

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

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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 and mobile phone payments facilities as the specific objectives and its link to performance. The study was anchored on technology acceptance model 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. The collected data was entered into SPSS where descriptive statistics that produced frequencies, means and standard deviations and the multiple regression analysis was done to evaluate the relationship of the independent and dependent variables. From the results, the study failed to reject both hypotheses. 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.

Key Words: *Mobile phone technology; credit facilities, mobile phone payments facilities*

INTRODUCTION

The role of ICTs, 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, Habes & Alam, 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, Prinsloo & Van Deventer, 2016).

Global statistics indicate that approximately 2.5 billion adults who make up more than half of the world's adult population, do not have 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 concentration of un-served adults, approximately 1.5 billion, resided in East and South Asia while in Sub Saharan Africa (SSA), 80% of the adult population, approximately 325 million people, was un-served (Alt, Beck & Smits, 2018). The problem of financial exclusion in the developing world has had a serious effect on the economic growth and entrepreneurial development among communities.

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).

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).

Business processes such as ordering; transaction, distribution, inventory management, and accounting are simplified and linked regardless of location as a result of mobile phone efficiency. According to Mokaya and Njuguna (2017), 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.

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, micro and small-scale enterprises 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.

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.

Statement of the Problem

Estimates for Kenya, where the mobile banking revolution started, there are over 20 million Mobile money users (roughly 80 percent of all adults). Although use of mobile phones in financial services has universal benefits, there is a difference in the rate of its application depending on the context (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 use smart phones and those with ordinary phones. Litondo (2018) examined the nexus using the case of micro and small enterprises in the Kenyan informal economy. The findings of the study show that the usage of mobile phones in business has a significant effect on sales of Micro and Small Enterprises.

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.

Objectives

To determine the effect of mobile phone credit facilities on performance of micro and small-scale enterprises in Kakamega County, Kenya

To establish the effect of mobile phone payment facilities on performance of micro and small-scale enterprises in Kakamega County, Kenya

LITERATURE REVIEW

Theoretical Review

Technology Acceptance Model

The model was first suggested by Davis (1986) and was used in explaining the technological conduct of organizations. Technology Acceptance Model (TAM) is based on an essential ideology on what technologies would likely be accepted and which ones would be rejected. It is one of the key providers for foundation in evaluation of technology usage and its performance in organizations (Huang, Liu, Chen & Tsai, 2021). Accordingly, the theory is based on two primary factors: the intention of individuals to use the new technology and the perceived ease of use of the technological systems and applications and perceived usefulness and benefits that are gained from the technology (Rauniar, Rawski, Yang & Johnson, 2014).

TAM specifically observes that; the use of technology is affected either directly or indirectly by the attitudes of customers; the anticipated usefulness of technology and comfort or anticipated ease (Lule, Omwansa & Waema, 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, Siddiq and Tondeur (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, Cremer & Loebbecke, 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.

Theory Financial Intermediation

Theory Financial intermediation is a process which involves surplus units depositing funds with financial institutions who then lend to deficit units. Bisignano (1998) and Leland and Pyle (1977) identify that financial intermediaries can be distinguished by four criteria: first their main categories of liabilities (deposits) are specified for a fixed sum which is not related to the performance of a portfolio. Second the deposits are typically short-term and of a much shorter term than their assets. Third a high proportion of their liabilities are chequeable (can be withdrawn on demand). And fourth their liabilities and assets are largely not transferable. The most important contribution of intermediaries is a steady flow of funds from surplus to deficit units.

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.

Empirical Review

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) conducted a study on the effects that mobile credit has on performance of commercial 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 show that all the financial performance indicators used in this study: net profit, total assets, liquidity, excess liquidity and earnings per share increased after the introduction of mobile credit which implies improved financial performance. Further results show 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) did a study on effect of mobile lending and financial performance of commercial banks. The study revealed that mobile lending involves a partnership between financial institutions and mobile phone operators such that customers can conveniently do their banking using their mobile phones. 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) conducted a study on the effects of mobile-based lending process and non-performing loans, 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 in the commercial banks in Nakuru Town in the areas of loan appraisal process, documentation process, loan disbursement process, and monitoring and evaluation 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 concluded that loan appraisal process had a significant relationship with non-performing loans in the commercial banks in Nakuru town. The study recommends 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 commercial banks quoted in the NSE for the Period 2012-2017. The study was aimed at analyzing how mobile loans affect the performance of Kenyan commercial banks. The study adopted the use of a descriptive research design using quantitative methods. The study targeted 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. Data collection was done through use of a questionnaire. The study findings revealed 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.

Mobile Phone Payment Facilities and Performance

Oliveira, Thomas, Baptista and Campos (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 study was anchored on unified theory of acceptance and use of technology (UTAUT2) and diffusion of innovations (DOI) as a way to understand the acceptance and intention to use the mobile phone technology and its payment construct. 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 intention to recommend the mobile payment technology and 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.

Rootman and Krüger (2020) did a study on increased customer adoption of the mobile payment technology of Zapper in South Africa. 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 study collected primary data using structured questionnaires from 175 respondents and 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, Mei, Phoong and Phoong (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 play 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 including Apple Pay, Samsung Pay, and Android Pay, with Apple Pay, Alipay, and WeChat.

RESEARCH METHODOLOGY

A causal research design was used to explore the relationship between the study variables. Causal research design attempts to establish that when one thing or event occurs, it is due to another factor (Capano & Howlett, 2021). This study targeted 4100 MSEs within Kakamega County that actively used mobile phone technology in their operations. The study used the Yamane 1967 formula to calculate the final sample size of the study. A sample of 399 was

obtained. Questionnaires were used as instruments of data collection. Data analysis started once all the data has been captured and descriptive statistics were done using statistical package for social scientists (SPSS) and frequencies, means and standard deviations were obtained. The findings were presented in tables, charts and discussions. Multiple regression analysis was used to evaluate the effect of independent variables based on mobile phone technology covering Mobile Phone Credit Facilities and Mobile Phone Payment.

FINDINGS, INTERPRETATION AND DISCUSSION

On gender distribution, 71% of the respondents were male, 29% were female. Data on the level of Education indicated that 59.1% of the respondents had degrees as their highest level of education, 31.3% had diplomas, and 6.4% had certificates while 3.2% had masters. The Length of Operation of the Firms showed 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. On the position Held by Respondents, 48.8% of the respondents were senior managers, 39.5% were owners of the firms while 11.7% had other positions.

Mobile Phone Credit Services

The results of descriptive statistics in terms of means and standard deviations on mobile phone credit services were determined and summarized as shown in Table 1.

Table 1: Mobile Phone Credit Services

Statement	Mean	Std. Dev
Mobile phone credit services provide financial help to small traders through credit	3.72	.725
Mobile phone credit services ensure that outstanding loans are repaid on time	3.70	.816
Mobile phone credit services support saving through credit deposits	4.00	.729
Mobile phone credit services have set-up an innovation-friendly mechanism that regulates credit services in the county	3.83	.839
Mobile phone credit services support money transfer services in determining how funds are transferred between banks or accounts	3.81	.685
Average	3.81	0.759

The results in Table 1 indicate that respondents agreed that mobile phone credit services supported saving through credit deposits (M=4.00, SD=.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=.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= .685). Respondents further agreed that mobile phone credit services provided financial help to small traders through credit (M=3.72, SD=.725). The participants also agreed that mobile phone credit services ensured that outstanding loans are repaid on time (M=3.70, SD= .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. 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.

Mobile Phone Money Transfer Services

The results of descriptive statistics on mobile phone money transfer services were established and summarized as indicated in Table 2.

Table 2: 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	.918
Mobile phone money transfer services support the use of mobile phones in offering effective financial services to the end clients	3.73	.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	.544
Average	3.67	0.895

As shown in Table 2, 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=.544). Respondents indicated that mobile phone money transfer services were effective in delivering mobile phone money transfer services (M=3.79, SD=.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=.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=.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.

Model Summary

The results of the regression model summary, detailing the values of the coefficient of correlation R and the coefficient of determination R square are as presented in Table 3.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860 ^a	.739	.736	.89428

a. Predictors: (Constant), Mobile Phone Credit Facilities, Mobile Phone Payment 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 (ANOVA) was carried out at 5% level of significance. The findings were established and summarized as indicated in Table 4.

Table 4: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	626.083	2	156.521	195.714	.000 ^b
Residual	220.729	278	.800		
Total	846.811	280			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Mobile Phone Credit Facilities, Mobile Phone Payment Facilities

From Table 4, 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 explored the nexus using the context of Micro and Small Enterprises in Tanzania and established that there was a significant difference in capital growth between Micro and Small Enterprises which use smart phones and those with ordinary phones. Similarly, Litondo (2018) examined the nexus using the case of micro and small enterprises in the Kenyan informal economy and the findings of the study show that the usage of mobile phones in business has a significant effect on sales of Micro and Small Enterprises.

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 5.

Table 5: Regression Beta Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.652	1.084		4.291	.000
Mobile Phone Credit Facilities	.000	.040	.000	.010	.992
Mobile Phone Payment Facilities	.001	.024	.001	.035	.972

From Table 5, the following equation is predicted between mobile phone technology and performance of the SMEs:

$$Y = 4.652 + .000X_1 + .001X_3$$

Where:

Y = Performance

X₁ = Mobile Phone Credit Facilities

X₃ = Mobile Phone Payment Facilities

The first hypothesis of the study was H₀₁ 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 .992, which is above 0.05. Thus, the study failed to reject hypothesis H₀₁ 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. Nzayisenga (2017) did a study on effect of mobile lending and financial performance of commercial banks and noted that mobile lending positively and significantly affects the financial performance of the commercial banks in Kenya.

Hypothesis two of the study was H₀₃ 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 H₀₃ 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.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary of the Findings

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 saving through credit deposits (M=4.00, SD=.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=.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= .685). Respondents further agreed that mobile phone credit services provided financial help to small traders through credit (M=3.72, SD=.725). The participants also agreed that mobile phone credit services ensured that outstanding loans are repaid on time (M=3.70, SD=.816). The first hypothesis of the study was H₀₁ 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 .992, which is above 0.05. Thus, the study failed to reject hypothesis H01 and inferred that mobile phone credit facilities have no significant effect on performance of micro and small-scale enterprises in Kakamega County, Kenya.

Mobile Phone Money Transfer Services

On overall, the results are (M=3.67, SD=.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 farmers in the County (M=3.81, SD=.544). Respondents indicated that mobile phone money transfer services were effective in delivering mobile phone money transfer services (M=3.79, SD=.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=.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 H04 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 H04 and inferred that mobile phone internet facilities have significant effect on performance of micro and small-scale enterprises.

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 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.

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 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.

Areas for Further Research

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.

REFERENCES

- Abebaw, W. K., Mulate, S., & Nigussie, L. (2018). Factors affecting the performance of micro and small scale enterprises: Experience from North Shewa Zone, Ethiopia. *Journal of Investment and Management*, 7(2), 70-76.
- Alt, R., Beck, R., & Smits, M. T. (2018). FinTech and the transformation of the financial industry
- Anye, A., & Makebo, H. (2019). Factors Affecting Performance of Small and Medium Sized Business Enterprises. *International Journal of Economics & Business*, 4(2), 188-203.
- Aron, J., & Muellbauer, J. (2019). The Economics of Mobile Money: harnessing the transformative power of technology to benefit the global poor.
- Batista, C., & Vicente, P. C. (2017). *Improving access to savings through mobile money: experimental evidence from smallholder farmers in Mozambique* (No. novaf: wp1705). Universidade Nova de Lisboa, Faculdade de Economia, NOVAFRICA.
- Benami, E., & Carter, M. R. (2021). Can digital technologies reshape rural microfinance? Implications for savings, credit, & insurance. *Applied Economic Perspectives and Policy*.
- Bertschek, I., & Niebel, T. (2016). Mobile and more productive? Firm-level evidence on the productivity effects of mobile internet use. *Telecommunications Policy*, 40(9), 888-898.
- Björkegren, D., & Grissen, D. (2018). Behaviour revealed in mobile phone usage predicts loan repayment. *Available at SSRN 2611775*.
- Chege, S. M., Wang, D., & Suntu, S. L. (2020). Impact of information technology innovation on firm performance in Kenya. *Information Technology for Development*, 26(2), 316-345.
- Danquah, M., & Iddrisu, A. M. (2018). Access to mobile phones and the wellbeing of non-farm

- enterprise households: Evidence from Ghana. *Technology in Society*, 54, 1-9.
- David, L. M. (2018). *Effect of Mobile-Based Lending Process on Non-Performing Loans in Commercial Banks in Nakuru Town, Kenya* (Doctoral dissertation, JKUAT-COHRED).
- De Mel, S., McIntosh, C., Sheth, K., & Woodruff, C. (2018). *Can Mobile-Linked Bank Accounts Bolster Savings? Evidence from a Randomized Controlled Trial in Sri Lanka* (No. w25354). National Bureau of Economic Research.
- Divall, D., Kureya, T., Bishop, T., Barber, C., Green, C., & Clark, S. (2021). The potential role of mobile phone technology in rural motorcycle and three-wheeler taxi services in Africa. *Transportation planning and technology*, 44(1), 30-44.
- Ilyash, O., Vasylytsiv, T., Lupak, R., & Get'manskiy, V. (2021). Models of efficiency of functioning in trading enterprises under conditions of economic growth. *Bulletin of Geography. Socio-economic Series*, 51(51), 7-24.
- Jayeola, O., Ihinmoyan, T., & Kazeem, Y. K. (2018). Environmental Factors and the Performance of Micro and Small Scale Enterprises (MSEs) in Nigeria: Lessons from Some Selected MSEs in Ondo State Nigeria. *Journal of Economics, Management and Trade*, 1-14.
- Kazimoto, P. (2016). Employee engagement and organizational performance of retails Enterprises. *American Journal of Industrial and Business Management*, 6(4), 516-525.
- Litondo, K. O. (2018). Influence of information and communication technologies on the sales amounts of micro and small enterprises: a case of mobile phone usage in the Kenyan informal sector.
- Litosseliti, L. (Ed.). (2018). *Research methods in linguistics*. Bloomsbury Publishing.
- Lule, I., Omwansa, T. K., & Waema, T. M. (2012). Application of technology acceptance model (TAM) in m-banking adoption in Kenya. *International Journal of Computing & ICT Research*, 6(1).
- Mack, E. A., Marie-Pierre, L., & Redican, K. (2017). Entrepreneurs' use of internet and social media applications. *Telecommunications Policy*, 41(2), 120-139.
- Maengwe, J. O., & Otuya, W. I. (2016). A critical review on micro-financing of small businesses in Kenya. *Pyrex Journal of Business and Finance Management Research*, 2(2), 006-011.
- Makee, K. B., Willy, M., & Atandi, F. G. (2014). Effect of mobile phone transfer services on performance of micro and small enterprises: A case of trans-nzoia county, Kenya. *International Journal of Academic Research in Business and Social Sciences*, 4(11), 111.
- Mokaya, S. O., & Njuguna, E. W. (2017). Adoption and use of information and communication technology (ICT) by small enterprises in Thika Town, Kenya.
- Moreira, F., Ferreira, M. J., Santos, C. P., & Durão, N. (2017). Evolution and use of mobile devices in

- higher education: A case study in Portuguese Higher Education Institutions between 2009/2010 and 2014/2015. *Telematics and Informatics*, 34(6), 838-852.
- Rumanyika, J. D., & Galan, R. M. (2015). The Dynamics of Mobile Phone Technologies and the Performance of Micro and Small Enterprises in Tanzania.
- Scherer, R., Siddiq, F., & Tondeur, J. (2019). The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education. *Computers & Education*, 128, 13-35.
- Sekabira, H., & Qaim, M. (2017). Can mobile phones improve gender equality and nutrition? Panel data evidence from farm households in Uganda. *Food Policy*, 73, 95-103.
- Sekere, E. K. (2016). *Impact of Mobile Phone Communication on SME Performance: A Case of Selected Units* (Doctoral dissertation, United States International University-Africa).
- Venkatesh, V., Thong, J. Y., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. *Journal of the association for Information Systems*, 17(5), 328-376.
- Wainaina, N. J. (2017). Mobile based loan management practices and financial performance of commercial banks in Kenya. *Journal of Electronic Commerce Research*, 16(7), 3-7.
- Weil, D., Mbiti, I., & Mwege, F. (2012). The implications of innovations in the financial sector on the conduct of monetary policy in East Africa. *Report submitted to the International Growth Centre Tanzania Country Program*.
- Yacob, S., Erida, E., Machpuddin, A., & Alamsyah, D. (2021). A model for the business performance of micro, small and medium enterprises: Perspective of social commerce and the uniqueness of resource capability in Indonesia. *Management Science Letters*, 11(1), 101-110.