

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya



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ABSTRACT: The financial performance of MSEs is critical to the performance of the economy since MSEs are some of the best supporters of the government through employment. In recent years banks have developed innovative products and offered a wide range of services to improve their performance, which is the ultimate goal of banks (Mugodo, 2016). Digital banking has several benefits to financial services users such as micro and small enterprises and digital banking providers. The general objective of the study is to establish the effect of digital banking on the financial performance of micro and small enterprises in Nairobi County, Kenya. The specific objectives of the study are to determine the effect of digital payments on the financial performance of micro and small enterprises in Nairobi County, to establish the influence of digital credit on the financial performance of micro and small enterprises in Nairobi County, and to establish the influence of digital savings on the financial performance of micro and small enterprises in Nairobi County, Kenya. The study was guided by the theory of financial innovations, the technology acceptance model theory, and the diffusion of Innovation Theory. This study employed an explanatory research design. The target population is comprised of retail traders/managers in the micro and small enterprises in Nairobi County. For purposes of this study, the population was MSEs, which conduct their business in Nairobi County. From the target population of 10,079 retail traders, Fishers et al (2007) formula was used to pick a sample of 384 retail traders as the sample of the study. The study utilized a semi-structured questionnaire to collect data from the respondents. Data was analyzed aided by descriptive statistics, including variability and central tendency measures of frequencies. The findings of the diagnostic tests revealed that there was no multi-collinearity among the independent variables ($VIF=1.281$), and the results of the normality test showed that the variables were normally distributed. The findings of the study were that there was a positive and significant relationship between digital payments and financial performance ($\beta_1=0.682$, $p=0.000<0.05$), there was also a positive and significant relationship between digital credits and financial performance of micro and small enterprises ($\beta_2=0.266$, $p=0.003<0.05$). There was also a positive and significant relationship with the financial performance of micro and small enterprises in Nairobi County ($\beta_3=0.488$, $p=0.007<0.05$). The study concluded that digital payments, digital savings, and digital credits had a positive and significant effect on the performance of micro and small enterprises in Nairobi County. The study recommends that more needs to be done in terms of application security due to the risk of cyber-attacks and fraud. Institutions should invest more in research to ensure that their applications used by customers are safe to prevent cyber-attacks and fraud. The study also recommends that MSE's need to maintain a good record of credit and improve on their saving to access more credit through digital credit applications.

KEYWORDS: Digital Banking, Financial Performance, Digital Payments, Digital Credit, Digital Savings.

1.0 INTRODUCTION

The financial performance of micro and small enterprises (MSEs) has not been good as MSEs are plagued by many problems including stagnation and failure in most sub-Saharan African countries (Bekele & Zekele, 2010). Micro and small enterprises (MSE's) are businesses with less than ten employees, while small enterprises are those that have 10-49 employees. Perry and Pendleton (2012) argues that the weak financial performance and high failure rate of MSEs negatively impacts on their ability to achieve the objectives of poverty alleviation, employment creation, income redistribution and economic growth. In the Kenyan context, despite government efforts to promote MSEs activities, not much progress seems to have been achieved, judging by the poor financial performance of the informal sector (Perry & Pendleton, 2012).

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

Globally, the financial performance of micro to small enterprises (MSEs) is being hailed for their pivotal role in promoting grassroots economic growth and equitable sustainable development. In the United States of America (USA) and in the European countries, micro and small enterprises are enterprises that employ under 500 while in developing countries, any enterprise employing below 100 employees would constitute a micro and small Enterprise. Micro and small Enterprises have become more important in the economic matrixes in recent years across the globe through increased deliberate government policies and legislation aimed at nurturing micro and small Enterprises as engines of economic growth and employment creation (Tambunan, 2013).

The Asian countries such as India, Indonesia, China, Malaysia, Japan, and South Korea also have thriving micro and small Enterprises sectors contributing between 70-90 percent in employment and an estimated 40 percent contribution to their respective Gross Domestic Products. In Africa, economic powerhouses such as South Africa, Egypt, Nigeria and Kenya, the micro and small Enterprises sector is estimated to contribute over 70 percent in employment and 30-40 percent contribution to Gross Domestic Product, but contribute less than four percent to export earnings (Perry & Pendleton, 2012).

The micro and small enterprises (MSEs) play an important role in the Kenyan Economy. Financial institutions, as part of their core business, provide credit to MSEs. In addition to this financial service, financial institutions also provide non-financial services such as business training, and financial and business management to help improve the capacity of their clients in managing the loan resources granted to them. In addition to financial intermediation, financial institutions provide social intermediation services such as the formation of groups, the development of self-confidence, and the training of members in that group on financial literacy and management. Financial services provided to MSEs include financial products and services such as savings, credit, insurance, credit cards, and payment systems (Abiola, 2014).

Aleman (2014) argues that the banking services enable the MSEs to access finance and this enables them to make investments they need to increase the productivity and competitiveness of their businesses, develop new markets, and hire more people. MSEs are particularly in need of bank services because they lack the cash flow to make large investments, they cannot access capital markets as large firms can, and they often lack qualified staff to perform financial functions (Beck et al, 2014). Here, bank-provided long-term debt can enable MSEs to invest in expansion without losing ownership. In addition, short-term and working capital loans help MSEs grow incrementally.

Performance is defined as a function of an organization's ability to meet its goals and objectives by exploiting the available resources in an efficient and effective way (West & Fair, 2012). Performance can be measured at both organization and individual levels and this measurement is sometimes referred to as performance appraisal. He urges that organizations have desired potentials in terms of capacity attraction, market share, and financial strength and that performance is the difference between those potentials and what has been achieved.

Understanding digital banking and financial performance is therefore important as it makes it possible to recognize certain factors that should be treated with more interest in this era of digitization to improve the financial performance of institutions. The performance of MSE's has received more attention recently following the failure of many MSE's around the world, including in our own country Kenya. Recently, the complexities of the global business environment have created high levels of ambiguity among businesses in all industries, reinforcing the need for organizations to be more vigilant about their business success (Gavrea, Ilies, & Stegorean, 2017). These complexities in global businesses have created hyper-competition that pushes businesses to invest in digitization to continuously enhance their performance. However, empirical evidence on performance of MSE's have reported different results, most of them indicating variations of performance across different industries.

Financial performance can include measures of Leverage, Liquidity, and Cash Flow Measures such as Debt to equity ratio, operating cash flow-to-equity ratio, and growth rate of operating cash flow; there are also market-based measures such as cost of equity capital and price-to-book ratio; The last category of measures is referred to as Economic Value Measures such as residual income and Residual income return on investment. Non-financial measures of performance can be the total number of employees, quality of product, market share, and survival at a pre-determined time using a relevant strategy for action (Koontz and Donnell, 2003).

Performance provides the basis for an organization to assess how well it is progressing towards its predetermined objectives, to identify its areas of strength and weakness, and to decide on future initiatives with the goal of how to initiate performance improvement. As regards micro and small enterprises, performance measurement is unique because of the unique characteristics of the MSEs as compared to other large firms (Brem, Kreusel & Neusser, 2013). In this study, the financial performance of MSEs was captured using the increase in sales volume, cash flow, and profitability. The use of sales indicated the revenue realized from investments while business-operating cash indicated cash management soundness among the MSE's.

Nairobi County (NC) is home to Nairobi City, the capital of Kenya. Nairobi is the largest and fastest-growing cities in Africa. It is also Kenya's principal administrative, economic, and cultural centre. Being the Kenyan capital, the national baseline survey

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

(National Baseline Survey, 2017) indicated that about 17% of the total MSEs are located in Nairobi. According to the licensing record provided by Nairobi County Licensing Office (2017) there are 76,252 registered MSEs in the Nairobi County Government. In the Kenyan perspective, Small and Micro Enterprises are enterprises employing between 2 (two) and 50 (fifty) employees. They are characterized by difficulties in accessing adequate, affordable, and timely credit; face ineffective marketing due to inadequate resources and non-availability of skilled manpower; and most of them are unable to integrate into large-scale business relationships due to a lack of international standards and quality controls. Most MSMEs operate without any type of certification, which greatly reduces their prospects of developing backward linkages with large enterprises.

The MSEs have gained much popularity among many young entrepreneurs due to the low capital required to start them. Rural urban migration has worsened the situation as most young people move to the urban centers to search for opportunities, which are scarce, and end up venturing into business by opening up micro and small enterprises to fend for themselves, as they require little capital to start. The MSEs however have a high motility rate which limits their capacity to make long haul sustainable employment and may likewise be in charge of the best number of riches and occupation misfortunes (Ahwireng, 2013). The highest failures of MSE's have been recorded in Nairobi County and hence the interest to focus on Nairobi county for the purpose of this research.

The poor financial performance of MSEs is not only present in Kenya, but also a global problem. Sha (2006) argues that MSEs in Africa suffer from weak financial performance and a high failure rate while Perry & Pendleton (2009) argues that judging by the poor performance of the informal sector, not much progress seems to have been achieved, despite government efforts to promote MSE's activity. While some of the key factors attributed to this poor performance is access to financial services, the bulk of it is the failure of these MSEs to adopt digital banking technologies that can simplify their banking needs.

Previous, studies conducted on MSEs financial performance presented contextual, conceptual and methodological research gaps. Globally, Mashamba et al (2014) analyzed the relationship between banks' deposit interest rates and deposit mobilization in Zimbabwe for the period 2000-2006 using secondary data. Okolo (2015) assessed the implications of bank consolidation on the performance of micro and small scale enterprises in the Nigerian economy using a multiple linear regression technique and correlation matrix test, while Abdelrahman (2013) sought to investigate the challenges and limitations facing the use of Islamic finance to promote micro and small Enterprises in Islamic Development Bank (IDB) member countries using secondary data.

Mashenene (2015) explored the relationship using the context of Micro and Small Enterprises in Tanzania. From the findings, it was established that there was a significant difference in capital growth between Micro and Small Enterprises, which apply mobile phone related services in their businesses. Litondo (2018) examined the relationship using the case of MSEs among informal economy in Kenyan and established that mobile phones application in business significantly affected sales. Previous studies conducted present contextual research gaps as they were conducted in a different context from the current study. Furthermore, the variables under investigation by the studies are different from the current study thus presenting a conceptual research gap. The importance of digital banking as a means to access financial services among MSEs and the effects it has on financial performance has been overlooked and the MSEs in Nairobi County are no different. Therefore, a research gap exists, and this study seeks to establish the effect of digital banking on the financial performance of micro and small enterprises in Nairobi County.

2.0 LITERATURE REVIEW

Economies cannot grow in the local and international market without emerging a flexible and proper platform for competition, particularly in commerce and trade through electronic business and commerce. Henceforth, MSEs in developing countries must move on from paper-based payment systems to a digital payment system, which enables them to compete with multinational companies inside and outside the boundary (Chaffey, Hemphill, & Edmundson, Bird, 2019).

Likewise, Higgins et al. (2014) conducted a study to determine mobile money usage patterns of Kenyan MSE's. They used a questionnaire to collect data from 865 MSEs owners. The results of their study showed that 99.5% of the MSEs used mobile money. Moreover, the study results indicated that the use of mobile money enabled MSEs to improve their performance.

Similarly, Donner and Escobari (2013) assessed the use of mobile phones by MSEs in developing countries. They used questionnaires to collect data from fourteen research studies that had examined mobile use by MSEs. According to their findings, mobile phones have helped MSEs to become more productive and to improve their sales thereby improving their financial performance.

Huang (2012) conducted a study to determine the impact of mobile phones on MSE's performance in Auckland, New Zealand. He used a questionnaire to collect primary data. The results of his study indicated that most MSEs in Auckland were using mobile technology to conduct their business activities. Additionally, the results of the study indicated that the use of mobile devices had enabled MSEs to increase their annual turnover due to additional business networking opportunities.

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

Furthermore, Bangens and Soderberg (2011) assessed the role of mobile banking and its potential to provide basic banking services to the vast majority of people in Sub-Saharan Africa. The data for the study was collected from both the primary and secondary sources. According to their findings, mobile banking has facilitated financial transactions and remittance of funds. Additionally, the results of their study indicated that mobile banking has enhanced the operations and competitiveness of MSE's. Nyaga (2017) study on influence of mobile money services on the performance of MSEs in Kenya found the significant influence of mobile money services on MSE's performance in Kenya. A study by Scott, Reenen, & Zachariadis (2017) to investigate the effects of the adoption of 'Swift' on bank performance revealed that swift remittance services had a positive and significant effect on the performance of MSEs in Kenya.

Wambari (2012) did a case study in Kenya to determine the impact of mobile banking in developing countries. He used a semi-structured questionnaire to collect data from a sample of 20 MSE's. The results of his study indicated that mobile banking had a positive impact on financial transactions of MSE's. Furthermore, the results of the study indicated that the adoption of mobile banking had enabled MSEs to increase their sales thereby leading to improved financial performance.

Chogi (2010) did a study to investigate the impact of mobile phone technologies on MSEs in Nairobi. The data for the study was collected using a self-structure questionnaire. The results of the study revealed that most MSEs perceived that mobile phones had a positive impact on their revenues. Additionally, the study results indicated that the majority of MSEs perceived that mobile banking enabled them to reduce their operating costs.

Financial institutions should develop and rely on electronic technology that would efficiently deliver the services at affordable cost (Bricks & Ennew, 2007). Modern technology like digital credit cuts off the administrative costs of the lenders through the automated processes and remote appraisal, which opens opportunities for financial institutions to extend credit to the small borrowers. Reduced costs of offering credit have a direct impact on the pricing of the loans.

The debt cycle is not sustainable in the long run, and eventually leads to high chances of default. Amsi et al. (2017) in the study on Effect of digital credit on MSEs financial performance in Kenya found out that loan amount available to a business significantly affected the performance of the business's enterprises. The study demonstrated that when enterprises receive amount of credit that is enough, they meet their business needs, which eventually leads to financial sustainability of the businesses. The study which was carried out in 5 markets in Nairobi with a sample size of 210 MSEs agrees with an earlier study by Odongo, (2014) who also pinned the importance of the loan amount in contributing to the performance of small enterprises. While several authors have pitched for enough digital financing to enhance performance of the business, excess funding can negatively impact the businesses as well (Amisi., 2017).

A study by Odongo, (2014) on digital lending terms and financial performance of small enterprises in Uganda, found out that cost of credit contributed positively to the performance of small businesses than the other lending terms. The study found out that there is less significance placed on the cost of money when traders evaluate the access to finance. The researcher further urged that smallest businesses are concerned with the access to credit and are willing to pay high cost because it is the only source of finance easily available. The access to finance assures the growth of businesses, which in turn increases assets and profits.

The cost of digital credits does not determine the borrowing decisions, however the money received was used to grow the business to realize more income. Gichuki, (2014) supported these findings by agreeing that the cost of credit does not have a significance effect on performance of MSEs since it is not a major consideration in the borrowing decisions by enterprises. He however noted that the high repayments costs of credit limited the uptake of credit by MSEs and recommended a reduction in the interest rate to enable increased borrowing.

The failure to evaluate the cost of digital credit may have a negative impact on the business as noted by Nyumba, (2015) who urged that the cost of credit (interest) have a significant negative effect on the performance of Small enterprises. In his study on loan interest rate and performance of micro and small enterprises in Kenya, Nyumba, (2015) found that the cost of credit and specifically the interest rate increases the cost of operations significantly. This eventually affects the income and cash flows of the business. While this study did not analyze the other costs like transaction, opportunity, and negotiation costs, it was able to establish how high interest affects the performance of the business.

According to Abaidoo (2015), excess amount of digital credits relative to the business can lead to funds diversions or misuse which negatively impact the repayment ability. Small or insufficient amounts of credit relative to business needs equally increase the chances of funds diversions. Wamalwa et al, (2019) notes that small amounts of credit greatly reduce the ability of borrowers in making business investments since such investments require large amounts of money. Reduced investments may lead to poor growth and struggle in cash flows eventually hampering growth of businesses. Diversion of funds is likely to happen, when the funds available to purchase a desired asset is insufficient. Such funds are easily diverted to finance other needs, which may not be related to the business.

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

Suri & Jack (2016) in their study found digital 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 digital 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, and female and irregular income earners. However, the study found no statistically significant correlation between using digital money and the likelihood to save for future predictable event. There was descriptive evidence on increase of saving by small firms owned by women through use of digital money.

A study on digital money savings in Nigeria with insights from Kenya employed TAM to examine factors that influence a user's intention to use digital money (Odia, 2016). The research was based on a questionnaire survey and semi-structured interview and the results indicated that predictors of the intention to use digital money savings in Nigeria included convenience, security/privacy, trust, perceived ease of use and perceived usefulness, with convenience being the most significant of all factors. A study on factors that influenced Ghanaian consumers' acceptance and use of digital money savings applied self-administered questionnaire to collect data and the findings showed that perceived ease of use in savings and perceived usefulness were found to be the most significant determinants of behavioral intention to use digital money transfer in Ghana. Perceived trust, trialability and perceived risk were also found to significantly affect behavioral intention (Tobbin, 2015).

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

Ngaruiya, Bossier and Kama (2014) investigated the implications of digital money savings on MSE's performance, profit-wise in within NaKuru CBD. The objective of the review was to ascertain the implications of digital money savings on MSEs financial success in Nakuru 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 digital money considerably impacted sales returns.

Mbogo (2010) applied theory of Technology Acceptance Model (TAM) on his research on the influence of digital savings 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 digital money savings innovation and its implicating aspects for instance, convenience, cost, accessibility and security were linked to observed utility and actual utility by the MSEs to improve their success.

A study by Bangens and Soderberg (2015) on the job of versatile keeping money and its capability to give essential managing an account administration to most by far of individuals in Sub-Saharan Africa found that portable saving money has encouraged budgetary exchanges and settlement of assets. The examination demonstrated that versatile saving money has upgraded the activities and aggressiveness of miniaturized scale and private companies. A cross sectional study on the impact of digital phone technologies on Micro and small businesses in Nairobi revealed that most micro and small business operators perceived digital banking services as a game changer on their revenue management (Chogi, 2014). Additionally, the study results showed that majority of MSE's agreed that digital banking had enabled them to reduce their operating costs due to enhanced cash management.

A study by Huang (2014) on the impact of digital banking on small and micro business performance in Auckland, New Zealand found that most micro businesses in Auckland were using digital technology to conduct their business activities. The consequences of the examination demonstrated that the utilization of versatile saving money had empowered smaller scale organizations to build their yearly turnover because of extra business organizing openings and clear monetary administration (Huang, 2014).

3. RESEARCH METHODOLOGY

3.1 Research Design

This study employed explanatory research design. Explanatory research design is employed to elaborate attributes of a demography or event under analysis. According to Creswell (2013), the research results in a profile generation of an occurrence or a cluster of people through acquisition of inclusive and probable precise data. Explanatory research design 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 digital banking on the financial performance of MSEs in Nairobi County.

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

3.2 Target Population

Cooper and Schilndler (2012) described population as the all things, events or people of interest to be investigated and form the basis from which the research subjects or sample is drawn. The population is comprised of retail traders/managers in the micro and small enterprises: a survey of Nairobi County. According to Nairobi County information, there are 10,079 registered micro and small enterprises in Nairobi County as per the county Ministry of Trade (2023). The population of 10,079 MSEs in Nairobi county in all the sub counties and was therefore be the population of this study as presented in table 1 below;

Table 1: Target Population

Sub County	Number of MSE's
Ruaraka Sub County	29
Embakasi South Sub County	151
Westlands Sub County	495
Dagoretti North Sub County	331
Kibra Sub County	1308
Roysambu Sub County	200
Kasarani Sub County	194
Embakasi East Sub County	539
Makadara Sub County	144
Kamukunji Sub County	1806
Starehe Sub County	2265
Mathare Sub County	436
Dagoretti South Sub County	518
Langata Sub County	99
Embakasi North Sub County	454
Embakasi West Sub County	715
Embakasi Central Sub County	395
Total	10,079

Source: State Department for MSME Development, 2023

3.3 Sample and Sampling Technique

Saunders et al. (2014) categorized sampling techniques into two, namely non-probability and probability sampling techniques. While in non-probability sampling, the study subjects do not have a pre-set chance of being selected, in probability sampling, each subject in the population is given an equal chance of being selected to participate in the research.

A sample is a portion or part of the population of interest. The purpose of sampling is to gain understanding about some features or attributes of the whole population based on the characteristics of the sample (Zikmund et.al, 2010). This study focused on Nairobi County for purposes of data collection and sampling. The sample was determined using the Fishers et al (2007) formula, which is used in situations where the population is more than 10,000, and is presented as below;

$$n = Z^2 pq / d^2$$

Where n= sample

Z= standard normal deviation at 95% of 1.96

p=Business owners (0.5 of population)

q= 1.0-p

d=level of significance (0.05)

n=1.962 (0.5) (1.0-0.5)/0.052

n=0.9604/0.0025

n=384

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 would be as presented in the table below; To obtain the desired simple size from each stratum, stratified sampling formula was used $i = n (N/P)$. The sample size was calculated using the formula $i = n(N/P)$

Where i=Number of respondent in the stratum to be sampled

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

n=sample size

N=population of the specific stratum

P=population

Table 2: Sample Distribution

Sub County	Number of MSE's
Ruaraka Sub County	1
Embakasi South Sub County	5
Westlands Sub County	19
Dagoretti North Sub County	13
Kibra Sub County	50
Roysambu Sub County	8
Kasarani Sub County	7
Embakasi East Sub County	21
Makadara Sub County	5
Kamukunji Sub County	69
Starehe Sub County	86
Mathare Sub County	17
Dagoretti South Sub County	20
Langata Sub County	4
Embakasi North Sub County	17
Embakasi West Sub County	27
Embakasi Central Sub County	15
Total	384

3.4 Data Collection Instrument

This research relied on primary data, which was collected using a questionnaire. Questionnaires can cover a large number of people and a researcher can use them to reach a wide geographic coverage. They are relatively cheap and no prior arrangements are needed before posting. They avoid embarrassment on the part of the respondents as it allows them to consider responses, especially where there are pre-coded options. They also allow for possible anonymity of respondent and have no interviewer bias if administered correctly.

3.5 Data collection Procedure

Structured questions were presented on a Likert scale, which was suitable for measuring perception, attitude values and behaviour (Upagade & Shende, 2012). In order to avert the risk of low response rate, the researcher recruited two qualified research assistants to assist in administering the questionnaire. The research assistants facilitated and were adequately trained to understand the questionnaire before commencement of the data collection. Further, a formal letter from University's School of Business and Economics was obtained. The letter was attached to the questionnaires, and due to its importance of the study to business organizations and policy makers, a request to potential respondents was made for them to participate. On receipt of the research instruments, the researcher coded and tested the results for reliability and validity.

3.6 Measurement of Variables

The dependent variable of the study is financial performance whereas the independent variables of the study are digital payments, digital credits, and digital savings. This section provides details of how each of the study variable is measured and operationalized.

Table 3: Operationalization of variables

Definition of Variable	Measurement of variable (s)
Digital payments	Simplicity and flexibility of payments
Digital credits	Ease of access, no collateral
Digital savings	Convenience, unlimited banking hours
Financial performance	Sales Volume, cash flow, profitability

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

3.7 Data Analysis and Presentation

Multiple linear regression analysis was performed on the study variables to determine the causal relationship between the variables. The study assumed that there was linear relationship between the dependent and the independent variables and that the data was normally distributed. Skewness and kurtosis was used to test for linearity. Collinearity diagnostics was used to check for multi-collinearity. The study also assumed that there was minimal correlation amongst the independent variables and that the sum of errors terms was zero.

3.8 Model Specification

The research regression model is depicted below.

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon$$

Y = Financial Performance

X1 = Digital Payments

X2 = Digital Credits

X3 = Digital Savings

ϵ = Error Term.

β = Regression Coefficients

β_0 = (Constant)

The regression analysis determined the strength of each of the independent variables and was delineated from the r^2 and adjusted r^2 and inform findings and recommendations. From the model, Y is the dependent variable, β_0 β_1 β_2 β_3 represent the regression coefficients while ϵ represent the error term with a mean of zero and assumed to be zero. The X's are the independent variables. The model was applied at 95% level of confidence. The equation solved the statistical mode where SPSS was applied to generate quantitative data and reports for the study.

3.9 Diagnostic Tests

It was essential to ensure non-violations of the assumptions of the classical linear regression model before attempting to estimate a regression equation. Estimating these equations when the assumptions of the linear regression are violated runs the risk of obtaining biased, inefficient, and inconsistent parameter estimates (Verma & Abdel-Salam, 2019).

3.9.1 Test of Multi-Collinearity

Multi-collinearity occurs in situations in which there is a high degree of association between independent variables and dependent variable. Failure to account for perfect multi-collinearity results into indeterminate regression coefficients and infinite standard errors while existence of imperfect multi-collinearity results into large standard errors. During estimation, the problem is not the presence of multi-collinearity but rather its severity. Multi-collinearity was tested using variance inflation factor VIF where $VIF \geq 10$ indicate presence of Multi-collinearity (Field, 2009).

3.9.2 Normality and Linearity Test

These tests were used to test whether the variables were symmetrically distributed and without outliers and that, there was linear relationship among the variables. A normality test was carried out to determine if the data set was well modelled by a normal distribution. The data was tested for normality using skewness and kurtosis to find out whether there are any inconsistencies. Kurtosis is a display of flattening of a distribution and Skewness is as an indication of asymmetry and deviation from a normal distribution. Data satisfies normality parameters if skewness and kurtosis is between +2 and -2. (Kothari, 2004).

4. ANALYSIS AND DISCUSSION

4.1. Descriptive statistics

Descriptive Statistics for Digital Payments

Respondents were requested to indicate their thoughts for the following statements relating to digital payments and their responses indicated in table 4 below.

Table 4: Descriptive statistics for Digital Payments

DIGITAL PAYMENTS	N	SA	A	N	D	SD	Mean	Std. Deviation
Using digital payment improves my performance in conducting purchase.	360	248 (68.9)	96 (26.7)	8 (2.2)	0 (0)	8 (2.2)	3.94	0.893
Using digital payment makes it easier to conduct my business transactions.	360	80 (22.2)	240 (66.7)	8 (2.2)	32 (8.9)	0 (0)	3.04	1.106

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

I find digital payment useful in conducting purchase from other retailers	360	172 (47.8)	112 (31.1)	9 (2.5)	63 (17.5)	4 (1.1)	4.32	0.928
I feel confident that digital banking makes it safe for me to use digital payment.	360	80 (22.2)	156 (43.4)	36 (10.0)	84 (23.3)	4 (1.1)	3.74	0.979
The legal and technological structures adequately protect me from payment problems on the digital banking	360	172 (47.8)	108 (30.0)	16 (4.4)	56 (15.6)	8 (2.2)	4.13	0.967
I can use digital payments from anywhere.	360	84 (23.3)	148 (41.2)	32 (8.9)	80 (22.2)	16 (4.4)	3.33	1.078
I can use digital payment at any time.	360	164 (45.6)	72 (20.0)	48 (13.3)	68 (18.9)	8 (2.2)	3.68	1.044

The study examined whether using digital payment improves my performance in conducting purchase. Findings indicated that majority of the respondents with 95.6% (M=3.94, SD=0.893) were in agreement with the statement, 2.2% were neutral to the statement, and 2.2% were not in agreement with the statement.

The study investigated whether using digital payment makes it easier for me to conduct my business transactions. Respondents were of the opinion that digital payment makes it easier for me to conduct my business transactions with 88.9% (M=3.04, SD=1.106) of the respondents agreeing to the statement. 2.2% of the respondents were neutral to the statement and a further 8.9% of the respondents were not in agreement with the statement.

The study investigated whether respondents find digital payment useful in conducting purchase from other retailers, and the results indicated that majority of the respondents with 78.9% (M=4.32, SD=0.928) were in agreement with the statement, 2.5% of the respondents were neutral, whereas 18.6% of the respondents were not in agreement with the statement.

The study further investigated whether respondents were confident that digital banking makes it safe for me to use digital payment. Findings indicated that majority of the respondents with 65.6% (M=3.74, SD=0.979) were in agreement with the statement and 10% were neutral to the statement. Only 24.4% of the respondents were not in agreement with the statement.

In relation to whether respondents feel assured that legal and technological structures adequately protect me from payment problems on the digital banking, majority of the respondents with 77.8% (M=4.13, SD=0.967) were in agreement with the statement, 4.4% of the respondents were neutral, whereas 17.8% of the respondents were not in agreement with the statement.

The study also examined whether respondents use digital banking from anywhere, and findings indicated that majority of respondents with 64.5% (M=3.33, SD=1.078) were in agreement with the statement, 8.9% were neutral, whereas 26.6% of the respondents were not in agreement with the statement.

Finally, as to whether the respondents could use digital payment at any time, findings indicated that majority of the respondents with 65.6% (M=3.68, SD=1.044) were in agreement with the statement, 13.3% were neutral to the statement, and a further 21.1% of the respondents were not in agreement with the statement.

These findings agreed with those of Muriuki, (2014) whose study concluded that the use of digital banking services is perceived to enhance profitability moderately in businesses. The findings were also in agreement with those of Higgins at al. (2014) who conducted a study to determine digital money usage patterns of Kenyan MSEs, and the results of their study showed that 99.5% of the MSEs used digital money, which enabled MSEs to improve their performance.

Descriptive statistics for Digital Credits

Respondents were requested to indicate their feedback on the following statements relating to digital credits and their results were presented in Table 5 below.

Table 5: Descriptive Statistics for Digital Credits

DIGITAL CREDIT	N	SA	A	N	D	SD	Mean	S.D
I use mobile to access loan from digital lenders	360	216 (60.0)	80 (22.2)	24 (6.7)	32 (8.9)	8 (2.2)	3.28	1.000
Digital credits is easy to access	360	64 (17.8)	232 (64.4)	4 (1.1)	36 (10.0)	24 (6.7)	3.70	1.100

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

There are clear lending terms of digital credits	360	52 (14.4)	80 (42.2)	12 (3.3)	176 (28.9)	40 (11.1)	3.33	1.260
The introduction of digital credit services has improved my business stock	360	80 (22.2)	188 (52.2)	16 (4.4)	40 (11.1)	36 (10.0)	3.63	1.160
Due to digital credit, am able to order for goods as per the customer request anytime	360	108 (30.0)	148 (41.2)	20 (5.6)	44 (12.2)	40 (11.1)	3.59	1.150

The study investigated whether respondents use mobile to access loan from digital lenders. Findings indicated that majority of the respondents with 82.2% (M=3.28, SD=1.00) were in agreement with the statement, 6.7% were neutral to the statement, and 11.1% of the respondents were not in agreement with the statement.

In addition, the study examined whether digital credits is easy to assess with findings indicating that majority of the respondents with 82.2% (M=3.70, SD=1.100) were in agreement with the statement, 1.1% of the respondents were neutral to the statement, and 16.7% of the respondents were not in agreement with the statement.

The study also investigated whether there were clear lending terms of digital credits, with findings indicating that majority of the respondents with 56.6% (M=3.33, SD=1.260) were in agreement with the statement, 3.3% of the respondents were neutral to the statement, whereas 40.0% of the respondents were not in agreement with the statement.

The study sought to examine whether the introduction of digital credit services has improved my business stock. Findings gathered from the respondents revealed that majority of the respondents with 74.4% (M=3.63, SD=1.160) were in agreement with the statement, 4.4% of the respondents were neutral to the statement and 21.1% of the respondents were not in agreement with the statement.

Finally, the study sought to investigate whether due to digital credit, respondents were able to order for goods as per the customer request anytime. Findings indicated that majority of the respondents with 71.2% (M=3.59, SD=1.150) were in agreement with the statement, 5.6% were neutral to the statement, and 23.3% were not in agreement with the statement.

These results were in agreement with those of Odongo (2014) whose study on digital lending terms and financial performance of small enterprises in Uganda, found out that cost of credit contributed positively to the performance of small businesses than the other lending terms. The findings are also in agreement with those of Amsi et al. (2017) whose study on the effect of digital credit on MSEs financial performance in Kenya found that loan amount available to a business positively and significantly affected the performance of the business's enterprises. The study demonstrated that when enterprises receive amount of credit that is enough, they meet their business needs, which eventually leads to financial sustainability of the businesses.

Descriptive Statistics for Digital Savings

Respondents were asked to provide feedback on various statements relating to digital savings and the results presented in Table 6 below.

Table 6: Descriptive Statistics for Digital Savings

DIGITAL SAVINGS	N	SA	A	N	D	SD	Mean	SD
Am able to deposit saving to my account using mobile phone	360	200 (55.6)	116 (32.2)	8 (2.2)	24 (6.7)	12 (3.3)	4.16	0.910
I can save money in my mobile phone anytime anywhere	360	80 (22.2)	196 (54.4)	28 (7.8)	52 (14.4)	4 (1.1)	4.64	0.815
Am able to access to savings through digital money	360	160 (44.4)	108 (30.0)	32 (8.9)	56 (15.6)	4 (1.1)	4.48	0.717
By use of till number or my sales go direct to my account which increase my savings	360	88 (24.4)	180 (50.0)	32 (8.9)	52 (14.4)	8 (2.2)	4.48	0.717
Mshwari savings has increased my loan limit	360	144 (40.0)	112 (31.1)	40 (11.1)	60 (16.7)	4 (4.4)	4.40	0.698
I can easily access my saving anytime from using my mobile phone	360	104 (28.9)	124 (34.4)	32 (8.9)	80 (22.2)	20 (5.6)	4.37	0.696

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

The study investigated whether respondents were able to deposit savings to their accounts using digital phones. Findings indicated that majority of the respondents with 87.8% (M=4.16, SD=0.910) were in agreement with the statement, 2.2% were neutral to the statement, and 10.0% were not in agreement with the statement.

The study also investigated whether respondents could save money in their digital phones anytime anywhere. Findings indicated that majority of the respondents with 76.6% (M=4.64, SD=0.815) were in agreement with the statement, 7.8% were neutral to the statement, whereas 15.5% of the respondents were not in agreement with the statement.

The study sought to investigate whether respondents were able to access to savings through digital money. Majority of the respondents with 74.4% (M=4.48, SD=0.717) were in agreement with the statement, 8.9% of the respondents were neutral to the statement, whereas 16.7% of the respondents were not in agreement with the statement.

In addition, the study examined whether the use of Till number or my sales go direct to my account increased their savings. Respondents with 74.4% (M=4.48, SD=0.717) were in agreement with the statement, 8.9% of the respondents were neutral to the statement, whereas 16.6% of the respondents were not in agreement with the statement.

The study examined whether Mshwari savings has increased the respondents loan limit. Majority of the respondents with 71.1(M=4.40, SD=0.698) were in agreement with the statement, 11.1% of the respondents were neutral to the statement, and 21.1% of the respondents were not in agreement with the statement.

Lastly, the study sought to evaluate whether respondents could easily access their savings anytime using their digital phones. Findings indicated that majority of the respondents with 63.3% (M=4.37, SD=0.696) were in agreement with the statement, 8.9% were neutral to the statement, and a further 27.8% were not in agreement with the statement.

These findings above in relation to digital savings and performance indicate that digital money can increase the saving nature of respondents. They are in agreement with those of Suri & Jack (2016) who in their study found that digital 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. The findings are also in agreement with those of Sibiu (2015) whose study focused on digital money saving and the amplification of MSEs in Kenya, 90a case study of Kisumu city. The review findings provided that digital money saving reported significant influence on the MSEs industry.

Descriptive Statistics for Financial Performance

Respondents were requested to express their opinion on the following statements relating to financial performance and their responses indicated in Table 7 below.

Table 7: Descriptive Statistics for Financial Performance

PERFORMANCE OF MSE'S	N	SA	A	N	D	SD	Mean	SD
My organization makes a profit this year	360	145 (40.3)	122 (33.9)	23 (6.4)	47 (13.1)	23 (6.4)	4.31	0.932
Profit for this month is higher than last month	360	85 (23.6)	174 (48.2)	36 (10.0)	45 (12.5)	20 (5.7)	4.21	0.895
Profit for this year is higher than last year	360	85 (23.6)	206 (57.2)	12 (3.3)	36 (10.0)	21 (5.8)	4.56	0.951
This enterprise makes higher sales for this year	360	62 (17.2)	208 (57.8)	29 (8.1)	42 (11.7)	19 (5.3)	4.65	0.962
Sales for this month are higher than last month	360	54 (15.0)	206 (57.2)	38 (10.6)	34 (9.5)	28 (7.8)	3.52	1.070
Sales for this year are higher than last year	360	73 (20.2)	211 (58.6)	20 (5.6)	32 (8.9)	24 (6.7)	3.54	1.110
The enterprise makes higher cash flow for this year	360	91 (25.3)	196 (54.4)	13 (3.6)	38 (10.6)	22 (6.1)	3.28	1.040
This month, the actual cash income is higher than the budgeted cash income	360	112 (31.1)	96 (26.7)	31 (8.6)	87 (24.2)	34 (9.4)	3.03	1.140
This year, the actual cash income is higher than the budgeted cash income	360	88 (24.4)	143 (39.7)	27 (7.5)	64 (17.8)	38 (10.6)	3.63	1.050

The study sought to evaluate whether the organization makes a profit for this year and the findings indicated that majority of the respondents with 74.2% (M=4.31, SD=0.932) were in agreement with the statement, 6.4% of the respondents were neutral to the statement, and 19.5% of the respondents were not in agreement with the statement.

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

The respondents were of the view that the profit for the current month was higher than the previous month, supported by 71.8% (M=4.21, SD=0.895) of the respondents. However, 10% of the respondents were neutral to the statement, and a further 18.2% of the respondents were not in agreement with the statement.

The study investigated whether respondents' profits for this year were higher than the previous year. Findings indicated that majority of the respondents with 80.8% (M=4.56, SD=0.951) were in agreement with the statement, 3.3% were neutral to the statement, and 15.8% were not in agreement with the statement.

The study further investigated whether their enterprises makes higher sales for the year and findings indicated that majority of the respondents with 75.0% (M=4.65, SD=0.962) were in agreement with the statement, 8.0% were neutral to the statement, and 17.0% were not in agreement with the statement.

In an effort to establish whether sales for this month were higher than last month, respondents with 72.2% (M=3.52, SD=1.070) were in agreement with the statement, 10.6% were neutral to the statement, and 17.3% were not in agreement with the statement.

The study examined whether sales for this year were higher than last year. Findings from eh respondents indicated that majority with 78.8% (M=3.54, SD=1.110) were in agreement with the statement, 5.6% were neutral to the statement, whereas 15.6% of the respondents were not in agreement with the statement.

The study also examined whether the enterprise makes higher cash flow for this year. Findings indicated that majority with 79.7% (M=3.28, SD=1.040) were in agreement with the statement, 3.6% were neutral to the statement, and 16.7% of the respondents were not in agreement with the statement.

The study sought to investigate whether in the current month the actual cash income is higher than the budgeted cash income. Findings from the respondents indicated that majority with 57.8% (M=3.03, SD=1.140) were in agreement with the statement, 8.6% were neutral to th statement, and 33.6% were not in agreement with the statement.

The study also sought to investigate whether this year, the actual cash income is higher than the budgeted cash income. Findings indicated that majority of the respondents with 64.1% (M=3.63, SD=1.050) were in agreement with the statement, 7.5% were neutral to the statement, and the rest 28.4% were not in agreement with the statement.

These findings above relating to performance were in agreement with those of Govil, Lopez and Martin (2017) who carried out a study on digital finance's role and revealed that digital banking greatly enhances businesses' financial development. Concurring to the research, digital banking speeds up the stream of products and services as a result of creating a conducive climate for speculation and over all security. Onyango (2016) study on effect of selection and utilize of digital money innovation on the performance of SMEs found a positive relationship between digital many utilization and the performance of SMEs.

4.2 Pearson Correlation Analysis

Correlation was calculated using the Pearson correlation test. A number nearer to 1 denotes a greater association between the variables, and the coefficient is used to quantify correlation. While a negative coefficient denotes an inverse link, a positive coefficient indicates that the variables move in the same direction. The findings of the correlation study are presented in Table 8 below.

Table 8: Correlation Analysis

		Financial Performance	Digital Payments	Digital Credits	Digital Savings
Financial Performance	Pearson Correlation	1			
	Sig. (2-tailed)	0.011			
Digital Payments	Pearson Correlation	0.435*	1		
	Sig. (2-tailed)	0.026			
Digital Credits	Pearson Correlation	0.385**	0.215	1	
	Sig. (2-tailed)	0.002	0.169		
Digital Savings	Pearson Correlation				1

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

		0.396**	0.047	0.212	1
Sig. (2-tailed)		0.022	0.214	0.192	

The results presented in Table 4.12 above demonstrate a number of significant linkages. There is a direct and positive link ($r=0.435$, $p=0.026$) between digital payments and financial performance. Second, there is a positive correlation between digital credits and financial performance ($r=0.385$, $p=0.002$). Thirdly, there is a strong and positive correlation ($r=0.396$, $p=0.022$) between digital savings and financial performance.

4.3 Normality Test

Linear regression requires all variables to be multivariate normal. If the residuals are not skewed, that means that the assumption is satisfied. In this study, normality was tested by using skewness and kurtosis and findings presented in Table 9 below.

Table 9: Skewness and Kurtosis

Variable	Skewness	Kurtosis
Financial Performance	0.518	0.823
Digital Payments	1.105	0.795
Digital Credits	0.913	0.257
Digital Savings	0.634	0.458

Findings in Table 9 display the skewness and kurtosis values for variables in the study. The findings show that the smallest value for skewness is 0.518 (Financial performance) while the largest is 1.105 (digital payments). The smallest value for kurtosis is 0.257 (Digital credits) while the largest is 0.823 (financial performance). These results demonstrate that the data is normal since all the skewness and kurtosis values are between ± 1.5 . According to George and Mallery (2014), the values for skewness and kurtosis between -2 and +2 are considered suitable in order to verify normal univariate distribution.

4.4 Multi Collinearity Test

Multi-collinearity tests were performed to obtain collinearity statistics and establish whether the variables are highly correlated. A high correlation between one independent variable with another independent variable leads to multi-collinearity, which is a problem in regression analysis. In such a situation, the method of analysis cannot distinguish from each other preventing multi-regression from estimating coefficients, and the equation is unsolvable (King, Keohane, and Verba, 2014).

A test interchanging the variables was run and found to be within acceptable levels with Variance Inflation Factor (VIF) of less than 5. According to Greenberg and Parks (2007), a VIF of more than 10 indicates trouble and more than 2.5 raises concern. Table 4.10 shows the Collinearity Tests output.

Table 10: Collinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Digital Payments	0.847	1.138
Digital Credits	0.752	1.363
Digital Savings	0.794	1.343
Average	0.797	1.281

4.5 Model Summary

Model summary provides information on the correlation coefficients (R), which indicate the nature of the relationship between the variables, and the coefficient of determination (R^2), which represents the extent to which the independent variables predict changes in the dependent variable. Table 11 below displays summary of the model for the study.

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

Table 11: Model Summary

Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
1	.784 ^a	.615	.612	2.25266

The correlation coefficient (R) of 0.784 indicates a strong positive relationship between the independent variables (digital payments, digital credit, and digital savings) and the dependent variable (financial performance). This suggests that as the usage of digital banking increases among micro and small enterprises, their financial performance tends to improve. The R Square value of 0.615 means that digital payments, digital credit, and digital savings can explain approximately 61.5% of the variation in financial performance. This indicates that these variables have a significant impact on the financial performance of micro and small enterprises. The Adjusted R Square value of 0.612 is very close to the R Square value, indicating that the inclusion of the three independent variables in the model is appropriate and does not result in overfitting.

4.6 ANOVA

ANOVA is a diagnostic tool used to test whether two or more population means are identical. It explains the elements of variance and tests the results of the study for significance. The ANOVA results of this study were presented in Table 12 below.

Table 12: ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2887.884	3	962.628	189.700	.000 ^b
	Residual	1806.516	356	5.074		
	Total	4694.400	359			

The ANOVA results indicate that the regression model is statistically significant. The F value of 189.700 with a significance level of 0.000 suggests that the observed variation in the dependent variable (financial performance) explained by the independent variables (digital payments, digital credit, and digital savings) is significantly greater than the unexplained variation. The significant F value indicates that there is a strong relationship between the independent variables and the dependent variable. The model as a whole is able to explain a substantial amount of the variation in financial performance. In summary, the ANOVA results support the findings from the regression analysis, suggesting that digital payments, digital credit, and digital savings have a significant impact on the financial performance of micro and small enterprises.

4.7 Regression Coefficients

Regression was engaged in the study to explain the existing mathematical relationships between the predictor variables and the outcome variable. This analysis also assessed the statistical significance of these relationships through the use of beta coefficients and p-values. Table 13 displays the regression results from the analysis.

Table 13: Regression Coefficients

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig. (p)
		Beta (β)	Std. Error	Beta (β)		
1	(Constant)	0.200	1.258		0.159	0.874
	Digital Credits	0.266	0.026	0.388	10.121	0.003
	Digital Savings	0.488	0.037	0.532	13.318	0.007
	Digital Payments	0.682	0.051	0.625	13.318	0.000

All three independent variables have statistically significant coefficients, as indicated by the significance levels. This suggests that digital credits, digital savings, and digital payments are all important predictors of financial performance in the micro and small enterprises. The coefficient estimates indicate the direction and strength of the relationship between each independent variable and the dependent variable (financial performance). The multiple regression equation was summarized as follows.

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

$$Y=0.200+0.682X^1+0.266X^2+0.488X^3$$

4.8 Discussion of Findings

The first hypothesis was that there is no significant relationship between digital payments and financial performance of micro and small enterprises in Nairobi County, Kenya. According to the results of the study, digital payments had a positive and significant coefficient estimate (β) of 0.682 and significance (p) of $0.000 < 0.05$. This suggests that a one-unit increase in digital payments is associated with a 0.682 increase in financial performance, holding all other variables constant. The hypothesis was therefore rejected since there was a positive relationship between digital payments and financial performance.

The second hypothesis was that there is no significant relationship between digital credits and financial performance of micro and small enterprises in Nairobi County, Kenya. According to the findings of the study, digital credits had a positive and significant coefficient estimate (β) of 0.266 and a significance (p) of $0.003 < 0.05$. This suggests that a one-unit increase in digital credits is associated with a 0.266 increase in financial performance, holding all other variables constant. The hypothesis was therefore rejected since there was a positive and significant relationship between digital credits and financial performance of micro and small enterprises in Nairobi County, Kenya.

The third hypothesis of the study was that there is no significant relationship between digital savings and financial performance of micro and small enterprises in Nairobi County, Kenya. Findings from the study indicated that digital savings had a positive and significant coefficient estimate (β) of 0.488 and a significance (p) of $0.007 < 0.05$. This suggests that a one-unit increase in digital savings is associated with a 0.488 increase in financial performance, holding all other variables constant. The hypothesis was therefore rejected since digital credit had a positive and significant relationship with financial performance of micro and small enterprises in Nairobi County, Kenya.

Digital payments had the largest beta coefficients, which meant that it had the most influence of the three variables in the study on financial performance of micro and small enterprises in Nairobi County, Kenya.

5.0 RECOMMENDATION AND CONCLUSION

The findings of this study led to the conclusion that digital payments had a positive and significant effect on financial performance of micro and small enterprises in Nairobi County, Kenya. Digital payments are more convenient and can be made from any location, and had the legal and technological structures adequately protecting the users from payment problems making them the most preferred way of making financial payments by businesses. These findings were in agreement with those of Higgins et al. (2014) whose study to determine mobile money payments and usage patterns of Kenyan MSEs revealed that 99.5% of the MSEs used mobile money, and that the use of mobile money enabled MSEs to improve their performance. The findings were also in agreement with those of Donner and Escobari (2013) whose study on the use of mobile phones by MSEs in developing countries revealed that mobile phones had helped MSEs to become more productive and to improve their sales thereby improving their financial performance.

The study also concludes that digital credits had a positive and significant influence on financial performance of micro and small enterprises in Nairobi County, Kenya. These digital credits provide businesses and individuals' access to credit or capital for their businesses that could otherwise be difficult to access, giving them an opportunity to provide resources for their businesses. These digital credits eliminate the need for collaterals required by the businesses to access loans in most financial institutions. These findings of the study were in agreement with those of Amsi et al. (2017) whose study on the effects of digital credit on MSEs financial performance in Kenya found out that loan amount available to a business significantly affected the performance of the business's enterprises. The study demonstrated that when enterprises receive amount of credit that is enough, they meet their business needs, which eventually leads to financial sustainability of the businesses. The study was also in agreement with that of Odongo, (2014) whose study on the importance of the loan amount and digital lending terms in contributing to the performance in Uganda revealed that cost of credit contributed positively to the performance of small businesses than the other lending terms. The study found out that there was less significance placed on the cost of money when traders evaluate the access to finance. Access to finance assures the growth of businesses, which in turn increases assets and profits.

The study concluded that digital savings had a positive and significant effect on financial performance of micro and small enterprises in Nairobi County, Kenya. Though digital savings, MSE's have an opportunity to set aside a portion of their income for saving, which can provide an additional source of income for the business when the need arises. These findings agreed with those of Suri & Jack (2016) whose study on the impact of digital financial services on financial access found that digital money increased the savings behaviors and financial resilience behaviors of households where majority of the women reported using their savings to change their occupational choice from agriculture into business. These findings indicate that digital money can positively affect the saving behaviors of women. The findings were also in agreement with those of Sibiu (2015) whose study on digital money

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

saving and the amplification of MSEs in Kenya, a case study of Kisumu city, found that mobile money saving reported significant influence on the MSEs industry in Kisumu City. Thus, the review fulfilled its aims and gained overarching perception emanating from the service usage availed by mobile money by MSE's.

The study recommends that more needs to be done in terms of applications security due to the risk of cyber-attacks and fraud. Institutions should invest more on research to ensure that their applications used by customers are safe to prevent cyber-attacks and fraud.

The study also recommends that MSE's need to maintain a good record of credit and improve on their saving to access more credit through the digital credits applications. They should also be provided with a fair repayment plan to allow them pay for the loans in a more structured manner.

The study also recommends that government should allocate more resources to digital or digital lending platforms to help increase more credit access that can be used even by the marginalized communities to access loans to boost their businesses.

REFERENCES

- 1) Abdelrahman (2013). Adoption of Internet banking among sophisticated consumer segments in an advanced developing country. *International Journal of Bank Marketing*, 22(3), 212–232.
- 2) Abiola, B. (2014). Impact analysis of microfinance in Nigeria. *International Journal of Economics and Finance*, 3(4), 217-225.
- 3) Ahwireng, F. (2013). Financial inclusion and financial sector stability. *Journal of Applied Finance and Banking*, 2, 95-120.
- 4) Alemany, J. (2014). Market segmentation in the Indonesian banking sector: the relationship between demographics and desired customer benefits', *International Journal of Bank Marketing*, 18(2), 99-112.
- 5) (Amisi, 2017). Effects of Micro-financing on Micro and Small Enterprises (Mses) in Southwest Nigeria. *Journal of Finance and Accounting*, 12(2), 112-126.
- 6) Bangens, M. and Soderberg, P. (2011). Modelling consumer choice of distribution channels: an illustration from financial devices. *International Journal of Bank Marketing*, 20(4), 161-173.
- 7) Beck, T. & Cull, R. (2014). Small- and Medium-Sized Enterprise Finance in Africa. *Journal of Economic Growth* 10, 197-227.
- 8) Bekele, E., & Zeleke, W. (2010). Factors That Affect the Long-Term Survival of Micro, Small and Medium Enterprises in Ethiopia. *South African Journal of Economics*, 76 (3), 1-33.
- 9) Brem, J., Krensel, U. & Neusser, P. (2013). Small enterprises, large firms, productivity growth and wages. *Journal of Policy Modeling* 30(30), 575–589.
- 10) Bricks, J., & Enner, P. (2007). Small enterprises, large firms, productivity growth and wages. *Journal of Policy Modeling* 30(30), 575–589.
- 11) Chaffey, N., Hemphill, W., & Bird, S. (2019). Boosting small and medium enterprises performance in Nigeria through mobile commerce. *European Journal of Business management* 6, 134–141.
- 12) Chogi, B., (2010). The Impact of Mobile Communication Technologies in Micro and Small Enterprises: Case Study of Nairobi City. *Journal of Business management*, 5(2), 156-172.
- 13) Cooper, R., & Schindler, S. (2012). *Business research methods*. (12th ed). New York, USA: McGraw Hill Publishers.
- 14) Cresswel, S. (2013) *Research design. Qualitative, quantitative and mixed methods approaches* (3rd edition) SAGE Publications Ltd, Delhi, India.
- 15) Donner, N. and Escobari, K. (2013). Dynamic of Financial Innovation and Performance of Banking Firms: Context of an Emerging Banking Industry. *International Research Journal of Finance and Economics*, 51(2), 220-241.
- 16) Field, G. (2009). *Research methods*. (2nd ed.). Boston, U.S.A: Routledge Publishers.
- 17) Fishers et. Al. (2007). Challenges Facing Micro and Small Enterprises in Accessing Credit Facilities in Kangemi Harambee Market in Nairobi City County, Kenya. *International Journal of Scientific and Research Publications*, 4(12):1-25.
- 18) Gavrea, F., Ilies, D., & Stegorean, U. (2017). Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature. *ELSEVIER, Journal of Accounting and Economics* 3(2), 405–440.
- 19) Gichuki, J. (2014). Challenges Facing Micro and Small Enterprises in Accessing Credit Facilities in Kangemi Harambee Market in Nairobi City County, Kenya. *International Journal of Scientific and Research Publications*, 4(12):1-25.
- 20) Higgins, E., Al-Timimi, S. & Alsaadi, J. (2014). Effects of Financing of Micro and Small Enterprises (MSEs). *IPASJ International Journal of Management*, 2(10): 6-12.
- 21) Huang, M. (2012). Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature. *ELSEVIER, Journal of Accounting and Economics* 3(2), 405–440.

Effect of Digital Banking on Financial Performance of Micro and Small Enterprises in Nairobi County, Kenya

- 22) Koontz, H. & Donnell, C. (2003). Introduction to Management. McGraw-Hill Inc., New York.
- 23) Kothari, C. (2004). Research methodology. Methods and techniques. (2nd ed.). New Delhi, India: New Age International Publishers.
- 24) Litondo, S. (2018). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *Journal of MIS*, 13(3), 319-340.
- 25) Mashamba et. Al. (2014). From Electronic to Mobile Commerce: Opportunities through technology convergence for business services, *CACCI Journal*, 1, 253-287.
- 26) Mashenene, T. (2015). Relationship between Banking Technologies and Financial Performance of Commercial Banks in Kenya. *International Journal of Economics, Commerce and Management*, 3(11), 784 -815.
- 27) Mbogo, Q. (2010). From Electronic to Mobile Commerce: Opportunities through technology convergence for business services, *CACCI Journal*, 1, 253-287.
- 28) Mugodo, E. (2016). Effect of electronic banking on financial performance of commercial Banks. *Journal of Financial Management* 3(2), 144-160.
- 29) Ngaruiya, B., Bosire, M. & Kamau, S. (2014). Effect of Mobile Money Transactions on Financial Performance of Small and Micro Enterprises in Nakuru Central Business District. *Research Journal of Finance and Accounting*, 5(2): 53-58.
- 30) Nyaga, K. (2017). The Impact of Mobile Money Services on the Performance of Micro and Small Enterprises in an Urban Town in Kenya. *Journal of Business Management* 4(2), 186-197.
- 31) Nyumba, K. (2015). Venture capital (VC): Its impact on growth of micro and small enterprises in Kenya. *International Journal of Business and Social Science*, 3(6), 32-38.
- 32) Okelo, I. (2015). Tobin's q and the Structure Financial Performance Relationship: Reply. *American Economic Review*, 76, 1205-1210.
- 33) Ondongo, I. (2014). Tobin's q and the Structure Financial Performance Relationship: Reply. *American Economic Review*, 76, 1205-1210.
- 34) Perry, M., & Pendleton, J. (2012). Information Asymmetries, Financial Structure, and Financial Intermediation. *Journal of Finance*, 32(2): 371-387
- 35) Saunders, J., Lewis, Y., and Thornhill, K. (2014) Research methods for business students, 6th edition. Harlow, GB: Prentice Hall Financial Times.
- 36) Scott, S., Reene, A., & Zacharidis Z. (2017). Mobile Money Usage Patterns of Kenyan Micro and Small Enterprises. *Journal of Innovation Management* 7(2), 67-81.
- 37) Sha, D. (2006). Factors influencing successful use of Mobile Technologies to facilitate Ecommerce in small enterprise: The case of Kenya. *The African journal of information system*, 3, 600-623.
- 38) Suri, H., & Jack C. (2016). Mobile Banking in Developing Countries-A Case Study on Kenya. *Information Technology, University of Applied Sciences*.
- 39) Tambunan, T. (2013). MSEs Development in Indonesia: Do Economic Growth and Government Supports Matter? *Journal of Finance and Economics*, 8(2), 56-69.
- 40) Tobbin, E. (2015). The Behavioral Consequences of PC banking', *International Journal of Bank Marketing*, 16(5), 195–201.
- 41) Upagade, V., & Shende, A. (2012). *Research Methodology 2nd Edition* S. Chand & Company Ltd ram Nagar New Delhi.
- 42) Wamalwa et. Al. (2019). Information technology adoption behavior life cycle: Toward a Technology Continuance Theory (TCT). *International Journal of Information Management*, 29(4), 309-320.
- 43) Wambari, A. (2012). Mobile banking in Developing Countries (a case study on Kenya). *Journal of Business Management* 23, 206-223.
- 44) West, Y., & Fair, T. (2012). The effect of interest rates on profitability of deposit taking microfinance institutions in Kenya. *Journal of Finance*, 3, 24-39.
- 45) Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2010). *Business research methods*. (8th ed). California, USA: South-Western Cengage Learning Publishers.



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