

**ADOPTION OF MOBILE BANKING AND FINANCIAL PERFORMANCE OF MICRO  
SMALL AND MEDIUM ENTERPRISES IN BUNGOMA COUNTY, KENYA**

**By**

**GEFFIN MUHANDACHI**

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REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS IN  
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**2020**

**DECLARATION**

This Research Project is my original work and has not been presented for an award of a degree in any other university or institution of learning.

Signature: ..... Date: .....

**Geffin Muhandachi**

**REG NO: D61/86213/2016**

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



Signature: ..... Date: ...30-11-2020.....

**DR. NIXON OMORO**

**DEPARTMENT OF FINANCE & ACCOUNTING**

**SCHOOL OF BUSINESS**

**UNIVERSITY OF NAIROBI**

## **DEDICATION**

This research project is dedicated to My loving husband Nelphat Mbatl and children Jaydon and Janice, my Dad Pius, Mum Janipher and friends who have stood with me, prayed, supported and walked with me through this journey. May God bless you all.

## **ACKNOWLEDGEMENT**

The process of formulating and designing this research project has been the most challenging and involving journey of my life and it could be unappreciative for me to finish without mentioning the support of important people. I owe my success to the University, my colleagues, family and my supervisor Dr.Nixon Omoro just to mention but a few for their continued support and advice. Specifically, I wish to acknowledge my supervisor for without his constructive critique of my work, I would not have made it this far. Despite his busy schedule, he could sacrifice his time and effort just to offer me technical and moral support. He has always been there to correct and guide me. I also give thanks to the almighty God for giving me a sound mind and good health to undertake this research project.

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## ABSTRACT

The main purpose of the study was to establish the relationship between adoption of mobile banking and financial performance of MSMES in Bungoma County. The specific objectives were to: determine effect of mobile payment on financial performance of MSMES in Bungoma County, establish influence of mobile credit on financial performance of MSMES in Bungoma County and to establish influence of mobile saving on financial performance of MSMES in Bungoma County. The study was guided by the technology acceptance model and diffusion of innovation theory. Descriptive research design was adopted. The study's population comprised of 470 retail traders/managers in Jua Kali sector (MSMES) in Bungoma town in Bungoma County. Using random sampling method, 148 retail traders were sampled. Data was collected using a questionnaire. Cronbach's alpha for internal consistency was used to test reliability. The analysis of data was done with the use of frequencies, percentages, means and standard deviation. The hypotheses were tested at 95% confidence level using regression analysis. The findings indicated that mobile payment helps the MSMEs in conducting business transactions and conducting purchase from other retailers. Besides, due to clear lending terms of digital credit, it is easier for the MSMEs to access loans from digital lenders. Also, mobile banking has afforded MSMEs the opportunity to deposit their saving conveniently using their mobile phones and access them whenever the need arises. The multiple regression analysis indicated that mobile payment had a positive and significant influence on financial performance of MSMES in Bungoma County ( $\beta = 0.872$ ,  $p < 0.05$ ). Similarly, mobile credit had a positive influence on financial performance of MSMES in Bungoma County ( $\beta = 0.717$ ,  $p < 0.05$ ). Moreover, mobile saving had a positive and significant influence on financial performance of MSMES in Bungoma County ( $\beta = 0.776$ ,  $p < 0.05$ ). The study recommended that, there is need to incorporate mobile payment and ensuring that the legal and technological structures adequately protect MSMEs from payment problems. Moreover, there is need for MSMEs to utilize their mobile phones to access credit to expand their business. Finally, it is important for MSMEs to utilize their mobile phones in depositing savings to their account so that they are in a position to grow their limit to the extent of borrowing more funds

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

Rapid global growth in mobile banking has made businesses in Kenya start attempting to gain a competitive advantage by using mobile banking in their financial transactions (Masocha and Dzomonda, 2018). The availability of mobile money transfer has transformed the way business is carried out. A promising element of mobile phone is that mobile networks can access off-lying places at reduced costs in turn facilitating financial transactions in a prompt and seamless fashion remotely given the availability of money service providers. It is simpler to make transfers at affordable charges (Chimaobi and Chizoba, 2011). According to Al-Jabri (2015), financial institutions are better placed to provide banking services virtually via mobile phones courtesy of mobile banking. This has also allowed for the clients to gain access to seamless and convenient financial facilities as well as other payments. Mobile banking additionally increase performance by allowing for quick and cost effective money transfer, increasing the magnitude of exchanges and reach in terms of funds for a huge pool of the unbanked in emergent nations.

Application of diffusion of innovation theory suggested that performance of banks can be improved by mobile banking amenities that are in line with several current user needs, past encounters, beliefs and lifestyles so as to meet client expectations. While Schumpeter's theory of innovation framework indicated that three sets vary considerably in terms of risk, usage, value, tradition as well as image barriers. Further, considerable links between adjudications of adoption with online banking experience, education level, type of device in possession as well as mobile internet exposure were highlighted as well. Thus, diffusion innovation theory was enacted with respect to this review to demonstrate how mobile banking usage diffuse among MSME to facilitate mobile payment, saving and mobile credit in lead to improved performance of MSME.

Micro enterprise dealers in Kenya have implemented the use of mobile banking to seamlessly handle several exchanges turning the cell phone into a mobile wallet. According to John, Gwahula and Msemwa (2018) the prompt proliferation of mobile funds transfer in Kenya was perceived as a promising fundamental agent for advancing monetary trades, enhancing the monetary efficiency

and tackle the crippled access to funds in Kenya among small establishments (a huge number being MSMEs companies) and the underprivileged persons with the potential financial access has in enhancing growth. However, what remains unknown is how adoption of mobile banking usage affects performance of informal sector in Bungoma County

### **1.1.1 Mobile Banking**

Anyasi&Otubu (2012) contend that M-banking otherwise Mobile banking is a phrase coined for carrying out banking transactions through mobile devices like tablets or cell phones to conduct banking transactions. Tiwari, Buse and Herstatt (2006) contend that mobile banking is any sort of correspondence that involves the transfer of rights to control or make use of facilities or goods, which is started and/or cleared via remote access to various networks. This is made possible using automated devices for instance mobile phones or tablets. Based on Nasikiye (2009), M-banking involves the use of a mobile phone or any computerized device to conduct monetary transactions linked to a client account. In the banking industry, advancements in information technology have stirred a grand impact in generation of more versatile remuneration means as well as more user-oriented banking facilities (Akinci, Aksoy, &Atilgan, 2014). In Malaysia, mobile banking has been embraced using mobile phones whereby customers can transact using mobile phone devices without necessarily visiting physical banks (Razak, 2013). The situation is no different in South Africa where, banks have entered into affiliations with mobile device operators to provide mobile banking services in terms of mobile payments, depositing money in personal accounts, withdrawing from accounts, short-term loans and payment of bills among others (Makee, 2014). This trend has seen mobile bank providers continue to invest in the m-banking facilities for successful delivery of mobile banking amenities to the low earning market (MTN, 2013).

Effective mobile banking proliferation has been seen in Africa as well as South Asia. Sub-Sahara Africa had more exclusive users as compared to Latin America towards the end of 2014, making the region third after Asia Pacific and Europe. Rouse &Verhoef, (2016) contends that by late 2015, SSA exclusive subscribers had expanded from 200 million in 2010 to 386. Recently, The Africa Development Bank (2017) estimated that integration of mobile money Africa countries especially sub-Saharan have surpassed expansion in the rest of the globe. The report signals a growing trend for M banking on the continent.

### **1.1.2 Financial Performance**

The financial performance measures of micro-enterprises vary widely. In his Amrina and Vilsa (2015) profitability and growth were discovered to be the two performance aspects regularly utilized in the empirical review. The performance indicators that were employed in contemporary enquiry are: Efficiency indicators, for instance return on assets (ROA), were often employed. Growth indicators, for instance sales growth, were taken up by two thirds of the review The latter, nevertheless, was employed more often in modern research, whereas return on investment (ROI) was more often employed a decade ago and more abstract and discretionary indicators for instance; client satisfaction and managerial satisfaction were employed contrary to a decade ago.

There are several deliberations on whether some indicators fit small and medium enterprises. For instance, several experts employ the indicators of ROI, ROE or ROA to evaluate micro and small firm's productivity. However, research had indicated that self-declared return estimates are not completely viable, and it implied that such indicators were not ideal for micro- and small organizations (Anning-Dorson, 2018). Profitability is a critical aspect of financial performance. In the view of administration, profitability reflects on the effectiveness with which the management has utilized net and total assets registered on the balance sheet. Therefore, the research employs quantitative performance measures since they usually used according to Tattichi et al, (2018) Micro-enterprises production like efficiency, marketing (clientele size) and the magnitude of products sold, operating expenses ratio). The research additionally employs qualitative performance indicators for instance profitability, effectiveness as well as goals attainment.

### **1.1.3 Relationship between Mobile Banking and Financial Performance**

Micro business entrepreneurs see mobile banking as a helpful and savvy method for money conveyance to their suppliers and business accomplices (Raddi, 2013). Due to their unique characteristics most financial service providers have always denied the micro enterprises a chance to secure a loan from banks as they are perceived as high risk (Callon, 2015), and therefore mobile bank services have been a game changer because the enterprises can now access short term loans through their mobile phone devices (Joseph, 2015). The development, expansion and growth of

mobile banking practices was a turning point to micro businesses, which otherwise could not be well carried out by commercial banks. Banked individuals get the opportunity to access their accounts via their mobile phone.

Boateng (2015) discovered a positive correlation between mobile banking credit and the standard variables and suggested training for grantees to ascertain systematic use of finances and generation of logical substantial economic and political surroundings so that micro enterprises can thrive. Ouma & Rambo, (2013) found that access to mobile bank credit was fundamentally linked with net profit, liabilities, and sales including number of compensated personnel. Therefore, availability of mobile bank credit caused positive implications on the advancement of female-run companies. According to Kalio (2014) the main objective of mobile bank credit is to improve the performance of micro businesses due to improved access to small loans that the formal financial institutions fail to provide. It is asserted that inadequate admittance to credit by the destitute just under or just above the poverty line may carry negative implications for micro enterprises and general wellbeing.

Rogers, (2014) contends that mobile banking has considerably advanced the availability of financial facilities to the MSMEs within Kenya (Rogers, 2014). In 2011, Kenya became one of the first countries in Africa to introduce mobile loans (certified government auditing professional CGAP, 2014). M-Shwari, a subsidiary of the market-leading Kenyan telecoms company Safaricom in partnership with the Commercial Bank of Africa (CBA) dominates the market with one in five Kenyan adults holding an account. There are more than 100 mobile-based lenders currently operating in east Africa (CGAP, 2014).

#### **1.1.4 Micro and Small Medium Enterprise in Bungoma County**

Based on the Kenya National Bureau Statistics (2005), more than 5,970,600 people in Kenya are hired in MSMEs, this comprises of 19% of the whole Kenyan demography (Chug, 2006). The reason behind this is raising an establishment in this field calls for minimal financing and it is not systemized. According to Nyangori (2012), the MSMEs industry has continuously grown in turn morphing into a critical sector within the nation's economy in addition to generating the better part of new employment openings. Malice (2014) attests that 98% of all establishments in the state

are composed of MSMEs, accommodating a good count of schools, university and college leavers. Based on Bowen et al (2009), over 50% of freshly ensuing employment prospects in 2005 were brought about by MSMEs. Owing to that, increasing development, invention and prosperity is a very critical part played by SMEs.(Dahlberg, 2011). Hence this industry is critical due to the cardinal part it plays the advancement of the Kenyan economy and as such can never be sidelined.

Mbiti, (2015) contends that Micro businesses are a party to small semi-structured and in some cases ungoverned operations that are predominantly fixated in urban in addition to some parts of the rural places (Mbiti, 2015). Muhammad Yunus pioneered the concept of micro enterprises in 1976 in Bangladesh (Corbitt, 2013). His idea was to help poor women to become economically self-sufficient and end poverty. Micro business is any enterprise, with less than 50 employees and includes sole enterpriser, home-based or part-time bodies (Escobari, 2013). Micro-enterprises play a critical role in the economic advancement of both emergent and first world nations and knowledge into how they thrive is worth looking into. Over the past twenty years, micro, small and medium sized companies have since been the number one source of job creation globally. Concurrently admittance to funding persists to be the biggest impediment for the generation, sustenance and advancement of MSMEs, particularly inventive ones. As a result, great focus has been put on the fundamental aspects that influence the growth and prosperity of MSME.

## **1.2 Research Problem**

A highly performing micro, small and medium enterprises (MSMEs) industry plays a significant role to the country's economy, furthering the gross domestic product (GDP) through alleviating levels of destitution and advancing entrepreneurial practice. Thus, enhancing sustainable performance among MSMEs is fundamental. In the current extremely adaptive corporate setting, firms are forced to formulate new viable performance to match the speed of technological advancements as well as international contention. In this challenging undertaking, SMEs can all the more gain from ingenious approaches and instruments, since it assists firms to advance their combative endowment by heightening their productivity as well as efficacy (Goksoy & Alayoglu, 2013).

As attested by the Kenya economic survey, (2009) despite all these inferences, Micro-enterprises are yet to gain in terms of growth. Current statistics demonstrate that out of five establishments, three fail during the first year of running (Kenya National Bureau of Statistics, 2017). Ordinarily, it is deemed that MSMEs experience exceptional issues, which impact their augmentation and profitability and therefore, reduce their capacity to successfully play a part in sustainable development. Most of the challenges highlighted have disapprovals for technology decisions. Such issues entail dearth of access to both credit and technology. It is in this line that this study was conducted in order to investigate the contribution of mobile banking services to the performance of Micro-enterprises In Bungoma County.

Many studies have been steered to establish the effects of mobile banking on MSMEs and other larger corporations in Kenya. Kigen (2011) analyzed the influence mobile banking bears on transaction charges of microfinance organizations where he discovered that at the time, mobile banking had significantly minimized transaction expenses, although the greatest impediment was small customer base that had subscribed to mobile banking. Using Secondary data and a causal research design, Mwange (2013) states that Mobile Banking had an average impact on commercial banks' profitability in Kenya. In their review, Aduda and Kingoo (2012) looked into the relationship between performance of commercial banks in Kenya measured in terms of profitability and internet banking. The study demonstrated that mobile banking strongly and significantly affects performance (RoA) of banks in Kenya. Nonetheless it remained uncertain concerning the role played by particular banking facilities for instance savings, mobile payment and access to credit to the performance of Micro-enterprises in Bungoma County. Therefore this study intends to fill this gap. Based on the above the study raised the following questions; what is the effect of mobile payment on financial performance of MSMEs Bungoma County? what is the influence of mobile credit on financial performance of MSMEs in Bungoma County? And establish influence of mobile saving on financial performance of MSMEs in Bungoma County?

### **1.3 Research Objectives**

The general aim of this study was to establish the relationship between adoption of mobile banking and financial performance of MSMEs in Bungoma County. The specific objectives were;



- i. To determine effect of mobile payment on financial performance of MSMES in Bungoma County
- ii. To establish influence of mobile credit on financial performance of MSMES in Bungoma County
- iii. To establish influence of mobile saving on financial performance of MSMES in Bungoma County

#### **1.4 Value of the Study**

The study is of benefit to different business partners. The owners of Micro-enterprises would understand the roles played by mobile banking and come up with appropriate strategies to augment the merits of mobile banking. Financial firms in Kenya would utilize the results of this enquiry to formulate guidelines to further development of new provisions in mobile banking as well as deliver a wider variety of facilities required by Micro-enterprises in Kenya. The Kenya Government would utilize the results of this research to develop policies that regulates the business operations between the Micro-enterprises and the service providers. Scholars would use the results of the study in their researches.

In addition, the academicians would also be able to appreciate syllabus on the linkage between financial performance of MSMEs and mobile banking. Future researchers in the same field of study would be provided with information for future research in the same area under study and also they would be able to use the study as a point of reference.

From a hypothetical point of view, this research facilitates insight betterment in both departments of linkage between financial performance of MSMEs and mobile banking by providing an outline of the mobile banking in the innovative banking industry. From an administrative perspective, it enables financial institutions to aim their operations and techniques more successfully.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter provides various scholars and researchers discussions on the adoption of mobile banking usage and financial performance of MSMES. The chapter examines the concepts and theories on adoption of mobile banking and mobile banking usage. The chapter also gives empirical review of mobile banking usage and financial performance of MSMES.

#### **2.2 Theoretical Framework**

Uma and Sekeran (2010) defined a theoretical framework as a conceptual model that theorizes or makes logical sense of the associations among the various variables highlighted as key to the issue under scrutiny. The theory flows rationally from the documentation of past studies in the area of contention through highlighting the philosophies linked to the review. This research was informed by the agency and the institutional notions further the evaluation of these philosophies relates them to the review and disclose current study disparities. These theories entail; Technology Acceptance Model theory and Diffusion of Innovation Theory- by Everett Rogers (1995)

##### **2.2.2 Technology Acceptance Model**

According to Davis et al., (1989), Pavlou, (2003), The TAM has been acknowledged as the most dynamic, parsimonious as well as powerful model in innovations acceptance behavior, and as such, this theoretical model is taken into account as a base for the purpose of the current research. The TAM model expresses outlook towards the use of new innovation as a concept elaborated by two perceived variables: ease of use and usefulness. In Technology Acceptance Model (TAM) nevertheless, only a small number of enquiries have focalized on the elements that affect the acceptance of these mobile apps from a holistic approach with the incorporation of various principles affiliated with the theory of trust and perceived security risk(LiébanaCabanillas, 2012, Liébana-Cabanillas et al., 2014a, Liébana-Cabanillas et al., 2014b). Based on (Featherman and Pavlou, (2003), Aldás et al., (2011), perceived security risk is comprised of a multifaceted

concept that generates from an array of diverse determinants that elaborate the total contingency that is involved in the adoption of a specific service, innovation or otherwise purchases. Zimmer et al., (2010) contended that a number of analyses conducted had established that attitude is negatively impacted by perceived risk and as such, the innovation of mobile or otherwise, wireless systems for payment. (Liébana-Cabanillas et al., 2014a, Liébana-Cabanillas et al., 2017, Slade et al., 2015). Thus, the security of the proposed payment system should be upgraded to protect users from malware, hackers, fraudsters, viruses, and identity theft. As it relates to legislation, there is a need to apply new transactions and cultural methods that are constantly changing, the government. Mobile payment security features should be apparent to the potential adopters in order to alleviate their fears

### **2.2.3 Diffusion of Innovation Theory- by Everett Rogers (1995)**

Diffusion can be defined as a “financial that communicates an innovation thru precise channels amongst the humans of a social system.” New innovations adoption financial usually starts with a tiny extent of innovators in accordance to Rogers' DoIThery (Rogers, 2003). Rogers (2003) argued that upgrades imparting larger relative merit, tradability, compatibility, observability and simplicity are promptly appropriated as compared to particular technologies. Rogers argues that adopting new technology is difficult especially when it has apparent advantages thus there is need to consider all elements of adopting new technology which speed the diffusions of new innovation.

Rogers (1995) identified 5 quint essential elements that fundamentally impacted the adoption rate. These entail observability, complexity, relative advantage, triability and compatibility. Rogers asserted that cost of adoption of new advancements will be contingent on how a commercial enterprise deems its observability, complexity, relative advantage, triability and compatibility. The relevance of the philosophy to the review lies on the fact that if an establishment in Kenya perceives the merits of cellphone and online banking they implement these advancements with consideration to various aspects like the accessibility of the needed instruments. Integration of such advancements is faster in firms that have internet attain access to and records innovative wherewithal sectors as opposed to companies without.

### **2.3 Review of Empirical Literature**

This part reviews the empirical studies on the relationships among mobile banking aspects (mobile payment and mobile credit). Further, this section provides summary of empirical studies with their gaps identified. Finally, a conceptual framework is presented.

Mallat (2017) while studying consumer usage of mobile payments used six focused groups' sessions, examined client acceptance of a new mobile facility in Finland. The review established that mobile transactions supported minimal value cash payments and were more in sync with computerized devices and amenities procurements. This review, nonetheless, implied that some circumstantial impediments such as lack of other remuneration methods or urgency of the facility affected the merits yielding from mobile payments. In this review, among the implied merits gotten from using mobile payments are remote purchases, no queueing, place, independence time and accessibility, the research indicated a number of barriers to the acceptance of mobile payments. These include; high payment costs, complex payment procedures, limited widespread merchant acceptance, and perceived risks. However, this study shows how different practices of mobile banking which are mobile payment, mobile credit and mobile savings affect performance of MSMEs. Further, this study was majorly on qualitative approach.

Schierz, Schilke and Wirtz (2015) revealed that in Germany, mobile technology usage has become part of users' daily life. Irrespective of this, mobile payment is remarkably one of the seldom utilized mobile facilities, since mobile payment facilities have not been completely endorsed by the customers. The review by Schierz, Schilke and Wirtz was centered on variables impacting user's endorsement of mobile payment services. The findings of the review shone a light on fundamental implications of compatibility, biased norm and personal mobility. The study recommended more effort in marketing of mobile payment services to attract clients' perceptions to the technology. Nevertheless, Schierz, Schilke and Wirtz did not give empirical evidence on how mobile banking affect performance of small firms such as MSMEs and their arguments was based on developed nations but not on emerging economies like Kenya.

Suri & Jack (2016) found that mobile money increased the savings behaviors and financial resilience behaviors of female-headed households where majority of the women reported using

their savings to change their occupational choice from agriculture into business. These findings indicate that mobile money can positively affect the saving behaviors of women. Survey results from Burkina Faso also showed that mobile money use increased the propensity to save for emergency purposes among low-educated, rural residents, low-income earners, female and irregular income earners (Ky, Rugemintwari&Sauviat, 2017). However, the study found no statistically significant correlation between using mobile money and the likelihood to save for future predictable event. Despite their studies showing no link between use of mobile money and saving. There was descriptive evidence on increase of saving by small firms owned by women through use of mobile money

Sibiu (2015) looked into mobile money trade and the amplification of SMEs in Kenya, a case study of Kyushu city, Kenya. The review provided that mobile money reported significant influence on the SME industry. Thus, the review fulfilled its aims and gained overarching perception emanating from the service usage availed by mobile money by SMEs. Pertaining to the conceptual framework, mobile money transactional charges as well as financial accessibility have an influence on the advancement of SMEs.

Ngaruiya, Bossier and Kama (2014) investigated the implications of mobile money transactions on SME performance, profit-wise in within Nauru CBD. The objective of the review was to ascertain the implications of mobile money transactions on SME financial success in Nauru CBD. The study design employed was descriptive type. Out of 640 enterprises, 120 were selected through purposive sampling method. As for data collection, survey approach was used. The research outcomes showed that transactions through mobile money considerably impacted sales returns

Mbogo (2010) applied theory of Technology Acceptance Model (TAM) on his research on the influence of mobile payments on the success and proliferation of micro-enterprises within Kenya. The TAM model was expanded to entail other aspects with the capacity to speculate prosperity and traction in small enterprises, The review showed that endorsement of mobile money transaction innovation and its implicating aspects for instance, convenience, cost, accessibility and security were linked to observed utility and actual utility by the MSMEs to improve their success

and hence growth. The study only used descriptive statistics which do not concluded the causal effect relationship between mobile banking and performance of MSMEs.

## **2.4 Summary of Literature Review**

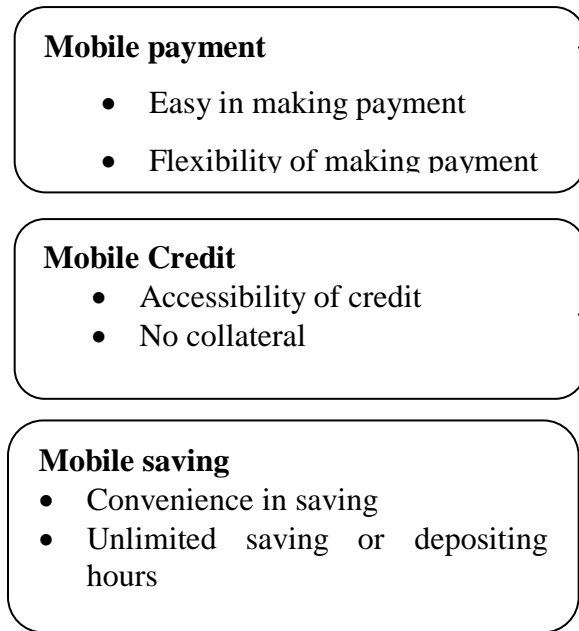
Mobile banking facilities have undergone grand advancement and augmentation in the recent years and it is evolving into a predominant agent for social and economic advancement in several nations inclusive of Kenya. Although some MSMEs have integrated mobile money in their operation, very little is understood on enterprise in MSMEs (micro enterprises). Jenny & Mite (2010) contend that irrespective of implications by recent research that m-banking admittance positively affects business performance, empirical proof of MSMEs is insufficient. Minimal enquiry has been conducted on extent to which mobile banking practices influence the financial performance of MSMEs Kenya and this brings us to the purpose of this research. The current study attempts to determine how mobile money have been adopted by MSMEs and how it affect their financial performance in Bungoma County so as to seal the current disparity in review.

## **2.5 Conceptual Framework**

Drawing from previous studies the independent variables in the study were mobile payment, mobile lending and mobile money saving which are assumed to relate with performance of businesses in MSMEs (dependent variable). The conceptual framework is presented in Figure 2.1. From the below diagrams the study anticipate that mobile payment, mobile lending and mobile money saving are likely to influence performance of businesses in MSMEs either positively or negatively

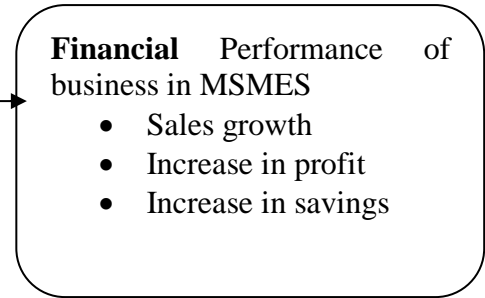
**Independent Variables**

**(Mobile banking)**



**Dependent Variables**

**(Financial Performance of business in MSMES)**



**Figure 2.1 Conceptual Model**

Source: Researcher (2020)

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

This section encompasses the study design, target demography, sample size as well as sampling techniques, data collection technique, validity and reliability of data, data analysis and presentation, ethical issues and eventually the expected outcomes.

#### **3.2 Research Design**

This study employed descriptive study design. Descriptive study design is employed to elaborate attributes of a demography or event under analysis. According to Creswell (2013), it does not solve the query concerning how/when/why the attributes evolved. The research's result in a profile generation of an occurrence or a cluster of people through acquisition of inclusive and probable precise data.

Therefore, a descriptive location out about would show up at what is going on, while an explanatory discover out about seeks to grant an clarification for why it is going on (Sekaran, 2003). Descriptive survey lookup format is crucial specifically when the researcher uses a structured questionnaire and interview agenda to accumulate first hand data. This layout is satisfactory for investigating impact of mobile banking on financial performance of MSMES.

#### **3.3 Study Population**

The population is comprised of retail traders/managers in Jua Kali sector (MSMES) in Bungoma town in Bungoma County. According to Bungoma County information there are 470 Traders in Jua Kali sector in Bungoma market, (Ministry of Trade, Bungoma County, 2019).



**Table 3.1: Target Population**

	<b>Population (owners/managers of business )</b>
Micro enterprise	280
Small enterprise	137
Medium enterprise	53
<b>Total</b>	<b>470</b>

**Source (county company Registrar records, 2019)**

### **3.4 Sample Design**

From the goal populace of 470 retail traders Taro Yamane (1973) pattern size formulation was used to pick a pattern dimension of 148 retail traders as shown below;

$$n = \frac{N}{1 + N e^2} = \frac{470}{1 + 470_{0.05^2}}$$

$$= 148$$

Where:

n = Sample size

N = Population size

e = the error of Sampling

This review provided for the error of sampling on 0.05. Thus, sample size used 148 retails traders. The sample measurement was allotted in accordance to Neyman (1934) allocation formula. The motive of the technique was to maximize survey precision, given a constant pattern size. With Neyman (1934) allocation, the nice sample dimension for stratum h would be

$$n_{h=} \left( \frac{N_h}{N} \right) n$$

Where,

$n_h$  - The sample size for stratum  $h$ ,

$n$  - Total sample size,

$N_h$  -The population size for stratum  $h$ ,

$N$  - The total population

Hence, distributions were as follows;

owners/managers of the sampled retailers were random selected using random walk technique.

### **3.5 Data Collection**

Structured questionnaires were used to collect primary data. The questionnaire was subdivided into 5 parts which includes section: demographic information: section B; mobile money payments, section C; mobile money credit, section D; mobile money savings and Section E which entails financial performance of MSMEs. This research used an attitude scale i.e. 1=strongly disagrees to 5= strongly agree, in ranking the different feedback. The interviewees are expected to read, comprehend and tick a relevant choice. The respondents consisted of traders, managers/owners in Bungoma market.

A pilot study was carried out to ascertain the relevance, clarity and accuracy of the question items. This review executed the content validity as an indicator of extent to which data was gotten from. The analyst provided a replica of the survey to an expert panel to verify if it represents all the research problems being reviewed. In this work, construct validity was ensured by deriving the innovation financial strategies and credit accessibility from existing literature

An instrument is said to be reliable if it provides consistent results (Kothari &Garg, 2014). Reliability of the study was checked through the computation of cronbach's alpha coefficient. The measure is used to check for homogeneity or internal consistency among variables (Kumar, 2011). Cronbach's alpha coefficient higher than 0.7 be considered as acceptable for the study.

Under this study, the researcher assisted to access some information from the informants, which are the managers of micro, small and medium enterprises in Bungoma market whom were relied upon. The respondents were told the importance of the study so that they can give genuine response. Confidentiality was assured in that the information they gave was used purposely for this study. A Self-administered questionnaire was collected from the respondents after a period of one week to check for completeness and analyzed.

### 3.6 Data Analysis

Data collected was subjected for cleaning and screening. After which descriptive statistics such as mean, standard deviations, frequencies and percentage were analyzed by aid SPSS (Statistical Package for Social Science). Descriptive methods have been used in carrying out analysis of qualitative records where percentages and frequencies was employed once in interpreting the participant's understanding of issues raised in the surveys in a bid to provide solutions to the lookup questions. Descriptive statistics like standard deviations, frequency distribution, probability and percentages were computed and data introduced in form of tables. Inferential information was employed to arrive at conclusions from the data pertaining to the regression model. Multiple regression model employed in this review is provided as;

$$y_1 = \alpha_e + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \varepsilon_i$$

$y_1$ =performance of SMEs

$\alpha$  = constant.

$\beta_1 \dots \beta_5$ = the slope which represents the magnitude to which MSME access credit changes as the independent variable shift by one-unit variables.

$x_1$ =mobile payment

$x_2$ = mobile credit

$x_3$ = mobile saving

$\varepsilon$  = error term

## CHAPTER FOUR

### DATA ANALYSIS AND RESULTS

#### 4.1 Introduction

The broad objective of the study was to establish the relationship between adoption of mobile banking and financial performance of MSMES in Bungoma County. For this to be attained, three specific objectives were set. The chapter provides preliminary findings of the enquiry based on which further assessments were to be carried out for the purpose of testing the research objectives. It shed light on the different tests of data that were collected in addition to the representations of the research variables among the companies looked into. The specifics of descriptive analysis by use of frequency distribution tables as well as descriptive statistics using standard deviation and means. The findings of the descriptive statistics are summarized according to themes.

#### 4.2 Suitability of the Data

Suitability of the data in this study was determined by assessing the response rate for the participants as well as a reliability test. The results are presented in the sections that follow.

##### 4.2.1 Response Rate

The population for the study comprised of retail traders/managers in Jua Kali sector (MSMES) in Bungoma town in Bungoma County. Questionnaires were sent to all the 148 retail traders out of which 100 questionnaires were filled and returned translating to a sixty-eight percent (68%) response rate. According to, Mugenda and Mugenda (2003) and Saunders, et al., (2007), a 50% response rate is considered adequate, while 60 percent is found to be good and 70 percent being very good. In line with this, the 68% response rate was regarded ideal for making conclusions on the present research.

##### 4.2.2 Reliability Test

The study adopted the internal consistency measure referred to as the Cronbach's alpha ( $\alpha$ ) to measure test data reliability. A co-efficient value above 0.7 implied that the research instrument was reliable hence the researcher could proceed to using it in the final stage. Based on the reliability findings presented in Table 4.1 below, the study determined that the research instrument attained

the acceptable level of reliability as all the scores were 0.7 and above.

**Table 4.1 Reliability Statistics**

<b>Category</b>	<b>Cronbach's Alpha</b>	<b>No of Items</b>
Mobile Payment	.755	7
Mobile credit	.901	5
Mobile saving	.932	6
Performance of MSME	.934	5
<b>Average</b>	<b>.884</b>	<b>8.8</b>

**Source: Researcher (2020)**

### **4.3 Demographic Information**

The demographic information or characteristics concerning the unit under investigation gives the researcher a glimpse into other factors other than the main factors which are or might be acting as confounders in a given phenomenon and which might determine the direction of the relationship between the main factors under investigation. Variables included here are highest education attained, work experience and the number of employees.

**Table 4.2 Demographic Information**

		<b>Freq</b>	<b>%</b>
Highest education Level	Certificate	36	36
	Diploma	39	39
	Bachelor Degree	15	15
	Post graduate degree	10	10
	<b>Total</b>	<b>100</b>	<b>100</b>
Work experience	1-5 yrs	20	20
	6-10 yrs	38	38
	11-15 yrs	30	30
	16-20 yrs	12	12
	Above 20	0	0
	<b>Total</b>	<b>100</b>	<b>100</b>
No of employee	1-50	71	71
	51-100	29	29
	101-150	0	0
	151-200	0	0
	Above 200	0	0
	<b>Total</b>	<b>100</b>	<b>100</b>

Regarding highest education level attained, 39% of the respondents have a Diploma, 36% Certificate level of education, 15% Bachelor degree and 10% post graduate degree. The implication is that majority of the retail traders have Diploma level of education meaning that majority of those with a Diploma were not absorbed in the formal employment. Consequently, they employed themselves through MSMES.

The study put into account the work experience of the retail traders. As evidenced in the table, 38% of the respondents have worked for a period ranging from 6 to 10 years, 30% for 10 to 15 years and 20% for 1 to 5 years. The analysis shows that most of the retail traders have a working experience of over 5 years and this provided responses based on a wider knowledge base.

Finally, 71% of the retail traders noted that their MSMES has between 1 to 50 employees and 29% between 51 to 100 employees. Generally, majority (71%) of the MSMES are small in size. As a result, this may be an impediment since the small size can constitute a barrier to the extent the small firms can access human, technical and financial resources.

#### 4.4 Descriptive Statistics

The dependent variable of the study was performance of MSMES in Bungoma County, therefore the participants were called upon to provide feedback to a set of questions that are affiliated with this variable. The results are provided and discussed in depth in the section that follows.

##### 4.4.1 Mobile Payment

Mobile payment refers to money payment made for a product or service through a portable electronic device such as a tablet or mobile phone. To ascertain the effect of mobile payment of MSMES in Bungoma County, the participants were to rank their degree of agreement or disagreement with the assertions that relate to the effect of mobile Payment on financial performance of MSMES on a scale of 1 to 5 where; 1- SA, 2- D, 3- N, and 4- A and 5-A. Table 4.3 illustrates the results.

**Table 4.3: Mobile Payment**

		SD	D	N	A	SA	Mean	Std. Dev
Using mobile payment improves my performance in conducting purchase	%		11	60	14	15	3.33	0.87
Using mobile payment makes it easier for me to conduct my business transactions	%	1	3	23	64	9	3.77	0.69
I would find mobile payment useful in conducting purchase from other retailers	%	3	8	18	59	12	3.69	0.90
I feel confident that mobile banking makes it safe for me to use mobile payment.	%		2	17	71	10	3.89	0.58
I feel assured that legal and technological structures adequately protect me from payment problems on the mobile banking	%	8	4	11	61	16	3.73	1.04
I can use mobile banking from anywhere.	%		1	49	40	10	3.59	0.68
I can use mobile payment at any time.	%	2	2	50	33	13	3.53	0.82
<b>Mobile Payment</b>							<b>3.58</b>	<b>0.39</b>

Based on the findings in Table 4.3, 60% of the respondents were not sure if using mobile payment improves their performance in conducting purchase (mean = 3.33, SD = 0.87). As well, 64% of them were in agreement that using mobile payment makes it easier for them to conduct their business transactions (mean =3.77, SD = 0.69). The implication is that mobile payments facilitate

MSMEs business transactions. Further, 59% of them would find mobile payment useful in conducting purchase from other retailers (mean = 3.69, SD = 0.90).

Further, 71% of the respondents confirmed that they feel confident that mobile banking makes it safe for them to use mobile payment (mean = 3.89, SD = 0.58). Moreover, 61% of them agreed that they feel assured that legal and technological structures adequately protect me from payment problems on the mobile banking (mean = 3.73, SD = 1.04).

Similarly, they can use mobile banking from anywhere (mean = 3.59, SD = 0.68). As well, 33% of the respondents agreed that they can use mobile payment at any time (mean = 3.53, SD = 0.82). Overall, the findings on mobile payment summed up to a mean of 3.58 and standard deviation of 0.39. The findings suggest that the respondents were in agreement with most of the items on mobile payment.

Notably, mobile payment makes it easier to conduct business transactions and is useful in conducting purchase from other retailers. Moreover, mobile payment is useful in conducting purchase from other retailers. Besides, mobile banking makes it safe to use mobile payments. As well, there is an assurance that legal and technological structures adequately protect retail traders from payment problems on the mobile banking. The other advantage is that mobile payment can be used from anywhere and at any time. Consistently, a study conducted by Mallat (2017) which indicated that mobile transactions supported minimal value cash payments and were more in sync with computerized devices and amenities procurements.

#### **4.4.2 Mobile Credit**

Mobile credit makes it possible for users to borrow a specific amount of money that they consent to payment within a stipulated duration. The study sought to establish mobile credit of MSMEs in Bungoma County. Participants were requested to highlight the degree of agreement with assertions associated with the effect of mobile credit on financial performance of MSMEs using a five-point likert scale where 1- SA, 2- D, 3- N, and 4- A and 5-A. Table 4.3 illustrates the results.



**Table 4.4: Mobile credit**

		<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>Std. Deviation</b>
I use mobile to access loan from digital lenders	%	2	2	15	78	3	3.780	0.629
Mobile credits is easy to assess	%	1	15	11	73	0	3.930	0.590
There is clear lending terms of digital credits	%	1	3	12	74	10	3.890	0.650
The introduction of mobile credit services has improved my business stock	%	17	11	12	48	12	3.270	1.302
Due to mobile credit am able to order for good as per the customer request anytime	%	13	9	17	50	11	3.370	1.195
<b>Mobile credit</b>							<b>3.646</b>	<b>0.426</b>

**Source: Researcher (2020)**

Basing on the findings in Table 4.4, 78% of the respondents confirmed that they use their mobile to access loan from digital lenders (mean = 3.780, SD = 0.629). Besides, 73% agreed that mobile credit is easy to access (mean = 3.930, SD = 0.590). As well, 74% of the respondents ascertained that there are clear lending terms of digital credits (mean = 3.890, SD = 0.650). Further, 48% of them noted that the introduction of mobile credit services has improved their business stock (mean = 3.270, SD = 1.302). The results suggest that the MSMEs have not optimally utilized mobile credit stock their business. As well, 50% of the respondents confirmed that due to mobile credit, they are able to order for goods as per the customer request anytime (mean = 3.370, SD = 1.195).

Generally, the findings on mobile credit summed up to a mean of 3.646 and standard deviation of 0.426. The implication is that the respondents were in agreement with most items on mobile credit. Notably, the retail traders use their mobile phones to access loans from digital lenders. As such, mobile credit is easy to access and there are clear lending terms of digital credits. There are however gaps with mobile credit has improved the businesses' stock and if mobile credit has made it possible to order for goods as per the customer request anytime.

### 4.4.3 Mobile saving

Mobile saving offers dedicated saving facilities form MSMEs through mobile phones. The study therefore deemed it important to establish mobile saving of MSMEs in Bungoma County. Participants were requested to highlight the degree of agreement with assertions associated with the effect of mobile saving on financial performance of MSMEs using a five-point likert scale where 1- SA, 2- D, 3- N, and 4- A and 5-SA.

. Table 4.5 illustrates the results.

**Table 4.5: Mobile Saving**

		SD	D	N	A	SA	Mean	Std. Dev
Am able to deposit saving to my account using mobile phone	%	12	21	5	2	60	3.77	1.59
I can save money in my mobile phone anytime anywhere	%	1	10	61	13	15	3.31	0.88
Am able to access to savings through mobile money	%	2	3	27	58	10	3.71	0.77
By use of till number or my sales go direct to my account which increase my savings	%	5	6	27	55	7	3.53	0.90
M-shwari savings has increased my loan limit	%	5	1	19	71	4	3.68	0.79
I can easily access my saving anytime from using my mobile phone	%	4	1	18	62	15	3.82	0.84
Mobile saving							3.48	0.41

As highlighted in Table 4.5, 60% of the respondents strongly agreed that they are able to deposit savings to their account using the mobile phone (mean = 3.77, SD = 1.59). However, 61% are not sure if they can save money in their mobile phone anytime and anywhere (mean = 3.31, SD = 0.88). Further, 58% of them agreed that they are able to access savings through mobile money (mean = 3.71, SD = 0.77). Moreover, 55% of the respondents noted that by use of till numbers, their sales go direct to their account which increase their savings (mean = 3.53, SD = 0.91).

Further, 71% of the respondents confirmed M-shwari savings has increased their loan limit (mean = 3.68, SD = 0.79). Also, 62% of the respondents agreed that they can easily access their saving anytime from using their mobile phone (mean = 3.82, SD = 0.84). Generally, the items on mobile saving summed up to a mean of 3.48 and standard deviation of 0.41. It implies that most of the

respondents were agreeable on the items on mobile saving. Overall, the retail traders are able to deposit saving to their account using mobile phone and are able to access to savings through mobile money. Besides, with the use of a till number, their savings go direct to their account which increases savings. Besides, M-shwari savings has increased my loan limit. Other than that, they can easily access their savings anytime from using their mobile phone. Consistent with the results, Rugemintwari and Sauviat (2017) confirmed that the use of mobile money increased the propensity to save especially among low-income earners.

#### 4.4.4 Performance of Micro Small and Medium Enterprises

This section of the analysis highlights the results on the financial performance of MSMEs in Bungoma County. Participants were requested to highlight the degree of agreement with assertions associated with the financial performance of MSMEs using a five-point likert scale where 1- SA, 2- D, 3- N, and 4- A and 5-SA. Table 4.6 illustrates the results.

**Table 4.6: Performance of Micro Small and Medium Enterprises**

		SD	D	N	A	SA	Mean	Std. Deviation
Customer retention	%	3	2	27	57	11	3.710	0.808
Sales growth	%	11	6	25	50	8	3.380	1.090
Guests comments on survey forms/mails/online indicate likelihood to return	%	6	2	14	69	9	3.730	0.886
Guests levels of complains are manageable	%	2	8	28	48	14	3.640	0.894
Customers are satisfied with the services offered to them	%	8	2	14	65	11	3.698	0.963
Performance							<b>3.682</b>	<b>0.512</b>

As highlighted in Table 4.6, 57% of the respondents agreed that there is customer retention (mean = 3.710, SD = 0.808). Moreover, 69% of them agreed that guests' comments on survey forms/mails/online indicate likelihood to return (mean = 3.730, SD = 0.886). Besides, 48% of them agreed that guest levels of complains are manageable (mean = 3.640, SD = 0.894). As well, 65% of them agreed that customers are satisfied with the services offered to them (mean = 3.698, SD = 0.963). However, there is doubt if there is a sales growth (mean = 3.380, SD = 1.090). This is

because there is average performance of MSMEs. The findings on the financial performance of MSMEs summed up to a mean of 3.682 and standard deviation of 0.512.

## **4.5 Inferential Analysis**

This section presents the findings for the inferential statistics namely; correlational and regression.

### **4.5.1 Correlations of the Study Variables**

Pearson correlation coefficient was undertaken to examine the strength and direction of the linear relationship between the study variables. . Table 4.7 illustrates the correlation matrix among the independent variables. From the findings in Table 4.7, the relationship between mobile payment and financial performance of MSMEs was found to be positive and significant,  $\rho = 0.872$ ,  $p$ -value = 0.000. Furthermore, the relationship between mobile credit and performance of financial performance of MSMEs was found to be positive and significant,  $\rho = 0.717$ ,  $p$ -value = 0.000. Furthermore, the findings also showed that the relationship between mobile saving and financial performance of MSMEs is positive and significant,  $\rho = 0.776$ ,  $p$ -value = 0.000. Finally, the inter-factor relationships showed that there were significant and positive relationships.

**Table 4.7: Correlation Analysis**

		Performance	Mobile Payment	Mobile credit	Mobile saving
Performance	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	100			
Mobile Payment	Pearson Correlation	.872**	1		
	Sig. (2-tailed)	0.000			
	N	100	100		
Mobile credit	Pearson Correlation	.717**	.681**	1	
	Sig. (2-tailed)	0.000	0.000		
	N	100	100	100	
Mobile saving	Pearson Correlation	.776**	.729**	.643**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	100	100	100	100

\*\* Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher (2020)

#### 4.5.2 Regression Analysis

This section provides the findings after conducting multiple regression analysis. Regression analysis consists of a collection of statistical techniques for assessing the relationships that exist among variables.

**Table 4.8: Model Summary**

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.908a	0.825	0.818	0.21854	1.664

a Predictors: (Constant), mobile credit, mobile saving, mobile Payment

Source: Researcher (2020)

Tables 4.8, results of the summary model indicate Value of R = 0.908 and the coefficient of determination  $R^2 = 0.825$ . This suggests that the influence of mobile payment, mobile credit, and mobile saving on financial performance of MSMEs is 82.5 percent, while the rest is explained by other causes. Additionally, the adjusted R square is 0.818 which is below the value of R squared this is so since adjustments have been made for the control variables in the model depending on their relationship with the response variable

**Table 4.9 ANOVA Analysis**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.411	4	5.353	112.082	.000b
Residual	4.537	95	0.048		
Total	25.948	99			

a Dependent Variable: performance

**Source: Researcher (2020)**

The ANOVA findings presents the variance in the response variable within the regression (model) and variables excluded (residuals). Based on the findings, the aforementioned coefficient of determination was significant as shown in evidenced in F ratio of 112.082 with p value  $0.000 < 0.05$  (level of significance). Therefore, the model was fit to predict the financial performance of MSMEs using mobile payment, mobile credit and mobile saving.

**Table 4.10 Regression Coefficients Estimates**

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	-0.837	0.217		-3.859	0.000		
mobile Payment	0.649	0.099	0.501	6.540	0.000	0.314	3.183
mobile credit	0.176	0.074	0.146	2.378	0.019	0.485	2.060
Mobile saving	0.217	0.089	0.176	2.424	0.017	0.351	2.847

Source: Researcher (2020)

From the model coefficients, the following optimal model was developed;

$y = -0.837 + 0.501X_1 + 0.146X_2 + 0.176X_3$  where  $y$  is financial performance of MSMEs,  $X_1$  Mobile Payment,  $X_2$  Mobile credit and  $X_3$  Mobile saving.

#### 4.5.3 Effect of Mobile Payment on Financial Performance of MSMEs

The first objective of the study sought to determine effect of mobile payment on financial performance of MSMEs in Bungoma County. Table 4.11, results of the summary model indicate Value of  $R = 0.872$  and the coefficient of determination  $R^2 = 0.760$ . This suggests that the influence of mobile payment on financial performance of MSMEs is 76.0 percent, while the rest is explained by other causes. Additionally, adjusted R square is 0.818 which is below the value of  $R^2$  this is so since adjustments have been made for the control variables in the model depending on their relationship with the response variable

**Table 4.11 Effect of Mobile Payment on Financial Performance of MSMEs**

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-0.37	0.231		-1.601	0.113
Mobile payment	1.131	0.064	0.872	17.631	0.000
Summary Statistics					
R	0.872				
R Square	0.760				
Adjusted R Square	0.758				
ANOVA (F-stat)	310.863				
ANOVA (p value)	0.000				

Research findings confirmed that mobile payment had a significant effect on financial performance of MSMES in Bungoma County basing on  $\beta_1 = 0.872$  (p-value = 0.000 which is less than  $\alpha = 0.05$ ) implying that mobile payment had a significant effect on financial performance of MSMES in Bungoma County. The findings conform with that of Ngaruiya, Bossier and Kama (2014) which indicated that payments through mobile money considerably impacted sales returns. In a similar vein, Mbogo (2010) confirmed that the utilization of mobile money payments by micro-enterprises was associated with an improvement in their financial performance.

#### 4.5.4 Effect of Mobile Credit on Financial Performance of MSMES

The second objective of the study sought to establish influence of mobile credit on financial performance of MSMES in Bungoma County. Tables 4.12, results of the summary model indicate Value of R = 0.717 and the coefficient of determination  $R^2 = 0.514$ . This suggests that the influence of mobile payment on financial performance of MSMEs is 51.4 percent, while the rest is explained by other causes. Additionally, the adjusted R square is 0.509 which is less than the R squared value.

**Table 4.12 Effect of Mobile Credit on Financial Performance of MSMEs**

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.543	0.311		1.747	0.084
Mobile Credit	0.861	0.085	0.717	10.171	0.000
Summary Statistics					
R	0.717				
R Square	0.514				
Adjusted R Square	0.509				
ANOVA (F-stat)	103.459				
ANOVA (p value)	0.00				

Findings showed that mobile credit had coefficients of estimate which was significant basing on  $\beta_2 = 0.717$  (p-value = 0.000 which is less than  $\alpha = 0.05$ ) hence we conclude that mobile credit has a significant influence on financial performance of MSMES in Bungoma County. This implies that for each unit increase in mobile credit, there is up to 0.717-unit increase in financial performance of MSMEs in Bungoma County. Also, the effect of mobile credit is shown by the t-test value of 10.171 which implies that the effect of mobile credit surpasses that of the error. Consistent with



the findings, Ouma and Rambo (2013) found that access to mobile bank credit was fundamentally linked with net profit. In the same way, Kalio (2014) confirmed that mobile bank credit is positively and significantly associated with improved performance of micro businesses due to improved access to small loans that the formal financial institutions fail to provide.

#### 4.5.5 Effect of Mobile Saving on Financial Performance of MSMES

The third objective of the study sought to establish influence of mobile saving on financial performance of MSMES in Bungoma County. Tables 4.13, results of the summary model indicate Value of  $R = 0.776$  and the coefficient of determination  $R^2 = 0.602$ . This suggests that the influence of mobile payment on financial performance of MSMES is 60.2 percent, while the rest is explained by other causes. Additionally, the adjusted R square is 0.598 which is less than the R squared value.

**Table 4.13** Effect of Mobile Saving on Financial Performance of MSMES

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.344	0.276		1.244	0.217
mobile saving	0.959	0.079	0.776	12.168	0.000
Summary Statistics					
R	0.776				
R Square	0.602				
Adjusted R Square	0.598				
ANOVA (F-stat)	148.059				
ANOVA (p value)	0.000				

Study findings showed that mobile saving had coefficients of estimate which was significant basing on  $\beta_3 = 0.776$  (p-value = 0.000 which is less than  $\alpha = 0.05$ ) hence mobile saving has a significant effect on financial performance of MSMES in Bungoma County. This indicates that for each unit increase in mobile saving, there is up to 0.776 units increase in financial performance of MSMES in Bungoma County. The effect of mobile saving is stated by the t-test value = 12.168 which point out that the effect of mobile saving is twice that of the error associated with it. In line with the findings, Suri and Jack (2016) confirmed that mobile money can positively affect the saving behavior.



## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter provides the summary of findings, conclusion, recommendations and areas for further studies. The findings are presented in a clear response to the particular objectives of the study. This chapter additionally provides recommendations, sections for further studies which came up during the period of research as well as conclusions

#### **5.2 Summary of the Findings**

The main objective of the study was to establish the relationship between adoption of mobile banking usage and financial performance of MSMES in Bungoma County. The following research objectives guided the study: To determine effect of mobile payment on financial performance of MSMES in Bungoma County. To establish influence of mobile credit on financial performance of MSMES in Bungoma County and to establish influence of mobile saving on financial performance of MSMES in Bungoma County

Descriptive survey research design which employed quantitative design was adopted in the study. The target population for this study was retail traders/managers in Jua Kali sector (MSMES) in Bungoma town in Bungoma County. To collect the data, questionnaires were used for the retail traders.

Quantitative methods were employed in analyzing the data collected. The findings were thereafter analyzed with descriptive statistics, specifically means, standard deviations as well as frequencies. In order to determine the link between research variables, correlation was employed whereas regression analysis was used to determine the effect of adoption of mobile banking usage on financial performance of MSMES in Bungoma County.

##### **5.2.1 Effect of Mobile Payment On Financial Performance of MSMES**

The findings indicated that mobile payment positively influences financial performance of micro, small and medium enterprises. It was found that increasing use of mobile phone to make payment enhances financial performance of micro, small and medium enterprises. The findings on mobile

payment revealed that mobile payment makes it easier for retail traders to conduct their business transactions. Besides, they would find mobile payment useful in conducting purchase from other retailers.

Moreover, they feel confident that mobile banking makes it safe for them to use mobile payment and are assured that legal and technological structures adequately protect them from payment problems on the mobile banking. Similarly, they can use mobile payment at any time though they are not sure if they can use mobile banking from anywhere. In the same way, there is doubt if using mobile payment improves their performance in conducting purchase.

### **5.2.2 Influence of Mobile Credit On Financial Performance of MSMES**

The study results revealed that loan accessed through mobile phones positively influences financial performance of micro, small and medium enterprises. This indicates that increasing use enhances financial performance of micro, small and medium enterprises. The findings on mobile credit indicated that the respondents use their mobile to access loan from digital lenders.

Besides, mobile credit is easy to access and there is clear lending terms of digital credits. Further, it is in doubt whether the introduction of mobile credit services has improved their business stock. Similarly, there are gaps as to whether mobile credit makes it possible for the respondents to order for goods as per the customer request anytime.

### **5.2.3 Influence of Mobile Saving on Financial Performance of MSMES**

The study results showed that saving money through mobile phones positively influences financial performance of micro, small and medium enterprises. This indicates that increasing use mobile phones in savings enhances financial performance of micro, small and medium enterprises. The results on mobile saving indicated that the respondents are able to deposit savings to their account using the mobile phone.

Further, they are able to access savings through mobile money and can easily access their saving anytime from using their mobile phone. Also, M-shwari savings has increased their loan limit. Besides, by use of till numbers, their sales go direct to their account which increases their savings. Nevertheless, it is unclear if the respondents can save money in their mobile phone anytime and anywhere.

## **5.3 Conclusion**

### **5.3.1 Effect of Mobile Payment On Financial Performance of MSMEs**

It is safe to conclude that mobile payment and financial performance of MSMEs have a positive linear correlation as well as significant association between mobile payment and performance of MSMEs in Bungoma County. The study established that mobile payment helps the MSMEs in conducting business transactions and conducting purchase from other retailers. Besides, the convenience brought about by mobile payment and the availability of legal and technological structures that protect the MSMEs from payment problems contributed to the financial performance.

### **5.3.2 Effect of Mobile Credit on Financial Performance of MSMEs**

Based on the results of this study, MSMEs in the study area will continue thriving if they continue embracing mobile credit. It is safe to conclude that due to clear lending terms of digital credit, it is easier for the MSMEs to access loans from digital lenders. The challenge however is that, the MSMEs have not been able to capitalize on the borrowed funds to improve on their business stock. The situation is further worsened by the fact that, the MSMEs are yet to utilize their mobile credit to order for goods as per the clients' requests. As a result, the MSMEs have not optimally benefited from mobile credit in enhancing their financial performance.

### **5.3.2 Effect of Mobile Saving on Financial Performance of MSMEs**

Finally, mobile saving is instrumental in enhancing the financial performance of MSMEs. The implication is that, mobile banking has afforded MSMEs the opportunity to deposit their saving conveniently using their mobile phones and access them whenever the need arises. Besides that, saving through platforms such as M-shwari makes it possible for the MSMEs to increase their loan limit. As such, depending on their borrowing and repayment, they are better placed to borrow more credit to expand the business.

## **5.4 Recommendations**

The study has confirmed that mobile payment is key in enhancing the performance of MSMEs. Consequently, to make it easier for retail traders to conduct their business transactions, there is

need to incorporate mobile payment. Also, focus should be on ensuring that the legal and technological structures adequately protect MSMEs from payment problems. As well, mobile banking should be in such a way that it can be utilized in any geographical location and at any time.

Since mobile credit contributes to an improvement in the financial performance of MSMEs, there is need for MSMEs to utilize their mobile phones to access credit to expand their business. While re-stocking the business, emphasis should be on ordering goods as per the clients' requests. Besides that, digital lenders need to ensure that there are clear lending terms so as to make it easier for MSMEs to borrow mobile credit.

Finally, mobile saving enhances the financial performance of MSMEs. In that regard, it is important for MSMEs to utilize their mobile phones in depositing savings to their account. The reason for this is that, it is a convenient way of saving. Besides, when the saving is done in M-shwari, they are in a position to grow their limit to the extent of borrowing more funds and expanding their business. Moreover, it is important for MSMEs to have a till number so that their sales can go direct to their account which increase their savings.

## **5.5 Limitation of the study**

Some of limitations for this study were: The reluctance by the participants to voluntarily and freely share knowledge with the expert for fear of the precarious intricacies involved reduced the access to information that is significant in the research. The analyst surpassed this by immediately sensitizing the respondents on the aim of the study and further providing an introduction letter from the institution to break the ice and gain the trust and assurance of the participants. The analysts also made an attempt at guaranteeing the participants that there would be confidential measures taken when handling information that is provided and declared that the results were solely for academic reasons. In addition to this, a number of the questionnaires were returned late owing to the Covid 19 Pandemic.

## **5.6 Areas for Further Studies**

The study assessed the relationship between adoption of mobile banking usage and financial performance of MSMEs in Bungoma County. Suggestions for future studies are provided

accordingly. Other researchers should consider other factors that may influence financial performance of MSMEs. Such factors could be credit accessibility and mobile banking convenience. Further, for the purpose of making comparative study on the findings, future research can be conducted on MSMEs in other counties in Kenya. Finally, future scholars could assess the link between mobile banking usage and financial performance using intermediate variable to establish the consequences of loans on MSMEs performance.

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## **APPENDIX I: INTRODUCTORY LETTER**

Dear Respondent

I am, a student of University of Nairobi pursuing Master in the School of Business& Economics finance option. I am required to carry out a research as a requirement of the course. My research Study is to assess the ***“ADOPTION OF MOBILE BANKING USAGE AND FINANCIAL PERFORMANCE OF MSMES IN BUGOMA COUNTY. A CASE OF MSMES IN BUNGOMA COUNTY, KENYA.”***

You have been selected as one of the respondents for this study. Your honest and accurate answers will be very useful in accomplishing the identified objectives. Remember you are one of the few chosen respondents in this study and the information you give will be treated as confidential and solely for academic purpose. Your participation is entirely voluntary and the questionnaire is completely anonymous. Your contribution in facilitating this study will be appreciated.

Yours faithfully

Geffin

## APPENDIX II: QUESTIONNAIRE

### Instructions

Please indicate the extent to which you agree or disagree with the following statements on mobile banking and financial performance of MSMEs in Bungoma County, Kenya.

### GENERAL INFORMATION

Please answer the following questions by placing a cross (X) in the appropriate block or by filling in the blank spaces

2. What is your highest level of educational? (Please check one)?

Certificate  Diploma  Bachelor's Degree  Master's

Other \_\_\_\_\_

4. Age of the firm (number of years in operation):

1-5  6-10  11-15  16-20  Over 20

6. Number of employees

1-50  51-100  101-150  151-200  Above 200

### SECTION B: MOBILE PAYMENT

Please use the following scale to indicate your response. Circle the best response. **1= strongly Disagree (SD)** **2= Disagree (D)** **3= Neutral (N)** **4= Agree (A)** **5= Strongly Agree (SA)**

Mobile payment	1	2	3	4	5
Using mobile payment improves my performance in conducting purchase.					

Using mobile payment makes it easier for me to conduct my business transactions.					
I would find mobile payment useful in conducting purchase from other retailers					
I feel confident that mobile banking makes it safe for me to use mobile payment.					
I feel assured that legal and technological structures adequately protect me from payment problems on the mobile banking					
I can use mobile banking from anywhere.					
I can use mobile payment at any time.					

How does mobile payment affect your performance of in making decision?  
 .....  
 .....  
 .....

**SECTION C: MOBILE CREDIT**

Please use the following scale to indicate your response. Circle the best response. **1= Strongly Disagree (SD)2= Disagree (D)3= Neutral (N)4= Agree (A)5= Strongly Agree (SA)**

	<b>SD</b>	<b>D</b>	<b>U</b>	<b>A</b>	<b>SA</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
I use mobile to access loan from digital lenders					
Mobile credits is easy to assess					
There is clear lending terms of digital credits					
The introduction of mobile credit services has improved my business stock					
due mobile credit am able to order for good as per the customer request anytime					

How does mobile credit affect your business performance?

.....

.....

.....

**SECTION C: MOBILE SAVING**

Please use the following scale to indicate your response. Circle the best response. **1= Strongly Disagree (SD)2= Disagree (D)3= Neutral (N)4= Agree (A)5= Strongly Agree (SA).**

	<b>SD</b>	<b>D</b>	<b>U</b>	<b>A</b>	<b>SA</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Am able to deposit saving to my account using mobile phone					
I can save money in my mobile phone anytime anywhere					
Am able to access to savings through mobile money					
By use of till number or my sales go direct to my account which increase my savings					
Mshwari savings has increased my loan limit					
I can easily access my saving anytime from using my mobile phone					

How does mobile saving affect your business performance?

.....

.....

.....

**SECTION C: MSME PERFORMANCE**

Please rate your performance, relative to your competitors over the last three years on the following:

	<b>Performance</b>	<b>Much better</b>	<b>Better</b>	<b>Equal</b>	<b>Worse</b>	<b>Much worse</b>
<b>P1</b>	Customer retention	5	4	3	2	1
<b>P2</b>	Sales growth	5	4	3	2	1
<b>Customer Satisfaction</b>		<b>SA</b>	<b>A</b>	<b>NA/D</b>	<b>D</b>	<b>SD</b>
<b>F1</b>	Guests comments on survey forms/emails/online indicate likelihood to return	5	4	3	2	1
<b>F2</b>	Guests levels of complains are manageable	5	4	3	2	1
<b>F3</b>	Customers are satisfied with the services offered to them	5	4	3	2	1