen in the financing of long-distance trade around the emerging capital trade centers in the early medieval period. In South Asia, it appears to have developed into a fully-fledged money market instrument, which was only gradually replaced by the instruments of the formal banking system in the first half of the 20th century. Today, hawala is probably used mostly for migrant workers' remittances to their countries of origin (Journal of Language and Entrepreneurship in Africa ,2010)

The global adoption of Mobile phones has occurred at perhaps the fastest rate of any consumer technology in History. This accounts for the high rate of penetration for mobile phone related services such as mobile money transfer. (Jack,Suri 2010). Mobile telephony penetration in Africa has increased exponentially from less than 2 million subscribers in 1998 to over 400 million in 2009 (Ondiege,2010)In Africa, mobile service provider MTN launched MTN money based, a money transfer service conducted from a mobile phone. In the Congo, celpay is a mode of banking enabled by mobile phones. At the Ivory Coast, Orange money is also a mobile money transfer system in use. MTN money is also in use in Uganda (Menekse Gencer, 2009).

Orange money, Airtel money and Yu cash are some of the money transfer services offered by mobile phone service providers in Kenya. 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. In April 2007, following a student software development project from Kenya, Safaricom' s launched a new mobile phone based payment and money transfer service, known as M-Pesa. The service allows users to deposit money into an account stored on their cell phones, to send balances using SMS technology to other users (including sellers of goods and services), and to redeem deposits for regular money. Users are charged a small fee for sending and withdrawing money using the service. M-Pesa has spread quickly, and has become the most successful mobile phone based financial service in the developing world. By 2012, a stock of about 17 million M-Pesa accounts had been registered in Kenya (Camner and Sjöblom, 2009).

The initial work of developing the product was given to a product and technology development company known as Sagentia. Development and second line support responsibilities were transferred to IBM in September 2009, to where most of the original Sagentia team transferred. 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 airtime resellers. This would enable microfinance institutions (MFIs) to offer more competitive loan rates to their users, as there is a reduced cost relative to dealing in cash. The users of the service would gain through being able to track their finances more easily. But when the service was piloted, customers adopted the service for a variety of alternative uses and complications arose with

Faulu, the partnering MFI. M-Pesa was re-focused and launched with a different value proposition: sending remittances across the country and making payments (Camner and Sjöblom, 2009).

According to Mas and Radcliffe, (2010), M-Pesa is a branchless banking service, meaning that it is designed to enable users to complete basic banking transactions without visiting a bank branch. The continuing success of M-Pesa in Kenya has been due to the creation of a highly popular, affordable payment service with only limited involvement of a bank. MPESA has had a significant impact on the economy and has created 30,000 direct jobs. At the user level, the benefits are immense. In a survey conducted by FSD Kenya, 47 per cent of the Mpesa customers reported that they save up to 3hrs per transaction compared to other available means of money transfer. The survey also noted that, they save up to US\$3 per transaction. Micro-business enterprises in the developing world are increasingly deploying the use of mobile payments to enhance the quality of their services and increase growth. The pace of transformation in the micro business sector has speeded up with more micro businesses realizing the potential of using the mobile payments in their service delivery. However, there are only a handful of studies on the application of digital technology for success and growth on micro business.

Payment systems exhibit network externalities as the value of a payment system to a single user increases when more users begin to use it (Hughes and Lonie, 2007). Consumer decision to adopt a payment system is therefore significantly affected by the amount of other consumers and traders using it. Failure to create a critical mass has contributed to discontinuance of several previous payment systems, including several smart card systems (Szmigin & Bourne, 1999). It is therefore a critical success factor for the M-Pesa mobile payment provider to reach a wide enough base. The coverage area of the M-Pesa mobile payments is spread throughout the country with over six million registered subscriber base as at 31st March, 2009 (Annual Report 2008/2009). According to Scott et al (2004), Mobile phones offer easy communication and the current M-Pesa facilities have reduced the average transaction costs for the consumer. Safaricom's Annual Report 2008/2009 show that person to person transactions stood at KES. 120.61 billion for the same year against 14.74 billion for the year 2007/2008. The total cumulative person to person transactions 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 many. 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 conditions which promote a sustainable trajectory of market development. Of particular interest are the environments in which widespread access is likely. According to Vaughan, (2007), M-Pesa has widespread access and requires an enabling environment to enhance the success of its consumers. Businesses are spread throughout the country with huge clusters in the market areas and near shopping centers. This enables them to easily access the M-Pesa service providers for registration and to make cash deposits into their accounts as well as payments for other services. The East Africa Breweries Distributors have thus been able to use the cashless product due to the acceptance levels of Mpesa and mobile phone penetration.

2.2.1 Costs in the Operations of EABL Distributors

Consumers invest considerable time and money in managing their personal finances (Chakravorti and Mazzota, 2013) the United States the cost of cash is higher for poor and unbanked people than for other groups. Poor Americans who lack access to formal financial institutions carry larger amounts in cash and pay the most fees in aggregate terms for cash access transactions. Well-banked wealthier Americans, on the other hand, report carrying far lesser amounts in cash, traveling less to access cash, and pay few, if any, fees. The costs of using cash do not accrue at points of sale. Since merchants rarely provide discounts or surcharges for using cash at the point of sale, the costs of cash manifest elsewhere in the lifecycle of cash. This could mean, among other things, costs that accrue as a result of the time or money spent in making trips to a bank, ATM, or fees to cash checks. (Chakravorti and Mazzota, 2013)

A company has to worry about protecting cash from theft, receiving fake currency, and transporting cash. All of this - security, processing time and transportation, - entails costs.

(Mwangi, 2013) Beer distributors can transact between Sh50, 000 and Sh70, 000. The average monthly value transacted through system stands at Sh2 billion but between 3pm and 4pm every day the trucks distributing beer rush back to their depots to secure the cash they had instead of continuing with the beer distribution, which not only affected the products availability in the market but also sales. (Business Daily, 2012).

2.2.2 Security in The Operations of EABL Distributors

Security, simply put refers to freedom from danger. In the proposed study, security will refer to mitigation from the risks that the cash in transit face such as being stolen by the employees themselves and even thieves.

With the downturn in the global economy, cash-in-transit crime is on the rise. In the U.K. alone, there is an estimated 500 billion pounds being transported each year. Money stolen in attacks is a major source of funding for serious organized crime. In 2008, there were 1,000 documented attacks against cash-in-transit couriers in the UK. (Applied DNA sciences, 2014)

According to the Institute of Business in the global context at the Fletcher school of Business cash must be held in physical form, counted, guarded, and accounted for. It can be difficult to transport and send. Being possibly the last thing you can expect to recover from a stolen wallet, acceptable everywhere, and anonymous, it is inherently insecure. In any serious quantity, most legitimate businesses prefer some other party, such as a bank, to handle cash on their behalf. (Chakravorti and Mazzota, 2013) Safe Work Australia, an Australian Government statutory agency established in 2009 working with the Commonwealth, state and territory governments to improve work health and safety and workers' compensation arrangements. In its 2013 report dubbed 'Managing cash in Transit and security, the following is reported; A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking and provide safe systems of work. Cash-in-transit activities will usually involve more than one person conducting a business or undertaking who each have health and safety duties to the extent of their ability to influence and control various aspects of health and safety related to the cash-in-transit activity. In these situations, the duty holders should exchange information about the hazards and risks and work together in a co-operative and coordinated

way to eliminate or minimise the risks so far as is reasonably practicable. Potential hazards may be identified in a number of ways, including: inspecting client work sites, inspecting vehicles and equipment, observing systems of work and work practices, analyzing the routes for cash-in-transit transfers, talking to workers about problems they have noticed, reviewing incident, injury and dangerous incident reports e.g. a report on a hold-up, and determining the levels of training, experience and competence for the tasks. Managing security risks requires assessing all foreseeable risks from carrying out cash-in-transit activities. Security risks can be created by not addressing other health and safety hazards, for example slips, trips or falls can make a security worker vulnerable to an opportunistic robber. A risk assessment involves considering what could happen if someone is exposed to a hazard and the likelihood of it happening. A risk assessment can help determine how severe a risk is, whether existing control measures are effective, what action should be taken to control the risk and how urgently the action needs to be taken. Many hazards and their associated risks are well known and have well established and accepted control measures. In these situations the second step to formally assess the risk is unnecessary. If, after identifying a hazard, you already know the risk and how to control it effectively, you may simply implement the controls. Risk assessments of cash-in-transit activities should be conducted by a competent person, for example a person who holds qualifications in Security Risk Management and relevant experience in the cash-in-transit industry. The factors to consider when assessing risks arising from cash-in-transit activities include: whether the activity is overt e.g. not attempting to hide the transport by using a marked armored vehicle and uniformed workers, whether the activity is covert e.g. attempting to hide the transport by using an unmarked vehicle and non-uniformed workers the regularity of the client runs, the time of the work and periods of peak traffic, the amount of cash and the weight in each transfer, the types of work being carried out e.g. patrol how many people are exposed e.g. crew levels and public activity adequacy of communication systems e.g. back to base radio or equivalent technology, mobile phones the suitability and condition of the vehicles the suitability of equipment for the activity e.g. firearms environmental factors like outdoors, hot and cold environments, wet conditions and darkness, and working hours. Regular route and delivery times increase vulnerability to robbery attempts. Delivery routes and times should be varied as much as possible. Where delivery routes and times are identified as risk factors, risk management strategies should be put in place. Security providers should try to reduce cash

build-ups. This may be achieved by putting in place cash limits for each cash-in-transit activity based on a risk assessment and industry operational needs. (Safe Work Australia, 2013)

2.2.3 Convenience in the Operations of EABL Distributors

Convenience implies to the quality of being suitable to one's comfort, purpose or needs. In the fast food industry, mobile payment has proved to offer services that are of expediency to the users, for example, a customer in the office is able to order for French fries via a mobile phone and make payment via the same means; M-Pesa and within a short time delivery is made to where the customer is. This service has come in handy especially to those who are largely engaged in their places of work thus finding it difficult to walk to these franchises to these foods themselves. They save on time hence they can do more at their work places by using time saved on constructive activities (Porteous and Finmark, 2007). Cash must be held in physical form, counted, guarded, and accounted for. It can be difficult to transport and send. Being possibly the last thing you can expect to recover from a stolen wallet, acceptable everywhere, and anonymous, it is inherently insecure. In any serious quantity, most legitimate businesses prefer some other party, such as a bank, to handle cash on their behalf. In other words, cash satisfies two of the most significant criteria of digital disruption: there are viable digital alternatives with wide networks of adopters and cash presents the carrier with multiple forms of disutility or costs (Chakravorti and Mazzota, 2013). According to Aker and Mbiti, (2010), use of mobile money despite being convenient comes with various challenges, safety being a key issue. In a mobile environment, it is necessary to have perceived security and trust in the payment system. Security and safety of mobile payment transactions is one of the primary concerns for users. 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. Other security factors important to the users are anonymity and privacy, which relate to use policies of customers' personal information. The users of M-Pesa are issued with unique secret identification number which is confidential to them alone. This is aimed at protecting their accounts such that no

other person will be able to make transaction using the account unless access is made using the personal identification number issued. Medhi et al (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). In a different context, 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.

The perceived safety

of Mpesa and its convenience are major reasons that early adopters of the technology chose to use it. Table 9 reports households' primary reasons for using or not using MPESA. Among users, 26% report that safety was their main motivation for adopting it; nearly twice as many (45%) say ease of operation was the main reason. About 12% say they use MPESA for emergencies. For nonusers the reason that was mentioned most often as the primary cause of nonadoption was lack of adequate access to the network of agents. In the year since the survey was fielded, the number of agents has risen from about 2,500 to more than 12,000 so this constraint is less likely to bind now. (Jack and Suri, 2009) The EABL distributors ferrying large amounts of cash exposed to these security risks as opposed to cashless payment product users.

2.2.4 Book Keeping Volumes in the Operations of EABL Distributors

Book keeping in offices translates to long man hours. According to UNEP (2011) Going paperless has many advantages: increased efficiency, paper and printing cost savings, time savings, storage cost savings, environmental benefits, efficient file retrieval, and enhanced customer service. There are a variety of possible benefits for companies deciding to make their offices "paperless." An obvious benefit is potential cost reduction. Other benefits that can be achieved include becoming more "green" or environmentally friendly and increasing efficiency. When combined together, all of these lead toward an overall benefit of improving customer service. By doing this, companies may continue to keep their current customers happy and make new customers become long-standing loyal ones, as well. There are many concerns in today's world about the state of the environment. With more and more people supporting going green and supporting companies that do so. In the United States The Natural

Resources Defense Council has found that “offices throw out about 350 pounds of paper per employee every year,” (Ryan, 2008). Dan Shapley (2007), writer for The Daily Green Paper, an online newsletter geared toward the green revolution, paper accounts for a quarter of landfill waste and one third of municipal landfill waste. One third of human-related methane emissions come from municipal landfills. This is significant considering that methane is 23-times more potent a greenhouse gas than is carbon dioxide. By cutting office paper use by just 10%, the United States would prevent the emission of 1.6 million tons of greenhouse gases. This would be similar to removing 280,000 cars from the road. In turn, besides the above benefits, the company will have the reputation of being environmentally friendly. (Bradwel, 2005) In Africa Senegal’s experience in paperless trade implementation started in the mid-1980s when government authority (Ministry of Finance) made the decision to computerize official processes, in general, and trade procedures, in particular. Implementation really took shape in the 1990s, with the reform initiated by customs to improve clearance formalities. These efforts later culminated into the establishment of the customs automated system.

2.5 Theoretical Background

The acceptance of technology theory by Davis and Bagozi (1992) states that the ease of technology acceptance by a population depends on two factors. Firstly, the usefulness of the technology and secondly the ease of use.

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 (Mas, Morawczynski, 2009).

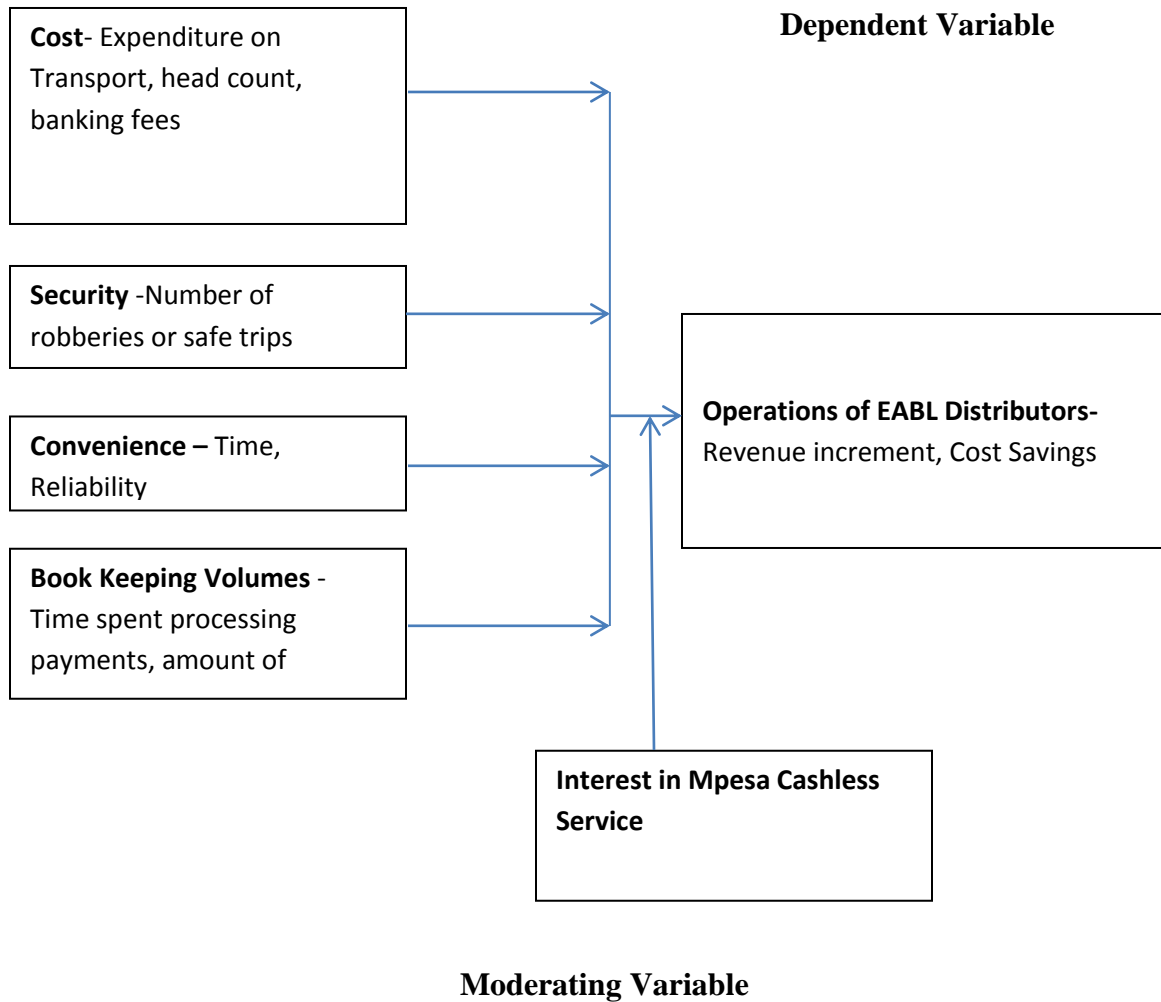
These factors are perceived useful and are defined as the degree to which a person or business believes that using this system; mobile payment, would influence or change on the way transactions are usually conducted. There are certain factors that are considered to be primary determinants for adopting and using mobile money which include; easy accessibility and convenience, security, and satisfaction (Jack and Suri, 2011). The EABL distributor interviewed on the Business Daily journal October, 2012 said the her working hours have

reduced significantly due to the reduction in book keeping volumes after introduction of Mpesa Cashless Payments product. (Business Daily, 2012)

2.6 Conceptual Framework

A conceptual frame work explains either graphically or narratively the main things to be studied the key factors, constructs or variable to be studied and the relationship among them. (Miles and Huberman ,1994)

Figure 1: Conceptual Framework



Cost in the operations of EABL distributors is an independent variable influencing the use of the Mpesa Cashless Payments Product.

Security in the operations of EABL distributors is an independent variable influencing the use of the Mpesa Cashless Payments Product.

Convenience in the operations of EABL distributors is an independent variable influencing the use of the Mpesa Cashless Payments Product.

Book Keeping Volumes in the operations of EABL distributors is an independent variable influencing the use of the Mpesa Cashless Payments Product.

Operations of EABL Distributors is the dependent variable influencing the use of the Mpesa Cashless Payments Product

Interest in the Mpesa Cashless product is the moderating variable that affects the independent variable in the presence of the independent variables. This means for example even when the costs of operations were brought down by the use of Mpesa cashless product, the distributors still had to be interested in the product to use it.

2.7 Research Gap

Originally, M-PESA intended just to design and test a platform that would allow customers to receive money and repay small loans using their handsets. The service was also designed to help microfinance institutions streamline their operations, raising efficiency and boosting business growth. After the pilot the executives at Safaricom saw M-PESA as an opportunity first to become a payment service provider and second to increase customer retention. It has certainly achieved these objectives.

M-money services have advantages of ubiquity, convenience and cost-effectiveness over other money transfer or payment intermediaries such as banks and other financial institutions. A 2010 CGAP study which compared pricing of 16 leading “branchless” banking services against ten formal banks found that branchless banking was 19 percent cheaper than its formal counterparts.

Mobile remittance services, in contrast, have the potential to extend remittance services to millions of those with limited access to traditional bank services, while also reducing transaction costs in terms of commission fees and transport. Mobile payments are conducive for micro transactions. In Africa, Kenya’s M-PESA service has proved to be the most widely-used mobile remittance service to date. Commercially launched in March 2007 (The Economist,

2007), the service is reportedly used by over 50 percent of the country's adult population (Graham, 2010). Similar initiatives have been introduced in other African countries, including, Tanzania, Uganda, Ghana, Zambia, Congo and South Africa (Laurent, 2006; Mas and Morawczynski, 2009).

Previous empirical studies support the argument that mobile money transfer is positively associated with firm-level growth. Positive effects of mobile money investments and business transaction usage on firms growth have been demonstrated in the health care sector (Devaraj and Kohli, 2000, 2003). Similar results were found in the insurance industry where top performing firms with high premium income growth had higher mobile money transaction expense ratios and lower non- mobile money transaction costs (Harris and Katz, 1991). In addition, positive effects of mobile money transactions investment on sales growth were found among valve manufacturing firms (Weill, 1992). Koellinger (2005) finds a positive relationship between mobile money transactions and not--related innovation and turnover growth using data from the 2003 e-Business Watch survey.

Various local authors stressed that mobile money transfer may be characterized as a typical general purpose technology that, like earlier technological breakthroughs, has a wide range of applications and a large impact on economic activity, Ondijo (2008). At the aggregate level, Kongelo (2004) and Njia (2006) argue that the resurgence of growth in the developing countries is mainly founded on the development and deployment of semiconductors that continuously exhibit a price decline and increasing performance, following Moore's law (Moore 1965). Other authors have also demonstrated an increasingly productive use of mobile money transfer in the user sectors, and not only a productivity growth in the ICT producing sector itself Mokuu and Ndeche (2007). However Gordana (2003) raised doubts about this productivity growth acceleration story by taking a case of exchange bureaus in Nairobi and attributed most of the observed changes in international business transactions to price-measurement success and cyclical factors. None of these studies focused on the influence of Mpesa Cashless Payments Product on the operations of East Africa Breweries Limited distributors.

2.8 Summary of the Chapter

This chapter delved into the Rise of Non Cash Payments globally, regionally, in Kenya and then in Nairobi. The aspects of Cost, Security and Book Keeping Volumes associated with non cash payments. The theoretical framework was outlined as Adoption of Technology Theory (Davis, 1992) The conceptual framework concludes the chapter

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

According to Polit and Hungler (1995) methodology refers to ways of obtaining, organizing and analyzing data.

The methodology section of this research study described the procedures that are followed in conducting the study. Techniques of obtaining data are developed and data collected for eventual analysis, results, discussions, conclusions and recommendations. This helps other researchers in understanding one's study particularly in the case of replication. This section therefore discusses populations, samples, study designs, data collection procedures/ instruments and data analysis. This aims at answering the question what, where, when, and how much and by what means was the research conducted. It is the conceptual structure within which the research was conducted. Descriptive research design was adopted in this case. The researcher visited the population of interest. The respondents were contacted via email in their usual working place allowing them to respond more freely to questions.

3.2 Study Design

Descriptive study design was used. Descriptive study design is concerned with describing the characteristics of a particular individual or group. Descriptive research is therefore concerned with specific predictions, with narration of facts and distinctiveness concerned with individuals, group or situations. The advantage of this design is that it allowed it to be flexible in data collection and also made use of open ended and closed questions which allowed the respondents to give extra information freely. It was also appropriate because it ensured that the respondents were not be manipulated in their response.

According to Kothari (2005) descriptive research design includes surveys and fact finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as they exist at present. In descriptive studies the researcher must be able to define clearly, what he wants to measure and must find adequate measures of finding it along

with a clear cut definition of "population" he wants to study. The designs in such studies must be rigid and not flexible and must focus attention on the following: formulating the objective of the study, designing the methods of data collection, selecting the sample, collecting the data, processing and analyzing the data and reporting the findings.

3.3 Target Population

According to Kothari (2004) all the items under consideration in any field of inquiry constitutes a 'universe' or 'population'. The total number of EABL Distributors on the Mpesa cashless product is 88as at 23rd Oct 2013 (Safaricom Intranet, 2013)

3.4 Sample Size and Sampling procedure

A complete enumeration of all the items in the 'population' is known as a census (Kothari, 2004). The entire list of EABL distributors on the Mpesa Cashless product was used.

3.5 Data collection Instruments and procedures

Data was collected using questionnaire method. The questionnaire contained both open ended and closed ended questions. Appropriate forms of questions were used depending on the information sort, the sampled respondents and the kind of analysis intended. The questions were simple and logical. The questionnaires were administered on an online method called survey monkey. Respondents were expected to read and understand the questions and type in responses in the spaces provided.

3.6 Data analysis

Data was analyzed using frequency distribution tables and percentages. It involved strictly related operations which included; scanning by checking the entire questionnaire to ensure that they are complete and instructions are followed, establishment of categories and range, and the application of these categories to raw data through coding for purposes of analyzing and finally the tabulation of data in tables for each question in order to draw statistical inferences

3.7 Instruments Validity

Validity estimates how accurately data obtained in the study represents a given variable or construct in the study (Mugenda, 2008). The questionnaire was given to some professionals who include my supervisor to critique it. This ensured that the structured questionnaire remains focused, accurate and consistent with the study objectives. The instruments were pre-tested to ascertain whether the target audience would give the effective response as well as test their understanding of the questions being asked. This also reduced ambiguity. The results thereof were however not included in the final findings.

3.8 Instruments Reliability

Reliability according to Saunders et. al (2003) is concerned with whether the procedures will yield the same results on other occasions or not. Yin (2003) stresses that the goal of reliability is to minimize the errors and biases in a study. The questionnaire was initially administered to 5 respondents. Another 5 respondents were randomly picked after 2 days and similar questionnaires used to collect data. The responses were be summarized and compared to the earlier ones to test reliability. This proved the reliability of the questionnaire as responses were similar.

Reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. The Alpha measures internal consistency by establishing if certain items measure the same construct. Nunnally (1978) established the Alpha value threshold at 0.6 which the study benchmarked against. Cronbach Alpha was established for every objective in order to determine if each scale (objective) would produce consistent results should the research be done later on. Table 4.1 shows that all the scales were significant, having an Alpha above the prescribed threshold of 0.6. Costs had an Alpha of 0.926. Security had an Alpha of 0.865. Convenience had an Alpha of 0.791. Book keeping volumes had an Alpha of 0.762. When all scales were combined, the Cronbach's Alpha became 0.836.

3.8 Operationalization of Variables

OBJECTIVE	VARIABLE	INDICATORS	MEASUREMENT	MEASUREMENT SCALE	TOOLS OF ANALYSIS	TYPE OF ANALYSIS
i) To investigate how M-Pesa cashless has influenced costs in the operations of East African Breweries Limited distributors	1. Independent Variable Cost	Expenditure on cash transit	Amount of money spent	Ratio scale	• Mean	• Descriptive analysis
ii) To establish how M-Pesa cashless has influenced security in the operations of East African Breweries Limited distributors	2. Independent Variable Security	Number of trips successfully free of danger	Amount of stock and cash arriving safely	<ul style="list-style-type: none"> • Ratio scale • Ordinal scale 	Mean	• Descriptive analysis
iii) To establish how M-Pesa cashless has	3. Independent Variable Convenience	<ul style="list-style-type: none"> • Time taken to complete 	<ul style="list-style-type: none"> • Number of hours • Number of trips 	<ul style="list-style-type: none"> • Ordinal • Ordinal 	<ul style="list-style-type: none"> • Frequency • Frequency 	<ul style="list-style-type: none"> • Descriptive analysis • Descriptive analysis

influenced convenience in the operations of East African Breweries Limited distributors		<ul style="list-style-type: none"> delivery route Number of trips made back to the office to deposit cash in order to secure it 				
iii) To investigate how M-Pesa cashless has influenced Book Keeping Volumes in the operations of East African Breweries Limited distributors	4. Independent Variable Book Keeping Volumes	<ul style="list-style-type: none"> Time taken to prepare paperwork Amount of Printing done 	<ul style="list-style-type: none"> Number of man hours spent working on paperwork necessitated by cash payments Amount of money spent on stationery for paperwork 	<ul style="list-style-type: none"> Ordinal Ordinal Ratio 	<ul style="list-style-type: none"> Mean Mean 	<ul style="list-style-type: none"> Descriptive analysis Descriptive analysis

Table 1: Operationalization of Variables

3.9 Methods of Data Analysis

After receiving the online questionnaires, data coding was done by creating dummy variable names. These were in turn given values (ordinal scale) and computed via SPSS. Data cleaning was done where by the data file was checked for accuracy and completion. This was then followed by data entry according to the assigned codes. The keyed in data was subjected to the SPSS processor which computed the data results. The output results were used to draw conclusions with regard to the research questions.

3.10 Summary

This chapter dealt with the research methodology which helped in gathering and analyzing data in respect to the research questions highlighted in the first chapter. This facilitated the presentation of the research findings in a much easier and comprehensive format.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

The main objective of the study was to investigate the influence of Mpesa Cashless Payments Product on the operations of East Africa Breweries Limited distributors. Qualitative data was analyzed through quantitative analysis. Tables were used to present the data. The questionnaires were dropped and later picked at a later date to allow the respondents to feel the questionnaires at their own time. Once the respondents answered the questionnaire, data was then coded and analyzed using SPSS.

4.1.1 Response Rate

The study targeted 88 respondents in collecting data with regard to influence of Mpesa Cashless Payments Product on the operations of East Africa Breweries Limited distributors. From the study, 76 respondents out of the 88 sample respondents filled-in and returned the questionnaires making a response rate of 86.36%. This reasonable response rate was achieved after the researcher made personal calls and physical visits to remind the respondent to fill-in and return the questionnaires.

4.2 Demographic information

This section describes the general characteristics of the research respondents in terms of occupation

The study sought to find out occupation of the respondents. From the findings, 59.21% of the respondents were operations managers, 34.21% of the respondents were finance managers and 6.58% of the respondents were human resource managers. This implies that the respondents had knowledge on Mpesa Cashless Payments Product.

The table 4.1 represents the occupations of the respondents

Table 4. 1: Occupation of the respondents

	Frequency	Percentage
Finance manager	26	34.21
Operations manager	45	59.21
Human resource manager	5	6.58
Total	76	100

4.3 Influence of Cost of Operations on Use of M-Pesa Cashless Payments Product

The study sought to find out if there were costs that the business had reduced or increased due to the use of Mpesa cashless. According to the findings, 94.74% of the respondents indicated that there were costs that the business had reduced or increased due to the use of Mpesa cashless while 5.26% of the respondents indicated that there were no costs that the business had reduced or increased due to the use of Mpesa cashless. Since merchants rarely provide discounts or surcharges for using cash at the point of sale, the costs of cash manifest elsewhere in the lifecycle of cash. This could mean, among other things, costs that accrue as a result of the time or money spent in making trips to a bank, ATM, or fees to cash checks. (Chakravorti and Mazzota, 2013). The table below shows the findings on the cost of operations on the use of Mpesa cashless product. The respondents were asked if there were costs that the business had reduced or increased due to the use of Mpesa cashless

Table 4. 2: If there were costs that the business had reduced or increased due to the use of Mpesa cashless

	Frequency	Percentage
Yes	72	94.74
No	4	5.26
Total	76	100

4. 3. 1 Extent that the costs had been reduced due to the use of Mpesa

The respondents were asked the extent to which the costs of operations had been reduced due to the use of Mpesa. From the findings, security guard fees and transport had been reduced due to the use of Mpesa to a very great extent as shown by a mean of 4.831 and 4.682 respectively. In addition, human resources/head count and banking fees had been reduced due to the use of Mpesa to a great extent as shown by a mean of 4.195 and 3.754 respectively. A company has to worry about protecting cash from theft, receiving fake currency, and transporting cash. All of this - security, processing time and transportation, - entails costs. (Mwangi, 2013).

The table below represents these findings

Table 4. 4: Extent that the costs had been reduced due to the use of Mpesa

	Mean	Stdev
Transport	4.682	0.296
Banking Fees	3.754	0.491
Security Guard Fees	4.831	0.923
Human Resources/Head count	4.195	0.385

4.4 Influence of Security in Operations on Use of M-Pesa Cashless Payments Product

The respondents were asked whether they had ever lost cash in transit. According to the findings, 85.53% of the respondents indicated that they had ever lost cash in transit while 14.47% of the respondents indicated that they had never lost cash in transit. Security providers should try to reduce cash build-ups. This may be achieved by putting in place cash limits for each cash-in-transit activity based on a risk assessment and industry operational needs. (Safe Work Australia, 2013).The table below represents the findings on whether the respondents had ever lost cash in transit

Table 4. 5: Whether they had ever lost cash in transit

	Frequency	Percentage
Yes	65	85.53
No	11	14.47
Total	76	100

4.4.1 Extent that they had lost cash in transit

The respondents were asked the extent to which they had lost cash in transit. From the findings, the respondents had lost cash in transit through theft by external parties to a great extent as shown by a mean of 4.172. In addition, the respondents had lost cash in transit through theft by employees to a great extent as shown by a mean of 3.759. In any serious quantity, most legitimate businesses prefer some other party, such as a bank, to handle cash on their behalf. (Chakravorti and Mazzota, 2013).

Table 4. 6: Extent that they had lost cash in transit

	Mean	Stdev
Theft by employees	3.759	0.482
Theft by external parties	4.172	0.194

4.5 Influence of Convenience in Operations on Use of M-Pesa Cashless Payments Product

The respondents were asked if the use of Mpesa cashless had reduced the number of trips to the distribution route. According to the findings, 97.37% of the respondents indicated that Mpesa cashless had reduced the number of trips to the distribution route while 2.63% of the respondents indicated that Mpesa cashless had not reduced the number of trips to the distribution route. This service has come in handy especially to those who are largely engaged in their places of work thus finding it difficult to walk to these franchises to these foods themselves. They save on time hence they can do more at their work places by using time saved on constructive activities (Porteous and Finmark, 2007). The table below represents these findings

Table 4. 7: If use of Mpesa cashless had reduced the number of trips to the distribution route

	Frequency	Percentage
Yes	74	97.37
No	2	2.63
Total	76	100

4.5.1 Whether the amount of time spent processing cash in transit and at delivery had reduced

The study sought to find out whether the amount of time spent processing cash in transit and at delivery had reduced. From the findings, 93.42% of the respondents indicated that the amount of time spent processing cash in transit and at delivery had reduced while 6.58% of the respondents indicated that the amount of time spent processing cash in transit and at delivery had not reduced.

The perceived safety of Mpesa and its convenience are major reasons that early adopters of the technology chose to use it.

Table 4. 8: Whether the amount of time spent processing cash in transit and at delivery had reduced

	Frequency	Percentage
Yes	71	93.42
No	5	6.58
Total	76	100

4.6 Influence of Book Keeping Volumes in Operations on Use of M-Pesa Cashless Payments Product

The study sought to find out how Mpesa cashless had affected amount of book keeping required. According to the findings, 88.16% of the respondents indicated that Mpesa cashless had reduced the amount of book keeping, 5.26% of the respondents indicated that Mpesa cashless had not changed the amount of book keeping and 3.95% of the respondents indicated that Mpesa cashless had increased the amount of book keeping. According to UNEP (2011) Going paperless has many advantages: increased efficiency, paper and printing cost savings, time savings, storage cost savings, environmental benefits, efficient file retrieval, and enhanced customer service. The table below shows how Mpesa cashless had affected amount of Book keeping

Table 4. 9: How Mpesa cashless had affected amount of Book keeping

	Frequency	Percentage
Reduced	67	88.16
Increased	3	3.95
Not changed	4	5.26
Total	76	100

Table 4. 10: How Mpesa cashless use had affected the amount of printing papers purchased

The study sought to find out how Mpesa cashless use had affected the amount of printing papers purchased. From the findings, 92.11% of the respondents indicated that Mpesa cashless use had reduced the amount of printing papers purchased while 7.89% of the respondents indicated that Mpesa cashless use had not changed the amount of printing papers purchased. In Africa Senegal's experience in paperless trade implementation started in the mid-1980s when government authority (Ministry of Finance) made the decision to computerize official processes, in general, and trade procedures, in particular (Bradwel, 2005). The table 4.9 presents the findings on how Mpesa cashless use had affected the amount of printing papers purchased

Table 4. 11: How Mpesa cashless use had affected the amount of printing papers purchased

	Frequency	Percentage
Reduced	70	92.11
Not changed	6	7.89
Total	76	100

4.7 Discussion of the Findings

The study found that Mpesa Cashless Payments Product influenced the operations of East Africa Breweries Limited distributors. 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.

The study found that cost had reduced due to the use of Mpesa cashless. This was attributed to reduction in transport cost and security guard fee. Reduction of book keeping volumes also reduced the cost. East Africa Breweries Limited distributors were utilizing this service for paying goods, a study finding consistent with Njenga (2010) who also found that mobile money services were mostly used for payment. This particular mobile money services was important to the business as it reduced transaction cost. 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 study found that security had increased due to the use of Mpesa cashless. The distributors no longer needed to transport money to the bank or collect cash money from customers. This helped in reducing theft during cash transit. Employees could not steal since customers were able to pay for their goods directly to the company through Mpesa. For example, majority of respondents were using mobile money services to purchase business supplies which was very important or important to the business. These results disagreed with the findings of Mbogo (2010) who found that behavioral intention to use mobile money services was significantly correlated to actual

usage. However, it is important to note that this study setting was different from that of Mbogo (2010).

The study found that convenience had increased due to the use of Mpesa cashless. The distributor did not need to make many trips to their customers so as to pick the money. The money could be easily sent on Mpesa to the company. Dushinski (2010) points out that mobile technology not only lets marketers reach customers where they are, it allows them to engage mobile users by targeting their immediate their immediate and specific needs.

The study found that Book Keeping Volumes had reduced due to the use of Mpesa cashless. The distributors no longer need to issue hardcopy receipts as indication of payment since the Mpesa message acted as indication of payment. This reduced book keeping volumes thus reducing cost. This was in line with Bradwel (2005) who stated that in Africa Senegal's experience in paperless trade implementation started in the mid-1980s when government authority (Ministry of Finance) made the decision to computerize official processes, in general, and trade procedures, in particular. Implementation really took shape in the 1990s, with the reform initiated by customs to improve clearance formalities. These efforts later culminated into the establishment of the customs automated system.

4.9 Summary of the Chapter

Chapter Four delves into the analysis of the captured data; presentation of the analyzed data is in frequency distribution tables. The analyzed data is then interpreted to bring out the research findings .A discussion of the same then follows comparing the findings with empirical studies done on the subject. The study concludes with a discussion of the findings.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter provides the summary of the findings from chapter four, and it also gives the conclusions and recommendations of the study based on the objectives of the study. The objectives of this study were to investigate the influence of Mpesa Cashless Payments Product on the operations of East Africa Breweries Limited distributors.

5.2 Summary of the Findings

The study aimed at investigating how cost, security, convenience and Book Keeping Volumes have influenced the use of M-Pesa cashless payments product in the operations of East Africa Breweries Limited distributors.

The study found that 94.74% of the respondents indicated that there were costs that the business had reduced or increased due to the use of Mpesa cashless. Security guard fees and transport had been reduced due to the use of Mpesa to a very great extent as shown by a mean of 4.831 and 4.682 respectively. 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 cheap amongst actual users of the service had big effect on their use thus they chose to use the service.

In addition, 85.53% of the respondents indicated that they had ever lost cash in transit. The respondents had lost cash in transit through theft by external parties to a great extent as shown by a mean of 4.172. Security providers should try to reduce cash build-ups. This may be achieved by putting in place cash limits for each cash-in-transit activity based on a risk assessment and industry operational needs. (Safe Work Australia, 2013)

Moreover, 97.37% of the respondents indicated that Mpesa cashless had reduced the number of trips to the distribution route. Also 93.42% of the respondents indicated that the amount of time spent processing cash in transit and at delivery had reduced. Most respondents were confident using Mpesa cashless. Communication and quality of service was reliable.

The perceived safety of Mpesa and its convenience are major reasons that early adopters of the technology chose to use it.

The study found that 88.16% of the respondents indicated that Mpesa cashless had reduced the amount of book keeping. In addition, 92.11% of the respondents indicated that Mpesa cashless use had reduced the amount of printing papers purchased. In Africa Senegal's experience in paperless trade implementation started in the mid-1980s when government authority (Ministry of Finance) made the decision to computerize official processes, in general, and trade procedures, in particular (Bradwel, 2005).

5.3 Conclusion

The study concludes that cost had reduced due to the use of Mpesa cashless. Security guard fees, human resources/head count, banking fees and transport had been reduced due to the use of Mpesa to a very great extent. Since merchants rarely provide discounts or surcharges for using cash at the point of sale, the costs of cash manifest elsewhere in the lifecycle of cash. This could mean, among other things, costs that accrue as a result of the time or money spent in making trips to a bank, ATM, or fees to cash checks. (Chakravorti and Mazzota, 2013).

The study concludes that security had increased due to the use of Mpesa cashless. Loss of cash in transit through theft by external parties and by employees had reduced. In any serious quantity, most legitimate businesses prefer some other party, such as a bank, to handle cash on their behalf. (Chakravorti and Mazzota, 2013).

The study concludes that convenience had increased due to the use of Mpesa cashless. The amount of time spent processing cash in transit and at delivery had reduced. Communication and quality of service was rated as reliable. This service has come in handy especially to those who are largely engaged in their places of work thus finding it difficult to walk to these franchises to these foods themselves. They save on time hence they can do more at their work places by using time saved on constructive activities (Porteous and Finmark, 2007).

The study concludes that Book Keeping Volumes had reduced due to the use of Mpesa cashless. Mpesa cashless use had reduced the amount of printing papers purchased. According to UNEP (2011) going paperless has many advantages: increased efficiency, paper and printing cost

savings, time savings, storage cost savings, environmental benefits, efficient file retrieval, and enhanced customer service.

5.4 Recommendations

- i. The study recommends East Africa Breweries Limited distributors to encourage their customers to pay through Mpesa.
- ii. This finding needs further investigation to determine how this applies against price elasticity of demand. It will also be important to evaluate if other distributors would note similar findings as East Africa Breweries Limited distributors. 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.
- iii. EABL need to sensitize their customers to encourage customers to pay bills through Mpesa other than cash.
- iv. Mobile money transactional cost especially M-Pesa may require further evaluation since 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.
- v. The government should sensitize and encourage people on use of plastic and cashless money. This will help to reduce theft of cash in transit.
- vi. Safaricom need to reduce the Mpesa transaction costs to encourage everyone to use Mpesa to pay for their goods and services.
- vii. The government needs to put in place measures to fight online fraud.
- viii. 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.

5.5 Area for Further Research

The study recommends further study on the causes of the inconvenience associated with mobile money and reasons why mobile-bank services (accessing bank account via mobile phone) are not popular among businesses.

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 to other distributors in Kenya.

A study to explore factors that have made M-Pesa achieve high uptake despite other cheaper providers like Airtel money and other competitors like the banking sector and wire transfer services like Western Union will shed more light into the competitiveness of M-Pesa.

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APPENDICES

Appendix 1: Questionnaire

All information given in this questionnaire will be treated with confidentiality

Section A: Background information

1. Which distributor agency do you work for?
2. What is your occupation?

Section B: Costs

3. a) Are there any costs that your business has reduced or increased due to the use of Mpesa cashless?

☐ YES

☐ NO

b) To what extent has the following costs been reduced due to the use of Mpesa. Where 1 is very low extent and 5 id very great extent

	1	2	3	4	5
Transport					
Banking Fees					
Security Guard Fees					
Human Resources/Head count					
Transport					

Section C: Security

4. a) Have you ever lost cash in transit?

☐ YES

☐ NO

b) To what extent have you lost cash in transit through the following? Where 1 is very low extent and 5 id very great extent

	1	2	3	4	5
Theft by employees					
Theft by external parties					

Section D: Convenience

5. a) Has the use of Mpesa cashless reduced the number of trips to the distribution route?

☐ YES

☐ NO

If yes, please explain

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b) Has the amount of time spent processing cash in transit and at delivery changed?

☐ YES

☐ NO

If Yes, please explain

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Section E: Book Keeping

6. a) How has Mpesa cashless affected amount of paperwork you do? eg Manual Receipts and book keeping ?

☐

Reduced

☐

Increased

☐

Not changed

if Other
explain.....

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.....

- b) How has Mpesa cashless use affected the amount of printing papers purchased?

r ☐

i ☐

r ☐

ged

if Other
explain.....

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THANK YOU FOR PARTICIPATING



Appendix 2: TIME FRAME

This project took five months. The break downs is as below

PERIOD	ITEM
January – March 2014	Proposal preparation
April – June 2014	Data collection, analysis and presentation
July 2014	Summary findings, conclusions and recommendations