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Influence of Financial Technology and Cost of Credit on Mobile Loan Default among Registered Micro and Small Business Enterprises in Kakamega Municipality, Kenya

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Abstract:
The mobile based loans have rapidly grown in the past few years and have turned out to be a critical alternative source of revenue to businesses and individuals. In their simplest form, customers access mobile loans over their mobile phones which are cost effective and convenient to the customer's side as they need not to visit the physical branch. This study sought to determine the effect of Cost of credit on mobile loan default among registered micro and small business enterprises and to establish the effect of financial technology on mobile loan default among registered micro and small business enterprises. This study was guided by technology acceptance model and transaction cost theory. The study adopted a descriptive survey. The target population of the study was 556 registered motor cycle operators, micro traders, Saloons & Barber shops in Kakamega municipality. The study adopted stratified random sampling technique to select 233 micro and small enterprises. Questionnaire was the selected instrument or tool for the primary data collection for the study. Data analysis involved reviewing and editing of the data to be collected and compiling of the fully filled questionnaires in the Statistical Package for Social Sciences (SPSS) software version 23. The data was analyzed using descriptive and inferential statistics. Inferences analysis using multiple linear regressions showed the proportionate contribution of the two determinants towards mobile loan default among micro and small business enterprises in Kakamega Municipality is significant. This implied that increase in cost of credit will results to increase mobile loan default and increase in financial technology would decrease mobile loan defaults. Therefore, the study concluded that cost of credit and financial technology significantly determine loan default among micro and small business enterprises. The study recommends that the government should control the cost of credit offered by the mobile phone lending institutions so as not to create borrowing cycle. The policy makers should set a limit of the amount of money that can be disbursed via the mobile; this will help to reduce the default risk among borrowers. It is further recommended for loans disbursed via mobile platforms to be monitored and evaluated closely to ensure that its repayment is in line with the agreed terms.

Key Word*: Financial Technology, Cost of Credit, Mobile Loan Default, Micro and Small Business Enterprises*

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I. Introduction

Mobile phone loans are one of the financial services offered by mobile financial services (MFS) (Chironga, De Grandis, & Zouaoui, 2017). It is regarded as one of the most recent developments in the financial services industry which provide credit access for small and micro enterprises. According to McCarthy (2014), borrowers of mobile phone loans typically do not have significant physical assets against which to back their loans. As a result, the sources from which they can draw are severely limited. Innovative internet platforms, on the other hand, are producing ripples in the traditional small business credit markets. New lenders riding on the wave of novel technology are providing convenient online applications and faster processes for awarding loans to applicants. Many of these applications employ data driven algorithms to more accurately determine creditworthiness of potential borrowers.

In the recent times mobile loan default has emerged as a house hold name and frequently serious topic for discussion among mobile lenders in media and policy formulation platforms (Onyango, Ongus, Awuor & Nyamboga, 2014). Loan default can be defined as the inability of a borrower to fulfil his or her loan obligation as at when due ((Mopia, 2019). According to Central Bank of Kenya (2020), loan defaulters owe mobile lenders over 2.1 Billion of shillings, to make matters worse, those loans have not been serviced over years. Because of the unanticipated negative effects on SMEs financing, high default rates in SMEs loans should be of great concern to policymakers in developing nations. According to Gabor & Brooks (2017), default has a number of

consequences, including the difficulty to recycle funds to other borrowers, the unwillingness of other financial intermediaries to fulfill the needs of small borrowers, and the building of distrust. The costs of loan delinquencies would be felt by both lenders and borrowers, according to Reynolds, Klawitter, and Hayes (2017). In delinquent situations, the lender incurs charges such as missed interest, opportunity cost of principle, legal fees, and other expenses. For the borrower, defaulting involves a trade-off between the penalties of lost reputation and the potential cost of foregoing investments in order to work out the current loan (Whitaker, 2018)

Kenya is undoubtedly the region's most developed mobile loan industry, with a stunning increase in financial inclusion of about 300 percent in the last decade (Ndungu, Morales, & Ndirangu, 2016). Consumers have responded positively to this banking sector innovation. The first digital loan in Kenya was issued in November 2012 by Safaricom through M-Shwari, which is powered by CBA bank. In 2013, KCB introduced mobile loans by offering microloans to KCB customers who had been with the bank for more than six months (Babu, 2020). KCB now has the KCB Mobi services that enable customers to borrow loans, get salary advances, and even have a product known as Kopa bills whereby customers can get a short term loan that can go towards paying off their bills (Kenya Commercial Bank, 2019).

Recent statistics suggest that 1 in every 5 people used mobile loan products in the year 2017. Kenya now has over thirty mobile loan products and the number grows consistently (Evans School Policy Analysis and Research Group (EPAR), 2017). Unlike borrowers in other markets, Kenyans use a variety of channels to access mobile loan services. These include SIM toolkits, apps, websites, app-based payroll lending, Unstructured Supplementary Service Data (USSD), Sim toolkit utilities and airtime platforms. The loans range in amount from Kes 50 to Kes 1 million. Repayment periods range from seven days to one year. Annualized percentage interest rates (APR) charged on these loans range from between 12% and 21% per annum (Kaffenberger & Chege, 2017).

In Kenya, over the past decade, mobile-based lending has continued to grow. Owuor (2019) estimates the number of mobile lending platforms at 49. The industry is largely unregulated, especially since it includes players that are non-bank institutions. These digital loans are unsecured hence; they can easily be accessed by individuals who are low-income earners, with no assets to place as collateral, unlike many formal bank loans. A study by Gubbins and Totolo (2018) on digital credit in Kenya established that the population of defaulters reported to CRB has significantly increased due to digital credit. A study by Singh (2017) also established that more than 2.7 million people in Kenya have been entered into CRB because of defaulting or lateness in payment.

Statement of the Problem

Kenya has seen a surge of digital lenders targeting both the banked and unbanked, saddling borrowers with exorbitant interest rates and forcing regulators to keep up. Currently, 19.1 million Kenyans have received loans totaling Ksh.112.2 billion during the period. The number of borrowers who utilize their loans to consume rather than earn additional revenue is considerable, leading some to become perpetual borrowers. Fifty-nine percent borrow for their businesses, while six percent borrow to repay other loans, thereby perpetuating the debt cycle. Others, according to the study, use such loans to lend to others. Due to multiple borrowing and use of cash for consumption, digital borrowers are twice as likely to default as those who accept conventional loans. According to CBK (2020), mobile lenders account for the majority of debts defaulted by Kenyans, with digital lenders accounting for 90% of the adversely listed Kenyans. One out of every five loans obtained through mobile devices is delinquent. Between 2015 and 2018, the rate of default was twice the suggested ratio of non-performing loans for conventional borrowing, which was found to be 23.2 percent (Kenya Bankers Association, 2019).

With approximately a third of Kenyans considered to be digital borrowers, many have become trapped in debt, borrowing money to pay off previous debts. Over a third of digital borrowers (35%) have used numerous applications to hunt for loans. FSD (2020) discovered that roughly half of the 19.1 borrowers had an outstanding debt at the time of the survey. Seventy percent of mobile loan defaulters will borrow again and still default on the new credit facility to mirror the deterioration of the quality of borrowers. Mobile loan defaulters are likely to default again on new loan issues in comparison to their traditional banking channel counterparts. In spite of getting opportunities to borrow after previous defaults, some debtors are still ending up with bad loans on the new facilities (Digital Lenders Association of Kenya, 2021). As a result, Kenya's Central Bank has been forced to restrict the monthly interest rates imposed by digital mobile lenders. The banking regulator will have to authorize hikes in digital lending rates and other loan costs, as well as a limit on non-performing loans of no more than twice the defaulted credit, among other things. This would reduce the high digital lending rates that have led to many consumers falling into debt traps and predatory lending. Their widespread use has plagued borrowers with hefty interest rates that can reach 520 percent when annualized, resulting in rising defaults and

an ever-increasing number of defaulters who have been adversely listed with credit reporting agencies (CBK, 2020).

Gakuru (2017) focused on virtual lending and loan repayment in commercial banks in Kenya. The influence of mobile-based loans on the operating performance of selected commercial banks in Kenya was studied by Mopia (2019). Masika (2019) explores the impact of mobile lending on Kenya's commercial banks' financial results. The impact of mobile lending on the quality of bank loan portfolios in selected commercial banks in Kenya was assessed by Kithinji (2018). The past studies have focused on mobile loans and the performance of the lenders mostly commercial banks, but do not show the factors that influence default of mobile loans by micro and small businesses. This study, therefore, sought to fill the evidenced gap on determinants of mobile loans default among registered micro and small business enterprises in Kakamega Municipality, Kenya.

Objectives of the Study

The general objective of the study was to investigate determinants of mobile loans default among registered micro and small business enterprises in Kakamega Municipality, Kenya.

The specific objectives of this study were to;

I. To determine the effect of financial technology on mobile loan default among registered micro and small business enterprises in Kakamega Municipality, Kenya.
II. To determine the effect of cost of credit on mobile loan default among registered micro and small business enterprises in Kakamega Municipality, Kenya.

Hypotheses of the Study

i) **H_{01}**: Financial technology does not significantly influence mobile loan default among registered micro and small business enterprises in Kakamega Municipality, Kenya.
ii) **H_{02}**: Cost of credit does not significantly influence mobile loan default among registered micro and small business enterprises in Kakamega Municipality, Kenya.

II. Literature Review

Theoretical Framework

Technology Acceptance Model (TAM)

There are various models that have been used to investigate technology adoption. Several research on mobile service uptake are based on Davies' Technology Acceptance Model (TAM), which was first introduced in 1986. The model was created with the goal of predicting user acceptance and utilization of information technology in an organizational setting. TAM is a frequently used model for user acceptance and usage that relies on attitude explanations of desire to use a given technology or service. The TAM has been shown to be a valid, robust, and powerful model for predicting user acceptance in a number of meta-analyses (Bertrand & Bouchard, 2008).

When users are faced with new technology, two significant aspects impact their decision about how and when they will use it, according to the TAM model, which deals with perceptions rather than actual usage (Venkatesh & Morris, 2000). These are the most important factors: Perceived utility (PU) is a measure of how beneficial something is to someone. Davis defined perceived ease-of-use (PEoU) as "the degree to which a person believes that utilizing a specific system would improve his or her job performance" and perceived ease-of-use (PEoU) as "the degree to which a person believes that using a particular system would be devoid of effort." Technology adoption, particularly in banking systems, has gained tremendous traction and grown at an incredible rate over the world.

Given the importance of the banking system's widespread presence and low cost, there is a lot of opportunity for employing it in agency banking to provide financial services to the unbanked. Technology systems, on the other hand, come with data and network security threats, making them unsuitable for conducting financial transactions. Technology hazards related to information and data security have been documented based on current agency banking arrangements, leaving clients in the dark. Financial institutions must plan and act to ensure the long-term growth and profitability of their agents in order for them to reach the intended clients within a defined population. As technology evolves at a rapid pace, banks have been significantly impacted in their operations, with the deployment of technology ensuring speedy and effective services to clients.

Mobile banking is a novel innovation used by banks to provide services to the unbanked and underbanked at a lower cost. Customers use mobile banking to get out of the bank and into kiosks and villages. Hundreds of millions of dollars have been invested in innovative systems that provide agency banking services (Nganga & Mwachofi, 2013). The theory guided the study in establishing the effect of financial technology on mobile loan default among registered micro and small business enterprises in Kakamega Municipality, Kenya.

Transaction Cost Theory

Ferris came up with the theory in 1981. The usage of trade credit, according to this hypothesis, lowers exchange costs. The transaction motive is based on trade credit's ability to simplify payment. The goal here isn't to raise money, but to lower transaction costs. This idea states that when sellers and purchasers have frequent transactions, both parties can save money by agreeing to a periodic payment schedule. This works as long as the savings in transaction expenses outweigh the cost of storing receivables. Ghoshal and Moran (2016) discovered that when commodities and credit are supplied from the same location, overall costs are lower and efficiency is higher since both supply and credit monitoring can be done from the same location.

Borrowing has a variety of charges, such as processing fees. Transaction costs are positively related to: the necessity of investing in lasting, specialized assets; infrequency of transacting; task complexity and uncertainty; difficulty in gauging task performance; and interdependencies with other transactions, according to transaction cost theory (Gottshalk & Solli-Saether, 2017). According to Williamson (2017), transaction costs include the costs of inspecting goods and establishing and formalizing contract terms, as well as the means to ensure compliance with the terms and protect against potential expropriation of the investments made, in order to ensure that contract conditions are met. According to Espino-Rodriguez and Gil-Padilla (2016), the lower the transaction costs, or the costs of information, negotiation, and compliance control, the less likely the activity is to be outsourced. Transaction cost analysis integrates economic and management theory to find the optimal form of market relationship for a company to develop. This theory implies that lenders should consider cost implications associated with the loans offered. The theory was adopted to determine the effect of the cost of credit on mobile loan default among registered micro and small business enterprises in Kakamega Municipality, Kenya.

Conceptual Review

According to Orodho (2019), a conceptual framework refers to a model of demonstration whereby the association amid variables in the research is shown using diagrams. It is the schematic illustration that represents the variables involved in the research study. In the conceptual framework, cost of credit and financial technology are the independent variables and mobile loan default is the dependent variable as shown in Figure 1.0.

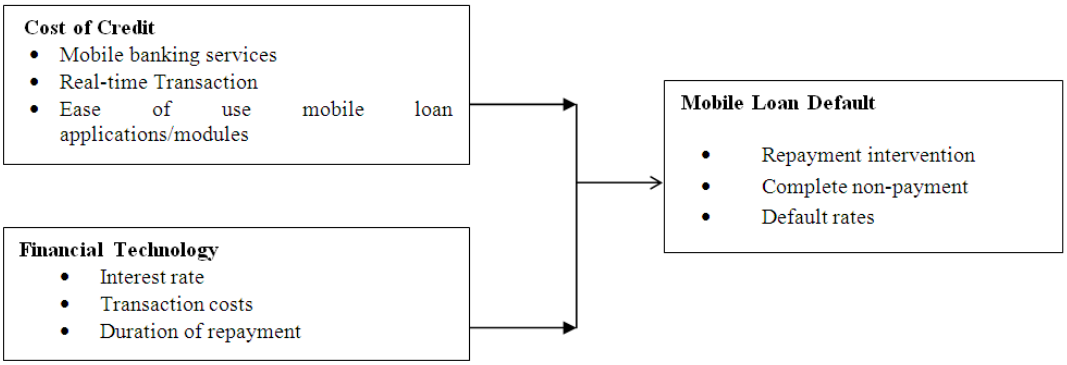

Figure 1.0: Conceptual Framework

Empirical Review

In a survey conducted by Capgemini (2017) on 16000 customers in 32 countries across the world both developing and developed economies, it revealed that the users of financial technology are young people who also are technosavvy. The study used descriptive research design in analysing the collected data. As discussed earlier, FinTech is a wide word that can be used differently by consumers and in each distinct context. The services and products offered by FinTechs vary from country to country, for instance, the FinTech in developing countries are not the same as the FinTechs in developed markets. McKinsey Global Institute (2016) conducted a study on digital solutions in emerging markets including Kenya and Tanzania. The study used panel data from various years involving a sample of 3000 individuals. The study adopted descriptive design and used trend analysis. The study found out that most people are driven by the feeling of being neglected by the formal banking system. This forces them to vehemently participate in digital solutions. The study also revealed that a large part of the population and SMEs are unable to access credit, save money for investments and get insurance through the traditional banks. They therefore resort to FinTechs which provide these solutions on a digital platform that can meet their daily requirements. Most FinTech believe that they are active participants in social growth, despite making profits they think that they are growing the economy and improving the society.

Capgemini (2016) studied banks and how they are embracing digitalization. The study focused on 15 banks in Europe. The study used mixed method approach coming up with descriptive analysis. The study revealed that 96 per cent of the banks were involving digital growth in their financial services and 13 per cent of these banks has the set systems that are required to transit to digital finance. The study also revealed that 65 per cent of banks view FinTechs as their partners while 28% view them as their competitors. The study also showed that in countering FinTechs, banks are positioning themselves strategically. The study revealed that 45.5 per cent of banks were willing to cooperate with FinTechs, 43.6 per cent of banks were willing to invest in FinTechs while 42.6 per cent were willing to build enough capacity in order to compete with FinTechs. It is also clear that the wave by FinTech is strong and significant that only 4 per cent of the banks are planning not to do anything for this development.

The influence of mobile phone money transfer among Kenyans was researched by Kirui, Okello, Nyikal, and Njiraini (2013). The impact of MMT services on agriculture commercialization was investigated using the propensity score matching technique. Cross-sectional data from 379 multi-stage randomly selected households in the Central, Western, and Nyanza provinces was used in the study. The purpose of the study was to demonstrate the importance of mobile phone money transfer (MMT) networks in boosting access to financial services, particularly for farmers in rural areas. According to the study, money transfers using this technique are both cost-effective and rapid. This method provides a safe and simple platform for the bulk of the rural population to access tiny deposits. Because smallholder agriculture is poorly documented, the study concentrated on it. Through the use of ICT, the study focused on the financial intermediation of those individuals in society who are excluded or unavailable. According to the findings, using MMT services boosted yearly household input utilization by $42, household agriculture commercialization by 37%, and household annual revenue by $224. According to the findings, MMT services assisted farmers in resolving market failure caused by a lack of adequate access to financial services. According to the paper, the Kenyan MMT model should be copied by creating an enabling atmosphere for MMT projects to succeed.

Haddad and Hornuf (2016) examined the determinants of emergence and growth of the Global Fintech Market. The study involved 69 countries that have embraced financial technology. Some of the major countries involved include, United Kingdom, US, Netherlands, China, Germany, France, Canada and India. The study used data from the Crunch Base database which has a collection of over 200,000 companies and 2000 venture partners. The study identified 2849 fintech start-ups that were relevant during the study period. This data was transformed to form dataset leading to a panel data across ten years between 2005 and 2014.The study formed a random effects negative binomial model egression model with fintech start-ups as the dependent variable whereas factors such as GDP per capita, VC financing, commercial bank branches, internet penetration and government procurement as the independent variables. The study did a regression analysis. The results were that countries with latest technologies have a higher chance of inventing fintechs. The study also argues that FinTech system development is fuelled by lack of affordable and relevant financial services hence developing mostly in countries that don‟t have well developed financial systems

Otieno (2018) investigated the association between mobile loan borrowing fees and default among small and micro businesses in Nairobi's Gikomba Market. Through a specially created data collecting method, primary data was acquired from the business owners of the firms analyzed. Microsoft Excel 2013 and SPSS version 20.0.0.0 were used to analyze the data. The data was subjected to regression and correlation analyses to assess the type and extent of the link between the independent variable (cost of borrowing) and the dependent variable (interest rate) (defulat of loans). The findings of the study revealed that the interest rate charged, processing costs, and late payment charges all have a statistically significant positive effect on the amount borrowed. According to the findings, increase in interest rates, processing fees and late payment charges increases default of mobile loans amongst the traders in Gikomba market. The study results showed that higher borrowing rates have a positive statistically significant effect on amounts borrowed.

Kiseu (2017) looked at the impact of interest rate caps on the quantity of credit given out by Kenyan commercial banks. The study period spanned three quarters before and after the enactment of the capping law. In this investigation, descriptive and inferential statistics were used. The data revealed that interest rate controls had no discernible impact on how commercial banks supplied loans. Although the analysis discovered that certain banks reduced their loan books after the regulation went into force, this was insufficient to change the landscape for the entire industry. However, it was discovered that credit growth was not as rapid as policymakers had predicted, with only a 0.2 percent increase in comparison to the pre-capping period. Mwangi (2017) did an evaluation of the effect of interest rates on credit. Using primary data obtained from Equity Bank for the purposes of making inferences, the study involved 1,000 customers from various branches countrywide. The sample was randomly selected from the total customers of Equity bank of 2011. The findings show that geography and repayment time are important factors in determining the amount of credit given to individual clients. The interest rate charged on loans is minimal in explaining borrowing by Equity Bank clients after accounting for heteroskedasticity.

Hosseyni and Khaledi (2017) carried out research on the transaction expenses of obtaining credit in rural Iran. A survey was used to acquire the information needed to calculate the transaction costs that the borrower must bear at each stage of the credit application procedure. A total of 459 families, including 272 borrower households, were surveyed for data. F-test and OLS regression (according to the authors, OLS is a method of estimating a regression, not a regression). The F-test is not an economic method, but rather a statistical one, and it is nonetheless a crucial statistic in any ANOVA or regression. According to the findings, the transaction expenses of acquiring a loan are on average equal to 9% of the overall loan amount. Rural loan applicants are charged dramatically varied fees by formal and semiformal lenders. The findings show that the contractual form, loan amount, distance from the financial center, and other borrower characteristics are all key factors of transaction costs. Njiru (2017) led a study in Kiambu County on the impact of borrowing costs on the financial performance of dairy micro and small businesses. Both quantitative and subjective approaches were used in this study. The study's primary instruments were semi-structured questionnaires. The cost of credit has a direct impact on the financial execution of business dairy SME's in Kiambu County, according to the findings. The interest payable in the year by SMEs due to advances acquired over time, loan outstanding from financial institutions, the age of business dairy SMEs, their sizes, and the estimations of loans acquired from financial organizations by business dairy SMEs to the financial performance all have a positive relationship.

Research Gaps

Exhaustive research on the topic has been performed both on a worldwide scale and locally. the transaction costs of getting loans in rural Iran were investigated by Hosseyni and Khaledi (2017). Nguyen (2017) conducted a study on credit accessibility and small and medium-sized enterprise growth in Vietnam, and Duarte (2017) analyzed the role of collateral and relationship lending in loan pricing. Credit accessibility in Vietnam and the impact on small and medium-sized enterprise growth was researched by Nguyen (2017). His findings on collateral and relationship lending can be found in United Kingdom. In this study, which were done by Selvarasu, Itoo, and Filipe (2018), the researchers found that the value of defaulted mortgages is correlated with the value of the loan and the collateral. However due the differences in the economies, policies and business environments, the findings cannot be generalized to suit the current study and thus the need to conduct the study in Kenya. Otieno (2018) assessed the relationship between borrowing costs and default of mobile loans among small and micro enterprises in Gikomba Market in Nairobi, Kenya, Kiseu (2017) evaluated the effect of interest rate capping on the amount of credit issued by commercial banks in Kenya, Mwangi (2017) did an evaluation of the effect of interest rates on credit, Etemesi (2017) conducted a study on credit access from commercial banks and growth of small and micro enterprises in Nairobi Central Business District, Mwangi (2019) assessed the relationship between access to credit and financial growth of micro and small business enterprises in Nairobi County, Muthee (2016) conducted a study on the management practices of unsecured loans in commercial banks in Kenya, Bonaya (2017) assessed the effect of credit information sharing on loan performance of commercial banks in Kenya, Okumu (2018) assessed the impact of credit information sharing on commercial banks' loan portfolio. The findings of these studies cannot suit the current study since the studies mostly focused on commercial banks but the current study focused on digital lending firms. The studies focused on loan default by SMEs and on the performance of the lenders but failed to establish the factors associated with the growth of mobile loans. Further, the studies failed to establish how Collateral requirement and credit information sharing affects the growth of mobile loans. This study sought to fill these research gaps by assessing the factors influencing the growth of mobile loans in digital lending firms in Kenya.

III. Material And Methods

The study adopted a descriptive survey research design. The survey descriptive design was appropriate for the study since the respondents in this study were expected to answer questions administered through questionnaires after which the researcher describes the responses given. The study targeted registered motor cycle operators, micro traders and Saloons & Barber shops operating in Kakamega municipality. According to department of Trade, Industrialization and Tourism (2021), there are 556 registered motor cycle operators, micro traders and Saloons & Barber shops in Kakamega municipality. To be classified as a mobile loan borrower, individuals have to either currently or have used (in the past 12 months) one or both of the following: (a) a "Loan from mobile banking (Mshwari, KCB M-PESA, M-Co-op cash, Eazzy Loan, Timiza, HF Whizz)" OR (b) "Digital loans that you get through the phone that you download through apps (Branch, Tala, Zenka, Ipesa, Okash, Utunzi, CreditHela, O-pesa, KopaCredo, Haraka loans etc.)". The most adequate sample size was established using the statistical formula below that was developed by Yamane. The sample size was therefore be 233 owners of micro and small businesses operating in Kakamega Municipality. The sample of the study was identified using stratified sampling technique. Out of the 233 administered questionnaires, 171 were returned duly filled ready for coding and analysis. This represents 73.4% response rate.

The study used primary data. The questionnaire was selected instrument or tool for the primary data collection for the study. The questionnaire was developed with reference to the research objectives aimed at answering the research questions. The survey was piloted verified to establish its appropriateness, rationality and dependability. The pilot was done on 10% of the sample size which is 23. The pilot study was done on the targeted sampled respondents and thus the 23 respondents for the pilot testing did not participate in the main study. To ensure the content validity of the research instruments, the researcher sought the advice of the university supervisor. The reliability of the questionnaire was tested using the Cronbachs alpha with the aid of Statistical Package for Social Sciences (SPSS) software. The data to be collected was quantitative and were analyzed using descriptive and inferential statistics. Descriptive statistics were means, standard deviations frequencies and percentages. Inferential statistics included multiple linear regression and the results were presented in form tables.

IV. Result and Discussion

Descriptive Statistics

The presentation of descriptive statistics is based on the frequencies, percentage, mean and standard deviation of study variables. These variables were financial technology and Cost of credit which were independent variables while mobile loan default among micro and small business in Kakamega Municipality was dependent variable. The respondents were asked to indicate their level of agreement from 1 strongly disagree, 2-Disagree, 3-Fairly Agree, 4-agree and 5 strongly agree. The findings are as follows

Table 1: Descriptive Results: Financial technology

Financial technology	**5**	**4**	**3**	**2**	**1**	**Mean**	**SD**
I have full knowledge in operating mobile loans applications	30 (17.5)	38 (22.2)	61 (35.7)	39 (22.8)	3 (1.8)	3.31	1.06
Online advertisements have played a great role in leading me to download mobile loan applications	97 (56.7)	32 (18.7)	37 (21.6)	1 (0.6)	4 (2.3)	4.27	0.98
There are rare cases of incomplete repayment of the mobile loans.	56 (32.7)	49 (28.7)	52 (30.4)	4 (2.3)	10 (5.8)	3.80	1.10
There is timely update of loan repayment data to reflect any changes	64 (37.4)	56 (32.7)	38 (22.2)	3 (1.8)	10 (5.8)	3.94	1.09
Interaction with mobile loan does not require a lot of mental effort	39 (22.8)	24 (14)	49 (28.7)	43 (25.1)	16 (9.4)	3.16	1.29
Overall Mean Score						**3.7**	**1.1**

N=171; KEY: 1= Strongly Disagree; 2= Disagree; 3=Fairly Agree; 4= Agree; 5=Strongly Agree; SD= Standard Deviation.

The study findings from table 1.0 indicate that out of 171 respondents who took part in the study 17.5% strongly agreed, 22.2% agreed, 35.7% fairly agree and 22.8% disagreed with the statement that they have full knowledge in operating mobile loans applications. The line had a mean and standard deviation (M=3.31; SD= 1.06), which is an indicator that majority of the respondents fairly have full knowledge in operating mobile loans applications. On the statement that there are online advertisements have played a great role in leading me to download mobile loan applications, 2.3% strongly disagreed, 0.6% disagreed, 21.6% were fairly agree, 18.7% agreed and 56.7% strongly agreed. The statement had a mean and standard deviation (M=4.27; SD=0.98). On the statement there are rare cases of incomplete repayment of the mobile loans, 5.8% strongly disagreed, 2.3% disagreed, 30.4% remained fairly agree, 28.7% agreed while 32.7% strongly agreed (M= 3.80; SD=1.10). This implies that majority of the respondents were in agreement that there are rare cases of incomplete repayment of the mobile loans. Out of 171 respondents who participated in this study, 5.8% strongly disagreed, 1.8% disagreed, 22.2% was fairly agree, 32.7% agreed and 37.4% strongly agreed that with the statement that there is timely update of loan repayment data to reflect any changes (M=3.94; SD=1.09). This indicate that majority of the respondents were in agreement that there is timely update of loan repayment data to reflect any changes.

Few of the respondents strongly agreed 22.8% and 14.0% agreed that Interaction with mobile loan does not require a lot of mental effort although 28.7% of the respondents fairly agreed on the same. The statement had a mean and standard deviation (M=3.16; SD=1.29). These finding concurred with McKinsey Global Institute (2016) conducted a study on digital solutions in emerging markets including Kenya and Tanzania. The study also revealed that a large part of the population and SMEs are unable to access credit, save money for investments and get insurance through the traditional banks. Capgemini (2016) studied banks and how they are embracing digitalization. The study focused on 15 banks in Europe. It is clear that the wave by FinTech is strong and significant that only 4 per cent of the banks are planning not to do anything for this development

Table 2: Descriptive Results: Financial Activities Outsourcing

Cost of credit	**5**	**4**	**3**	**2**	**1**	**Mean**	**SD**
Mobile loans have hidden charges	62 (36.3)	36 (21.1)	65 (38)	8 (4.7)	(0)	3.89	0.96
Competitive interest rates are offered	94 (55)	24 (14)	31 (18.1)	5 (2.9)	17 (9.9)	4.01	1.32
Lack of loan processing fees encourage borrowers to take up mobile loans	52 (30.4)	43 (25.1)	33 (19.3)	19 (11.1)	24 (14)	3.47	1.39
Virtual lending rates are competitive compared to the traditional banking lending rates	47 (27.5)	73 (42.7)	34 (19.9)	11 (6.4)	6 (3.5)	3.84	1.01
I ignored the interest rates since the loans are mostly emergency and are instant	49 (28.7)	66 (38.6)	31 (18.1)	15 (8.8)	10 (5.8)	3.75	1.14
Overall Mean Score						**3.79**	**1.16**
N=171; KEY: 1= Strongly Disagree; 2= Disagree; 3=Fairly Agree; 4= Agree; 5=Strongly Agree; SD= Standard Deviation.							

From Table 2, Out of the 171 respondents who took part in the study, 4.7% disagreed, 38.0% remained fairly agree, 21.1% agreed and 36.3% strongly agreed with the statement that the mobile loans have hidden charges. The statement had a mean and standard deviation (M=3.89; SD=0.96). This indicates that mobile loans have no hidden charges. On the statement that competitive interest rates are offered, 9.9% strongly disagreed, 2.9% disagreed, 18.1% remained fairly agree, 14.0% agreed while 55.0% strongly agreed. The statement had a mean and standard deviation (M=4.01; SD=1.32), implying that majority of the respondents confirmed that competitive interest rates are offered. On the line that lack of loan processing fees encourage borrowers to take up mobile loans, 14.0% strongly disagreed, 11.1% disagreed, 25.1% agreed, 30.4% strongly agreed. The statement had a mean and standard deviation (M=3.47; SD= 1.39), indicating lack of loan processing fees encourage borrowers to take up mobile loans. On the statement virtual lending rates are competitive compared to the traditional banking lending rates, 3.5% strongly disagreed, 6.4% disagreed, 19.9% was fairly agree 42.7% agreed and 27.5% strongly agreed. The statement drew a mean and standard deviation (M=3.84; SD= 1.01) indicating that the virtual lending rates are competitive compared to the traditional banking lending rates.

Lastly, 28.7% and 38.6% of the respondents strongly agreed and agreed respectively that they ignored the interest rates since the loans are mostly emergency and are instant. This was supported by a mean of 3.75 and standard deviation of 1.16. These findings are in agreement with Otieno (2018) assessed the relationship between borrowing costs and default of mobile loans among small and micro enterprises in Gikomba Market in Nairobi, Kenya. The study results showed that interest rate charged, processing fees, late payment charges have a positive statistically significant effect on amounts borrowed. Njiru (2017) led research on the impact of cost of credit on the financial performance of business dairy micro and small business enterprises in Kiambu County. There is a positive connection between the interest payable in the year by SMEs because of advances acquired by SMEs over time, loan outstanding from financial institutions, the age of business dairy SMEs, their sizes and the estimations of loans acquired from financial organizations by business dairy SMEs to the financial performance.

Inferential Statistics

From the model summary in Table 3, the coefficient of determination (R-squared) of 0.548 showed that 54.8% of mobile loan default by the micro and small businesses in Kakamega Municipality could be explained financial technology and cost of credit. The adjusted R square of 54.2% depicts that the financial technology and cost of credit in exclusion of the constant variable explained the change in mobile loan default by the micro and small businesses in Kakamega Municipality by 54.2%, the remaining percentage could be explained by other factors not included in the model. The correlation coefficient of financial technology and cost of credit (R=0.740) in Table 3 showed that there is a strong positive relationship between mobile loan default by the micro and small businesses in Kakamega Municipality and financial technology and cost of credit. The standard error of estimate (0.615) shows the average deviation of the independent variable from the line of best fit. From the ANOVA results Table 3 in model one shows that there is a significant relationship between mobile loan default by the micro and small businesses in Kakamega Municipality and financial technology and cost of credit (F=101.686, p-value <0.001). Further, From the ANOVA Table, both models were statistically significant for the data as the p value<0.001.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.307[a]	.094	.082	.519925	.094	7.376	4	283	.000

a. Predictors: (Constant), FORM4, FORM3, FORM2, FORM1

Table 3: Model Summary and ANOVA

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.740[a]	.548	.542	.61451	.548	101.686	2	168	.000

a. Predictors: (Constant), Financial technology, Cost of credit

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76.797	2	38.399	101.686	.000[b]
	Residual	63.440	168	.378		
	Total	140.237	170			

a. Dependent Variable: Mobile loan default

b. Predictors: (Constant), Financial technology, Cost of credit

Table 4 presents the model 1 with the beta coefficients of all independent variables versus mobile loan default by the micro and small businesses in Kakamega Municipality. The study regression model is as shown below as obtained in Table 4.0

$Y=-0.030+0.468X_1+0.492X_2$

Where y=Mobile loan default by the micro and small businesses in Kakamega Municipality

X_1= Financial technology

X_2= Cost of credit

Table 4: Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.030	.247		-.120	.904
	Cost of credit	-.468	.071	-.399	-6.569	.000
	Financial technology	.492	.066	.450	7.402	.000

a. Dependent Variable: Mobile loan default

From the findings presented in Table 4, we look at the model results and scan down through the unstandardized coefficients B column. All mobile loan default determinants had significant effect on the mobile loan default. If mobile loan default determinants are held at zero or it is absent, the mobile loan default among micro and small business in Kakamega Municipality would be -0.030, p=0.904 negative and insignificant. It was revealed that financial technology had unique significant contribution to the model with B=-0.468, p=.000 suggesting that controlling Cost of credit in the model, a unit increase in financial technology would result to significant decrease in mobile loan default by 46.8%. Majority of the respondents were in agreement that online advertisements have played a great role in leading me to download mobile loan applications, there are rare cases of incomplete repayment of the mobile loans and there is timely update of loan repayment data to reflect any changes. These findings are in agreement with Capgemini (2017) who established that financial technology significantly influences mobile loan default among SMEs. In another study, Kirui, Okello, Nyikal and Njiraini (2013) studied the impact of financial technology on loan default among individuals in Kenya. The findings supported current study since the study established that loan default is significantly influenced by financial technology. Majority of mobile loan lender are experiencing high loan default since individual can easily access their loans through mobile phone application.

The coefficient of cost of credit was 0.492, which was significant (p=.000) and positive. When the variance explained by financial technology in the model is controlled, a unit increase in cost of credit would result to significant increase in mobile loan default by 49.2%. Majority of the respondents were in agreement that Mobile loans have hidden charges, competitive interest rates are offered and borrowers ignored the interest rates since the loans are mostly emergency and are instant The findings concurred with Otieno (2018) who assessed the relationship between borrowing costs and default of mobile loans among small and micro enterprises in Gikomba Market in Nairobi, Kenya. According to the findings, increase in interest rates, processing fees and late payment charges increases default of mobile loans amongst the traders in Gikomba market. The study results showed that higher borrowing rates have a positive statistically significant effect on

loan default. A similar result was established by Hosseyni and Khaledi (2017) who conducted a study on an analysis of transaction costs of obtaining mobile loan in rural Iran. Results reveal that contractual form, loan size, how far the borrower being away from the financial center along with other borrower peculiarities are important determinants of loan default rate

V. Conclusion and Recommendations

The findings indicated that financial technology has significant negative influence on mobile loan default among micro and small business in Kakamega Municipality. Therefore, the study concluded that financial technology influences mobile loan default among micro and small business in Kakamega Municipality. Financial technology played a very key role in loan default among micro and small businesses. Online advertisements powered technology has played a great role in uptake of mobile loans and therefore, borrowers have accessed multiple mobile from various platforms forcing them to default some of the loans. Therefore, ease of use and access of mobile loans have increased mobile loan defaults. The study established that cost of credit have significant positive influence on mobile loan default among micro and small business in Kakamega Municipality. Cost of credit has made it difficult for mobile loan borrowers to repay their loan on time. Further, mobile loans have several hidden charges including interest rate and processing fees. Thus, the study concluded that cost of credit influence mobile loan default among micro and small business in Kakamega Municipality.

The growth of financial technology has an effect on mobile loan default. The study recommends that the financial institutions and the mobile network operators can adopt financial technology to enhance loan repayment among micro and small business enterprise. The policy makers should set a limit of the amount of money that can be disbursed via the mobile; this will help to reduce the default risk among borrowers. It is further recommended for loans disbursed via mobile platforms to be monitored and evaluated closely to ensure that its repayment is in line with the agreed terms. The cost of credit by mobile lenders is considered to be very high which increases loan default rates among micro and small businesses enterprises. The study recommends that the government should control the cost of credit offered by the mobile phone lending institutions so as not to create borrowing cycle. This is a major source of funding for the SMEs as they have difficulty in meeting the many documentation and collateral requirements from the main stream financial institutions.

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