EFFECT OF MOBILE PHONE TECHNOLOGY ON PERFORMANCE OF MICRO AND SMALL-SCALE ENTERPRISES IN KAKAMEGA COUNTY

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DECLARATION

I declare that this research thesis is my original work and has not been submitted to any other college or university for academic credit.

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

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DEDICATION

This thesis is dedicated to both my loving parents: the late Paul Kwatemba Swachi aka Likhumi and the late Catherine Inziani Ng'ayo Swachi who were a great source of motivation and strength during moments of despair and discouragement in my life

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ABSTRACT

The evolution of mobile phone technology and its facilities has led to economic growth and development as many people can now access financial services. Previously the financial institutions had ignored the people in remote areas and the poor population, key in them are the micro and small-scale enterprise owners. The lack of financial services led to poor performance hence the need to investigate on the effect that mobile phone technology has on performance of the micro and small-scale enterprises. The study considered mobile phone credit facilities, mobile phone savings facilities, mobile phone payment facilities and mobile phone internet facilities as the specific objectives and its link to performance. The study was anchored on technology acceptance model, unified theory of acceptance and use of technology and theory of financial intermediation. The study adopted the causal-effect research design and targeted MSEs in Kakamega County that use mobile phone technology, the population was stratified as per sub-county and final sample size of 399 respondents was obtained by using the Yamane Formula. The study collected primary data using structured questions with the help of 6 research assistants after the instrument has been pilot tested to ensure it is valid and reliable. Statistical software SPSS was applied in data analysis where descriptive statistics that produced frequencies, means and standard deviations and the multiple regression analysis was done to draw inferences. From the results, the study failed to reject hypotheses H_I and H_3while hypotheses H_2 and H_4 were rejected. The study concludes that mobile phone saving facilities and mobile phone internet facilities have significant effect on performance of micro and small-scale enterprises. The study recommends that the owners and senior managers of the micro and small-scale enterprises in Kakamega County should invest more resources in enhancing the mobile phone saving facilities and mobile phone internet facilities so as to significantly drive performance of their firms. The policy makers in Kakamega County should formulate policies that encourage and support uptake of mobile phone technologies to enhance performance of the micro and small-scale enterprises in place. The practitioners who may include information and communication technology specialists should appreciate the role played by mobile phone saving facilities and mobile phone internet facilities in driving performance of the firm.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

KEMU: Kenya Methodist University

MPOS: Mobile point-of-sale

MSMEs: Micro, small and medium sized enterprises

NPL: Non-performing Loans

ROA: Return on Assets

SMEs: Small and micro-sized enterprises

SPSS: Statistical package for social sciences

SSA: Sub Saharan Africa

TAM: Technology Acceptance Model

TOE: Technology Organization and Environment theory

TPB: Theory of Planned Behaviour

TRA: Theory of Reasoned Action

TV: Television

UTAUT: Unified Theory of Acceptance and Use of Technology

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Information communication together with technology advancements play a key role in day to day life of humanity especially mobile phone applications, in advancing the development of national economic activities through increased efficiency and productivity as well as increased market access has become irreversible and undisputed (Islam et al., 2018). In this vein of understanding, adequate and important strategic aim must be sharply oriented to allow access to the new opportunities presented by transformations in Information and Communication Technologies (ICT), not only by larger enterprises within national economies, but also by micro and small-scale enterprises. This is critical in allowing small businesses to compete efficiently and favourably with larger, more established companies in national economies (Perekwa *et al.*, 2016).

Global statistics indicate that approximately2.4 billion grown up persons who make up slightly above half the world's population of grownups have no access to formal financial services. Among them, 1.1 billion live on less than one dollar a day (World Bank, 2018). It is further noted that the greatest proportion of these grown-up men who are not served making up an approximate 1.5 billion, are found in Asia while in Sub Saharan Africa accounts for 80% of this population was un-served (Nofie, 2020). The problem of financial exclusion in the developing world has had a serious effect on the economic growth and entrepreneurial development among communities (Aron & Muellbauer, 2019). Brookings financial inclusion report indicated that Kenya had attained slightly above 88 per cent followed by South Africa

at 8 percent. Colombia and Turkey reported the least in the group at 74 per cent (Sekabira & Qaim, 2017).

The gaps in the access to financial services have led to digital innovations that have helped to bridge the gaps in financial services provision. One of the common innovations is the mobile phone that has enabled millions of people to access financial services and effortlessly transact and those conducting business activities have gained from it. The mobile phone has had a positive impact on the lives of people and their communities (Francis & Willard, 2016). Looking at the micro and small enterprises (MSEs), they suffer poor performance due to factors like lack of sufficient capital and funds to run their operations and expand, lack of skills, knowledge and experiences to run their businesses and face challenges in connecting to the markets, the suppliers and consumers (Anye & Makebo, 2019). It is why Rezvani and Fathollahzadeh (2020) noted that some small and medium companies have started using mobile technology in expanding their operations. The solution to the challenges facing the MSEs is on use of business innovative technologies and the common one is use of mobile phones that plays an important role of connectivity, access to mobile money and ease of transacting (Okundaye et al., 2019).

A mobile phone is considered to be a small handheld computing device with a small display for output and a mini keyboard or touch screen for input. People could chat and listen to each other without using a wire on the first generation of mobile phones. People will see each other anywhere and at any time with third generation (3G) phones, in addition to exchanging words. Mobile phones are widely available, with main services such as mobile calls, mobile instant messaging, M-pesa remittances, mobile bill payments, mobile internet browsing, and, more recently, mobile banking. Francis and Willard (2016) revealed that the mobile phones can help MSEs solve some of their challenges and also boost their performance. Some of business

functions like connectivity, communication with clients and suppliers, transacting and extending product lines can be done using mobile phones.

Mobile phone connectivity plays a key role in increasing access to business information within companies, allowing staff and managers to make more efficient and timely decisions (Okundaye, et al., 2019). It also helps enterprises in connecting with their suppliers and clients without having to meet each customer or business enterprises individually. It also speeds up internal communications and aids in the more effective use of the firm's capital. Francis and Willard (2016), the successful usage of mobile phone communication will assist business enterprises in gaining market share by promoting the production and distribution of goods and services to their customers, as well as expanding the geographic reach and access to potential markets at the expense of less profitable enterprises, thereby improving their overall performance. Mobile phone usage can also assist businesses in innovation, such as by allowing them to expand their product line, customize their services, or better respond to the demands of the clients (Owoseni & Twinomurinzi, 2020).

Mobile money drives life and economic activities to a large extent in the current environment characterised by increased globalization and growth in usage of information technology (Narteh et al., 2017). This has caused huge interruptions on previous financial services thereby transforming lives through improved convenience and the way the complete transactions. An overwhelming number of people are today using mobile money for a variety of purposes (Edwards et al., 2016). Global data indicate that many nations are increasingly adopting digital technology which has transformed the power of mobile money as they seek to harness finances through digital platforms to finance their development agenda. The level of technological transformation being experienced globally has seen development of new ways of capturing data, manipulation, processing, safe keeping and sharing. This has brought with it an increase

in the general level of organization productivity and competitions (Weil et al., 2012). More so mobile money has been linked with the ability to interlink economies for improved effectiveness in service delivery. It has been noted that mobile money has transformed hitherto conservative systems significantly.

Organizational processes like ordering; transaction, distribution, inventory management, and accounting are simplified and linked regardless of location as a result of mobile phone efficiency. According to Mbiti and Weil (2016).), mobile phones improve information and knowledge management in business enterprises by allowing for instant contact with clients, suppliers, and employees, thus increasing the productivity of small and medium businesses. Simultaneously, companies would be able to store, exchange, and use their accumulated expertise and know-how within the company. Customer databases, for example, with a background of client-specific correspondence can help managers and employees respond to customers more effectively. Mobile phones usage helps in reducing transaction costs and increases transaction speed and reliability among business enterprises (Danquah & Iddrisu, 2018). Real-time contact, for example, cuts down on the time it takes to negotiate, buy, and execute orders.

In the global scene, Bertschek and Niebel (2016) looked at the German firms revealing that the use of mobile internet has improved efficiency of operations and faster services that have led to higher labour productivity. Using the mobile internet services eases channels of communication and allows easier transactions that leave consumers and customers satisfied. In Portugal, Moreira et al. (2017) noted that the global market environment is rapidly evolving, with enormous dynamisms fuelled by rapidly changing developments in the field of information and communication technologies (ICT). The rules of the game and aspirations of the modern digitized, increasingly interconnected economies operating in a very global village

have been permanently altered by developments. The higher education learning institutions has embraced use of mobile learning systems based on widespread acquisition and use of mobile phones and tablets. The increase in mobile phone adoption is due to its usability, adaptability, versatility and portability.

In Albania, Sherifi and Senja (2018) avers that mobile phone use is one of the fastest growing fields of the new information and communication era, causing a lot of concern from various quotas (Sherifi & Senja, 2018). The application of mobile phones is one of the most important components of the ever-changing ICTs, which have played a critical role in transforming the way business is conducted in todays globalized and intensely competitive business environment. Their importance in terms of customer coverage and overall market outlook cannot be overstated. Additionally, the mode, design, and quality of service delivery, as well as the entire process as a key part of a company's success story, is greatly influenced by the degree of adoption of information and communication technology, which is aided by the use of mobile phones.

Regionally, Abebaw et al. (2018) looked at the MSEs in Ethiopia and share that the growth and stability of the micro and small enterprises rely on labour skills, the capital and finances, leadership skills and infrastructure development. The researchers recommend that the government to invest in infrastructure such as electricity, road network and ICT systems to keep the growth of the MSE sector. Anye and Makebo (2019) adds that the performance of small enterprises in Yeka Sub-City in Adis Ababa was affected by the lack of finance, market problems, poor management practices, infrastructure issues and information technological issues. Attending to these issues is the only way to guarantee growth of the small enterprises. In Ghana, Danquah and Iddrisu (2018) found out that owning and accessing of mobile phones is associated with non-poor status, since with the mobile phones people can get revenues from

non-farming activities. The revenues stream increase from pure farming activities to expedite business activities and at the same time link farmers to consumers in urban setting using the mobile phones.

Mbuyisa and Leonard (2017) shared that use of ICT in SMEs in South Africa has led to poverty reduction. The ICT was used to drive the socio-economic development in the South African communities that increased income earnings for the people and resulted in reduced poverty levels in the communities and households. Krone et al. (2016) compared use of ICT in smallholder farming in the Mt. Kenya and Mwanza region. The researchers noted that use ICT in both regions led to access to information and knowledge farming that increase the earnings from the sector. But usage of ICT is reliant on farmers' capabilities and ICT usage types that led to its adoption and resulted in higher earnings by farmers. In Uganda, Kazimoto (2016) noted that enterprise owners suffered in terms of creating a balance work life and their family life, but using technology-based systems and applications, the small entrepreneurs could work from anywhere and hence have a better balance in life.

Locally, the importance of micro and small-scale enterprises in the Kenyan economy cannot be overstated. According to an economic survey conducted eight years ago, MSME were responsible for at least half of the new work opportunities generated in 2005.Despite the obvious importance of business enterprises, figures in the past have shown that three out of every five business enterprises fail within the first few months of service. Maengwe and Otuya (2016) revealed that there are several causes have been attributed to such failure in previous studies, with the most prominent cause being inadequate management of the enterprisers. Business enterprises' organizational efficiency and effectiveness are generally harmed by ineffective management, which causes a setback in achieving their deserved performance. Furthermore, infrastructure has been described as a major stumbling block in the growth of

business enterprises. Infrastructure in this sense specifically refers to the provision of telecommunication equipment, which is a visible component of information and communication technologies.

Odongo and Wang (2016) noted that based on the fact that business enterprises face a variety of challenges that, for the most part, lead to their eventual failure, the introduction and subsequent use of Information and Communication Technologies, especially mobile phone use, will be a steppingstone toward improving their operations. Mobile phones usage will greatly improve business enterprises' competitiveness and provide access to new lucrative and promising opportunities. However, increased operating performance will be a positive result of business enterprises' effective implementation of the technologies. The successful implementation of these technologies would also improve the flow and integration of trade and commerce within the business enterprises' operating area. Mobile services have evolved into strategic weapons for business enterprises looking to improve their efficiency (Chege et al., 2020). Indeed, mobile phones enable them to develop by facilitating the sharing of business information, making it easier to connect with consumers, products, services, and other business opportunities. The main features of mobile phones, such as ease of use, low cost, message forwarding capability, and unobtrusive design, are credited with their remarkable success. The advantages of mobile services have been highlighted as mobility, affordability, and personalization. Mobile phones have revolutionized the way business information is received and transmitted, resulting in increased productivity and success.

The micro and small enterprises still face a lot of challenges despite considerable effort and investment in the sector. Some of the problems stem from lack of sufficient funds and capital, little or no entrepreneurial and managerial skills and dealing with similar products. There is

also poor infrastructure and this study focuses on assessing of adoption of ICT and specifically mobile phone technologies can lead to improvement in performance of the small enterprises.

1.1.1 Mobile Phone Technology

Innovation is one key aspect of the business environment that has seen a lot of changes especially in the area of information communication and technologies and invention of technologies that is used in different spheres of the globe (Somthawinpongsai et al., 2021). Technology is used in different sectors including agriculture, education, finance and marketplace for communication purposes, completing transactions and advanced in the specific sector (Rumanyika & Galan, 2015). At the present, there has been increase in usage of mobile phone as a key component and catalyst for economic growth. Mobile phones use different technologies, according to Krone et al. (2016) it is defined as the technology that supports cellular devices in placing phone calls, messaging and advanced options in GPS navigation, gaming, internet browsing and use of social media applications. Growth in use of mobile phones is attributed to factors like user-friendliness of the phones, little education needed to operate the phones, flexible prepayment modes, use of local languages and liberalization of the telecommunication markets (Aron & Muellbauer, 2019).

Mobile technology has become a necessity in many rural and urban settings and they are used to transform the functioning of the economy (Hill et al., 2021). When mobile phones were introduced, it was simply for making calls and messaging using SMS, but now they have upgraded to incorporate other functions like browsing, picture taking, transfer of information to other systems and memory for saving information, which has transformed the digital world making business operations easier and efficient (Sekabira & Qaim, 2017). In enterprises, this technology is used by traders in messaging their customers, suppliers and business partners. It

can become common to get a message alert on opening of new stock, quick sales and discounts, because the MSE owners SMS their clients to increase sales. The traders also use the technology to browse and get different information like changes in government policies on trading, levies and licenses and they use the social media platforms like Facebook, Instagram and WhatsApp to market their products and connect with their current and potential clients (Nzayisenga, 2017).

Marketers use mobile phone technologies to advertise and sell their products, managers use mobile phones to share information and transfer files and internet connectivity to gain information and communication using different applications and systems (Divall et al., 2021). In the business world, mobile phones have been used to manage banking transactions including making deposits, accessing loan and credit services, make payments and share information (Mararo, 2018). At the same time, a lot of business enterprises use mobile phone technological advances to better their performance by reaching out to their target clients via applications, social media and websites at a cheaper cost compared to conventional marketing.

Mobile-based lending services have become common and very useful to the many unbanked people of merger earnings. According to Kinyanzui et al. (2018) the mobile lending services have led to growth of the Fintech options and helped many people in bridging the gap between the banked and the unbanked. Digital loans suffer challenge of regulation as many players enter the flourishing sector, and it has enabled many poor people to access loans without being asked a lot of questions and filling paperwork (Benami & Carter, 2021). The people simply download the app, request for a loan, and within minutes the money is deposited in their accounts and they use it as capital for their business ideas, expansion of the business ventures and for everyday needs as well as for emergencies (Nzayisenga, 2017).

Mobile phones have also increased the ability of the users to save money, by installing electronic wallet features that allow users to able to save some part of the earnings. Nofie (2020) shares that in some instances; the mobile phone users must save a certain percentage for them to access online credit facilities. This then encourages the saving culture in the common people and due to its efficiency and ease of use; many people are able to easily make savings. Mbiti (2016) mention that mobile phone technology has allowed its users to make payments of goods and services, including payment in supermarkets, transport service payments and paying for different fees in schools and legal services. M-pesa innovation has allowed easy transfer of monies and as such vendors and business enterprises have pay-bills and buy-goods option that allow their customers to make payments using electronic means. In the present times, many statutory fees can be paid through M-pesa transactions such as buying of electricity, paying water bills, internet services and pay TV.

Mobile phone technology has also led to mobile phone internet facilities, where users who have phones that have mobile data, wireless network protocol (WI-FI) and internet enabled functions can purchase data and be able to browse (Iliya & Ononiwu, 2021). Business enterprises have shifted to use of internet-enabled mobile phones for communication purposes, especially in the rural areas where there is limited access to internet connectivity. Since, the growth and expansion of business entities relies on communication and information sharing, owners and managers of the enterprises use their phones to reach the market using internet-enabled informatics (Ilyash et al., 2021). As many people are on different social media platforms, then business practitioners use the platforms to market their products and inform the market on the products (Blechman, 2016). The internet is also used to place orders on online purchases and hailing cabs like Uber and browse to compare the prices and other features before making the purchase decision.

This study explored mobile phone technologies by considering the aspects of mobile phone credit facilities, mobile phone savings facilities, mobile phone payment facilities and mobile phone internet facilities.

1.1.2 Performance of Micro and Small Enterprises

Every venture demands that there be an accounting of the investment in an effort to inform the managers on what course of action to take, either to continue with the same operations, change it or do a complete overhaul (Tanui et al., 2021). Performance measurement is a process of accessing the use of resources and what outputs have been realized (Yacob et al., 2021). Performance is defined as the outputs from a venture and stated either in financial terms or non-financial terms. Financial performance can take the form of returns on assets, profit margins and sales volume for a business venture and the non-financial terms can look into aspects like customer satisfaction, customer re-purchase and retention of working employees.

When it comes to performance of business enterprises, Jayeola et al. (2018) noted that it can be evaluated in two ways: by focusing on the factors that influence outcomes within organizations. Implying that financial and operational performance can be used to assess performance, however, using output as a metric for competition is based on the common belief that an enterprise's long-term success is determined by its ability to provide more real value to its customers (in absolute terms or relative to its competitors) without using more factor inputs. Byamaka (2018) shared that when considering performance, the competitive effect of mobile phones stems from the impact that mobile phones have on the performance of the factor inputs. In this regard, cell phones can boost productivity and performance in a variety of ways, including improving business operations efficiency, lowering transaction costs, and improving connectivity with customers.

Since micro and small enterprises (MSEs) are a vital part in developing nations and their economies, due to the fact that they dictated the stability, productivity and profitability of the economy. MSEs are equally important in the livelihoods of the local people in the economy (Atiku & Abatan, 2021). The adoption and usage of mobile technologies helps the MSE owners to message clients and suppliers browse the internet and get information on improving business operations and market on the different social media platforms in an effort to improve performance and earnings. According to Sekere (2016) access to information and technologies is critical for the economic growth of the MSEs sector as it aides in efficient use of the limited resources and the technologies can play in uplifting the living standards of the people. As such performance for the MSE was measured in financial terms and use of return on assets (ROA).

1.1.3 Kakamega County

Kakamega County is listed as the 37th county in Kenya and has 12 sub-counties. The county has a total of more than 180 trading centres, with about three thousand registered retail traders and 482wholesale traders, where these traders earn a livelihood from the small trading efforts in the county (The County Integrated Development Plan –CIDP 2018-2022 report). According to Ruheni (2018) MSEs in Kenya have had a great impact on employment creation and poverty alleviation in millions of people. At the same time, their survival rate is little with many at 90% closing their operations due unsustainability of their operations. As such, there have been calls on both the national and county governments to ease the restrictions and operations of micro and small-scale enterprises and support their efforts. For instance, the Kakamega county leadership has invested in internet connectivity for the SMEs as part of their support to grow the sector and boost to uplift the sector.

According to the 2016 National MSE survey report there were about fifty-three thousand licensed and slightly above three hundred thousand unlicensed MSEs in the County and the report shows that only 4100 MSEs actively use mobile telephony in transacting and they were focus of the study. Almost fifty per cent of the licensed businesses fall under MSE owned by males while about thirty two percent was owned by females. More than sixty percent of unlicensed businesses were owned by females.

Kakamega County is the chosen area of research since it is among the first to offer free internet service connection to its residence and thus a good place to explore mobile phone technology based on the fact that there is free internet and see its impact on performance within Kakamega County. With the challenges that micro and small-scale enterprises face, the access to internet connection and use of mobile phones would likely improve operations and thus explore the changes in their performance (Sikolia et al., 2020). The MSEs face a lot of challenges including high cost of operations, many of the operators are uneducated and lack business skills and most of the traders handle the same products and provide similar services and this lack of specialization has led to failure and eventual closure of the MSEs operations (Sikolia et al., 2020). Hence the need to investigate if adoption and use of mobile phone technology and its facilities improved the performance of the MSEs

1.2 Statement of the Problem

Estimates for Kenya, indicate that more than 20 million mobile money users which makes up about eighty percent of the grown-up population make use of mobile phones in completing financial transactions with universal benefits (Aron & Muellbauer, 2019). Several studies have examined the nexus between mobile phone technology and performance of businesses. For instance, Rono (2018) examined the nexus in the context of Agro Based Small and Medium

Enterprises through a review of empirical literature where it was concluded that the firms did not reap optimal benefits because of the numerous challenges associated with adoption and use of mobile phone technology. In another study, Mashenene (2015) explored the nexus using the context of Micro and Small Enterprises in Tanzania. From the findings, it was established that there was a significant difference in capital growth between Micro and Small Enterprises which apply mobile phone related services in their businesses. Litondo (2018) examined the nexus using the case of MSEs among informal economy in Kenyan and established that mobile phones application in business significantly affected sales.

These studies though focused on the two variables, the context and the period in which they were undertaken presents a challenge in applying their findings to the current study times when the rate of mobile phone penetration and usage has changed. The functionalities of mobile phone have also expanded making it necessary to carry out further research. It is on this basis that this study intended to assess the effect of mobile phone technology on performance of micro and small-scale enterprises in Kakamega County, Kenya.

1.3 Research Objective

1.3.1 General Objective

To determine the effect of mobile phone technology on performance of MSEs in Kakamega County, Kenya

1.3.2 Specific Objectives

The following had the following specific objectives:

1. To determine the effect of mobile phone credit facilities on performance of MSEs in Kakamega County, Kenya

2. To determine the effect of mobile phone saving facilities on performance of MSEs in Kakamega County, Kenya

3. To establish the effect of mobile phone payment facilities on performance of MSEs in Kakamega County, Kenya

4. To assess the effect of mobile phone internet facilities on performance of MSEs in Kakamega County, Kenya.

1.4 Hypothesis

The study adopted null hypothesis as indicated here:

H_{01}: Mobile phone credit facilities has no effect on performance of MSEs in Kakamega County, Kenya

H_{02}: Mobile phones saving facilities have no effect on performance of MSEs in Kakamega County, Kenya

H_{03}: Mobile phone payment facilities have no effect on performance of MSEs in Kakamega County, Kenya

H_{04}: Mobile phone internet facilities have no effect on performance of MSEs in Kakamega County, Kenya

1.5 Significance of the Study

The study findings and recommendations may be of value as they contribute to growth of literature material and theoretical foundation for other scholars and researchers on performance of MSEs and the effect that mobile phone technology has. The academic body may use the study as referencing material and get suggestions on topic from which to undertake future studies.

In practice, the study may be significant to owners of the MSEs by exposing how best to employ technology so as to improve performance. The study may give recommendations that other MSE owners can apply so as to improve their performance. The results may also be useful to policy makers within Kakamega County and even the other counties in such a manner as to make policies that help to improve the performance of this sector and lead to its growth. The Kakamega County can also help create an environment ideal for high performance of MSEs.

The study may also be beneficial to the 1.5 billion mobile phone users as they can get information on how to access information on different products and how to use their mobile phone technology and applications. The information shared in this study may show different applications and facilities that mobile phone users can access from their phones like credit facilities and saving facilities.

1.6 Scope of the Study

The study focused on mobile phone technology impact on performance of the micro and small enterprises. The specific factors that were investigated included mobile phone credit facilities, mobile phone savings facilities, mobile phone payments facilities and mobile phone internet facilities. The study targeted all the registered micro and small enterprises within Kakamega

County that actively and consistently use mobile phone technologies and was done between March and April 2021.

1.7 Limitations of the Study

The study was limited to micro and small enterprises and only those located within Kakamega County and as such the findings may not be generalised to other enterprises and counties. The study then included more respondents to improve the objectivity of the data collected.

Some respondents were unwilling to participate in the study, especially since the focus is on performance which is a sensitive issue and there maybe concerns of privacy and confidentiality of the information. The researcher explained the purpose for collecting the data and also carry research permit and introduction letter from Kenya Methodist University confirming its strict academic purposes angle.

1.8 Assumptions of the Study

This study assumed that the information collected from the respondents is accurate and they shared honest opinions on mobile phone technologies and performance of MSEs. The study also assumed that the data collection instrument is accurate in collecting data on the study topic.

1.9 Operational Definition of Terms

Mobile phone technology –it is the technological applications that support cellular devices in making phone calls, messaging, gaming, and internet browsing.

Mobile phone credit facilities- the downloadable apps that allow the mobile phone users to access digital loans on their mobile devices.

Mobile phone savings facilities – the wallets that allow mobile phone users to keep part of the deposits for future usage.

Mobile phone payments facilities –the capacity of the mobile phones to make transactions and make clear bills with individuals and merchants.

Mobile phone internet facilities- the ability of the mobile phones to access data, WI-FI and internet enabled functions for browsing purposes.

Performance –it is a measure of how well the MSEs are doing based on their input and resources and outputs that include returns, sales volume and profitability. In the study, performance is a measure of returns on assets, the sales volume and expansion of the markets.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focus on reviewing literature by other scholars and authors in line with the research topic and its specific objectives. The chapter is divided into sections including the theoretical reviews that underpin the study, the empirical literature by other scholars and the conceptual framework clearly indicating the independent and dependent variables and its operationalization through exposing the parameters of each variable.

2.2 Theoretical Review

The different schools of thought lending their thought to the current study are discussed in detail below to provide direction.

2.2.1 Technology Acceptance Model

First proposed by Davis (1986) in helping bring to the fore how organizations could make use of technological advances to improve their internal operational efficiencies. This school of thought is founded on key tenets that would promote acceptance of technological advances among a population and those that would easily drive the population to hate technological advances. It helps explain the adoption and usage of new technologies among populations within organizational settings (Huang et al., 2021). It hinges on the intention to use new technology among individuals and the ease with which the individuals perceive it is to make use of the said technology. It also considers the perceived usefulness and benefits that are to be derived by the individuals as a result of adopting the said technological systems (Rauniar *et al.,*

2014). This is mainly influenced by customer attitudes, usefulness of a given technology and the anticipated ease of usage (Lule et al., 2012).

The theory exposes the growth in usage of mobile phone technologies and its functions by micro and small enterprises owners and the local consumers based on the usefulness of the technology. Scherer et al. (2019) noted that use of mobile phone technologies allows the small traders to access credit facilities that they use as capital for their ventures and expansion of their operations. Credit services allows the small traders access funds easily when their credit scores are low and they lack assets to act as guarantee for repayment (Dressler & Paunovic, 2021). The mobile phone technologies are they adopted and accepted in the market because of their usefulness and benefits they bring forth.

Mobile phone technologies are thus adopted by the small ventures because of its ability and capacity in increasing their boundaries and easing their ability to handle their business operations (Uwamariya et al., 2021). It also allows the traders to receive payments in electronic means which is safer and eases their transactions costs and saves time. As such, this theory exposes the value of adoption of mobile phone technologies by MSEs in order to improve performance that is based on access to credit facilities, easing the payment process and having saving options for its users. In this case, technology acceptance model comes into play for the usefulness of the technologies to the millions of small-scale traders who own the MSEs as they access financial services. The benefits of the technologies include credits, savings and payment processes for the sector players hence the model is valuable in exposing mobile phone technologies adaptation. The theory is relevant in exposing adoption of mobile technologies that cover access of the credit facilities, payment facilities and saving facilities that can help traders transact easily and improve the performance of their enterprises.

2.2.2 Unified Theory of Acceptance and Use of Technology

This school of thinking was built on a TAM formulated to help explain the steps that individuals go through to come to accept to work with new technologies. It highlights intentions of an individual to want to use technology which in turn determines their behaviour and attitude towards the technology in question. It identifies four key parameters that explain adoption and usage of new technologies in a market. These include expectations in relation to performance, effort, the influence gotten from social interactions and the prevailing condition which catalyse the adoption (Venkatesh et al., 2016).

The model is developed from an individual's perspective by considering their choice of either agreeing to use or failure to agree to use a given technology. It presumes that the choices made by an individual can be predicted with certainty by studying the said individual's behaviour (Baptista & Oliveira, 2015). This is derived from the beliefs held by an individual who in turn influences their attitude and choices (Venkatesh & Zhang, 2010). The small-scale enterprise owners have embraced new technologies as a way to ensure the survival of their business ventures and improved performance. The trader's intent to use the technologies for messaging, social media platform marketing, communication and internet searches and networking that improves their market presence and eventually outputs. Mobile phone technologies eases business operations and saves costs and times which reflect positively on the performance of the MSE. These micro and small-scale traders have adapted to usage of mobile phone technologies that allow them access credit facilities, make savings and make payments for their inventories and their suppliers. Therefore, the theory is linked to acceptance of mobile phone technologies in an effort to increase the performance of the micro and small-scale enterprises through access to credits, savings and payment facilities.

2.2.3 Theory Financial Intermediation

This theory was formulated to help explain the phenomenon where households bearing surplus income save their surpluses with financial institution which then form deposits (Bisignano, 1998). In return, financial institution through money creation extends these savings to deficient households in the form of credit facilities at an interest agreed upon. This school of thought is built on the premise that surplus households keep what they do not need with banks which in turn extend these funds to deficit households with investment opportunities at an interest fee (Leland & Pyle, 1977).

Instruments for financial intermediary is seen as creation of specialized financial commodities that upon its sale can make gains that is expected to cover all production costs including direct and indirect costs. The use of mobile phone technologies has allowed users to access funds that would cover their operations. As such the use of mobile phone technologies is the ability of the system to ease transactions across the merchants and businesspeople and the consumers of the products being sold by the micro and small-scale enterprises. These financial intermediaries as noted by Philippon (2015) are a response to market imperfections and try to even the playing field for all enterprises and market players. Mobile phone technologies thus allow users to conduct banking services like deposit of funds, access credit facilities, make savings and payment in a way to improve the performance.

The imperfections in the financial markets and information asymmetry pushes the market players to adopt technologies that when used increases the performance of the market players. MSEs suffer from lack of access to financial services, the major financial institutions were unable to serve the small traders which made the MSE sector to decline and collapse. But the invention and adoption of mobile phone technologies has helped then MSE sector players

access financial services that boosts the performance of the sector. Therefore, the relevance of the theory is that it exposes the reasons for development and growth in usage of mobile phone technology that allows for access to digital loans/credit, saving option, transactions like receiving and making of payments. The mobile phone technologies have been able to fill the gap that was left by formal financial institutions by facilitating the access of the MSEs to credits, savings, payments and internet services that improves the performance of the micro and small-scale enterprises. The mobile phone technologies have become financial intermediaries, allowing MSEs to access financial services and in the process be able to fund their business operations and expand their business activities. Access to mobile phone financial services boosts the performance of the MSE sector.

2.3 Empirical Review

2.3.1 Mobile Phone Credit Facilities and Performance

Blechman (2016) study was on mobile credit by comparing the Kenyan and Tanzanian situation in terms of regulatory challenges, consumer protection and credit reporting based on customer transaction information. The study noted that there has been an increase in mobile financial service provision especially in the developing countries, the rural and low-income populations. As such, the consumers can easily and quickly apply and receive loans through their mobile devices and these have become successful in the Kenyan and the Tanzanian situation. The access to mobile facilities and services like access to credit has improved financial inclusivity but regulatory challenges are created as the mobile phone credits operate on a framework that was not previously regulated. Thus, the study calls on policymakers and regulators to find out the measures that can be used to regulate the mobile credit facility in such a way as to protect

consumers, credit reporting and how to use the mobile money services and the acquired transactional data.

Kinyanzui (2018) studied effects that mobile credit has on performance outcomes among banks in Kenya. The focus of the study was exposing the relationship between mobile credit and performance measures like financial performance, customer satisfaction, operational efficiency and organizational effectiveness, and also through the moderating effect of government policy. The study collected primary data using semi-structured questionnaires from mobile credit companies and commercial banks and the findings showed a decline in non-performing loans after introduction of mobile credit an indication of enhanced operational efficiency in debt collection. The study also found out that mobile credit enhanced overall performance, operational efficiency, customer satisfaction and organization efficiency, while government policies led to growth of mobile credit in the country. Improved customer satisfaction was based on cost effectiveness of mobile loans, ease of accessing loans, adequacy of loan size, ease in borrowing process, lack of errors and failing systems, high security levels and efficient customer support services. The study recommends for commercial banks to invest in innovations to improve their mobile credit platforms so as to enhance their revenue streams and inform the customers and the public about the mobile applications and functions.

Nzayisenga (2017) studied mobile lending and performance ratios in banks. The study revealed that mobile lending involves a partnership between financial institutions and mobile phone operators such that customers can bank at their convinience. Mobile banking allows the unbanked and those at the bottom of the economic pyramid to access financial services. The study did a census of all the commercial banks that have mobile lending services and collected secondary data from audited bank statements and Central Bank of Kenya annual bank report. The study findings showed that mobile lending variables included total mobile loan applicants,

the total amount of mobile loans, interest rates charged, capital adequacy and liquidity had an impact on the financial performance of the commercial banks in Kenya. The study concluded that mobile lending positively and significantly affects the financial performance of the commercial banks in Kenya. The study recommends use of mobile lending platforms and thus creation of policies as customers shift to adopt mobile phone technologies and the banks to use mobile lending facilities since the number of mobile set owners and users is increasing.

David (2018) studied the effects of mobile-based lending process and NPL, sharing that lending is a key function of commercial banks but it is also associated with non-repayment posing challenges to the banking sector. The study collected primary data from credit officers on loan appraisal process, documents required processing procedures, disbursement procedures and monitoring process and its impact on NPLs. The study results showed that loan appraisal process was the most valuable factor when it comes to mobile-based loans and averting NPLs, while loan disbursement had little impact on NPLs. Further results show that many commercial banks have shifted their lending process to using mobile platforms and this has increased NPLs volume hence emphasis on the loan appraisal process. The study recommended that the commercial banks should have a comprehensive loan appraisal process using their mobile platforms, have documentation even for mobile loan processing, disburse the funds via mobile phones and monitor and evaluate the mobile loans.

Kiraithe (2020) investigated on the influence that mobile-based lending practices had on consumer credit behaviour by considering the mobile-based loan application process, the receipts and repayment practices. The study shows an increase in mobile lending platforms and some of which are unregulated by the central bank of Kenya, which leaves them to exploit the public with huge interest rates and short repayment timelines. More than 1million digital credit users do not understand the interest rate policy and regime applied yet keep borrowing from

the digital platforms. The study targeted the mobile phone owners who are living in Embu County and the data was collected by interviewing 100 sampled respondents using semi-structured questionnaire. The results showed that loan application practice had significant influence on credit consumer behaviour since majority of the applicants seek faster and convenient sources of funds to finance their personal and business lives. The study recommends that the loan application process, the receipt of funds and repayment methods should be simple, efficient, convenient and speedy to increase loan access and improve lives.

Nduku (2019) assessed on how mobile loans affects the performance of Kenyan banks quoted in the NSE for the Period 2012-2017. The study was aimed at analysing how mobile loans affect the performance. Using quantitative methods, 6 commercial banks offering mobile loans for the financial periods 2012 - 2017, and a total of 42,549,000 accounts operating in Kenya. 100 customers were identified through use of multistep sampling design. Findings indicate that mobile phone loans and commercial banks' profitability significantly related to each other. The study suggested that the usage of mobile phone loans played a key role in improving commercial banks' profitability and that ROA, Net profit; Liquidity and excess liquidity together with earnings per share were the profitability metrics that helped in enhancing profitability. The study recommended that commercial banks engage themselves in increasing credit services delivery over mobile phone technologies as it was financially beneficial to the commercial banks. Commercial banks must spend in research and development as well as innovation in the area of mobile phone loans in order to increase profitability and gain a competitive advantage. This would be focused on lowering interest rates and repayment periods. The banks should therefore undertake massive customer awareness and come up with the strategies of penetrating through the market which is aimed at increasing the number of customers up taking mobile phone loans.

Wainaina (2017) noted that Kenyan commercial banks should invest more in the creation of good credit scoring systems, consider changing the average repayment length of mobile-based loans, and develop ways to reduce default rates. Before a loan facility can be granted, financial institutions will go to further measures to carefully analyse their potential consumers to guarantee that proper previous appraisal is done. To avoid losses due to provisions for bad debts as a result of inadequate loan assessment, a good scoring method must be in place. Financial institutions must maintain a low default rate, if any, to optimize returns and fill the gap created by lower rates, especially now that interest rates are being regulated more strictly. Any facility made available to clients must have a low-risk rate and a near-zero likelihood of failure.

2.3.2 Mobile Phone Saving Facilities and Performance

Bastian et al. (2018) conducted a study on the short-term impact for improvement in access to mobile savings whether the persons had business training or not. The experimental study collected evidence from Tanzanian women micro-entrepreneurs after the registration of mobile savings account. The study that was done six months post intervention and after the promotion and registration of mobile savings, where the results showed that women had saved more through the mobile account and those women who receive business trainings save more. For the women micro-entrepreneurs who have mobile accounts they can access micro-loans and other mobile services boosted by their saving culture and volume of savings. Further results showed that business trainings led to increased business practices among the women entrepreneurs and higher profitability. The findings of the study reveal that there was no significant evidence that mobile savings translated to greater investment, sales and profits; although the mobile savings led to business expansion as the micro-entrepreneurs sourced for secondary sources of revenue for the businesses and for their personal growth and

development. The business trainings led to improved situation of women empowerment and creative thinking and improved well-being of the women in the community. The study concludes by noting that mobile savings can help these women owned micro-entrepreneurs expand their operations based on the fact that they have finances in their savings account and these savings enable the micro-enterprises absorb market shocks and drastic changes in the business environment.

Batista and Vicente (2017) did a study on improved accessibility to saving services among small and medium enterprises as a result of mobile banking with in Mozambique. The study noted that many smallholder farmers do not invest in improved agricultural inputs with fingers pointed to lack of access to formal savings. The study was an experiment on smallholder farmers and use of mobile money as a tool for saving and promoting agricultural investment. The experiment was done among the farmers and the closest farming friends and the interventions, where resulted showed that remunerated mobile savings accounts increased the mobile savings and was largely based on interest paid on use of the savings account. The mobile savings accounts led to investment in fertilizer by the small-holder farmers that increased the farming output. Findings also showed that farmers with remunerated savings and those with alternative saving options earn more harvest and yields from farming. Further results show that the network intervention where farmer' friends cannot access remunerated mobile money accounts led to decrease in savings and investment options. The study concluded that tailor-made mobile money products like savings can improve investment in the economy hence modernization of the agricultural sector by adopting modern technologies.

Ouma et al. (2017) investigated whether financial inclusion resulted to growth in savings mobilization. The researchers reveal that adoption of mobile telephony in provision of financial services to the millions who were unbanked hence the technology helps to bridge the gaps in

Sub-Saharan Africa. The results show that mobile phone technology led to increased saving culture at individual level and household level. Mobile phone technology also impacts on the amount saved as based on frequency and convenience that allow many individuals to transact at any moment. More savings can be realized through adoption of mobile phone technology which allows more transactions and ensures security and safety of the saved monies.

De Mel, et al. (2018) the study seeks to answer the question 'can mobile-linked bank accounts bolster savings?' the researchers noted that the current study is based on Sri Lankan households where the test is if the household members would be able to deposit their mobile airtime balances using the new mobile money interface into the formal banks. The study showed that access and cost of the mobile money system determined the frequency of deposits and the volume of saving deposits from the mobile savings application to the formal banks. The findings further reveal that lack of transaction costs when deposit savings led to increase by 26% of usage of mobile savings. The conclusion is such that transaction cost is not the biggest barrier to increasing saving deposits in the formal banks. When there are no transaction costs, there is increase in frequency in making deposits. It was also shown that mobile-linked savings products were directly correlated to financial inclusion.

Makee et al. (2014) researched on how mobile phone transfer services affects the performance of MSEs in Kenya. The Data collection was done through use of a questionnaire. It was revealed that mobile phone transfer service advancements do have an impact on business performance. 66.3 percent of businesses surveyed indicated that using innovations helps them attract more consumers, which leads to increased revenue, and 69.4 percent indicated that using innovations saves time and profits. Based on the data, the study suggests that all mobile phones and related accessories be exempt from taxes, allowing the majority of people to use them in their businesses. Entrepreneurship policies, on the other hand, should be thoroughly

investigated before being implemented to ensure long-term viability. Small and micro-business owners have innovatively responded to changing market conditions in recent years, embracing advances in their businesses aimed at increasing returns while minimizing costs.

Okiro and Ndungu (2013) did a research to find out how mobile and internet banking affects the performance of Kenyan financial institutions. It was revealed that balance inquiry is the most popular internet banking service, while online bill payment is the least popular. The most popular mobile banking service was cash withdrawal, while the least popular was purchasing commodities. Financial institutions have been undergoing a major shift and the driving force behind these institutions' change is information technology innovation. In Kenya, information and communication technology is at the heart of the global shift toward mobile and internet banking. Banking tasks have become more efficient and less expensive because of the rapid advancements in information technology. Mobile banking is a technology that has gradually become more prevalent, affecting a variety of financial institutions as well as other areas of the economy. Technology has improved significantly, and it has played a significant role in raising service delivery standards in the financial institution sector. Customers no longer queue in banking halls to pay their utility bills, school fees, or other financial operations. They can now do so at their leisure using their ATM cards or from the comfort of their own homes over the internet. Furthermore, due to the explosive growth of the mobile phone industry, most financial institutions have ventured into an untapped market and teamed with mobile phone network providers to provide banking services to its customers.

2.3.3Mobile Phone Payment Facilities and Performance

Oliveira et al. (2016) investigation was on mobile payment and exposes the determining factors that lead to customer adoption and intent of using mobile technology. The study paper noted

that mobile payment has been widely accepted, received and has growth in use across the globe both by the consumers and traders as an alternative form of payment besides use of cash, cheques and credit cards. The data was collected from 301 respondents using an online survey in Portugal and the data analysed using structured equation modelling. The findings of the study perceived security in the technology, expectation of improvement in performance, innovativeness and social influence have a direct impact on mobile payment adoption and intention to recommend the technology to people within one's social cycle. The platform is useful to enterprises when considering digital marketing channels and social marketing strategies to be adopted in an effort to increase performance. The study is beneficial to the market in terms of design and implementation of mobile payment services, the applications and products for it to be acceptable in the market and benefits realized from its usage in terms of high performance.

Taylor (2016) conducted a study on mobile payment technologies that are used in the retail sector and reviews the benefits and risks of using the technology. Many retailers and suppliers have had to change their operations in terms of payment options as many of their clients and customers are increasingly using mobile phone technologies and thus prefer digital payment. The study aims to exploring the implementation of self-checkout points. The study collected primary data using telephone interviews in considering the different modes of mobile payment systems and their potential vulnerabilities, risks and benefits. The findings after data analysis show that the markets are flooded with many products and software that are used for mobile payment but many of the retailers are not aware of potential risks associated with mobile payment technologies. The study recommends for information sharing and analysis on risks and vulnerabilities of mobile payment system and technologies in an effort to increase its usage as well as improve performance.

Rootman and Krüger (2020) did a study on increased customer adoption of the mobile payment technology. The researchers noted that for firms to remain competitive they must understand the needs and wants of customers and find ways of providing them. This includes preferences to the payment methods and offering alternative payment options in the emerging markets; at the same time, the firms should understand which reasons push the customers to adopt or reject a payment method. Hence, the purpose of this study was to explore the factors that influence customer adoption of mobile payment technology called Zapper in South Africa. The findings revealed that usefulness of the Zapper mobile payment technology was the key factor in adoption of the technology. The study concluded that usefulness and ease of use are the two factors that determine the adoption of mobile payment technologies. The study recommends that firms should understand the factors that push customers to accept a mobile payment technology so as to gain benefits from the number of customers using Zapper to make payment for products and services.

Moghavvemi et al. (2020) the study investigated on the drivers and barriers of mobile payment adoption by merchants in Malaysia. The study noted that the Malaysian market has many consumers who have mobile phones but adoption of mobile payment remains low, hence the need to explore and find out what are the barriers to mobile payment adoption. The study also shared that many studies have concentrated on adoption of mobile payment systems by consumers but the perspective of merchants has not been fully exposed. The merchants pay a key role in promoting and sustaining the use of mobile payment system, such that there is need to focus on them. The study collected data using in-depth interviews from merchants in seeking information on the motivational drivers, the barriers and challenges in adoption of mobile payment systems in Malaysia. The study findings reveal that some of the drivers that led the merchants to adopt mobile payment systems include decreased payment processing fees and

time and convenience of the system and security features of the system. The barriers to adoption of mobile payment system were based on incompatibility of the technology, complex technologies, cost of investing in the system and lack of information on the mobile payment system. The study is useful to industries and policy makers and may consider other mobile payment systems in other countries.

Otieno (2015) conducted a study on adoption of mobile payment system among Kenyan businesses through a case study of small and medium sized enterprises in Kenya. The researcher noted that use of mobile phones has been on an increase especially due to its added services like mobile payment, mobile commerce and mobile finance as the enterprises try to remain competitive and increase their performance. Small and medium-sized enterprises (SMEs) have made effort to invest in e-commerce platforms and mobile commerce platforms that have user-friendly payment systems to enhance their productivity and competitiveness. The study used Technology Organization and Environment theory (TOE) in identifying the factors that motivate SMEs to adopt mobile payment methods and e-commerce platforms. The study collected data from 317 SMEs in the hotel and restaurant, tours and travel and supermarket categories where findings showed that majority of SMEs in Kenya invest in technologies that can provide convenient mobile payment options. Further results showed a positive and significant relationship between the variables of technology, organization and environment and adoption of mobile payment systems by SMEs.

2.3.4 Mobile Phone Internet Facilities and Performance

Islam (2017) investigation was on exploring the factors that influence the intention and use of mobile internet by youths in Bangladesh. The focus of the study was to expose the factors that significantly influence on the use of mobile internet services by collecting data from 413

students from five universities in Bangladesh. The study was underpinned by UTAUT model of technology acceptance and use and be able to measure the factors that account for intention and usage of mobile internet. The study findings show that some of the factors that influence the behavioural intention to use mobile internet and facilitating conditions that lead to actual use of mobile internet include performance expectancy, social influence, effort expectancy, perceived risk and personalization appear. The study concluded that these factors influence the intention to use the mobile internet among students in universities in Bangladesh. Critically, the study exposes the influencing factors on mobile internet usage but does not go further to expose its adoption and resulting performance.

Mack et al. (2017) conducted a study on entrepreneurs' use of internet and impact on social media applications. The researchers reveal that internet usage is strongly linked to entrepreneurial opportunities especially for SMEs. The experience levels make differences between novice and experienced entrepreneurs who can easily recognize opportunities and respond to technological change. Further results show that location of business venture had no influence unless when it came to internet connectivity and broadband spread and in terms of gender, women entrepreneurs are likely to diversify their internet applications in an effort to increase their business performance.

Zhen (2015) investigative paper was on mobile cellular network performance and smart phone users' satisfaction. The study shows that mobile data traffic continues to grow at a rapid pace in the present and even in future years, but the revenue stream from the data is not raising as fast enough to support the operators' profits. The focus of the study was to investigate mobile cellular network performance and its effect on smart phone users' satisfaction by considering Android Application Users and perceived quality of experience (QoE) for YouTube service. The goal was to measure performance of the app using the measurement scale of quality of

service (QoS) parameters and subjective users' opinion on the app and its quality. The study findings reveal that the network performance parameters were positive in terms of quality of service and experience and users' opinion. Other factors under consideration on quality of experience included aspects like age and gender and location of the users and expectations of the users

Sherifi and Senja (2018) did an investigation on internet usage on mobile devices and how it impacts on Albanian evolution and informative websites. The researchers noted that for a long time, the computer was the main tool used in accessing information on the internet, but in the recent years many people are shifting to use of smart phones and tablets as tools for accessing the internet. Advancements in technological developments including 3G and 4G network strength have made mobile phone users to access speedy internet like computer broadband network users. The communications agency in Albania has noted an 90% increment in mobile phone devices access to 3G networks for the period 2012-14 as a huge number of the population are getting into informative sites through the internet available in their mobile devices. The study results show that mobile devices are the new channels used by internet users in Albania to reach informative websites and many of these websites have made changes to accommodate the growing trend of internet users based on their mobile devices.

Iqbal (2015) in the study on mobile internet users experience amongst the SMEs in New Zealand and was based on customers' mobile internet experience by considering features like cost, speed, coverage, security, reliability and smart phones used. The focus of the study was on mobile internet speeds which have increased over the years. The Long-Term Evolution (LTE) provided 10 times faster speed, evolutions of 3G and 4G has changed the way business enterprises operate and had changed the user's experience and adaptation of business gadgets that have applications to go. The study was explored by considering the aspects on Technology

Acceptance Model (TAM) in exposing user' acceptance of new technologies and expectations of the benefits. The researcher conducted two surveys on sales team of service providers –the business channel and on small and medium enterprises (SMEs) decision makers. The other factors included security of the mobile internet, as some 48.2% of SMEs were very concerned with the information transmitted using mobile internet. The survey one for the business channel findings show security is a concern for SMEs and mobile internet usage and poor user experience was due to lack of information by the SMEs on mobile device management.

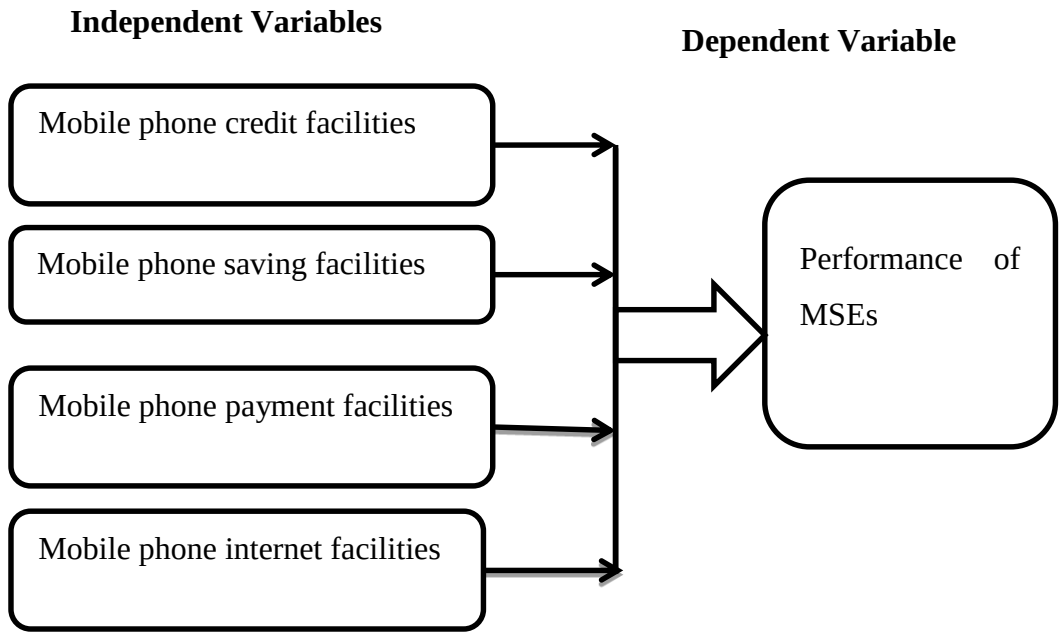
Ndegwa (2014) investigated on how mobile money affects the non-performing loans of Kenyan banks. The findings of the study demonstrated that GPD growth is negatively associated to non-performing loans and has statistical significance at the 5% level of significance in influencing non-performing loan changes in Kenyan commercial banks. Non-performing loans will drop by 0.02176 units for every unit increase in GDP growth. According to the study, rising GDP increases income, which improves the borrower's ability to repay the loan, resulting in fewer bad loans and vice versa. In addition, the study discovered a link between unemployment and non-performing loans. The integration of ICT into banking operations and services has created a new low-cost option for increasing financial inclusion and encouraging loan access for the poor, rural population, and middle class. The introduction of ICT into the banking sector has resulted in a revolution in service delivery channels, as well as the creation of new business service delivery models. These include the delivery of financial services via internet platforms, also known as E-Banking, the delivery of online payment and buying platforms, also known as e-commerce, and the delivery of banking services such as savings accounts among other mobile technologies.

2.4 Conceptualization

A conceptual framework is used to indicate relationship between study variables. It is pictorial representation of the variables and it also shows how variables of the study are to be measured (Mugenda & Mugenda, 2003). The figure 2.1 shows the relationship between the study variables.

Figure 2.1:

Conceptual Framework



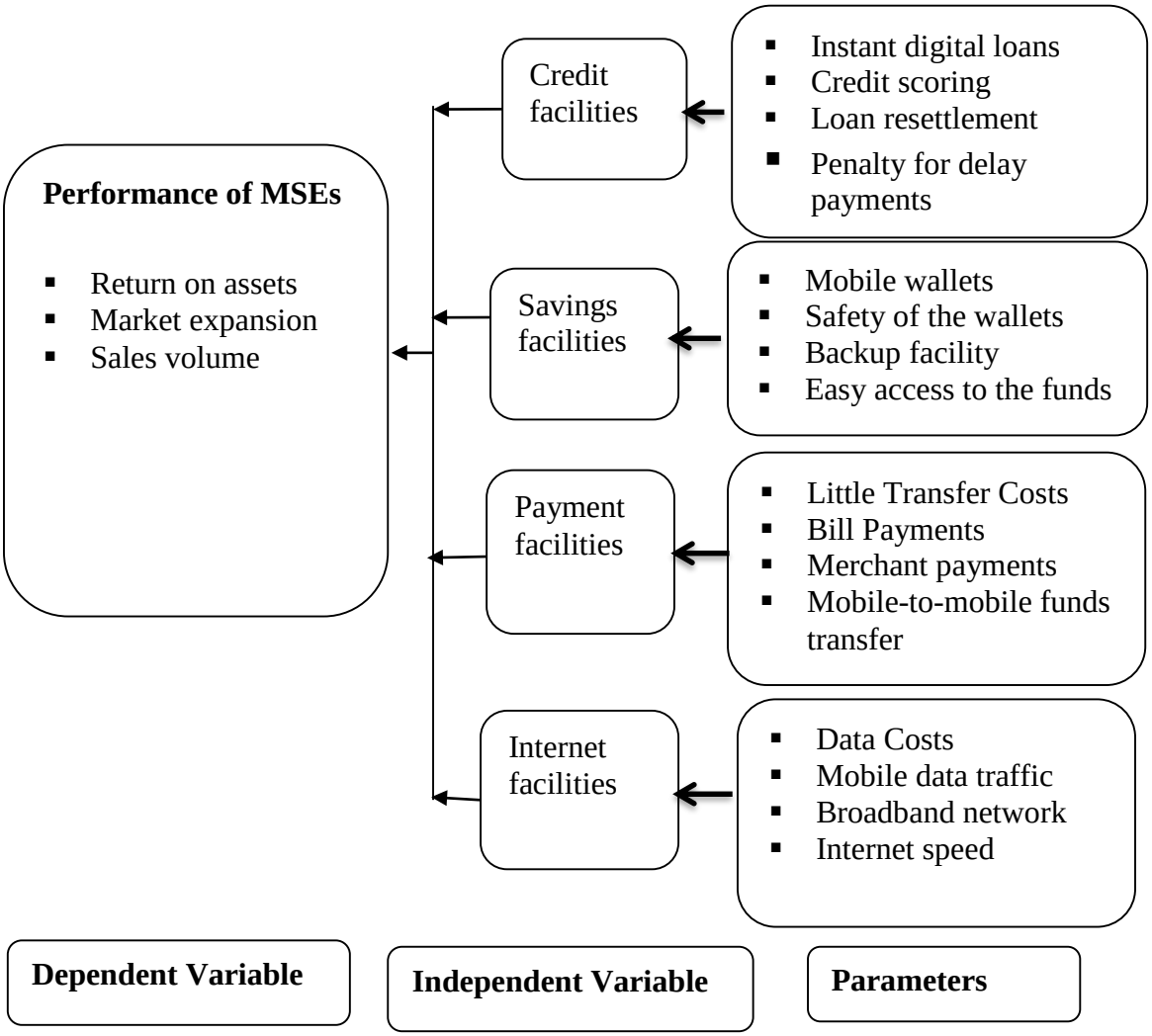
Source: Researcher (2021).

From the figure, the relationship between the study independent variables and the dependent variable. It considers the mobile phone technology aspects covering its credit facilities, savings facilities, payment facilities and internet facilities and how they affect the performance of micro and small-sized enterprises.

2.5 Operationalization

Figure 2. 2:

Operationalization of Variables



Source: Researcher (2021).

The figure 2.2 shows the study variables and its indicators, like performance of the micro and small-sized enterprises was measured by the volume of sales made in a given period, their returns on assets and capital employed and how much command do these MSEs have in the market within Kakamega County. There is also consideration on number of customers that make the market for the micro and small enterprises.

On variable on mobile phone credit facilities, the study considered aspects like speed of accessing digital loans by the micro and small-scale traders between the applications and how soon the funds are disbursed. Credit facilities were also considered credit scoring and rating to dictate the volume of digital loans one can access and ease in loan resettlement and the grace period given. On mobile phone savings facilities, the key features are the mobile wallets and its safety. The concept was also exposed by considering the back-up facility since mobile phones can easily be stolen and information on the users exposed to manipulation. The backup facilities allow users to have continuous utilization of mobile technology that increases their operations.

On the variable on mobile phone payment facilities, its indicators cover aspects like costs and charges incurred when transferring money from cash to mobile phones which are free and transfers from the phone to banks. Since the traders conduct a lot of payments to other merchants and payment of bills, then it is important to consider process, its efficiency and effectiveness. The variable on mobile phone internet facilities considers aspects like costs of data, the strength of the internet connections, internet speeds and traffic since its impacts the operational efficiencies of the micro and small-scale enterprises and its performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the ways data was collected to enable exhaustive response to research questions. It highlights the design adopted with clear justifications, population of interest with reasons for its selection, sample size and data collection instruments. It identifies different analysis methods adopted by the study together with ethical considerations taken into considerations.

3.2 Research Design

A causal research design was used to explore the relationship between the study variables. According to Creswell and Poth (2016), researchers tend to adopt cause-effect research design in their studies to seek certain types of evidence to help them understand and predict relationships. Causal research design attempts to establish that when one thing or event occurs, it is due to another factor (Capano & Howlett, 2019). For this study, the influence that mobile phone technologies have on performance of micro and small enterprises was explored. The design was ideal as it considered the facilities in mobile phone technology and how their application could lead to improved performance of the MSEs.

3.3 Target Population

Target population is a group or set of items, people and things that have common features and form the basis of the study. The target population is used in studies and their findings are generalized to cover the entire population (Asiamah et al., 2017). This study targeted 4100

MSEs within Kakamega County that actively used mobile phone technology in their operations. The distribution of the MSEs is according to the wards as shown in Table 3.1.

Table 3.1

Target Population

No.	Sub-County	Population
1	Likuyani	344
2	Lugari	214
3	Lurambi	287
4	Malava	431
5	Namakholo	339
6	Ikolomani	391
7	Shinyalu	299
8	Mumias East	378
9	Mumias West	407
10	Matungu	386
11	Khwisero	259
12	Butere	365
Total		**4100**

Source: Ministry of Industrialization and Trade in Kakamega County (2017)

3.4 Sample Size and Sampling Technique

Sampling technique is the processes undertaken by researcher in selecting a small representative portion of the units to take part in the study from the population and target population (Flick, 2015). It is about securing a small representative group from where you gain information on the research topic. The study adopted stratified sampling technique where the population was first grouped as per the location of the MSEs in the 12 sub-counties within Kakamega County.

To obtain the sample size –the elements who participated in the study Creswell and Poth (2016); the study used the Yamane 1967 formula to calculate the final sample size of the study.

A sample of 399 was obtained using the Yamane 1967 formula and the calculations are shown as below:

$n = N / (1 + Ne^2)$

n = is the desired sample size (when population is less than 10,000)

N = is the target population

e = is the acceptable margin of error estimated at 0.05 (at 95% confidence interval)

Therefore, Sample size (n) = 4100 / (1+4100(0.0025)

= 4100/10.2525

n=399Respondents

The researcher collected information from these respondents as shown in Table 3.2 of the sample size.

Table 3.2

Sample Size

No.	Sub-County	Population	Sample Size
1	Likuyani	344	41
2	Lugari	214	29
3	Lurambi	287	26
4	Malava	431	37
5	Namakholo	339	34
6	Ikolomani	391	31
7	Shinyalu	299	28
8	Mumias East	378	36
9	Mumias West	407	42
10	Matungu	386	38
11	Khwisero	259	27
12	Butere	365	30
Total		**4100**	**399**

Source: Researcher (2021).

3.5 Data Collection Instrument

Questionnaires were used as instruments of data collection. According to Yin (2017) the most common method and form of collecting primary data is the use of questionnaires. The researcher employed six research assistants to aide in data collection process. The questionnaire was structured so as to give standard answers that make the data collection, analysis and presentation of findings simpler and easier. The questionnaire employed a five-point Likert Scale and the respondents were expected to choose the statement that best explains their response.

3.6 Validity and Reliability of the Instrument

The researcher utilized 11 questionnaires in pilot-testing the instrument to ensure validity and reliability of the instrument. The respondents filled the questions and it was analysed and any problems and issues including length, leading questions and ambiguity were noted and corrected before the final instrument was made for data collection. Pilot-test was conducted to ensure that questions were well framed and the language used was appropriate for the target respondents.

3.6.1 Validity of the Instrument

Litosseliti (2018) noted that validity gives information in relation to the degree to which a test adopted by a researcher measures that which it is expected to measure. It helps in ensuring that the tests adopted are not distorted hence affecting research outcome. Taherdoost (2016) noted that this can be ensured by engaging a qualified person known as an expert to provide his or her opinion prior to the main study. Validity test was done through sharing the documents with the supervisor who has a vast experience in supervising projects of this nature.

3.6.2 Reliability of the Instrument

Reliability as defined by Taherdoost (2016) as the level of consistency of an instrument in providing same result if the study is repeated under similar conditions or circumstances. It represents the ability to replicate a study within similar conditions without changing the outcome. This was checked through the use of Cronbach Alpha which has a threshold of 70%. From the pilot results, all variables had a coefficient of above 70% hence indicating that the instrument was reliable.

3.7 Data Analysis and Presentation

Collected data was captured in statistical package for social scientists (SPSS) in readiness for analysis. Frequencies, means and standard deviations were computed and analysed to make sense of the data. To reach inferences, multiple regression analysis was adopted assuming the following format:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

Where:

Y = Performance

X_1 = Mobile Phone Credit Facilities

X_2 = Mobile Phone Saving Facilities

X_3 = Mobile Phone Payment Facilities

X_4= Mobile Phone Internet Facilities

β_0= Constant,

β_1, β_2, β_3 and β_4= Regression Coefficients

ε = Error Term

3.8 Ethical Considerations

The researcher ensured that the study upholds quality. It sought the consent of the respondents to ensure that the respondents are not forced to participate in the study. The researcher assured the respondents on the confidentiality and anonymity. Furthermore, their responses were used for purpose of this study alone. The study also sought authority from Kenya Methodist University (KEMU) to assure the respondents that the information sought was used for academic purposes only. To ensure confidentiality, data collected was kept safely and not shared with any other individual other than the supervisor of the researcher. The researcher committed to using the information for academic purposes only.

CHAPTER FOUR

FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

The chapter details the analysis of the collected data from the field, which was done with aid of SPSS software. The specific contents covered in the chapter include the response rate, reliability results, general information, descriptive statistics and regression results.

4.2 Response Rate

The total questionnaire administered to respondents were 399 and 281 of them were dully filled and returned back. This represented a response rate of 70.4% which was sufficient and consistent with the Mugenda and Mugenda (2003), who shared that an above 70% response rate is ideal for analysis of the findings as detailed in subsequent sections.

4.3 Reliability Results

The researcher piloted 11 questionnaires to the respondents drawn from the target population for piloting. This was done to avoid biasness. The Cronbach Coefficients are shown in Table 4.1.

Table 4.1

Reliability Results

	Cronbach's Alpha	No. of Items
Mobile Phone Credit Services	0.884	5
Mobile Phone Saving Services	0.904	9
Mobile Phone Internet Services	0.889	4
Mobile Phone Money Transfer Services	0.703	5
Financial Performance	0.800	3

4.4 General Information

Data on the gender, level of education, length of operation of the firm and the position held by the respondents was as indicated in the subsequent sections.

4.4.1 Gender of Respondents

Data on gender proportionality of the respondents is shown in the Figure 4.1.

Figure 4.1

Gender distribution of the respondents

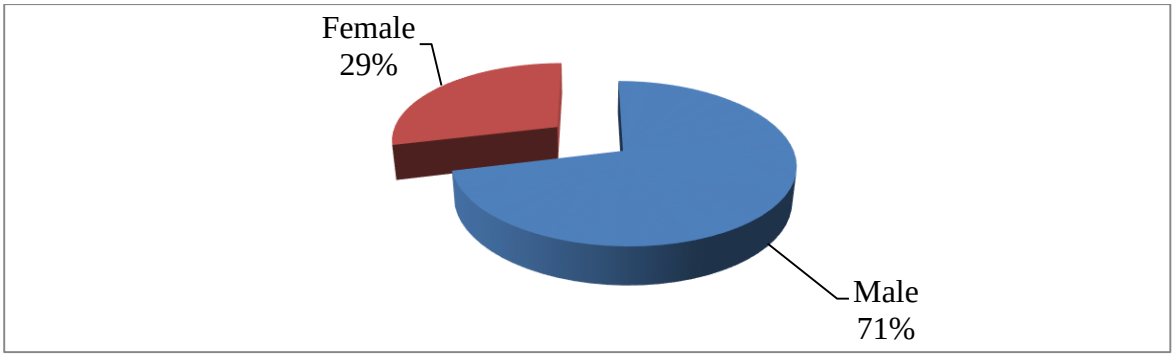


Figure 4.1 shows that while 71% of the respondents were male, 29% were female. Thus, almost a third of the respondents were of the female gender, implying that there was gender diversity and representativeness in the findings sought from the respondents on mobile phone technologies. This was also consistent with the provisions of the 2010 Constitution about issues of gender.

4.4.2 Level of Education

The researcher collected data on the general education levels attained by the respondents as shown in Figure 4.2.

Figure 4.2

Level of Education

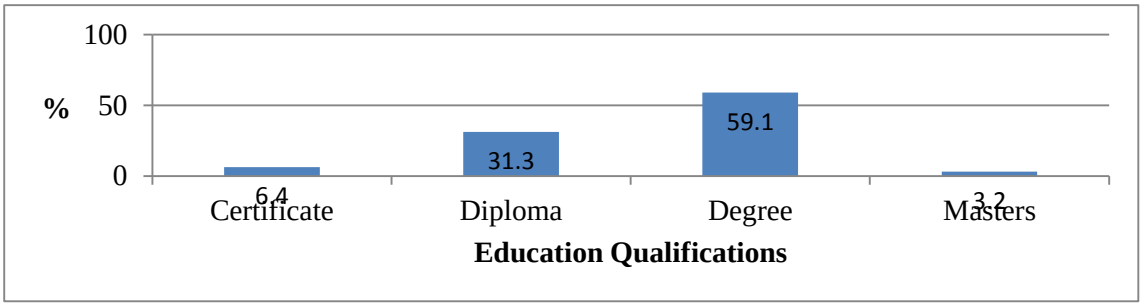


Figure 4.2 indicate that 59.1% had degrees, 31.3% had diplomas, and 6.4% had certificates while 3.2% had masters. This is an indication that the respondents who participated in the study were educated, and probably were able to read, understand and interpret the research questions on mobile phone technology and performance.

4.4.3 Age of the Firms

The years that the studied organizations had been in operation were determined and summarized as shown in Table 4.2.

Table 4.2

Length of Operation of the Firms

	Frequency	**Percent**
Less than 1 year	14	5.0
1-3 years	99	35.2
3-5 years	168	59.8
Total	**281**	**100.0**

The results in Table 4.2 indicate that 59.8% of the organizations had been in operation for 3-5 years, 35.2% for 1-3 years and 5% for less than a year. This implies that majority of the studied firms had operated a relatively longer period of time and thus they were a suitable for being used as the case study.

4.4.4 Position Held by Respondents

Data on the position in the organization were as summarized in Table 4.3.

Table 4.3

Position Held by Respondents

	Frequency	Percent
Owner	111	39.5
Senior Manager	137	48.8
other	33	11.7
Total	**281**	**100.0**

Table 4.3 shows that while 48.8% of the respondents were senior managers, 39.5% were owners of the firms while 11.7% had other positions. This means that the respondents of the study held diverse positions, an indication that detailed information was sought from them.

4.5 Descriptive Statistics

A number of Likert based statements were formulated on the following specific objective variables: mobile phone credit facilities, mobile phone saving facilities, mobile phone payment facilities and mobile phone internet facilities. The study used a 5-point Likert scale where 1 meant strongly disagree and 5=meant strongly agreed. Means and standard deviations were generated to describe these variables with the findings as indicated in the subsequent sections.

4.5.1 Mobile Phone Credit Services

The results of descriptive statistics in terms of means and standard deviations on mobile phone credit services are shown in Table 4.4.

Table 4.4

Mobile Phone Credit Services

Statement	Mean	Std. Dev
Mobile phone credit services provide financial help to small traders through credit	3.72	0.725
Mobile phone credit services ensure that outstanding loans are repaid on time	3.70	0.816
Mobile phone credit services support saving through credit deposits	4.00	0.729
Mobile phone credit services have set-up an innovation-friendly mechanism that regulates credit services in the county	3.83	0.839
Mobile phone credit services support money transfer services in determining how funds are transferred between banks or accounts	3.81	0.685
Average	**3.81**	**0.759**

The results in Table 4.4 indicate that respondents agreed that mobile phone credit services supported saving through credit deposits (M=4.00, SD= 0.729). Respondents agreed that mobile phone credit services had set-up an innovation-friendly mechanism that regulates credit services in the county (M=3.83, SD= 0.839). Respondents agreed that mobile phone credit services supported money transfer services in determining how funds are transferred between banks or accounts (M=3.81, SD= 0.685). Respondents further agreed that mobile phone credit services provided financial help to small traders through credit (M=3.72, SD= 0.725). The participants also agreed that mobile phone credit services ensured that outstanding loans are repaid on time (M=3.70, SD=0.816). The overall implications of the findings in Table 4.4 are that mobile phone credit services (M=3.81, SD= 0.759) had were widely utilized by the studied firms. These findings are empirically supported by Blechman (2016) who did a study on mobile credit by comparing the Kenyan and Tanzanian situation in terms of regulatory challenges, consumer protection and credit reporting based on customer transaction information. There was an increase in mobile financial service provision especially in the developing countries, the rural and low-income populations.

4.5.2 Mobile Phone Saving Services

Table 4.5 gives a breakdown of the descriptive statistics on mobile phone savings services.

Table 4.5

Mobile Phone Saving Services

Statement	Mean	Std. Dev
Mobile phone saving services provide opportunities for online investment	3.75	0.768
Mobile phone saving services assist in ensuring financial security of small traders is well protected	3.76	0.985
Mobile phone saving services are accessible to all small-scale traders	3.74	0.881
Mobile phone saving services encourage small traders to save some money for the future	3.89	0.894
Mobile phone saving services support small traders by creating job opportunities that sustain their living standards	3.79	0.752
Mobile phone saving services enable small traders to access additional funding for their farming activities	3.32	0.844
Mobile phone saving services have improved the wellbeing of small traders in Kakamega County	3.95	0.800
Mobile phone saving services have improved financial security levels among small traders in Kakamega County	4.07	0.828
Mobile phone saving services have the ability of small traders to access more information on their farming practices	4.06	0.686
Average	**3.81**	**0.826**

From the findings, it was noted that respondents agreed that mobile phone saving services had improved financial security levels among small traders in Kakamega County (M=4.07, SD= 0.828). Respondents agreed that mobile phone saving services had the ability of small traders to access more information on their farming practices (M=4.06, SD= 0.686). The participants agreed that mobile phone saving services had improved the wellbeing of small traders in

Kakamega County (M=3.95, SD= 0.800). Respondents agreed that mobile phone saving services encouraged small traders to save some money for the future (M=3.89, SD= 0.894). The respondents of the study further agreed that mobile phone saving services supported small traders by creating job opportunities that sustain their living standards (M=3.79, SD= 0.752). Respondents agreed that mobile phone saving services assisted in ensuring financial security of small traders is well protected (M=3.76, SD= 0.985). It was shown that mobile phone saving services provided opportunities for online investment (M=3.75, SD= 0.768). Respondents agreed that mobile phone saving services were accessible to all small-scale traders (M=3.74, SD= 0.881). However, respondents moderately agreed on whether mobile phone saving services enabled small traders to access additional funding for their farming activities (M=3.32, SD= 0.844). On overall, the study noted that mobile phone saving services (M=3.81, SD=0.826) had been embraced by the studied firms. Ouma, Odongo and Were (2017) shared that mobile phone technology also impacts on the amount saved as based on frequency and convenience that allow many individuals to transact at any moment and that more savings can be realized through adoption of mobile phone technology which allows more transactions and ensures security and safety of the saved monies.

4.5.3 Mobile Phone Internet Services

The findings of descriptive statistics on mobile phone internet services were determined and summarized as shown in Table 4.6.

Table 4.6

Mobile Phone Internet Services

Statement	Mean	Std. Dev
Mobile phone internet services ensure that traders share information with their customers	3.85	0.773
Mobile phone internet services ensure that traders share information with their suppliers	3.73	0.719
Mobile phone internet services ensure that traders advertise their stock	3.72	0.995
Mobile phone internet services ensure that traders socialize with their peers in the industry	3.75	0.702
Average	**3.76**	**0.797**

The results in Table 4.6 are that respondents agreed that mobile phone internet services ensured that traders share information with theirr customers (M=3.85, SD= 0.773). Respondents agreed that mobile phone internet services ensure that traders socialize with their peers in the industry (M=3.75, SD= 0.702). The participants of the study further agreed that mobile phone internet services ensured that traders share information with their suppliers (M=3.73, SD= 0.719). The respondents also agreed that mobile phone internet services ensured that traders advertise their stock (M=3.72, SD= 0.995). The overall results in Table 4.6 are as follows (M=3.76, SD= 0.797), which infers that the studied firms indeed relied on mobile phone internet services. Taylor (2016) show that the markets are flooded with many products and software that are used for mobile payment but many of the retailers are not aware of potential risks associated with mobile payment technologies.

4.5.4 Mobile Phone Money Transfer Services

The results of descriptive statistics on mobile phone money transfer services were as indicated in Table 4.7.

Table 4.7

Mobile Phone Money Transfer Services

Statement	Mean	Std. Dev
Mobile phone money transfer services ensure accuracy in mobile phone money transfer services	3.38	1.025
Mobile phone money transfer services provide efficiency in mobile phone money transfer services	3.63	1.074
Mobile phone money transfer services are effective in delivering mobile phone money transfer services	3.79	0.918
Mobile phone money transfer services support the use of mobile phones in offering effective financial services to the end clients	3.73	0.912
Mobile phone money transfer services have adopted the use of mobile banking in the provision of financial opportunities to tea famers in the County	3.81	0.544
Average	**3.67**	**0.895**

As shown in Table 4.7, most of the respondents agreed that mobile phone money transfer services had adopted the use of mobile banking in the provision of financial opportunities to tea famers in the County (M=3.81, SD= 0.544). Respondents indicated that mobile phone money transfer services were effective in delivering mobile phone money transfer services (M=3.79, SD= 0.918). The participants were in agreement that mobile phone money transfer services supported the use of mobile phones in offering effective financial services to the end clients (M=3.73, SD= 0.912). Respondents also agreed that mobile phone money transfer services provided efficiency in mobile phone money transfer services (M=3.63, SD=1.074). On the other hand, respondents moderately agreed on whether mobile phone money transfer services ensured accuracy in mobile phone money transfer services (M=3.38, SD=1.025). On overall, the results in Table 4.7 are (M=3.67, SD= 0.895), which means that the studied firms utilized mobile money transfer services. Sherifi and Senja (2018) noted a 90% increment in

mobile phone devices access to 3G networks in Albania for the period 2012-14 as a huge number of the population are getting into informative sites through the internet available in their mobile devices.

4.6 Regression Results and Hypotheses Testing

The researcher carried out regression analysis to establish the effect of mobile phone technology on firm performance. This helped in drawing relevant inferences in determining whether to reject or accept the formulated hypotheses of the study. The results were established and presented as shown in the subsequent sections.

4.6.1 Model Summary

The results of the regression detailing the values of the R and R square are as presented in Table 4.8.

Table 4.8

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.860[a]	0.739	0.736	0.89428

a. Predictors: (Constant), Mobile Phone Credit Facilities, Mobile Phone Saving Facilities, Mobile Phone Payment Facilities and Mobile Phone Internet Facilities

The findings in Table 4.8 indicate the value of R as 0.860; this means that there exists strong and positive relationship between mobile phone technology and performance of the SMEs in Kakamega County. The coefficient of determination R square is given as 0.739, which implies that 73.9% change in performance of the SMEs in Kakamega County is explained by mobile phone technology. Therefore, this means that aside from mobile phone technology, there are

still other factors with an influence on performance of the SMEs in Kakamega that future studies should focus on.

4.6.2 Analysis of Variance

Analysis of Variance was carried out at 5% level of significance. The findings were established and summarized as indicated in Table 4.9.

Table 4.9

Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	626.083	4	156.521	195.714	0.000[b]
Residual	220.729	276	0.800		
Total	**846.811**	**280**			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Mobile Phone Credit Facilities, Mobile Phone Saving Facilities, Mobile Phone Payment Facilities and Mobile Phone Internet Facilities

From Table 4.9, the p-value is given as 0.000 which is less than 0.05. This finding helps in achieving the general objective of the study which was to determine the effect of mobile phone technology on performance. Based on this finding, it can be inferred that mobile phone technology significantly influences performance of the SMEs. These findings are supported by Mashenene (2015) who noted that there existed a significant difference in capital growth between MSEs that used mobile phones technology and those without. Similarly, Litondo (2018) examined the nexus using the case of MSEs where it was established that utilization of mobile phones technology in business significantly affected sales of MSEs.

4.6.3 Regression Beta Coefficients

The values of the regression beta coefficients with the p-values were computed and summarized as shown in Table 4.10.

Table 4.10

Regression Beta Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	4.652	1.084		4.291	0.000
Mobile Phone Credit Facilities	0.000	0.040	0.000	0.010	0.992
Mobile Phone Saving Facilities	0.154	0.031	0.226	4.955	0.000
Mobile Phone Payment Facilities	0.001	0.024	0.001	0.035	0.972
Mobile Phone Internet Facilities	0.706	0.047	0.681	14.929	0.000

From Table 4.10, the following equation is predicted between mobile phone technology and performance of the SMEs:

$$\mathbf{Y = 4.652+.000X_1+.154X_2 + .001X_3 +.706X_4}$$

Where:

Y = Performance

X_1 = Mobile Phone Credit Facilities

X_2 = Mobile Phone Saving Facilities

X_3 = Mobile Phone Payment Facilities

X_4= Mobile Phone Internet Facilities

The first hypothesis of the study was H_{01}mobile phone credit facilities have no effect on performance of micro and small-scale enterprises in Kakamega County, Kenya. From the results, mobile phone credit facilities had p-value as 0.992, which is above 0.05. Thus, the study failed to reject hypothesis H_{01} and inferred that mobile phone credit facilities have no

significant effect on performance of micro and small-scale enterprises in Kakamega County, Kenya. The result contradicts Kinyanzui (2018) who conducted a study on the effects that mobile credit has on performance of commercial banks in Kenya and found out that mobile credit enhanced overall performance, operational efficiency, customer satisfaction and organization efficiency, while government policies led to growth of mobile credit in the country.

The second hypothesis was as follows; H_{02}mobile phone saving facilities has no effect on performance of micro and small-scale enterprises in Kakamega County, Kenya. Based on the findings, the p-value of mobile phone saving facilities was 0.000, which is less than 0.05. Thus, the study rejects hypothesis H_{02} and infers that mobile phone saving facilities have significant effect on performance of micro and small-scale enterprises. These findings contradict with Bastian et al. (2018) who conducted a study on the short-term impact for improvement in access to mobile savings whether the persons had business training or not and noted that there was no significant evidence that mobile savings translated to greater investment, sales and profits.

Hypothesis three of the study was H_{03}mobile phone payment facilities have no effect on performance of micro and small-scale enterprises in Kakamega County, Kenya. The results showed that mobile phone payment facilities had p-value of 0.972, which is greater than 0.05. Hence, the study failed to fail to reject hypothesis $H_{03}$and deduced that mobile phone payment facilities have no significant effect on performance of micro and small-scale enterprises. Moghavvemi et al. (2020) reveal that some of the drivers that led the merchants to adopt mobile payment systems include decreased payment processing fees and time and convenience of the system and security features of the system.

The last hypothesis of the study was H_{04}mobile phone internet facilities have no effect on performance of micro and small-scale enterprises in Kakamega County, Kenya. From the findings, mobile phone internet facilities had p-value as 0.000, which was less than 0.05. Therefore, the study rejected hypothesis H_{04} and inferred that mobile phone internet facilities have significant effect on performance of micro and small-scale enterprises. Sherifi and Senja (2018) show that mobile devices are the new channels used by internet users in Albania to reach informative websites and many of these websites have made changes to accommodate the growing trend of internet users based on their mobile devices.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

.1 Introduction

This chapter provides a summary from the findings presented, draws conclusions and recommendations based on objectives.

5.2 Summary of the Findings

The section provides a summary of the analysed findings as guided by the specific objectives.

5.2.1 Mobile Phone Credit Services

The overall implications of the findings are that mobile phone credit services (M=3.81, SD= 0.759) had were widely utilized by the studied firms. The results indicate that respondents agreed that mobile phone credit services supported savings through credit deposits (M=4.00, SD= 0.729). Respondents agreed that mobile phone credit services had set-up an innovation-friendly mechanism that regulates credit services in the county (M=3.83, SD= 0.839). Respondents agreed that mobile phone credit services supported money transfer services in determining how funds are transferred between banks or accounts (M=3.81, SD= 0.685). Respondents further agreed that mobile phone credit services provided financial help to small traders through credit (M=3.72, SD= 0.725). The participants also agreed that mobile phone credit services ensured that outstanding loans are repaid on time (M=3.70, SD= 0.816). The first hypothesis of the study was H_{01}mobile phone credit facilities have no effect on performance of micro and small-scale enterprises in Kakamega County, Kenya. From the results, mobile phone credit facilities had p-value as 0.992, which is above 0.05. Thus, the study failed to reject hypothesis H_{01} and inferred that mobile phone credit facilities have no

significant effect on performance of micro and small-scale enterprises in Kakamega County, Kenya.

5.2.2 Mobile Phone Saving Services

On overall, the study noted that mobile phone saving services (M=3.81, SD=0.826) had been embraced by the studied firms. It was noted that respondents agreed that mobile phone saving services had improved financial security levels among small traders in Kakamega County (M=4.07, SD= 0.828). Respondents agreed that mobile phone saving services had the ability of small traders to access more information on their farming practices (M=4.06, SD=0.686). The participants agreed that mobile phone saving services had improved the wellbeing of small traders in Kakamega County (M=3.95, SD= 0.800). Respondents agreed that mobile phone saving services encouraged small traders to save some money for the future (M=3.89, SD= 0.894). The respondents of the study further agreed that mobile phone saving services supported small traders by creating job opportunities that sustain their living standards (M=3.79, SD= 0.752). Respondents agreed that mobile phone saving services assisted in ensuring financial security of small traders is well protected (M=3.76, SD= 0.985). It was shown that mobile phone saving services provided opportunities for online investment (M=3.75, SD= 0.768). Respondents agreed that mobile phone saving services were accessible to all small-scale traders (M=3.74, SD= 0.881). However, respondents moderately agreed on whether mobile phone saving services enabled small traders to access additional funding for their farming activities (M=3.32, SD= 0.844). The second hypothesis was as follows; H_{02}mobile phone saving facilities has no effect on performance of micro and small-scale enterprises in Kakamega County, Kenya. Based on the findings, the p-value of mobile phone saving facilities was 0.000, which is less than 0.05. Thus, the study rejects hypothesis H_{02} and

infers that mobile phone saving facilities have significant effect on performance of micro and small-scale enterprises.

5.2.3 Mobile Phone Internet Services

The overall results are as follows (M=3.76, SD= 0.797), which infers that the studied firms indeed relied on mobile phone internet services. Respondents agreed that mobile phone internet services ensured that traders share information with their customers (M=3.85, SD= 0.773). Respondents agreed that mobile phone internet services ensure that traders socialize with their peers in the industry (M=3.75, SD= 0.702). The participants of the study further agreed that mobile phone internet services ensured that traders share information with their suppliers (M=3.73, SD= 0.719). The respondents also agreed that mobile phone internet services ensured that traders advertise their stock (M=3.72, SD= 0.995). Hypothesis three of the study was H_{03}mobile phone payment facilities have no effect on performance of micro and small-scale enterprises in Kakamega County, Kenya. The results showed that mobile phone payment facilities had p-value of 0.972, which is greater than 0.05. Hence, the study failed to fail to reject hypothesis $H_{03}$and deduced that mobile phone payment facilities have no significant effect on performance of micro and small-scale enterprises.

5.2.4 Mobile Phone Money Transfer Services

On overall, the results are (M=3.67, SD= 0.895), which means that the studied firms utilized mobile money transfer services. Most of the respondents agreed that mobile phone money transfer services had adopted the use of mobile banking in the provision of financial opportunities to tea famers in the County (M=3.81, SD= 0.544). Respondents indicated that mobile phone money transfer services were effective in delivering mobile phone money transfer services (M=3.79, SD= 0.918). The participants were in agreement that mobile phone

money transfer services supported the use of mobile phones in offering effective financial services to the end clients (M=3.73, SD= 0.912). Respondents also agreed that mobile phone money transfer services provided efficiency in mobile phone money transfer services (M=3.63, SD=1.074). On the other hand, respondents moderately agreed on whether mobile phone money transfer services ensured accuracy in mobile phone money transfer services (M=3.38, SD=1.025). The last hypothesis of the study was H_{04} mobile phone internet facilities have no effect on performance of micro and small-scale enterprises in Kakamega County, Kenya. From the findings, mobile phone internet facilities had p-value as 0.000, which was less than 0.05. Therefore, the study rejected hypothesis H_{04} and inferred that mobile phone internet facilities have significant effect on performance of micro and small-scale enterprises.

5.3 Conclusion

The first objective of the study sought to determine the effect of mobile phone credit facilities on performance of micro and small-scale enterprises in Kakamega County, Kenya. Based on descriptive statistics, the study concludes that the micro and small-scale enterprises in Kakamega County, Kenya have embraced mobile phone credit facilities. On the basis of the regression results, the study concludes that although the micro and small-scale enterprises operating in Kakamega County, Kenya have invested in mobile phone credit facilities, they have not significantly contributed towards their performance.

The study sought to determine the effect of mobile phone saving facilities on performance of micro and small-scale enterprises in Kakamega County, Kenya. In view of the descriptive statistics, the study concludes thatmobile phone saving services have been embraced by the micro and small-scale enterprises in Kakamega County, Kenya. The study concludes that

utilization of the mobile phone saving facilities has significantly contributed towards performance of the micro and small-scale enterprises in Kakamega County, Kenya.

The essence of the study was to establish the effect of mobile phone payment facilities on performance of micro and small-scale enterprises in Kakamega County, Kenya. In view of the findings of descriptive statistics, the study concludes that micro and small-scale enterprises in Kakamega County, Kenya do utilize mobile phone payment facilities to carry out their services. In line with regression results, the study concludes that although mobile phone payment facilities are utilized among micro and small-scale enterprises in Kakamega County, they have not significantly enabled them to improve on their performance.

The study sought to assess the effect of mobile phone internet facilities on performance of micro and small-scale enterprises in Kakamega County, Kenya. Based on findings of descriptive statistics, the study conclude that mobile money transfer services have been utilized by the micro and small-scale enterprises in Kakamega County. From regression results, the study concludes that the use of mobile phone internet facilities has significantly contributed to improvement in performance of the micro and small-scale enterprises in Kakamega County.

5.4 Recommendations for Management, Policy and Practice

From regression results, only mobile phone saving facilities and mobile phone internet facilities were significant ($p<0.05$). Based on these findings, the study makes the following recommendations:

The owners and senior managers of the micro and small-scale enterprises in Kakamega County should invest more resources in enhancing the mobile phone saving facilities and mobile phone internet facilities so as to significantly drive performance of their firms.

The policy makers in Kakamega County should formulate policies that encourage and support uptake of mobile phone technologies to enhance performance of the micro and small-scale enterprises in place.

The practitioners who may include information and communication technology specialists should appreciate the role played by mobile phone saving facilities and mobile phone internet facilities in driving performance of the firm.

5.5 Areas for Further Research

Performance was the dependent variable in the present study. However, this is a general term that covers both financial and non-financial measures. Hence, future studies should be conducted focusing on other concepts like firm growth or competitive advantage or even financial performance which is more specific. The focus of the future studies should also be on other firms away from the micro and small-scale enterprises.

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APPENDICES

Appendix I: Introduction Letter

Patrick Kennedy Mugalo

Kenya Methodist University.

RE: Request to Participate in an Academic Research

I am conducting a study on**EFFECT OF MOBILE PHONE TECHNOLOGY ON PERFORMANCE OF MICRO AND SMALL-SCALE ENTERPRISES IN KAKAMEGA COUNTY, KENYA**. You have been selected to take part in the study by filling this questionnaire. Kindly consider responding to all the questions as honestly as you can. Be assured that all the information you provide would be handled with confidentiality. I appreciate your anticipated co-operation to give your attention as a contribution towards this exercise.

Yours faithfully,

Patrick Kennedy Mugalo

Appendix II: Questionnaire

EFFECT OF MOBILE PHONE TECHNOLOGY ON PERFORMANCE OF MICRO AND SMALL-SCALE ENTERPRISES IN KAKAMEGA COUNTY, KENYA

PART A: BACKGROUND INFORMATION

1. What is your gender?

   Male [] Female []

2. What is your highest level of education?

   Certificate [] Diploma [] Degree [] Masters [] PhD []

3. How long have you operated in this business?

   Less than 1 year [] 1-3 years [] 3-5 years []

4. What your position in the business?

   Owner [ ]

   Senior Manager [ ]

   Other (Please specify) [ ]

SECTION B: Mobile Phone Credit Services

6. Below are several statements on Mobile Phone Credit facilities and business performance. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

Statement	**1**	**2**	**3**	**4**	**5**
Mobile phone credit services provide financial help to small traders through credit					
Mobile phone credit services ensure that outstanding loans are repaid on time					
Mobile phone credit services support saving through credit deposits					
Mobile phone credit services have set-up an innovation-friendly mechanism that regulates credit services in the county					

Mobile phone credit services support money transfer services in determining how funds are transferred between banks or accounts					

SECTION C: Mobile Phone Saving Services

5. Below are several statements on Mobile Phone Saving Services and performance of businesses. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

Statement	**1**	**2**	**3**	**4**	**5**
Mobile phone saving services provide opportunities for online investment					
Mobile phone saving services assist in ensuring financial security of small traders is well protected					
Mobile phone saving services are accessible to all small-scale traders					
Mobile phone saving services encourage small traders to save some money for the future					
Mobile phone saving services support small traders by creating job opportunities that sustain their living standards					
Mobile phone saving services enable small traders to access additional funding for their farming activities					
Mobile phone saving services have improved the wellbeing of small traders in Kakamega County					
Mobile phone saving services have improved financial security levels among small traders in Kakamega County					
Mobile phone saving services have the ability of small traders to access more information on their farming practices					

SECTION D: Mobile Phone Internet Services

8. Below are several statements on Mobile Phone Internet Services and Financial performance of businesses. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

Statement	**1**	**2**	**3**	**4**	**5**
Mobile phone internet services ensure that traders share information with their customers					

Mobile phone internet services ensure that traders share information with their suppliers					
Mobile phone internet services ensure that traders advertise their stock					
Mobile phone internet services ensure that traders socialize with their peers in the industry					

SECTION D: Mobile Phone Money Transfer Services

7. Below are several statements on Mobile Phone Money Transfer Services and digital Financial Inclusion. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

Statement	**1**	**2**	**3**	**4**	**5**
Mobile phone money transfer services ensure accuracy in mobile phone money transfer services					
Mobile phone money transfer services provide efficiency in mobile phone money transfer services					
Mobile phone money transfer services are effective in delivering mobile phone money transfer services					
Mobile phone money transfer services support the use of mobile phones in offering effective financial services to the end clients					
Mobile phone money transfer services have adopted the use of mobile banking in the provision of financial opportunities to tea famers in the County					

SECTION F: Financial Performance

10. Below are several statements on financial performance of small-scale traders. Kindly indicate the extent of your agreement with each of these statements. Use a Likert scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

Statement	**1**	**2**	**3**	**4**	**5**
Mobile phone services have grown the amount of credit it offers to the small-scale traders in the last two years					
The amount of deposits brought in by small scale traders has been on the increase for the last five months					
Mobile phone services have been on the forefront of growing the number of bank accounts opened by small scale traders in Kakamega County					

Appendix III: Letter of Introduction

KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya
Tel: 254-064-30301/31229/30367/31171
Fax: 254-64-30162
Email: info@kemu.ac.ke

Our ref: NAC/ MBA/1/2021/4

18th FEBRUARY 2021

Commission Secretary,
National Commission for Science, Technology and Innovations,
P.O. Box 30623-00100,
NAIROBI.

Dear Sir/ Madam,

PATRICK KENNEDY MUGALO **BUS-3-1675-3//2019**

This is to confirm that the above named is a bona fide student of Kenya Methodist University, undertaking masters in Business Administration. He is conducting a research titled: **THE EFFECT OF MOBILE PHONE TECHNOLOGY ON PERFORMANCE OF MICRO AND SMALL SCALE ENTERPRISES IN KAKAMEGA COUNTY, KENYA .**

We confirm that this thesis proposal has been defended and approved by the university.

In this regard, we are requesting your office to issue a permit to enable him collect data for his masters dissertation.

Any assistance accorded to him, will be appreciated.

Yours faithfully,

PROF. Evangeline Gichunge, PhD.
ASS DIRECTOR POSTGRADUATE STUDIES

KENYA METHODIST UNIVERSITY
Dean
18 FEB 2021
BOARD OF POSTGRADUATE STUDIES
P.O. BOX 45240-00100, NAIROBI

Appendix IV: Research Permit

REPUBLIC OF KENYA

NACOSTI

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **630343** Date of Issue: **06/May/2021**

RESEARCH LICENSE

This is to Certify that Mr. PATRICK KENNEDY MUGALO of Kenya Methodist University, has been licensed to conduct research in Kakamega on the topic: EFFECT OF MOBILE PHONE TECHNOLOGY ON PERFORMANCE OF MICRO AND SMALL-SCALE ENTERPRISES IN KAKAMEGA COUNTY, KENYA for the period ending: 06/May/2022.

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