MOBILE BANKING UTILIZATION AND GROWTH OF SMALL AND MEDIUM SIZED ENTERPRISES IN KISUMU COUNTY, KENYA

BY

NGUGI VICTOR KIBE

(Reg. No.: D53/OL/KSU/26719/2014)

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DECLARATION

Declaration by candidate

This research project is my original work and has not been presented for a degree in any other university

Ngugi Victor Kibe (Reg. No.: D53/OL/KSU/26719/2014)

Department of Accounting and Finance

..... 02/03/2021.

Signature Date

Declaration by supervisor

I confirm that the work in this publication was done by the candidate under my supervision

..... 02/3/2021

Dr. Lucy Wamugo

Department of Accounting and Finance

School of Business

Kenyatta University

DEDICATION

I dedicate this work to my parents Ruth and Zephaniah whose unending moral support and constant encouragement contributed immensely to this project. I thank Almighty God for the success and completion this research project.

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OPERATIONAL DEFINITION OF TERMS

Devolution	Delegation of authority from a central government to a regional government such as a county government.
Duration of m-banking transactions	Time spent in processing a mobile payment transaction from initialization to completion.
Ease of mobile banking	Ability of owners of SMEs to utilize mobile banking without making errors. It is the proper use of mobile banking service correctly with minimal training.
Growth of SME	Increase in sales of a Small and Medium-sized Enterprise as a result of utilizing m-banking services. This is measured as a percentage increase in sales in comparison to prior year.
Mobile application	Application software that can be installed on a smartphone to enable a subscriber carry out banking transactions.
Mobile banking	Use of a mobile phone in accessing banking services such as the transfer of money between a bank account and a mobile phone. This also includes checking account balances, and making credit applications.
Mobile banking transaction charges	Fees incurred by a subscriber due to the utilization of the m-banking in activities such as receiving and making payments, checking account balance or

	other fees in line with the terms of subscription.
Mobile banking payments	Use of mobile banking application to transfer electronic money in the sale of goods and services between two subscribers of mobile banking.
Mobile banking utilization	This involves using mobile phones or tablets having mobile banking applications by SMEs in paying for goods and receipt of money for goods sold or services rendered.
Mobile commerce	The process of making a purchase or sale of a good or a service through mobile phone application.
Revenue	Sales income generated by Small and Medium-sized Enterprises.
Service provider	A vendor that provides mobile banking solutions and services to subscribers.
Smart phone	A mobile phone with the ability of running a mobile banking application. It can be connected to internet and can carry out online transactions.
Subscriber	A person or business who has registered himself to receive a mobile banking service at a fee.
Utilization	Making use of mobile banking in receiving and making of payments. This involves SMEs incorporating mobile banking services in their trading.

ABBREVIATION AND ACRONYMS

CBD	Central Business District
E-banking	Electronic banking
EVA	Economic Value Added Theory
GDP	Gross Domestic Product
ICT	Information and Communication Technology
IT	Information Technology
IOS	IPhone operating system
KNCCI	Kenya National Chamber of Commerce and Industry
M-banking	Mobile banking
MMTS	Mobile Money Transfer Service
NACOSTI	National Commission of Science Technology and Innovation
POS	Point of Sale
PEOU	Perceived Ease-of-use
PU	Perceived Usefulness
SACCO	Saving and Credit Cooperative Organisation
SME	Small and Medium-sized Enterprise
SPSS	Statistical Package for the Social Science
R&D	Research and Development
TAM	Technology Acceptance Model
VIF	Variance Inflation Factor

ABSTRACT

The retail industry in Kenya which is majorly comprised of Small and Medium-sized Enterprises (SMEs), is facing several challenges particularly in growth. SMEs in the retail industry in Kenya have closed down citing a drop in the amount of revenue. Managers of SMEs have made numerous efforts in a bid to revive SMEs and the most notable improvements is the use of mobile banking. Mobile banking has been widely utilized since its inception in Kenya in 2007. The utility of mobile banking by SMEs needs to be investigated on whether it contributes to drop in the amount of sales or whether it contributes to increase in amount of sales. Mobile banking has been adopted by a large number of SMEs, it is therefore important that the effect of utilization of mobile banking on the growth of SMEs is analysed in order to ensure success of the SMEs. The purpose of this study was to investigate whether mobile banking utilization led to the growth of SMEs in Kisumu County, Kenya. The study specifically aimed at; evaluating the effect of use of mobile payments on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya; evaluating the effect mobile banking transaction charges on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya; evaluating the effect of duration of m-banking transactions on the growth of SMEs in Kisumu County, Kenya and to evaluate the effect of ease of mobile banking on the owners of the SMEs on growth of Small and Medium-sized Enterprises in Kisumu County Kenya. The study applied descriptive research design. The population of the study size consisted of 964 registered SMEs as per the Kenya National Chamber of Commerce and Industry (KNCCI) Kisumu chapter (2013). The sample size consisted of 91 small and medium-sized enterprises. The sample was obtained through simple random sampling technique. Data was obtained through self-administered structured questionnaires. Analysis was done in form of descriptive and inferential statistics. Descriptive statistics included the means, standard deviations, frequencies and percentages while inferential statistics included, correlation and multiple regression analysis. Analysis of multiple regression model was used to indicate the effect of the use of mobile payments, mobile banking transaction charges, ease of mobile banking on the owners of SMEs and effect of duration of transactions on the growth of SMEs taken together on the growth of SMEs in Kisumu County. Data presentation methods used were statistical tables accompanied by relevant discussions. The study found out that the utilization of mobile money payments led to a significant increase in sales while mobile banking transaction charges, ease of mobile banking owners of SMEs and the duration of transaction had an insignificant reduction in revenue. Multiple regression analysis indicated that the effect of use of mobile payments, mobile banking transaction charges, ease of mobile banking on the owners of SMEs and duration of transaction taken together were significant in explaining the variation in growth of SMEs in Kisumu County, Kenya. The study concluded that mobile banking utilization has a significant influence on the growth of SMEs in Kisumu County, Kenya. The researcher recommended that the SMEs incorporate the mobile banking system in their business as a way of tapping the clients who don't carry cash with them. The owners of the SMEs should ensure that they subscribe to service providers with low transaction charges. The owners of the SME should also ensure that they are properly trained in order to minimise delays and errors during the payment process.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In the last couple of decades, there has been a growth in the contribution of SMEs to the national economy on a global scale (Machado, 2016). Their contribution has cut across developed and developing countries. SMEs have constituted 99% in the European countries. In the United States of America, 99.7% of all employers are in the SME sector. The SMEs sector in Kenya has employed over 70% of the working population and has contributed to almost 20% of Kenya's gross domestic product (Ngugi, 2012). According to Somaya (2019) SMEs are jobs creators for employees where the motivation and flexibility are better. Somaya argues that the SMEs have created the competitive state of the market which has led to better satisfaction of consumer's needs. Additionally, Somaya (2019) observes that SMEs have contributed in enabling big enterprises in producing goods and services efficiently.

According to Garikai (2011), the factors that are considered in the definition of SME include the value of assets, the number of workers employed and the level of sales. According to Corporate Finance Institute (2015) the definition of Small and Medium-sized Enterprises (SME) varies across countries and organizations. The most commonly used denominator for a definition is the number of employees, followed by turnover and assets. According to Gonzales *et al*, (2014) SMEs make up the majority of the businesses operating around the world. Generally, they are independent firms with less than 50 employees.

However, Gonzales *et al*, (2014) observes that the maximum number of employees is different from one country to the next. Gonzales *et al* further explains that most companies, the upper range sit around 250 while some countries dock the total number of employees at 200.

The SMEs have become a major player in the advancement of m-banking (Safeena, 2012). This research project aimed at investigating the effect of m-banking utility on SMEs in Kisumu County, Kenya and how it has affected their growth. Mobile banking (m-banking) has become widely adopted in Kenya. According to Adeyeye (2016), SMEs are able to boost productivity and lead to an economic transformation in Kenya. Adeyeye further highlights how the challenges faced by SMEs can negatively affect growth.

A research carried out in 2010 in Kenya on mobile banking in Kenya by Mutua (2010) illustrates how technological change has been inevitable to the SMEs. M-Pesa was launched in year 2007 as an m-banking service that is text-based. About seven million users had subscribed to M-Pesa in the year 2012. Since then other service providers in communication industry and financial institutions have introduced m-banking to their subscribers. Another study by Odera (2013) lists some of the M-banking products in Kenya to include, Airtel Money, Pesa Pap, M-Pesa, Orange Money and Equitel Mobile Banking. Players in this service are: service providers, subscribers, financial institutions and agents. Using money transfer service, individuals are able to transfer money through mobile to mobile transfer while enterprises are able to receive

payments through paybill accounts. According to Odera (2013) this has facilitated timely transfer of funds and settlement of bills.

According to Diniz (2011), mobile money can be described as a system of e-money developed and run on mobile phone devices which allows transaction between the subscribers. There has been a significant contribution towards including the financially poor in Kenya as a result of utility of mobile banking. (Winn & Koker, 2013). Pénicaud (2012) shows that mobile banking has grown across Kenya since its introduction in the year 2007 and the growth is still rapid. The study further shows that there were nearly thirty million subscribers of mobile banking. (Micheni, Lule, & Muketha, 2013).

Many SMEs are facing hindrances on their growth. This has led to the intervention of the government to create SME parks to promote SMEs back to the path of recovery (Deloitte, 2016). Utility of mobile banking is facing challenges as a result of inaccessible financial services that support the operations of the business (Higgins, Kendall, & Lyon, 2012). According to a study by Yao Wang (2016) Small and Medium-sized Enterprises have contributed towards the growth of economy and creation of jobs in a big way. SMEs are very effective in the alleviation poverty. The development of SMEs is important to countries that are developing and it is therefore important to investigate the effect of the utilization of m-banking on their growth.

Upcoming trends in m-banking utilisation by SMEs include electronic banking. Electronic banking enables subscribers to have increased accessibility to banking services as well as carry out transactions on a secure website using mobile phones that can browse (Nanjala & Oloko, 2015). Another trend is the creation of mobile banking applications. These are applications that run on mobile operating software such as android, Symbian, windows or IOS (IPhone Operating System). These applications enable the subscribers to access banking services through the internet or text messaging without using an internet browser (Saeed, 2011).

1.1.1 Mobile Money Payments

In the value chain of mobile money is the 'mobile payment', otherwise referred to as mobile commerce (Tonuchi, 2020). Tonuchi (2020) further observes that this technology enables individuals to perform electronic financial service such as storing, sending and receiving money using a mobile phone without necessarily owning a formal bank account with deposit money banks. The mobile money user account is usually the same as the phone number, but not always. It is often referred to as "mobile wallet" or by some specific name like MPesa, GCash, Tigo Pesa, EcoCash, Easywallet, among others (ACP, 2014).

A research by Higgins (2012) covering mobile banking utility patterns of on 865 SMEs in Kenya inclusive of semi-urban and urban based businesses showed that business owners of SMEs made use of m-banking to pay

expenses, receive money from clients, and pay employees. According to Gupta and Kerry (2012) commercial banks have already began investing in mobile technology and security and are introducing and developing smartphone applications and are educating consumers. This is an indication that mobile banking acceptance among consumers has been greater than the acceptance of online banking more than a decade ago (Gupta & Kerry, 2012).

1.1.2 Mobile Money Transactional Charges

A study by Alsamydai et al (2014), transaction charges on mobile money transaction may influence the behaviour of the subscriber. The study considers two points. The first one is, what is the reaction of consumers who send values that are low towards corresponding low transaction fees? The second point is, what could occur happen around the point of inflection where the fees change? Transactional charges are therefore a major factor in mobile banking transaction. They can influence the regularity and frequency of using the service and the amount of money transferred between subscribers and other merchants.

Micheni et al (2013) argues that the costs incurred in sending mobile money are lower in comparison to charges by commercial banks. However, these transfer charges are a hindrance in the utility of mobile money. There is a direct effect of transaction fees on the utility of mobile banking. Therefore, the fee charged on transactions by the subscribers of m-banking should be

scaled down in order to make m-banking affordable even to the poor. There also exists of a variety of handsets that supports mobile banking functions. According to Micheni et al (2013) transaction cost is a bigger hindrance in comparison to transaction charges.

1.1.3 Duration of M-banking Transactions

According to Alsamydai (2014), the length of time in performing transactions on a mobile banking platform is more compared to carrying out a similar transaction physically. The researcher argues that offline banking consumes less time than using physical banks for similar transaction. The study found out that the usefulness of m-banking to SMEs is perceived to be better when the duration of a transaction is short.

Previous studies on the duration of transaction charges have established that subscribers prefer mobile banking to traditional banking in order to save time spent on physical transactions. Such a study carried out by Kendall *et al* (2011) found that companies offering m-banking services have used mobile money as a major financial service platform. This service involves use of mobile devices for activities including querying their bank balances, sending money and even paying of bills.

1.1.4 Ease of Mobile Banking

A study carried out in Ghana by Dzokoto and Mensah (2011), identified a gap where poor in the urban areas the urban poor did not have adequate

technological knowhow in the commercial banking and as a result, they did not have access to credit. According to the study, the poor in urban areas were faced with faced bureaucratic and geographic barriers that hindered proper and easy utility to banking services. Also, the study showed that low income earners were not able to save. It also established that the poor urban population was not able to save and store money using the mobile banking platform.

In another research, Mbogo (2010) observes that there were success factors which were attributed to utility of mobile banking by operators of SMEs. From the study, it was established that factors such as cost, security and utility of technology in transferring money related to the factors were considered by operators of SMEs in the utility of mobile banking in the growth of their SMEs.

1.1.5 Growth of SMEs

Growth of an enterprise is an important element in SMEs. For an SME to survive it should be able to take part in market participation (Machado, 2016). According to Nanjala and Oloko (2015), the growth of an SME is the process of development where the SME maintains a stable and balanced growth of the overall level of performance. This is inclusive of asset and profit growth, sales and output volume.

According to Nanjala and Oloko (2015), before enterprises were introduced to mobile banking also known as Mobile Money Transfer Service (MMTS), the global transfer of money was conducted formally through commercial banks.

The banks were required to operate across continents and borders. Credit cards also facilitated transfer of funds in the developed countries.

A study carried out by Mararo (2018) found out that there has been a notable growth in the SMEs utilizing mobile banking. The study further established that transactions though mobile money increased due to service providers' expectation that this could be an unexploited revenue stream. This would open a potential market that was not being served previously.

1.2 Statement of the Problem

According to Gerber (2011) close to a million Small and Medium-sized Enterprises are established annually, about 40% of will be out of business in their first year. According to a study done by Adeyeye (2016), it was established that the drop in the number of clients and the level of sales has been a major reason for the SMEs closing down. Another research conducted by Mararo (2018) found out that many owners of SMEs prefer to use cash transactions over bank transactions. Further, the study by Mararo (2018) showed that SME owners find bank transactions difficult to manage and they were not willing to leave their business unattended as they conducted bank transactions and some of them did not have bank accounts at all.

Managers of SMEs have made numerous efforts in a bid to revive SMEs and the most notable improvements is the utilization of mobile banking which has been widely adopted since its inception in Kenya in 2007. A study that was conducted by Alsamydai *et al* (2014) in Jordan covered factors that influenced

m-banking by banks and thus cannot reflect the effect of m-banking on growth of SMEs in a developing African country such as Kenya. Additionally, the organisations studied were exclusively banks leaving out SMEs. Other studies such as Mararo (2018) covered the effect of mobile banking, mobile finance and mobile payments but did not incorporate the effect of transaction charges on the growth in sales of the SMEs. Therefore, this study considered factors that had not been considered collectively before such as utilization of mobile payments, mobile banking transaction charges, duration of m-banking transactions and ease of mobile banking on owners of SMEs, and aimed to establish the effect of mobile banking utilization on the growth of SMEs in Kisumu County Kenya.

1.3 Research Objectives

1.3.1 General Objective

To investigate the effect of mobile banking utilization on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

1.3.2 Specific Objectives

i. To investigate the effect of mobile money payments on growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.
ii. To evaluate the effect of mobile banking transaction charges on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

iii. To investigate the effect of duration of m-banking transactions on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

iv. To evaluate the effect of ease of mobile banking on the owners of SMEs on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

1.4 Research Hypothesis

$H0_1$. Mobile money payments have no significant effect on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

$H0_2$. Mobile banking transaction charges have no significant effect on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

$H0_3$. Duration of m-banking transactions has no significant effect on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

$H0_4$. Ease of mobile banking on the owners of SMEs has no significant effect on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

1.5 Significance of the Study

This study shall provide a basis of understanding whether utility of mobile banking has contributed in the growth of SMEs. This will enable the owners of the SMEs to be in a position to evaluate the effect of mobile payment and banking system adopted by the SMEs. This is necessary since different enterprises have different needs and one transaction system may be suitable to

one SME and be unsuitable to another enterprise. The SME owners will be able to make informed decision for either inclusion or exclusion of mobile banking payments in the structure of the SME.

Service providers of the mobile banking service such as communication companies and banks will be able to evaluate the effectiveness of their products in the market. This will enable the service providers to determine the types of promotions and offers that that will be effective to the SMEs. This will also enable the service providers to roll out products that will be effective and competitive.

The study will contribute to the studies made in in finance by showing the effects use of mobile payments, mobile banking transaction charges, duration of mobile banking transactions, ease of mobile banking on the owners of SMEs on the growth of SMEs.

1.6 Scope of the Study

The research was carried on in western Kenya, Kisumu County covering five annual periods prior to the time of study. The study covered SMEs in the retail industry registered in Kisumu County, Kenya. The study covered mobile banking utility on growth of SMEs. The mobile banking utility was restricted to mobile payment, mobile banking transaction charges, mobile banking transaction duration and the ease of mobile banking. The study covered SMEs transactions between January 2014 and December 2018. The SMEs to be

evaluated were supposed to be in existence for a minimum period of five years. The start period of January 2014 is seven years since the introduction of m-banking in Kenya ensuring that the SMEs are aware of the existence of the platform. The research was carried out in the year 2019 and the end period of December 2018 ensured that recent trends were incorporated in the study.

1.7 Limitations of the Study

There were some respondents who were unwilling or unable to give the appropriate response to questionnaire or could not give truthful information on the data being sought. Other respondents were not responsive due to the concern that the information could be used for undisclosed purposes. However, with the assistance of the letter of introduction from the Kenyatta University School of Business and licence from National Commission for Science, Technology and Innovation, the respondents were assured that the data they submitted would be utilized for academic purposes exclusively.

1.8 Organization of the Study

This study follows the following structure; chapter one covers the background of the research, objective of the study, hypotheses, and significance of the study, scope of the study and the limitations that were encountered during the study. Chapter two covers the literature review on the mobile banking and growth of SMEs. Chapter three outlines the methodology that was used for the achieving of the objectives of the study. Chapter four covers the findings and analysis of the study. Chapter five covers the summary, conclusions and recommendations of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter considers the review of related literature on utilization of m-banking and growth of SMEs in both international and national arenas. It also reviews the theoretical framework, role of mobile money payments, transaction charges, duration of m-banking transactions and the ease of mobile banking on the owners of SMEs on the growth of SMEs. Literature has been gathered from referred journals, various authors of text books, magazines and internet. It also provides a critical review and missing knowledge gap upon which the research seeks to add value.

2.2 Theoretical Literature

2.2.1 The Theory of Technology Acceptance Model (TAM)

The Theory of Technology Acceptance Model (TAM) was developed by Fred Davis (1989). According to Davis, Warshaw and Bagozzi (1989) the Technology Acceptance Model is an information systems theory that explains how subscribers accept and utilize the new technology. The Theory of Technology Acceptance Model shows that when subscribers face a new technology, they consider a number of factors that affect their decision concerning the utility of a new technology. According to TAM theory the factors are Perceived ease-of-use (PEOU) and Perceived usefulness (PU). According Fred Davis (1989) to Perceived usefulness (PU) refers to the extent to which a user of technology believes that utility of the new technology will improve the outcome of his or her actions or activities. Further David (1989)

described perceived ease-of-use (PEOU) as the degree to which a user or a subscriber will gain from using new technology while at the same time using less effort in utilising the system.

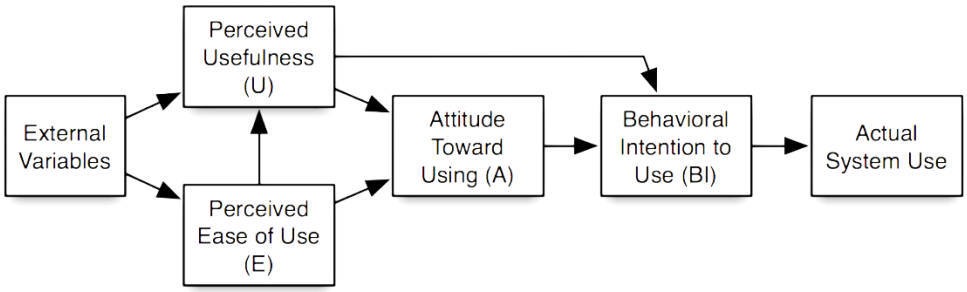


Figure 2.1: The Technology Acceptance Model
Source: The Technology Acceptance Model (Davis, Bagozzi, & Warshaw, 1989)

According to Figure 2.1, mobile banking utility on SMEs will be affected by its perceived usefulness to the owners of the SMEs and their behavioral intention to utilize it. This may determine if mobile banking will be utilized by the SME. The utility of mobile banking in SMEs may be influenced by the attitude subscribers have towards mobile banking. This will determine if the SME will finally utilize mobile banking.

This theory relates to the ease of use of mobile banking on the owners of SMEs and explains why ease of use affects growth in SMEs. This theory is relevant to this study since transaction costs affects the attitude of the subscriber to the use of mobile banking. This effect will be translated to the increase or decrease in sales and eventually to the growth of SMEs. The Technology Acceptance Model explains the behavioral intention of a subscriber to make mobile

payments after experiencing delays or efficiency in processing mobile payments. Subscribers will make a decision to utilize mobile banking based on prior experience on the duration of mobile banking.

2.2.2 Behavioral Decision Theory

This theory was first introduced by Ward Edwards (1954). Behavioral decision theory highlighted the importance of subjective values and beliefs in judgements and decision making. According to Slovic, Fischhoff, & Lichtenstein (1977), this theory has two facets that are interrelated. These facets are; descriptive and normative. The normative facet covers the courses of action which are tied to the values and beliefs of the subscriber or user of a service. The aim of descriptive decision theory is to describe these values and beliefs and the manner in which decision makers allow them to influence their decisions (Slovic, Fischhoff, & Lichtenstein, 1977). Steel and Stefansson (2015) describe the theory of choice as the study of the reasoning that influences the choices that a subscriber makes.

There are three branches in Decision Theory. These branches are; descriptive, normative and prescriptive decision theories. The descriptive decision theory makes an analysis of how an already existing and an irrational agents or subscribers arrive to their decisions concerning whether to use or not to use new technology. The second branch, normative decision theory analyses how an agent or subscriber goes ahead and make the best decisions taking into account his beliefs and values which may be uncertain. The third branch, the prescriptive decision theory guides and gives procedures on how an agent,

subscriber or user is able to arrive at the best decisions. This branch of decision theory tries to describe the procedures on what should be done when a user or an agent has an aim of a making the best decision that is in line with the normative theory (Steele & Stefánsson, 2015).

The descriptive branch of this theory explains how owners of SMEs accept or reject mobile payments instead of the existing cash system. The prescriptive branch explains how the owner of SME is able to evaluate whether transaction charges will have an overall positive or negative effect on the growth of the SME. Utility of mobile banking on the growth of SMEs will be affected by the cost and benefit analysis by the owners of SMEs. The total transaction charges will be evaluated by the users of mobile banking where the benefit will outweigh the ordinary cash based transaction.

The normative theory will explain factors such as duration of mobile banking taking into account the beliefs and values of the owners of the SMEs. The time spent processing the mobile transaction will be weighed against factors such as time spent withdrawing actual cash for the purpose of the transaction. Under the descriptive facet, the SME owners will be affected by the ease of use will influence sales in relation to older models of payments such as cash.

2.2.3 Economic Value Added Theory

The Current theory of Economic Value Added (EVA) was introduced and developed by Stern Stewart & Co (1982). This model is an alternative to Capital Asset Pricing Model. This model is used in capital budgeting since its

focus it the firm's ability in creation of wealth. This theory uses an economic model and not an accounting model (Abate & Stewart, 2004). The Current theory of Economic Value Added is used in Research and Development in improving how the outlays as investment is treated given their value creation aspect. According to Hatfield (2002), expensing Research and Development would result in worse outflows compared to when Research and Development is capitalized. A report by Stern & Stewart Co. listed Monsanto, The Coca Cola Company., Bausch and Lomb, Georgia-Pacific Corporation., Rubbermaid Incorporated., as users of Economic Value Added system in their capital budgeting (Hatfield, 2002). According to Abate (2004) Economic Value Added system is a financial system that is used in decision making as well as carrying out procedures such as measuring performance, valuation of shares and determining the value of equity.

The use of mobile banking will require capital outlay in terms of equipment, marketing and creation of awareness as well as training expenditure. How these costs will be treated will be dependent on the value creation aspect. The owners of the SMEs will evaluate whether accepting mobile payments will result in more or less cash outflow. This aspect will be used to make a decision whether to accept mobile payments, cash payments or both. The owners of the SMEs will also evaluate the transaction charges related to mobile utility. The inflows driven by mobile utility may will be used to determine if the transaction charges are material and to what extent to ensure the continuity of mobile banking in the enterprise. The duration of mobile banking will be weighed

against the inflows generated by mobile utility to give the owner the value added in comparison to cash payment model whose duration is lower compared to cash payments. The owners of the SMEs will evaluate whether ease of use of mobile banking will affect the growth of the SMEs. The ease of use will affect the outflows through training expenditure against the incremental income from utilizing mobile banking. The inflows and outflows of an SMEs will determine the level of growth. The growth of an enterprise can be indicated by growth in profits. Profits are driven by sales. This makes sales an indicator of growth which would be affected by the utility of m-banking.

2.3 Empirical Literature

2.3.1 Mobile Money Payments and Growth of SMEs

According to a study which was conducted in Nakuru, Kenya by Mararo (2018) it was established that mobile payments had significant positive relationship with the growth of SMEs. The independent variables were; mobile payments, mobile banking and mobile finance. Regression analysis demonstrated that mobile payments, m-banking and mobile finance had significant influence on the level of growth of Small and Medium-sized Enterprises in Nakuru CBD. Further, multiple regression analysis indicated that mobile payments, m-banking and mobile finance taken together had a significant effect in the variation in growth of SMEs in Nakuru Central Business District. From the study, it was concluded that mobile banking utility had a significant effect on the growth of SMEs in Nakuru Central Business District. However, the study did not cover the effect of transaction charges,

duration of transactions and ease of m-banking on the growth of SMEs which have been incorporated in this study.

Another study by Murega (2013) showed m-banking service is continuously growing and improving. The study established that growth is followed by a proportional growth in the level of financial inclusivity. The study covered mobile money transfer services in Kenya and reviewed the supporting factors leading to development of the service in Kenya and how it relates to the level of financial access including subscribers with the ability to access an m-banking transfer service and volume of transactions from the mobile transfer services. From the study, the research showed that increase in the number of the users with the ability to utilize to m-banking and further enabling them to carry out mobile money transfers, could lead to a corresponding growth in the level of financial inclusivity within a given region. However, the study did not cover the effect of duration of mobile money transactions and ease of m-banking on the growth of SMEs. This study has incorporated the effect of duration of mobile money transactions and ease of mobile banking on the growth of SMEs.

A study covering banking industry carried out by Juma (2013) established that valuable propositions to customers had enhanced competitive advantage to businesses due to its innovative products and solutions which enable the company to easily transform its money-transfer platform into integrated service thus enhancing its market competitiveness. The study findings revealed

that the banking industry has used mobile money to secure strategic alliances with other financial institutions, both local and global agent network, other corporate bodies, retail businesses and technology firms for money transfers and payment services who now utilize m-banking. The study however covered banking industry and did not cover SMEs and the effect of mobile payments was not established. This study covers the growth of SMEs and incorporates the effect of mobile payments on growth of SMEs.

2.3.2 Mobile Banking Transaction Charges and Growth of SMEs

A study carried out by Thogori (2019) showed that additional business from the customers had positive significant effect on financial performance of Small scale enterprises. The study examined the effect of agency financial transactions; common costs of agency and primary business and agency liquidity on the financial performance of small scale enterprises in Kiambu Town, Kenya. Characteristics of the study variables were computed using descriptive statistics with regression analysis being used to test the hypothesis. The common costs such as rent, security, wages had negative significant effect on financial performance of small scale enterprises. From the study, it was observed that the businesses engaging in agency business saved on operational costs since agency banking utilised the same resources as the main business. However, this study covered agency banking from the perspective of gaining commissions from the bank acting as the principal leaving out transaction charges as an expenditure incurred due to mobile banking. This study covers transaction costs as an expenditure item incurred by the SMEs.

Micheni, et al (2013) carried out a research with the objective of investigating the effect of transaction charges and the conditions facilitating the adoption of m-banking utility. The study explored the relationship that exists between facilitating conditions and the transaction fees in the adoption of m-banking in Kenya. Data was analysed through Confirmatory Factor Analysis. The research model was validated by the use of Analysis of Moment Structures. The components of the model were; cost of transaction, facilitating conditions and adoption of m-banking utility. From the study it was revealed that facilitating conditions impacted positively on subscription to m-banking services. The results demonstrated that transaction charges have an effect on subscription to m-banking. The study however did not cover SMEs and the effect of mobile banking transactions on growth of SMEs was not established. This study has incorporated the effect of mobile banking transactions on growth of SMEs.

In another study by Kigen (2011), there was an increase in the volume of transactions by microfinance institutions as a result of introduction of mobile banking. The research aimed to investigate the impact of the introduction of mobile banking on transaction costs of microfinance institutions in Nairobi. From the study it was observed that the increase of transactions resulted in an increase in transaction charges by the microfinance institutions. This study covered the impact of introduction of mobile banking on the transaction costs but did not cover the impact of the transaction costs on the growth of SMEs. This study covers the effect of mobile banking transaction costs on growth of SMEs.

2.3.3 Duration of M-Banking Transactions and Growth of SMEs

A study was carried out by Schuh and Stavins (2015) on the influence of speed and security on consumers' payment behavior. The study investigated how various aspects of speed and security influence consumers' decisions to adopt and use payment instruments. From the study it was established that speed and security have a statistically significant influence on the adoption and use of selected payment instruments. The study used econometric models to simulate selected policies. From the study it was deduced that faster speed of payment deduction would slightly increase consumers' adoption of the payment method. Additionally, the study found out that preventing security breaches preserved public confidence in the payment system. The study covered speed as a factor influencing the use of a payment system by a consumer. However, it did not investigate the effect of mobile banking duration on the growth of enterprise being investigated. This study covers the above gap by investigating the effect of duration of mobile banking on the growth of SMEs.

A study carried out by Green *et al* (2014) examined the economic cost-benefit analysis underlying the United Kingdom's Faster Payment System investment decision and described the subsequent diffusion and use of the system. The study also assessed the effects Faster Payment System that likely had on the rest of the United Kingdom's payment system. The research described implications for the payment system, which the Federal Reserve had proposed to make faster in recent policy announcements. The study covered implications of the Faster Payment System but did not cover the impact of the Faster

Payment System on Growth of the stakeholders' business. This study shall address the above gap by covering the effect of duration of mobile banking transactions on the SMEs.

Alsamydai *et al* (2014) conducted a research in Jordan with the purpose of identifying and examining underlying motivating and impeding factors and their impact on utility of m-banking. The study aimed to establish the factors affecting the acceptance of m-banking by subscribers. The factors under consideration were: speed and duration of transactions, the level of assurance, clarity of communication, pursuance and ease of use. From the study it was demonstrated that there was a greater correlation that existed between the motivating factors of m-banking services usage in comparison to the correlation that existed between inhibiting factors. However, the study covered the effects of speed of mobile banking transactions as a motivating factor that affected the acceptance of m-banking by subscribers such specifically in the banking sector. The study did not cover the effect of duration of m-banking on the growth of SMEs. This study has covered the effect of duration of m-banking on the growth of SMEs

2.3.4 Ease of Mobile Banking on Owners of SMEs and Growth of SMEs

A study by Aldiabat *et al* (2019) investigated the effect of mobile banking application on customer interaction in the Jordanian Banking industry. From the study, mobile-banking has received more attention in recent years, because there are more phones than computers in the market. The study attempted to

address the barriers to the adoption of mobile banking services while helping to lay a strategy for better implementation of mobile banking technology in the banking industry. From the study it was found out that supportive access factor of mobile banking was associated with the user satisfaction related to mobile banking. This study however covered the banking industry leaving out the SMEs. The effect of mobile banking was investigated on the customers of mobile banking leaving out the business owners. This study covers these gaps by covering the ease of mobile banking on the owners of the SMEs.

A research carried out in Ghana by Dzokoto (2014) aimed to investigate the social, business, and personal monetary practices as result of increased usage of m-banking in Ghana. The study covered the impact of m-banking on the poor subscribers who resided in urban areas. The sample represented the portion of the population unaware of, unlikely to utilize m-banking on a regular basis. The research was carried out through interviews, analysis of secondary data, reviews on expense diaries and surveys. From the studies, it was observed that knowledge in m-banking had increased although m-banking had not been embraced as the main form of payment for services as well as goods. From the study cash is still forms the major form of means of transactions for regular purchases and savings. The study established that m-banking products had increased.

From the study by Dzokoto (2014) the barriers to mobile money slowed down the growth of the mobile money. Further, the study covered the impact of

mobile money on the urban poor who were unlikely to utilize mobile money on a daily basis. The study however paid attention to the utility of mobile banking by poor residing in urban areas and left out major players in the utility of m-banking such as owners of the SMEs. This study has incorporated the ease of use of mobile banking by the owners of SMEs.

Another research was carried out by Mwenda (2013) covered the relationship level of financial inclusion in m-banking transfer service in Kenya and the growth in the volume of transactions. The aim of the study was to investigate the relationship that exists between m-banking transfer services and the level of financial inclusion in Kenya. The study used descriptive survey research method. It explored m-banking money transfer services in Kenya with a review of the supporting factors leading to development of the service in the country and how it relates to the level of financial access such as the number of mobile subscribers who have access to the m-banking services and volume of transactions from the mobile transfer services.

The research by Mwenda (2013) employed secondary data on m-banking subscribers as well as the number of account holders in the commercial banks in Kenya for period between the years 2012 and 2007. The study used descriptive analysis and content analysis. The study established that m-banking money transfer service is having a continuous growth and improvement indicated by the volume of transactions. Another finding from the study was that the level of financial inclusivity increases with the growth of m-banking

mobile banking service. However, the study used volume of transactions in measurement of growth without considering the value of the transactions. This study measures growth using revenue as indicated by the level of sales. The study dealt with mobile subscribers in general. This study specifically covers SMEs and the owners of the SMEs.

Table 2.1: Summary of Literature Review

Author and Objective	Variables Used	Methodology and Findings	Research Gap	How this study has filled the gaps
To determine the effect of mobile banking application on customer interaction in the Jordanian Banking Industry Aldiabat *et al* (2019)	Quality of service Ease of use	Regression Model There is a weak relationship between credibility and security and the interaction of customers with mobile banking applications. There is an intermediate relationship between the quality of service and the interaction of customers with mobile banking applications.	This study however covered the banking industry leaving out the SMEs. The effect of mobile banking was investigated on the customers of mobile banking leaving out the business owners.	This study covers these gaps by covering the ease of mobile banking on the owners of the SMEs.
To examine the effect of agency financial transactions; common costs of agency and primary business and agency liquidity on the financial performance of small scale enterprises in Kiambu Town, Kenya. Thogori (2019)	Agency financial transactions; Common costs of agency and primary business Agency liquidity	Regression model Businesses engaging in agency business saved on operational costs since agency banking utilised the same resources as the main business.	The study covered agency banking from the perspective of gaining commissions from the bank acting as the principal leaving out transaction charges as an expenditure incurred due to mobile banking.	This study covers transaction costs as an expenditure item incurred by the SMEs.
To establish the influence of mobile money services on the growth of Small and	Mobile payments Mobile finance Mobile banking	Multiple regression analysis The three independent variables taken together were	The study did not cover the effect of transaction charges, duration of transactions	This study covers the effect of transaction charges, duration of transactions

Author and Objective	Variables Used	Methodology and Findings	Research Gap	How this study has filled the gaps
Medium-sized Enterprises in Nakuru town, Kenya. Mararo (2018)		significant in explaining the variation in growth of SMEs in Nakuru CBD. The study concluded that mobile banking services have significant influence on the growth of SMEs in Nakuru CBD	and ease of mobile banking on the growth of SMEs.	and ease of mobile banking on the growth of SMEs.
To investigate the influence of speed and security on consumers' payment behavior. Schuh and Stavins (2015)	Speed of transactions Security of transactions	The study used econometric models to simulate selected policies. From the study it was deduced that faster speed of payment deduction would slightly increase consumers' adoption of the payment method. Additionally, the study found out that preventing security breaches preserved public confidence in the payment system.	The study did not investigate the effect of mobile banking duration on the growth of enterprise being investigated.	This study investigates the effect of duration of mobile banking on the growth of SMEs.
To examine the economic cost-benefit analysis underlying the United Kingdom Faster Payments System investment decision and describes the subsequent	Authorization, Clearing, Settlement, and Notification "Faster" Payments Gross versus Net Settlement	Qualitative descriptions of potential benefits to all parties involved: consumers, merchants, financial institutions, other businesses, and government. The study described implications for	The study did not evaluate the effect of "Faster Payments" on businesses.	This study covers the effect of effect of duration of mobile banking transactions on the SMEs

Author and Objective	Variables Used	Methodology and Findings	Research Gap	How this study has filled the gaps
diffusion and use of Faster Payments System through 2013. Green *et al* (2014)		the United States payment system proposed by the Federal Reserve		
To determine the factors that affect the acceptance of the use of mobile banking services from the viewpoint of customers. Alsamydai *et al* (2014)	Transaction speed Ease of Use Communication Pursuance Assurance Personal Desires Knowledge Habit Resistance to Innovations Experience.	Regression model The degree of correlation between the motivating factors in the utilization of mobile banking is greater than the degree of correlation between factors that impede the utilization of mobile banking. This result was acceptable since the respondents of the study sample utilize mobile banking services.	The study covered the effects of impeding and motivating factors of mobile banking from the perspective of customers of banks. It did not cover utility of mobile banking on SMEs.	This study investigates the effect of utility of mobile banking on SMEs.
To explore business, personal, and social money-related practices that have emerged as a result of increased patronage of m-banking industry in Ghana. Dzokoto (2014).	Research question: What is the impact of mobile money on the poor in urban area who so far appear to be the sector of the population least aware of, and for then, the least likely to use mobile money in their daily lives?	1. Cash is still the main form of payment for daily transactions. 2. Knowledge in m-banking and use has increased, but mobile money has not yet become the main form of transacting in the payment for goods and services, or savings. 3. Mobile Network Operators have increased mobile products available to the public,	This study covered the impact of mobile money on the urban poor who were least likely to use mobile money in their daily lives. This left out major players in the utility of mobile banking such as	This study incorporates SMEs which are major players in the utility of mobile banking.

Author and Objective	Variables Used	Methodology and Findings	Research Gap	How this study has filled the gaps
		slowly creating a mobile money ecosystem. 4. Persistence of regulatory, partnership, and educational barriers that hamper the growth of the MM industry in Ghana.	SMEs.	
The relationship between Mobile Money Transfer and Financial Inclusion in Kenya. Murega (2013)	Number of subscribers with access to m-banking services Volume of transactions from the mobile transfer services.	Pearson's correlation analysis The findings of the study showed that mobile banking platform is continuously growing and improving. This is followed by a proportional growth in the level of financial inclusion.	This study did not cover the effect of mobile banking utility on growth SMEs	This study covers mobile banking utility on the growth of SMEs
The cost of transactions and Facilitating Conditions as Indicators of the Adoption of Mobile Money Services in Kenya. Micheni et al (2013)	Transaction cost Facilitating conditions Adoption	Regression model There was a strong relationship between Facilitating Conditions and Adoption of mobile money services as evidenced by the structural weight of 0.61. The study showed that the costs of transaction do not influence the adoption of mobile money services as indicated by weak structural	The study left out the effect of utility of mobile banking transactions on growth of SMEs	This study includes the effect of utility of mobile banking transactions on growth of SMEs

Author and Objective	Variables Used	Methodology and Findings	Research Gap	How this study has filled the gaps
		weight of 0.02		
The influence of Mobile Banking Services on Customer Delivery in Banking Industry, A Case of Bungoma County, Kenya. Juma (2013)	ICT systems E-banking transactions Services offered by bank employees Electronic mobile devices	Frequencies, percentages and tabulation Banks need to continually train their staff on IT to realize benefits of e-banking both to them and their customers	The study covered mobile banking on the banking sector exclusively	This study covers mobile banking utility and SMEs
To investigate the relationship between mobile money transfer services and financial inclusion in Kenya. Mwenda (2013)	Number of mobile users with access to mobile phone banking services. Volume of transactions from the mobile transfer services	Descriptive analysis and content analysis Mobile money transfer services are improving at a continuous rate and growing and as it grows, the level of financial inclusion is simultaneously and growing proportionately.	The study covered the level of financial access but it did not cover utility of mobile banking on SMEs.	This study investigates the utility of mobile banking on SMEs.
To investigate the impact of the introduction of mobile banking on transaction costs of microfinance institutions in Nairobi. Kigen (2011)	Transaction costs of microfinance institutions in Nairobi.	Students t-test. From the study it was observed that the increase of transactions resulted in an increase in transaction charges by the microfinance institutions.	The study did not cover the impact of the transaction costs on the growth of SMEs.	This study covers the effect of mobile banking transaction costs on growth of SMEs.

Source: Researcher (2020)

2.4 Conceptual Framework

This study used the conceptual framework provided in figure 2.2. Relationship between dependent and independent variables was depicted as the framework provided m-banking factors would be capable of influencing the growth of SMEs in Kisumu County. Independent variables included: mobile money payments, mobile banking transaction charges, duration of m-banking transactions and ease of mobile banking on owners of SMEs. The dependent variable growth is revenue which was influenced by the independent variables.

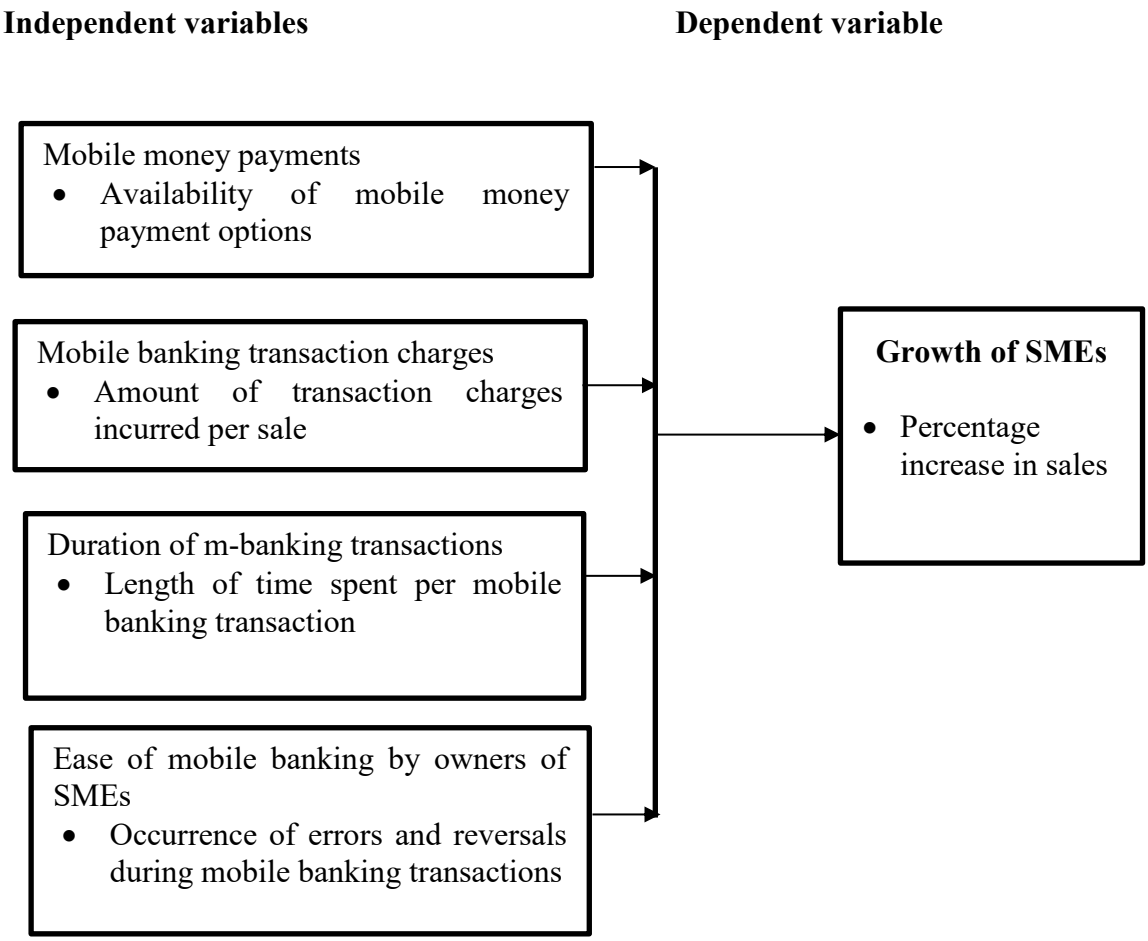


Figure 2.2: Conceptual Framework

Source: Researcher (2020)

The independent variables used in the study were mobile money payments which were measured by the acceptability of mobile banking payment options as categorized on the Likert scale, transaction charges which was measured by their effect on purchases as categorized on the Likert scale, duration of transaction which was measured by the effect of time spent categorized on the Likert scale and ease of mobile banking on owners of SMEs which was measured by the effect of errors and reversals during mobile banking transactions as categorized on the Likert scale. The dependent variable of the study was growth. Growth was measured by percentage increase in sales in comparison to prior year for the last five years.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter explains the methodology that was used to achieve the objectives of the research. Section 3.2 outlines and defines the research design that was used in this project. Section 3.3 covers the population of the study. Section 3.4 covers the sampling design, showing the population size. Section 3.5 explains the methods used in data collection. Section 3.6 explains the method used to determine validity and reliability of data collection instrument. Section 3.7 explains data collection procedure while section 3.8 covers the methods used in analysing data.

3.2 Research Design

Mugenda (2003) describes descriptive research design as a methodical and practical where there is no visible direct control of independent variable by the researcher since manifestation has happened already or it could be that it is not possible to manipulate the independent variable. The descriptive research design was applied in the study since the study aimed to find out the effect of utilization of m-banking and growth of SMEs in Kisumu County in Kenya. The descriptive research design enabled the researcher to find out the relationship that existed between the independent and dependent variables. A model was developed first and then tested by conducting studies on the selected sample from the population.

3.3 Population of the Study

The population of the study consisted of 964 registered SMEs as per the Kenya National Chamber of Commerce and Industry (KNCCI) Kisumu chapter (2013). The utility of mobile banking has not been documented therefore necessitating the use of questionnaires to collect the data. Kisumu County includes Kisumu city which is the third largest city in Kenya. With the introduction of devolution provided for in the new constitution, the county has improved transport network connecting it to other cities through road, air and water. Kisumu County has a high availability of SMEs in town centres like Kisumu City. The subjects were required to be in existence for more than 5 years. This was necessary since the study was based on enterprises that are stable and could give reliable feedback concerning the mobile banking system that they have been using. The samples to for the study were obtained through sending request letters and mails for participation in the study.

3.4 Sample Size

The sample taken was a random sample of SMEs in Kisumu County. The respondents to be sampled were 91. The population of SMEs was assumed to be fairly distributed. The respondents were assumed to be normally distributed. The sample size was computed using the formula:

For the study the sample was:

$N/ [1 + (N) (E)^2]$ …….... (3.1)

Where N is the total population (964), E is the level of significance.

$964/ [1 + (964) (0.1x0.1)] = 91$

The sample size was therefore 91.

3.5 Data Collection Instrument

The researcher used a structured questionnaire for the purpose of collecting data from the respondents. The data collection instrument captured data regarding both the independent and dependent variables. This tool enabled the researcher to collect data on a Likert scale.

3.6 Data Collection Procedure

Prior to collecting data, the researcher requested for consent from the business department in Kenyatta University. The researcher also sought clearance from National Commission of Science Technology and Innovation (NACOSTI) to be permitted to undertake the data collection procedure. The research instrument was availed to the sampled respondents in Kisumu by the researcher himself. The filled questionnaires were collected from the respondents after two days.

3.7 Pilot Test

There pilot test preceded the main study. The test established whether there were weaknesses in the structured questionnaire. This established the validity and the reliability of the questionnaire. From the sample population, the researcher randomly selected 10% (10 respondents) to take part in the pilot test. The respondents of the pilot test were not part of the actual study.

3.7.1 Validity of the Research Instrument

The validity of a measurement tool such as the structured questionnaire is the extent to which it has the capability to measure what it is intended to measure. According to Brains and Manheim (2011) validity is the degree to which a measurement, concept, or conclusion is well-founded and corresponds accurately to the actual world. This study aimed to establish the validity of structured questionnaire which was used in the study. The opinion of the study supervisor was used by the researcher to ascertain the content validity of the research instrument.

3.7.2 Reliability of the Research Instrument

Reliability is considered to be the extent to which a measurement gives results that are consistent (Mugenda & Mugenda, 2003). The research instrument with a high reliability should collect similar data when administered to different sampled populations having similar characteristics. Cronbach alpha (α) coefficient was used in the study to determine the reliability of the

questionnaire. Variables that returned Cronbach's coefficient values of above 0.70 in the research instrument were taken as reliable.

Table 3.1: Reliability statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.789	0.773	4

Source: Researcher 2020

From Table 3.1 the Cronbach's alpha is 0.789, which indicated a high level of internal consistency for the Likert scale in the questionnaire.

3.8 Data Analysis Technique

The data to be collected was quantitative. Data analysis was conducted using descriptive statistics, which included frequency, mean, range, standard deviation, standard error of the mean and sum. Important statistical tools including multiple regression and cross-tabulation were applied with the help of Excel and Statistical Package for Social Scientists (SPSS) software to analyse the data and draw conclusions. Analysed data was presented in form of tables. The regression analysis model was developed by the researcher. The study variables taken collectively would have an effect on the dependent variable. The dependent variable was measured to the extent to which it varied as the independent variables varied. The regression model below was used in establishing the effect of utility of mobile banking and growth of Small and Medium-sized Enterprises.

$$y_i = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + e \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3.2)$$

Where:

y is the dependent variable. It represents the growth of SMEs. Growth is measured using the percentage increase in sales. Mobile banking utilisation will influence the customers' decision to make or cancel, decrease or increase the level of purchase made from an SME therefore resulting in increase or decrease in sales.

β_0 is the y intercept (value of y when x is 0), it will show the extent of utility of mobile banking in the absence of any factors,

x_1 represents mobile money payments,

x_2 represents mobile banking transaction charges,

x_3 represents duration of mobile transactions,

x_4 represents ease of mobile banking on owners of SMEs.

a_1, a_2, a_3 and a_4 represent the slope which will show the relationship between the mobile money payments, transaction charges, duration of mobile transactions and technological knowhow respectively and the extent of utility of mobile banking by SMEs in Kisumu County,

e is the error which indicates whether the analysis has captured a strong or weak relationship between the factors and the level of growth

β_1, β_2, β_3 and β_4 represents regression coefficients of independent variables.

Table 3.2: Operationalisation and measurement of variables

Variable	Type	Operationalisation	Measurement	Hypothesised direction
Mobile money payments	Independent	The use of mobile money payments on the sales made by SMEs in Kisumu County, Kenya	Scale of 1-5	None
Mobile banking transaction charges	Independent	The transactions charges incurred per sale made by SMEs in Kisumu County, Kenya	Scale of 1-5	None
Duration of mobile transactions	Independent	The time spent on transactions on the sales made by SMEs in Kisumu County, Kenya	Scale of 1-5	None
Ease of mobile banking on owners of SMEs	Independent	The level of ease or difficulty experienced by owners of SMEs who have subscribed to m-banking service	Scale of 1-5	None
Growth of SMEs	Dependent	The increase or decrease in sales of SMEs in Kisumu County, Kenya	(Sales of year n - Sales of year n-1)/Sales of year n-1	None

Source: Researcher 2020

3.9 Diagnostic Testing

The study carried out the following diagnostic test on the data:

3.9.1 Multicollinearity

According to Tabachnick and Fidell (2007) multicollinearity refers to when there is a high correlation of the independent factors in the regression model. This study tested the multicollinearity by the use of VIF values.

Table 3.3: Multicollinearity Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.261	.143		1.835	.070		
	Mobile payments	.909	.083	.773	10.951	.000	.943	1.060
	Transaction costs	-.046	.106	-.031	-.434	.665	.949	1.053
	Duration of transactions	-.129	.093	-.096	-1.385	.170	.979	1.021
	Ease of use	-.097	.106	-.065	-.918	.361	.937	1.067

a. Dependent Variable: Growth in sales

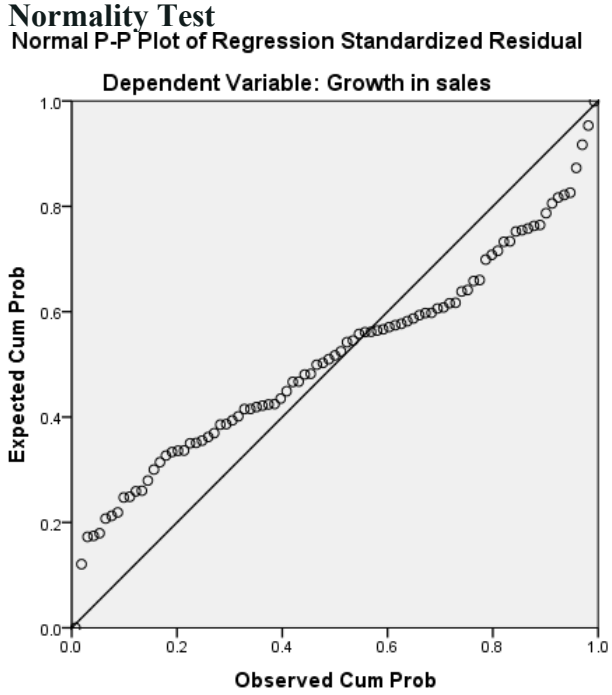
Source: Researcher 2020

According to the results in Table 3.3 each VIF value is below 10, indicating that the independent factors were not highly correlated.

3.9.2 Normality

The normality test was used to determine if the data set was well-modelled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed. Normality was tested as shown below.

Figure 3.1: Normality Test



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Source: Researcher 2020
As per Figure 3.1 there was no major deviation from the normality line.

3.9.3 Linearity

The linearity test was carried out to determine if a linear relationship between the independent variables and dependent variable.

Table 3.4: Linearity Test

Description			Sum of Squares	df	Mean Square	F	Sig.
Growth in sales * Mobile payments	Between Groups	(Combined)	1.187	11	.108	11.079	.000
		Linearity	1.149	1	1.149	118.019	.000
		Deviation from Linearity	.037	10	.004	.385	.950
Growth in sales * Transaction costs	Between Groups	(Combined)	.310	11	.028	1.313	.234
		Linearity	.038	1	.038	1.788	.185
		Deviation from Linearity	.271	10	.027	1.266	.265
Growth in sales * Duration of transactions	Between Groups	(Combined)	.543	14	.039	2.031	.027
		Linearity	.057	1	.057	2.997	.088
		Deviation from Linearity	.486	13	.037	1.956	.073
Growth in sales * Ease of use	Between Groups	(Combined)	.316	11	.029	1.345	.218
		Linearity	.012	1	.012	.568	.453
		Deviation from Linearity	.304	10	.030	1.422	.187

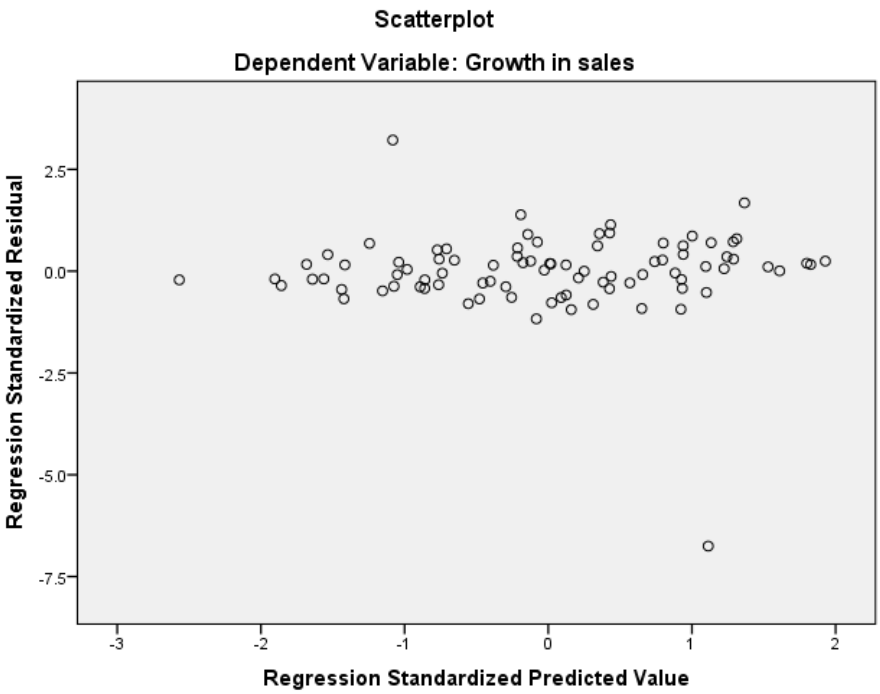
Source: Researcher 2020

As per the results of Table 3.4 the deviations from linearity for Mobile payments, Transaction costs, Duration of transactions and Ease of use is 0.950, 0.265, 0.073 and 0.187. All of them are more than 0.05 therefore the assumption of linearity is met.

3.9.4 Heteroscedasticity

According to Pearson (1905), random variables are heteroscedastic if population is made up of sub-populations which have different variabilities from the rest. This test ensured that modelling errors were not uniform and also they were not correlated and hence their variances did not vary with the factors considered in the regression model.

Figure 3.2: Heteroscedasticity Test



Source: Researcher 2020

As per Figure 3.2 data was generally equally distributed above and below the zero point on the Y axis.

3.10 Ethical Standards

The researcher was guided by the University code of ethics and obtained an authorization letter from Kenyatta University School of Business before the collection of data. In addition, the researcher sought and obtained from the university an introductory letter and a research approval letter. The researcher further applied and obtained a permit from NACOSTI. Further the consent of the respondents was sought before the administration of questionnaires. The identities and responses of the respondents was maintained as confidential.

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents a discussion of the findings of the research on mobile banking utilization and growth of SMEs in Kisumu County, Kenya. The findings were in the form of both the descriptive and inferential statistics. The findings were presented in line with the objectives of the research and study variables. The background information was discussed first before the discussion of the descriptive and inferential statistics.

4.2 Response Rate

According to Pinsonneault & Kraemer (1993) social sciences requires a response rate that is 51% and above. The researcher targeted a response rate of 100%. However, this rate of percentage was not achieved due to sampling measurement and coverage errors. The study had a response rate of 96% which can be taken to indicate that the results were credible to be analysed further.

Table 4.1: Response Rate

Sampled respondents	91
Invalid respondents	3
Valid respondents	87
Percentage of response	96%

Source: Researcher 2020

The results in table 4.1 show that out of the expected total 91 respondents, 3 of the respondents were invalid. The valid respondents were 87. Therefore, the study has a response rate of 96%.

4.3 Respondents Demographics

The background information sought on the respondents included their age, gender, level of education and length of time spent in the retail industry. This was useful in obtaining their demographic characteristics.

4.3.1 Gender Distribution of the Respondents

The researcher computed the frequencies and percentages of the respondents' gender distribution.

The findings from the analysis were as shown in Table 4.2

Table 4.2: Gender

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	28	32.2	32.2	32.2
	Male	59	67.8	67.8	100.0
	Total	87	100.0	100.0	

Source: Researcher 2020

The results in table 4.2 showed that the majority of the respondents were male comprising of 67.8% followed by females with 32.2%. The findings demonstrated that SMEs in Kisumu County, Kenya are majorly run by males.

4.3.2 Age Distribution of the Respondents

The researcher computed the frequencies and percentages of the respondents' age distribution.

The findings from the analysis were as shown in Table 4.3

Table 4.3 Age of Respondents

Age in years		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	31-35	11	12.6	12.6	12.6
	36-40	12	13.8	13.8	26.4
	41-45	7	8.0	8.0	34.5
	46-50	11	12.6	12.6	47.1
	Over 50	30	34.5	34.5	81.6
	Under 31	16	18.4	18.4	100.0
	Total	87	100.0	100.0	

Source: Researcher 2020

The results in table 4.3 showed that a majority of the respondents were over 51 years comprising of 34.5% followed by those under 31 years with 18.4%. The findings demonstrated that SMEs in Kisumu County, Kenya are majorly owned by the elderly. This could be possible in family-run businesses where family members don't take early retirement.

4.3.3 Academic Qualifications of the Respondents

To establish the level of qualifications of the respondents in running their businesses, the researcher examined the level of their education. The findings on academic qualifications of the respondents are shown in Table 4.4

Table 4.4: Level of Education of Respondents

Education level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Degree	16	18.4	18.4	18.4
	Diploma	35	40.2	40.2	58.6
	Primary	18	20.7	20.7	79.3
	Secondary	18	20.7	20.7	100.0
	Total	87	100.0	100.0	

Source: Researcher 2020

From table 4.4, the findings indicated an equal distribution of respondents in Primary and Secondary categories of academic qualifications where both had 20.7%. Most of the respondents had diploma certificates. Those with

degree certificates were 18.4%. This demonstrates that SMEs in Kisumu County, Kenya are operated by educated owners.

4.3.4 Number of Employees

In this regard the aim of the researcher was to find out to the number of people each respondent had employed. The frequencies and percentages were established and were as shown in Table 4.5.

Table 4.5: Number of Employees

Number of employees		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	37	42.5	42.5	42.5
	11-15	9	10.3	10.3	52.9
	16-20	6	6.9	6.9	59.8
	21-25	6	6.9	6.9	66.7
	6-10	25	28.7	28.7	95.4
	Over 25	4	4.6	4.6	100.0
	Total	87	100.0	100.0	

Source: Researcher 2020

The results in table 4.5 showed that a majority of the SMEs had 1-5 employees comprising of 42.5% of the sample. This was followed by the second category that had 6-10 employees comprising of 28.7%. The category of 11-15 had 10.3% while 16-20 and 21-25 had an equal share of 6.9 % each. The category of over 25 had the least respondents comprising of 4.6%. This is understandable since majority of the SMEs belong to the elderly which could imply that the employees consisted of a few family members.

4.4 Descriptive Statistics

The aim of the researcher was to find out the perception of respondents regarding the various variables in the study. The questionnaire collected the

responses on 5 point Likert scale. The researcher obtained the means and standard deviations of the responses to assist in making inferences. This is presented in the following subsections.

4.4.1 Mobile money payments

The respondents were asked to classify their responses in relation to their use of mobile payments in making and receiving payments. The analysis of the findings was as presented in Table 4.6.

Table 4.6: Mobile Money Payments

Research question	N	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	Std. Dev
		%	%	%	%	%		
I use mobile banking to receive payments from my clients	87	11.5	13.8	19.5	25.3	29.9	3.48	1.354
I use mobile banking to pay my suppliers	87	4.6	11.5	21.8	33.3	28.7	3.70	1.142
I receive all payments in form of mobile money	87	9.2	6.9	13.8	27.6	42.5	3.87	1.292
Use of mobile money has reduced fraud on cash received	87	4.6	11.5	24.1	21.8	37.9	3.77	1.208
I pay my employees using mobile money	87	11.5	13.8	19.5	25.3	29.9	3.48	1.354
Valid N (listwise)	87							

Source: Researcher 2020

The results in table 4.6 showed that the respondents were in agreement that they use mobile phone to receive payment from clients as indicated by the mean of 3.48(agree) and a standard deviation of 1.354. Respondents also agreed (M=3.70, SD=1.142) that they use mobile money to pay suppliers. The respondents did not discriminate the type of services they accepted or rejected mobile money with a majority of 27.6% and 42.5% agreeing and strongly agreeing (M=3.87, SD=1.292) on general acceptance of mobile money irrespective of the service or product being sold. Respondents also agreed that mobile money covers the business from loss of cash (M=3.77, SD=1.208)

having 21.8% and 37.9% of them agree and strongly agree respectively with the statement. In addition, respondents agreed (M=3.48, SD=1.354) that they pay their employees using mobile money 25.3% and 29.9% agreeing and strongly agreeing respectively.

4.4.2 Mobile banking transaction charges

The researcher aimed to find out the effect of transaction charges on their businesses of the respondents. The findings were as shown in table 4.7 below:

Table 4.7: Mobile banking transaction charges

Research question	N	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	Std. Dev
		%	%	%	%	%		
I don't use mobile banking where transaction charges are high	87	4.6	19.5	24.1	14.9	36.8	3.59	1.297
I charge my clients extra fee to cater for transaction charges	87	3.4	9.2	19.5	26.4	41.4	3.93	1.139
I avoid huge payments in order to avoid higher transaction charges	87	3.4	1.1	33.3	29.9	32.2	3.86	1.002
I prefer few transactions on mobile banking to reduce transaction charges	87	5.7	11.5	28.7	20.7	33.3	3.64	1.220
I always prefer a service provider with low transaction fees	87	9.2	14.9	23.0	20.7	32.2	3.52	1.328
Valid N (listwise)	87							

Source: Researcher 2020

From the results in table 4.7 respondents agreed with all the attributes of transaction charges. The mean for all the answers was more than 3.5 and the standard deviation was less than 1.4. Those that agreed and strongly agreed that they did not use mobile banking where transaction charges were high were the majority and had a combined percentage of 51.7% (M=3.59, SD=1.297). Further a major percentage of the respondents, 67.8% agreed (M=3.93, SD=1.139) that they charged clients extra fee to recover the transaction charges. Other respondents comprising of 54% agreed (M=3.86,

SD=1.002) that they avoid making huge payments using mobile money in order to avoid high transaction charges. The respondents also showed preference to fewer transactions (M=3.64, S=1.220) with 20.7% and 33.3% agreeing and strongly agreeing respectively that they reduced the number of transactions where charges were billed per transaction. The majority of the respondents avoided subscribing to service providers who had high transaction charges (M=3.52, SD=1.38) with a cumulative percentage 52.9% comprising of those who agreed and strongly agreed that they preferred subscribers with low transaction fees.

4.4.3 Duration of M-banking Transactions

The aim of the researcher was to examine the perceptions of the respondents in regard to the duration m-banking transactions and its impact on their enterprise. The findings from the analysis were as shown in table 4.8.

Table 4.8: M-banking Transaction Duration

Research question	N	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	Std. Dev
		%	%	%	%	%		
I always pay cash to save time	87	6.9	19.5	19.5	20.7	33.3	3.54	1.319
I would change from a service provider with slow connection	87	4.6	9.2	23.0	19.5	43.7	3.89	1.205
Mobile banking has contributed to long payment queues	87	4.6	21.8	21.8	21.8	29.9	3.51	1.256
I cancel an intended purchase when transaction takes long	87	6.9	19.5	18.4	23.0	32.2	3.54	1.310
My suppliers complain of time wastage when I am paying them through mobile money	87	6.9	17.2	25.3	20.7	29.9	3.49	1.275
Valid N (listwise)	87							

Source: Researcher 2020

From the analysis in table 4.8 it was established that of the respondents paid in cash in order to avoid delays in mobile money transactions (M=3.54, SD=1.319) with 20.7% and 33.3% agreeing and strongly agreeing that they pay cash to avoid delays caused by mobile banking transactions. It was established that 63.2% were would change from a service provider with a slow connection (M=3.89, SD=1.205). A further 51.7% had the opinion that m-banking payments have contributed to long payment queues in business establishments (M=3.51, SD=1.256) while 55.2% agreed that they would cancel a purchase when a transaction took long (M=3.54, SD=1.31). In addition, 50.6% of the respondents have received complaints from suppliers after paying them in mobile money.

4.4.4 Ease of Mobile Banking on Owners of SMEs

The researcher aimed to find out the effect of ease of mobile banking on owners of SMEs on the growth of Small and Medium-sized Enterprises. The analysis of the findings is as per table 4.9 below:

Table 4.9: Ease of Mobile Banking on Owners of SMEs

Research question	N	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	Std. Dev
		%	%	%	%	%		
Using cash payments is easier than mobile payments	87	4.6	17.2	20.7	24.1	33.3	3.64	1.239
I always seek assistance when making mobile payments	87	4.6	17.2	35.6	20.7	21.8	3.38	1.144
I have made errors in payments due to mobile payments	87	8.0	17.2	26.4	17.2	31.0	3.46	1.310
My employees require training in order to use mobile money	87	8.0	25.3	19.5	17.2	29.9	3.36	1.355
My clients always seek assistance when using mobile money	87	5.7	14.9	18.4	27.6	33.3	3.68	1.244
Valid N (listwise)	87							

Source: Researcher 2020

From the analysis in table 4.9, it was found out that 24.1% of the respondents agreed and 33.3% strongly agreed that using cash payments is relatively easier than using mobile payments (M=3.64, SD=1.239). It was established that a portion of 42.5% sought assistance when making mobile payments (M=3.38, SD=1.144). A further 47.1% agreed (M=3.46, SD=1.310) that they have made errors when transacting with mobile money. Concerning the need for employee training on proper use of mobile banking facilities, the respondents agreed (M=3.36, SD=1.355) that their employees required training. Additionally, a majority of 60.9% agreed (M=3.68, SD=1.244) that their clients always sought assistance during the process of paying using mobile money.

4.5 Hypothesis Testing

The study sought to test the hypothesis relating the independent variables to the dependent variable. The hypotheses were stated as follows.

$H0_1$. Mobile money payments have no significant effect on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

$H0_2$. Mobile banking transaction charges have no significant effect on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

$H0_3$. Duration of m-banking transactions has no significant effect on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

$H0_4$. Ease of mobile banking on the owners of SMEs has no significant effect on the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya.

The researcher applied Analysis of Variance (ANOVA) in testing the hypothesis. The level of significance was $p<.05$.

Table 4.10: Model Summary on Overall Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.784[a]	.614	.596	.09496

a. Predictors: (Constant), Ease of use, Duration of transactions, Transaction charges, Mobile payments and receipts
Source: Researcher 2020

The model summary in table 4.10 gave an adjusted R-squared value of .596 indicating that the four independent variables (Mobile payments and receipts, m-banking transaction charges, duration of m-banking transactions and the

ease of m-banking on owners of SMEs) taken together accounts for 59.6% of the total variance in the change in growth of SMEs in Kisumu County, Kenya. This is an indication that the utility of m-banking is a key predictor of growth for SMEs in Kisumu County, Kenya. The analysis of variance results is as analysed in the table below:

Table 4.11: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.178	4	.294	32.659	.000[b]
	Residual	.739	82	.009		
	Total	1.917	86			

a. Dependent Variable: Growth in sales
b. Predictors: (Constant), Mobile money payments, Mobile banking transaction charges, M-banking Transaction Duration and Ease of mobile banking on owners of SMEs.
Source: Researcher 2020

From table 4.11, an F-value of 32.659 obtained which is statistically significant at p=0.000. This was an indication that on overall the independent variables taken together had a significant influence of the growth of SMEs in Kisumu County, Kenya. The model coefficient values were as follows;

Table 4.12: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.261	.143		1.835	.070
	Mobile money payments	.909	.083	.773	10.951	.000
	Mobile banking transaction charges	-.046	.106	-.031	-.434	.665
	Duration of m-banking Transactions	-.129	.093	-.096	-1.385	.170
	Ease of mobile banking on owners of SMEs	-.097	.106	-.065	-.918	.361

a. Dependent Variable: Growth in revenue

Source: Researcher 2020

From the model coefficients, the following model was fitted:

$y_i = 0.143 + 0.773x_1 - 0.031x_2 - 0.096\, x_3 - 0.065x_4 + e$ …….... (4.1)

Where:

y_i represents growth in sales

x_1 represents mobile money payments,

x_2 represents mobile banking transaction charges,

x_3 represents m-banking transaction duration,

x_4 represents ease of mobile banking on owners of SMEs.

e is the error which indicates whether the analysis has captured a strong or weak relationship between the factors and the level of growth

Findings in Table 4.12 show a constant of 0.143 which is the y intercept (value of y when x is 0). This is the extent of utility of mobile banking in the absence of any factors.

The significance of the variables in the study is as follows: There was a significant relationship (p=0.000) between the mobile money payments and growth of small and medium business enterprises Kisumu County, Kenya. A

unit change in mobile money payments was found to result in a 0.773 change in growth of SMEs in Kisumu County, Kenya. This finding is in agreement with Mararo (2018) who established that mobile payments and receipts had positive significant relationship with the growth of SMEs. The finding is also in agreement with Murega (2013) who showed m-banking payments have resulted to proportionate and significant growth of the banking sector.

There was no significant relationship (p=0.665) between mobile banking transaction charges and growth of SMEs in Kisumu County, Kenya. A unit change in mobile banking transaction charges was found to result in a -0.031 change in growth of SMEs in Kisumu County, Kenya. This finding is in disagreement with Micheni, et al (2013) whose study revealed that transaction fee had a significant positive impact impacted on the growth of m-banking services.

There was no significant relationship (p=0.170) between m-banking transaction duration and growth of SMEs in Kisumu County, Kenya. A unit change in m-banking transaction duration was found to result in a -0.096 change in growth of SMEs in Kisumu County, Kenya. This finding is in disagreement with Alsamydai *et al* (2014) who pointed out that the speed of transactions as an inhibiting factor had a significant negative impact on the growth of entities subscribing to m-banking.

There was no significant relationship (p=0.361) between ease of m-banking on owners of SMEs on Growth of SMEs in Kisumu County, Kenya. A unit change in the ease of mobile banking was found to result in a -0.065 change

in growth of SMEs in Kisumu County, Kenya. This finding is in disagreement with research carried out in Ghana by Dzokoto (2014) which established that the ease of m-banking on owners of SMEs had slowed down the growth of institutions utilizing m-banking services.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives the summary and the conclusion of the study. It also provides recommendations from the findings of the study.

5.2 Summary of Findings

This research was carried out in order to establish the effect of the utility of m-banking on the growth of SMEs in Kisumu County, Kenya. The research aimed to find out the effect of mobile payments and receipts, m-banking transaction charges, duration of mobile banking transactions and the ease of mobile banking on the owners of SMEs on the growth of SMEs in Kisumu County, Kenya. From the findings, it was established that owners of SMEs utilised m-banking facility in transacting in their daily activities such as receiving of payments and settling their bills. Further, it observed that the m-banking system was generally accepted by clients and suppliers as well as employees of the SMEs. From the findings, it was established that the utility of mobile banking has enhanced the growth in revenue of the SMEs in Kisumu County, Kenya.

From the study, there was a significant positive relationship between mobile payments and the growth of Small and Medium-sized Enterprises in Kisumu County, Kenya. This indicates that mobile payment and receipts were significant in determining of the growth of SMEs growth in Kisumu County,

Kenya. The study established that mobile payment had a significant influence on the growth of SMEs.

On the other hand, the research found out that m-banking transaction charges made the owners of SMEs to reduce their purchases or seek an alternative form of payment. This had a negative impact on growth of sales. Other owners of SMEs sought service providers who offered lower transaction charges. Additionally, owners of the SMEs reduced their number of transaction by foregoing some purchases or purchasing in bulk in order to reduce the transaction charges. From the correlation analysis, there was a slight negative correlation between the mobile banking transaction charges and the growth in revenue. This implied that an increase in transaction charges consequently resulted in a decrease purchases. From the regression analysis, transaction charges have a slight influence on the growth of SMEs in Kisumu County, Kenya.

The study further established that the duration of mobile banking transactions slowed down the sales process. From correlation analysis there existed a slight negative correlation between the duration of mobile banking transactions and the growth in revenue. This implied that an increase in the duration of mobile banking led to a decrease in the sales. From the regression analysis, the duration of m-banking transactions has a slight influence on the growth of SMEs in Kisumu County, Kenya.

From the study, ease of mobile banking on the owners of SMEs had an effect on the revenue of SMEs in Kisumu County, Kenya. From the correlation analysis, there existed a slight negative correlation between the ease of m-banking by owners of SMEs and the growth in revenue. This implied that difficulties in using mobile banking system led to a decrease in the sales. From the regression analysis, the ease of m-banking on the owners of SMEs had a slight impact on the growth of SMEs in Kisumu County, Kenya.

5.3 Conclusion

From the findings, it is evident that mobile banking utilization has a significant influence the growth of SMEs in Kisumu County, Kenya. From the study it was established that the utility of mobile banking platform has a positive influence on the growth of SMEs in Kisumu County, Kenya. This is shown by the increase in sales as a result of incorporating and utilising mobile banking by SMEs in Kisumu County, Kenya.

5.4 Recommendations

The researcher recommends that the SMEs incorporate the mobile payments in their business as a way of tapping the clients who do not carry cash with them. The SMEs should also settle the bills of their suppliers in mobile money as a way of ensuring secure transactions. The SMEs should also create awareness within their premises about the existence and acceptance of m-banking payments.

The researcher also recommends that the service providers seek a way of reducing transaction charges. This will enable the SMEs to increase their revenues from clients who were avoiding the transactions costs by reducing their purchases. The owners of SMEs as well as the service providers will be able to maintain their existing customer base as well as be able to attract new ones. The owners of the SMEs should subscribe to a service provider who charges low transaction fees. Low transaction fees will ensure that transaction charges are not an impeding factor in the growth of sales.

The researcher recommends that owners of the SMEs ensure that the mobile banking application in use will reduce the overall time of a transaction being initiated, executed and successfully concluded. This will enable the clients to save time spent on checking out on the purchase. Shorter durations will ensure that errors experienced during the process are rectified on time therefore improving on the service delivery. The owner of the SME should ensure also ensure that the staff are properly trained in order to minimise delays and errors during the payment process.

In addition, researcher recommends that owners of the SMEs ensure that they are properly trained on the use of m-banking mobile platform. This is due the fact that they are among the first people buyers will approach in case of a technicality in the paying process. The SME owner should ensure that the payment details and process are clear and visible to the client. There also should be a customer care function able to offer extra assistance to buyers as

and when needed. The service providers should ensure that they carry out public awareness campaigns. This will make the utility of mobile banking to be accepted by wider base of subscribers. Due to different service providers having different procedures in payment, the owners of the SMEs should display payment procedures clearly at the premises to ensure that the clients are guided properly. Further, the service providers should ensure that they have accessible customer care services at all times.

5.5 Suggestions for Further Studies

The study used a sample from SMEs in Kisumu County, Kenya as per the Kenya National Chamber of Commerce and Industry (KNCCI) Kisumu chapter (2013). A similar study should be carried out to cover companies listed firms in NSE and determine if the similar results would be achieved. This will help in establishing the effect of mobile banking utilisation on a wider sector of the economy therefore giving insight to business owners and enable them adopt mobile banking practices that will lead to growth in revenue. The study should also incorporate others factors that can potentially have an effect on growth in revenue other than the utilization of mobile banking. This will enable managers and investors include other factors in decision making in their objective to maximize shareholders' wealth.

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APPENDICES

Appendix I: Questionnaire

PREAMBLE

Dear respondent, the information sought in this questionnaire relates to utility of mobile banking and the growth of SMEs in Kisumu County. This is an academic research and the information will be used for academic purposes only. Kindly provide as much information as requested and be sincere. Your response is highly appreciated.

SECTION A: PERSONAL DETAILS

a) Name of SME _____

b) Year of registration _____

c) Gender of respondent _____

d) Registered on Mobile banking Yes ☐ No ☐
(If No Proceed to Section A question (g))

e) Year of subscription to mobile banking _____

f) Influenced to subscribe by:
- i) Media advertisements ☐
- ii) Family/Friends ☐
- iii) Entity policy ☐
- iv) Other (Please specify) ☐

g) **Age of respondent**

Under 31 years	☐	30-35 years	☐	36-40 years	☐
41-45 years	☐	46-50 years	☐	Over 50 years	☐

h) **Level of education of respondent**

Primary School certificate	☐	Diploma	☐	Doctorate	☐
Secondary School certificate	☐	Degree	☐		
College certificate	☐	Master's Degree	☐		

i) **Number of employees**

1-5 employees	☐	6-10 employees	☐
11-15 employees	☐	16-20 employees	☐
21-25 employees	☐	Over 25 employees	☐

SECTION B: MOBILE BANKING UTILITY

In the following section, use the following scale to show your level of agreement with the statements therein.

1-Strongly Disagree (SD) 2-Disagree (D) 3-Undecided (U) 4-Agree (A) 5-Strongly Agree (SA)

I) Mobile payments

	Description	1	2	3	4	5
i.	I use mobile banking to receive payments from my clients					
ii.	I use mobile banking to pay my suppliers					
iii.	I receive all payments in form of mobile money					
iv.	Use of mobile money has reduced fraud on cash received					
v	I pay my employees using mobile money					

II) Mobile baking transaction costs

	Description	1	2	3	4	5
i.	I don't use mobile banking where transaction costs are high					
ii.	I charge my clients extra fee to cater for transaction costs					
iii.	I avoid huge payments in order to avoid higher transaction costs					
iv.	I prefer few transactions on mobile banking to reduce transaction charges					
v.	I always prefer a service provider with low transaction fees					

III) Duration of mobile banking transactions

	Description	1	2	3	4	5
i.	I always pay cash to save time					
ii.	I would change from a service provider with slow connection					
iii	Mobile banking has contributed to long payment queues					
iv.	I cancel an intended purchase when transaction takes long					
v.	My suppliers complain of time wastage when I am paying them through mobile money					

IV) Ease of use of mobile banking by SME owners

	Description	1	2	3	4	5
i.	Using cash payments is easier than mobile payments					
ii.	I always seek assistance when making mobile payments					
iii.	I have made errors in payments due to mobile payments					
iv.	My employees require training in order to use mobile money					
v.	My clients always seek assistance when using mobile money					

Annual revenue for the last five years

	Year	Amount in Kenya Shillings
i.	2018	
ii.	2017	
iii.	2016	
iv.	2015	
v	2014	

Thank you for your co-operation.

Appendix II: Work Plan

Activity	Time
Writing proposal and developing questionnaire	Three weeks
Defending proposal and corrections	February 2019
Sampling and collecting data	Three weeks
Data analysis and writing of the report	Three weeks
Research completion and submission	December 2019

Appendix III: Budget

Activity	Unit	Cost per unit (KES)	Amount (KES)
Transport to client premises	7 days	1000 per day	7,000
Airtime and internet charges	21 days	500 per day	10,500
Stationery: Printing paper	3 reams A4 size	500 per ream	1,500
Printing and reproduction	3 cartridges	2000 per cartridge	6,000
Total			25,000

Appendix IV: Research Approval

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

Internal Memo

FROM: Dean, Graduate School

DATE: 10th September, 2019

TO: Ngugi Victor Kibe
C/o Accounting and Finance Dept.

REF: D53/OL/KSU/26719/2014

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 4th September, 2019 approved your Research Project Proposal for the M.BA Degree Entitled, **"Mobile banking utilization and growth of small and medium sized enterprises in Kisumu County, Kenya".**

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The form has been developed to replace the Progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

ANNBELL MWANIKI
FOR: DEAN, GRADUATE SCHOOL

c.c. Chairman, Accounting & Finance Department
Supervisors:

1. Dr. Lucy Wamugo
   C/o Department of Accounting and Finance
   Kenyatta University

AM/ik

Appendix V: List of Sample

No.	Name
1	A To Z Pharmacy
2	Acacia Systems Limited
3	Allied Hardware And Electricals Limited
4	Alpha Hardware Suppliers Limited
5	Amex Auto
6	Amito Stores
7	Anvi Emporium Limited
8	Apic Enterprises
9	Arima Grocers
10	Arkays Hardware
11	Atlantic Limited
12	Back to School
13	Barista Coffee
14	Bithost Technologies
15	Black Berry Enterprises
16	Bose Optical
17	Boston Cafe
18	Buzz Bar
19	Café Acacia
20	Cecypo Limited
21	Connel Enterprises Limited
22	Dubai Corner Auto Parts
23	Elmore Bookshop and Stationers
24	Esoti General Supplies
25	Evershine Stores
26	Florence Restaurant
27	Fulchand Raishi and Co Limited
28	Fusion Informatics
29	Gas Delivery Kisumu
30	General Auto Hardware Limited
31	Gohar Glass Mart
32	Green Garden
33	Hardsteel Products Limited
34	Harleys Chemist
35	Highland Glaziers
36	Ideal Sofas
37	Ikimwanya Auctioneers
38	Inca Impex Agencies Limited
39	Ismael Motor Cycles
40	Janki Enterprises Limited

No.	Name
41	Ja-Ukwala Furniture
42	Java Kisumu
43	Jessa Glass And Hardware Limited
44	Joko Enterprises
45	Kajulu Holdings
46	Karnawati Industries Bookshop And Stationers
47	Kened International
48	Kentons Chemists
49	Kentons Pharmaceuticals
50	Kenya Matches
51	Kisumu Networks Solutions
52	Le Savanna Country Lodge And Hotel
53	Mac And More Solutions
54	Main Street Pharmaceuticals Limited
55	Maruti Pharmaceuticals Limited
56	Mayfair Bakeries
57	Midas Auto Services Center Limited
58	Mon Ami
59	Multipath Technologies
60	Nelly's Authentiques
61	Nildeep Garments
62	Nishal Enterprises
63	Nyanza Sugar And Produce Limited
64	Nyanza Woollen Shop Limited
65	Optica Westend
66	Optika Kisumu
67	Opti-Plus Limited
68	Oshwal Cash N Carry
69	Pabari Enterprises Limited
70	Palms Coffee Shop
71	Rio's Liquor Barn Limited
72	Rock And Stock East Africa Limited
73	Rock Resort
74	Rooftop Bar
75	Rubi Glass And Hardware Stores
76	Samco Traders Limited
77	Sarit Bookshop Limited
78	Servo Balans Africa Limited
79	Shalom Hotel
80	Shreeji Petroleum Investments
81	Silverline Services Limited
82	Solarnow Services (K) Limited

No.	Name
83	Telo Food Products
84	Union Logic Tours And Travel
85	Victoria Enterprises Limited
86	Victoria Pharmaceuticals Limited
87	Victoria Terrace
88	Vince Solutions And Investments
89	Wallpaper Kisumu
90	Westlink Invetsment
91	Yatin Limited