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Determinants of Mobile Loans Uptake among Registered Micro and Small Business Enterprises in Kakamega Municipality, Kenya

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Abstract:
This study sought assess the factors influencing the growth of mobile loans in digital lending firms in Kenya. The specific objectives was to determine the effect of Cost of credit on mobile loan uptake, to establish the effect of financial technology on mobile loan uptake and to assess how collateral affects mobile loan uptake among registered micro and small business enterprises and to establish the effect of credit information sharing on mobile loan uptake among registered micro and small business enterprises in Kakamega Municipality, Kenya. This study was guided by technology acceptance model, transaction cost theory, lender-based theory of collateral and information asymmetry 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 selected instrument for the primary data collection for the study. The survey was piloted to establish its appropriateness, rationality and dependability using Cronbach's alpha coefficient and content validity. Data analysis involved reviewing and editing of the data1to be collected and compiling of the fully filled1questionnaires in the Statistical Package for1Social Sciences (SPSS) software version 23. The data was analyzed using descriptive1and inferential statistics. The data was presented using tables, graphs and charts. Using Pearson correlation coefficient, the findings established a direct and positive relationship between financial technology, credit information sharing and mobile loan uptake while a negative relationship was established between cost of credit and mobile loan uptake. Further inference using multiple linear regressions showed the proportionate contribution of the three determinants towards mobile loan uptake among micro and small business enterprises in Kakamega Municipality. This implied that the cost of credit increase in cost of credit will decrease mobile loan uptake and increase in financial technology and credit information sharing would increase mobile loan uptakes. Therefore, the study concluded that cost of credit, financial technology and credit information sharing significantly determine mobile loan uptake 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. 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. Central Bank of Kenya should come up with policies and regulations which will enhance utilization of credit information as well as sharing of credit information among mobile loan lenders in more prudent manner that will encourage greater uptake of mobile loans.

Key Word: *Mobile Loans Uptake, Micro and Small Business Enterprises, Cost of Credit, Financial Technology and Credit Information Sharing*

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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. (McCarthy, 2014) observes that borrowers of mobile phone loans usually do not have considerable physical assets against which they can secure their loans. As such, they are severely limited on the sources they can borrow from. However, innovative online platforms are causing ripples in the traditional financial markets for small business loans. 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.

The key essential feature of mobile phone loans is that they are processed entirely, from application to disbursement, through the applicant's mobile phone. They also share the characteristics of micro-loans identified by (Onyango, Ongus, Awuor & Nyamboga, 2014). First, they are short-term in nature, do not require any physical collateral and are comparatively small amounts. Secondly, such loans usually have terms for weekly or monthly instalment payments, or some other regular frequency. They also carry high administrative expenses on the part of the lender (Onyango, Ongus, Awuor & Nyamboga, 2014).

Mobile loan is emerging as the new frontier of financial inclusion (Gabor & Brooks, 2017). The features of mobile loan include instant, remote approval and disbursement of loan based on non-traditional information sources such as social media data, mobile phone activity, digital payments and mobile banking history (Reynolds, Klawitter, Anderson, Biscaye, Callaway, Greenway, Lunchic, Seymour, McDonald & Hayes, 2017). Lending institutions utilize these digital data records to rate the creditworthiness and eligibility of a loan applicant over a mobile device without face to face interaction (Consultative Group to Assist the Poor (CGAP), 2016).

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 (Whitaker, 2018). In their simplest form, customers access mobile phones over their mobile phones which are cost effective and convenient to the customer's side as they need not to visit the physical branch (Ngaruiya, 2014). The increased adoption of mobile based lending among customers and firms is from the fact that such channels do not require paperwork, they are customized to the specific needs of the customers such that lending can be as a low as Kshs. 50. The rapid changes in technology and forces of globalization have also played an important role as drivers of mobile based lending adoption for improved financial performance. The increased forces of competition and constantly changing customer needs and preferences have also played an important role towards adoption of mobile based lending with the aim of improving financial performance (Kithaka, 2014).

Kenya is arguably the most developed mobile loan market in the region, with a remarkable rise in financial inclusion as accessibility grew by nearly 300 percent over the last decade (Ndungu, Morales, & Ndirangu, 2016). This innovation in the financial sector has become very popular with consumers. 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 (Kinyua, 2017). 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). The introduction of mobile loan into the industry saw other banks following suit such as Co-operative Bank of Kenya, NIC, Barclays Bank of Kenya (Timiza), Commercial Bank of Africa (CBA loop), among others. It is not just banks that are issuing digital loans but also telecommunication companies such as Safaricom (M-shwari) and Airtel (Kopa Chapaa), as well as non-bank institutions such as Branch, Tala, Saida, Zidisha, Kiva, Pesa na Pesa, Pesa Pata, Okash, M-Kopa, Haraka and others.

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

Statement of the Problem

Over 6 million Kenyans have gained access to a technology that can deliver micro-loans within seconds and build a credit history that can, in theory, give them access to larger and cheaper loans in the future. Customers who run their own company or farming operation mostly borrow for business purposes. Entrepreneurs borrowing for working capital needs are the single most common use case for digital credit. Although many banks and non-bank institutions have entered the market, only a few reached a significant market share. Despite the growth of the market, digital credit is not reaching everyone. It remains ill-suited for most of the population whose livelihoods are characterized by irregular cash-flows, such as farmers and casual workers. Reaching these segments will require a deeper understanding of their financial lives, the key risks that they face, and the day-to-day liquidity needs. Statistics reveal that the informal sector is still underserved by

banks yet there is a need for financial inclusion to activate the informal sector and support livelihoods of millions of Kenyans. Mobile lenders have been urged to increase credit access to the informal sector with experts saying such a move by existing providers would go a long way in supporting underserved livelihoods like the micro and small business enterprises sector. This comes at the backdrop KCB Bank reporting that that loans issued via mobile phones almost halved in the first six months of the year (Bloomberg, 2021). Micro and small business enterprises sector which are considered high risk and low-profit demographic, have a crucial role to play in the country's economy. Mobile loans continue to make a difference to the sector and believe that there still exists untapped opportunities in the informal sector (Digital Lenders Association of Kenya, 2021). 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 uptake of mobile loans by micro and small businesses. This study, therefore, sought to fill the evidenced gap on determinants of mobile loans uptake among registered micro and small business enterprises in Kakamega Municipality, Kenya.

Objectives of the Study

i) To determine the effect of financial technology on mobile loan uptake among registered micro and small business enterprises in Kakamega Municipality, Kenya.
ii) To determine the effect of Cost of credit on mobile loan uptake among registered micro and small business enterprises in Kakamega Municipality, Kenya.
iii) To determine the effect of credit information sharing on mobile loan uptake among registered micro and small business enterprises in Kakamega Municipality, Kenya.

Hypotheses of the Study

H_{01}: Financial technology does not significantly influence organizational performance of listed commercial banks in Kenya.
H_{02}: Cost of credit does not significantly influence organizational performance of listed commercial banks in Kenya.
H_{03}: Credit information sharing does not significantly influence organizational performance of listed commercial banks in Kenya.

II. Literature Review

Theoretical Framework

This study was guided by technology acceptance model, transaction cost theory, lender-based theory of collateral and information asymmetry theory. There are several models existing that have been used to investigate adoption of technology. Several studies focusing on adoption of mobile services have their roots in Technology Acceptance Model (TAM) originally proposed by Davies in 1986. The model is originally designed to predict user's acceptance of Information Technology and usage in an organizational context. TAM focuses on the attitude explanations of intention to use a specific technology or service; it has become a widely applied model for user acceptance and usage. There are a number of meta-analyses on the TAM that have demonstrated that it is a valid, robust and powerful model for predicting user acceptance (Bertrand and Bouchard, 2008). The TAM model which deals with perceptions as opposed to real usage, suggests that when users are presented with a new technology, two important factors influence their decision about how and when they will use it (Davis, 1989). These key factors are: Perceived usefulness (PU) .This was defined by Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance" and Perceived ease-of-use (PEoU) - Davis defined this as "the degree to which a person believes that using a particular system would be free from effort". Technology adoption especially, in banking systems has shown a great momentum and spread at an unbelievable pace across the world. Considering the importance of banking system's high presence and affordability, there is great potential of using this in agency banking for provision of banking services to unbanked community. The theory guided the study in establishing the effect of financial technology on mobile loan uptake among registered micro and small business enterprises in Kakamega Municipality, Kenya.

Transaction Cost Theory was developed by Ferris in 1981. This theory postulates that trade credit use brings down exchange costs. The transaction motive rests on the simplification of payment induced by trade credit. The purpose here is not financing but reducing transaction costs. This theory holds that when transactions between sellers and buyers are frequent both parties may reduce transaction costs by agreeing to a periodical payment schedule This work so long as saving in transaction costs remains more than the cost of holding receivables. Ghoshal & Moran, (2016) found that when supply of goods and credit are made from one point

there is an overall reduction in costs and increase in efficiency as both the monitoring of supplies and the credit could be done from the same point. Borrowing is associated with diverse costs such as processing costs. According to transaction cost theory, transaction costs are positively associated with: the necessity of investments in durable, specific assets; infrequency of transacting; task complexity and uncertainty; difficulty in measuring task performance; and independencies with other transactions (Gottshalk & Solli-Saether, 2017). Williamson (2017) also asserts that transaction costs are comprised of the costs of inspection of goods and establishing and formalizing the terms of agreement, including the means to both guarantee compliance with the terms and protect against the potential expropriation of the investments made, to ensure that contract conditions are fulfilled. According to Espino-Rodriguez and Gil-Padilla (2016) the greater the transaction costs, that is the greater the costs that information, negotiation and supervision of compliance entail, the less the tendency to outsource the activity. Transaction cost analysis combines economic theory with management theory to determine the best type of relationship a firm should develop in the market place. 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 uptake among registered micro and small business enterprises in Kakamega Municipality, Kenya.

The asymmetric information theory was advanced by Akerlof, Spence and Stiglitz who won the Nobel Prize for their contribution to economic theory. Akerlof (2018) posited that there is a potential for market failure in situations where the buyer and seller possess asymmetrical valuation information. Information asymmetry refers to a situation where business owners or managers know more about the opportunities and risks facing their business, than do lenders (Karlan & Zinman, 2019). Information asymmetry arises when a borrower who takes a loan usually has better information about the potential risks and returns associated with investment projects for which the funds are earmarked. The lender on the other hand does not have sufficient information concerning the borrower. Balakrishnan and Koza (2016) point out that perceived information asymmetry poses two problems for the lenders, moral hazard and adverse selection. Cheynel and Levine, (2020) reveal that information asymmetry theory therefore describes a situation of non-disclosure of information to all players in a market. Such markets may lead to inter-temporal competitive market behavior. The information asymmetry may pose two technical issues to the firm, adverse selection and moral hazard thus making inappropriate lending decisions. Caldieraro and Zhang, (2018) argues that the theory assumes that lending institutions lack the capacity to differentiate the risk between high and low risk loan applicants. Consequently, formal lending institutions are inept of competing effectively with the informal money lenders that have access to more information about different types of loan applicants. However, the digital lenders do not necessarily use the credit information while lending mobile loans. The theory guided the study in establishing the effect of credit information sharing on mobile loan uptake among registered micro and small business enterprises in Kakamega Municipality, Kenya.

Conceptual Review

This is a diagrammatic representation of the linear relationships between independent and the dependent variables as illustrated in figure 1.0.

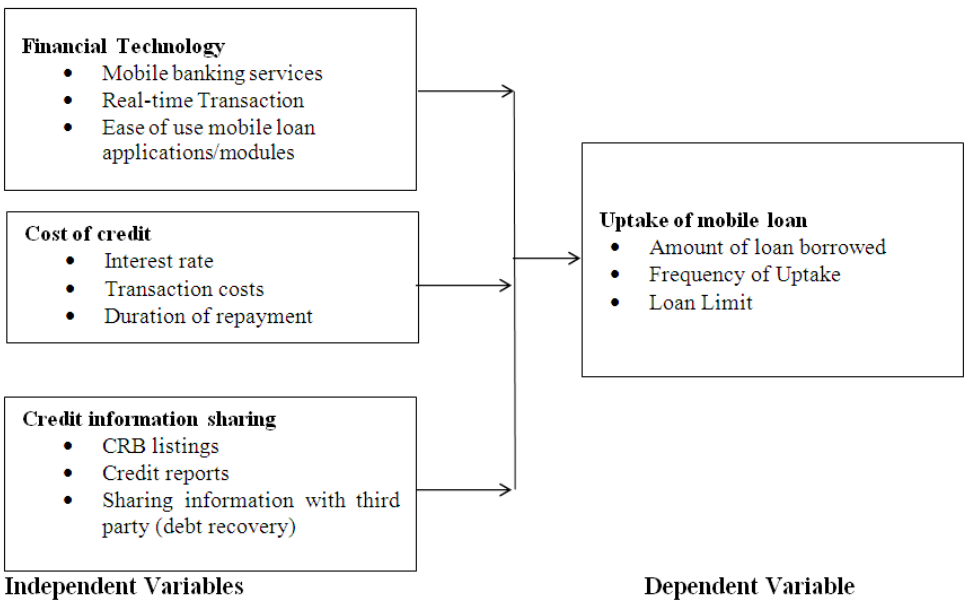

Figure 1.0: Conceptual Framework

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 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. Kirui, Okello, Nyikal and Njiraini (2013) studied the impact of mobile phone money transfer among individuals in Kenya. The study established that use of MMT services increased significantly the level of annual household input use by $42, household agricultural commercialization by 37% and household annual income by $224. The study concluded that MMT services helped to resolve the market failure experienced by farmers especially due to lack of adequate access to financial services. The study recommended the Kenyan MMT model be emulated by creating an enabling environment for the success of the MMT initiatives. Haddad and Hornuf (2016) examined the determinants of emergence and growth of the Global Fintech Market. 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) assessed the relationship between borrowing costs and uptake 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. According to the findings, increase in interest rates, processing fees and late payment charges increases uptake 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) evaluated the effect of interest rate capping on the amount of credit issued by commercial banks in Kenya. The findings were that the interest rate control did not significantly affect how the commercial banks issued their loans. Although the study did find that some banks contracted their loans books after the law came into effect, such were not enough to shift the ground for the whole industry. However, it was also found that the growth of the credit was not drastic as the policy makers would have projected and only grew by 0.2% more as compared to 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 results indicate that region and the repayment period are significant in explaining the amount of credit to the individual customers. After correcting for heteroskedasticity, the interest rate charged on loans is insignificant in explaining borrowing by Equity Bank's customers.

Hosseyni and Khaledi (2017) conducted a study on an analysis of transaction costs of obtaining credits in rural Iran. The results reveal that the transaction costs of receiving a loan are on the average equivalent to nine percent of the total loan size. Formal and semiformal institutions impose significantly different costs upon the rural loan applicants. 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 transactions' costs. 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, oan 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.

Koros (2017) directed an investigation on the impact of credit data sharing on the credit market execution of business banks in Kenya. The discoveries were that acknowledge market execution as estimated by complete advances less non-performing to add up to advances is decidedly identified with credit data sharing (number of CRBs enquiries made by business banks), absolute advances progressed and all out resources. Expansion in credit market execution was improved after the foundation and operationalization of acknowledge data component thought about as in the past. Bonaya (2017) assessed the effect of credit information sharing on loan performance of commercial banks in Kenya The findings were that loan performance as measured by mobile loan uptake rate is negatively related to credit information sharing, lending rate and total loans. Murimi (2017) conducted a study on the effectiveness of Credit Reference Bureau (CRB) on the provision of credit by

commercial banks in Kenya. The findings revealed that to a great extent sharing credit information is critical in facilitating better assessment of risks associated with prospective borrowers, and information asymmetry has caused difficulty in differentiating good and bad credit risks. Also to a great extent, lack of information has contributed towards adverse selection or moral hazard problems in lending activity of the bank, while banks lack data needed to screen credit applications and to monitor borrowers. Okumu (2018) assessed the impact of credit information sharing on commercial banks' loan portfolio: the case of Equity bank. The study employed a descriptive research design. The study found that credit information sharing has significant positive impact on the quality of credit at Equity Bank. The results of the study indicate that sharing of customer credit information helps reduce non-performing assets at Equity bank. The results of the study also show that CIS is quite useful in the management of non-performing loans. Dalal (2018) did an assessment of the impact of credit reference bureaus on credit performance of Kenyan banks. The findings revealed that the credit bureaus reduce the borrowing cost by forcing creditors to be more competitive. The findings showed that respondents indicated that positive CRB report portends a shorter credit application process. The study findings revealed that most of the respondents indicated that their organizations used credit scoring as a credit screening procedure.

Research Gaps

Diverse studies relating to the study have been conducted both globally and locally. Hosseyni and Khaledi (2017) conducted a study on an analysis of transaction costs of obtaining credits in rural Iran, Nguyen (2017) conducted a study on credit accessibility and small and medium sized enterprise growth in Vietnam, Duarte (2017) assessed the role of collateral and relationship lending in loan pricing: evidence from United Kingdom SMEs, Itoo, Selvarasu and Filipe (2018) conducted a study on the effect of loan value and collateral on value of mortgage default. 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 uptake 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 will focus on borrower's businesses. The studies focused on loan uptake 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 credit information sharing affects the growth of mobile loans.

III. Material And Methods

The research used descriptive survey design. This design includes gathering information that answers inquiries regarding the members of the studies, and is also suitable for exploring associations between study variables. The study targets 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. The sample size for the study was determined using Yamane formula, which is a central scientific method for calculating sample populations from a larger population.

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

Where n = Sample size

N = population under study

e = margin error (0.05)

I = constant

Therefore;

$n=556/ (1+556 (0.05)^{2)}$

n= 232.6359833 rounded off to 233

The sample size was therefore 233 owners of micro and small businesses operating in Kakamega Municipality. Only one person was given chance to respond to the questionnaires from the business. In this study, the researcher used questionnaire which was self-designed. A 5 point Likert scale of 1-5 was used to measure respondent's response where 5 stood for strongly disagree and 5(five) stood for strongly agree. The pilot test was conducted to ensure that there was validity and reliability while conducting the research in order to

obtain data that was consistent with the main objective. The tests were conducted to test the reliability and validity of the questionnaires and entailed picking five respondents from each stratum and issuing them with the questionnaires. The study used content validity to ensure that the questions measured what they were intended to measure, whether the wording is clear, whether the questions provided response and whether there was research bias by consulting the supervisors and other lecturers in the area of concern. The statistical method for this study was descriptive and inferential statistics. After the fieldwork, the data was coded and tabulated by use of tables. Data analysis was done using Statistical Package for Social Sciences computer software (SPSS version 23.0) for windows. Descriptive statistics such as mean, percentage and standard deviation was used to present the various characteristics for the data sets. The study adopted the following multiple regression model;

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Whereby Y = Mobile loan uptake

B_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$, = Coefficients of determination

X_1 = Cost of credit

X_2 = Financial technology

X_3= Credit information sharing

ε = Error term

IV. Result and Discussion

Two hundred and thirty three questionnaires were administered to the targeted registered micro and small business enterprises in Kakamega Municipality. Out of the 233 administered questionnaires, 164 were returned duly filled ready for coding and analysis. Content validity was used to test instrument validity; all aspects of the questionnaire were pre-tested to check for question content, wording, sequence, form and layout, question difficulty and instructions. The questionnaires were confirmed to be well written and no respondent had problems with them during the pilot study since the questions were clear and well understood by respondents in the pilot study. For reliability tests Cronbach alpha was applied for each variable which had a range 0.801 to 0.913 thus for this, Cronbach alpha statistic with a value of 0.7 or more was considered reliable. The test items were retained and used in this study hence considered reliable as shown in the Table 1

Table 1.0: Reliability Tests

Variables (Constructs)	Number of items	Cronbach Alpha	Remarks
Cost of credit	5	0.784	Accepted
Financial technology	5	0.792	Accepted
Credit information sharing	5	0.817	Accepted
Mobile loan uptake	5	0.869	Accepted

Descriptive Statistics

The presentation of descriptive statistics is based on the frequencies, percentage, mean and standard deviation of study variables. 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 pertinent results are presented in Table 2.0.

Table 2.0: Descriptive Results for Mobile loan uptake

Mobile Loan Uptake	5	4	3	2	1	Mean	SD
I have used mobile loan in the last six months	115	13	27	8	1		
	70.1%	7.9%	16.5%	4.9%	0.6%	4.42	0.972
I am able to access top up mobile loans/progressive mobile loans	104	36	11	10	3		
	63.4%	22%	6.7%	6.1%	1.8%	4.39	.981
I regularly resort to mobile loan to meet business financial requirements	69	20	45	15	15		
	42.1%	12.2%	27.4%	9.1%	9.1%	3.69	1.341
I have being increasing my subsequent mobile loam amount	60	17	49	17	21		
	36.6%	10.4%	29.9%	10.4%	12.8%	3.48	1.403
My mobile loan limit has being growing progressively	91	17	26	23	7		
	55.5%	10.4%	15.9%	14%	4.3%	3.99	1.292
Overall Mean Score						**3.99**	**1.198**

N=164; KEY: 1= Strongly Disagree; 2= Disagree; 3=Fairly Agree; 4= Agree; 5=Strongly Agree; SD= Standard Deviation.

The findings indicate that out of 164 respondents who took part in the study, 0.6% strongly disagreed, 4.9% disagreed, 16.5% remained fairly agree, 7.9% agreed while 70.1% strongly agreed that they have used mobile loan in the last six months. The line had a mean and standard deviation (M=4..42, SD=0.97), indicating that they have used mobile loan in the last six months. Furthermore majority of the respondents agreed that they

are able to access top up mobile loans/progressive mobile loans (M=4.39; SD=0.98), indicating that they able to access top up mobile loans/progressive mobile loans. This was supported by 63.4% of the respondents who strongly agree and 22.0% who agreed on the same. On the statement that the borrowers regularly resort to mobile loan to meet business financial requirements, 9.1% strongly disagreed, 9.1% disagreed, 27.4% remained fairly agree, 12.2% agreed while 42.1% strongly agreed. The statement had a mean and standard deviation (M=3.69; SD=1.341), indicating that borrowers regularly resort to mobile loan to meet business financial requirements. The results also revealed that 10.4% agreed and 36.6% strongly agreed that borrowers have being increasing my subsequent mobile loam amount. Further, 39.9% of the respondents fairly agree with a mean of 3.48 and standard deviation of 1.40. Lastly, 55.5% and 10.4% of the respondents agreed and strongly agreed respectively that their mobile loan limit has being growing progressively. On the other hand, 15.9% of the respondents fairly agree with a mean of 3.99 and standard deviation of 1.29.

Pearson Correlation Analysis

Correlation analysis computes both the linear and nonlinear components of a pair of variables. Linear regression analysis assumes there is linear relationship between independent and dependent variables. The linearity is as a result of significance level being less than 0.05 which was evident for all study variables. All linear relationships were significant at 0.01 (99.0% confidence level). The results are as shown in Table 3.

Table 3: Pearson Correlation Analysis

		FT	CoC	CIS
FT=Financial technology	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	164		
CoC=Cost of credit	Pearson Correlation	.397**	1	
	Sig. (2-tailed)	.000		
	N	164	164	
CIS=Credit Information Sharing	Pearson Correlation	.667**	-.558**	1
	Sig. (2-tailed)	.000	.000	
	N	164	164	164
Mobile loan uptake	Pearson Correlation	.662**	-.600**	.755**
	Sig. (2-tailed)	.000	.000	.000
	N	164	164	164

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

The results indicate that financial technology has a strong positive Pearson correlation (r=0.662, p=0.000) influence on Mobile loan uptake among micro and small business in Kakamega Municipality. This indicates that financial technology plays a major role in Mobile loan uptake. he findings of Cooten et al. (2017) resonates with these findings such that individuals who own smartphones access mobile loans easily than those who own dumb phone hence limited to one or two providers. The smartphone user has a wide range of lending application on his phone hence can borrow ore credit. The findings by Nyaga (2013) showed that mobile services have enabled owners of small businesses to flourish. This flourishing was credited on the fact that owners were able to access to quick and easy credit. The findings revealed that the digital loan had assisted the businesses to grow since most business men borrow in the morning, buy stock and repay by evening.

The results indicate that there is strong negative relationship between cost of credit and Mobile loan uptake among micro and small business in Kakamega Municipality (Pearson correlation coefficient=-0.600, P=0.000). Cost of credit therefore has a very great influence in Mobile loan uptake. These findings are similar to the findings of Nakhaima (2016) who also found that Small and Medium Enterprises face various financial challenges. This is because the SME‘s cost of credit was high due to a range charges from high loan interest rates to high bank charges and fees area as also supported by Rostamkalaei and Freel (2016) who conducted a UK Survey of SME finance and found that growth firms are discriminated on price in loan markets.

The analysis in table 3.0 show that credit information sharing has a moderate positive Pearson correlation coefficient (r=-0.755) influence on Mobile loan uptake. This indicates that credit information sharing factors cannot be ignored whenever considering the Mobile loan uptake. Murimi (2017) conducted a study on the effectiveness of Credit Reference Bureau (CRB) on the provision of credit by commercial banks in Kenya. The findings revealed that to a great extent sharing credit information is critical in facilitating better assessment of risks associated with prospective borrowers, and information asymmetry has caused difficulty in differentiating good and bad credit risks.

Multiple Linear Regression Analysis

Objective of this study sought objective of the study was to investigate determinants of mobile loans default among registered micro and small business enterprises in Kakamega Municipality, Kenya. This was achieved by carrying out standard multiple regressions. The study was interested in knowing the effect of each of the determinants on Mobile loan uptake when all these constructs were entered as a block on the model. The results of multiple linear regression analysis were presented in Table 4 which contained model summary (R, R^2, Adj R^2) results, Table 5 which contained ANOVA (goodness of fit; F Ratio, Sig Value) while Table 6 contained regression coefficient (Unstandardized & standardized), t-value and Sig. value results. The study sought to determine the model summary findings in order to determine the overall percentage change in the Mobile loan uptake that was explained by all the factor by use of R^2. The results in Table 4 present R, R^2, Adj $R^{2,}$ F ratio and Sig. value.

Table 4.0: Model Summary

					Change Statistics				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**R Square Change**	**F Change**	**df1**	**df2**	**Sig. F Change**
1	.811[a]	.658	.652	.53712	.658	102.610	3	160	.000

a. Predictors: (Constant), Financial technology, Credit information sharing, Cost of credit
b. Dependent Variable: Mobile loan uptake

The results from the model summary in Table 4 give us information on the overall summary of the model. Looking at the R square column, we can deduce that three determinants account for 65.8% significant variance in Mobile loan uptake (R square =.658, P=0.000) implying that 34.2% of the variance in Mobile loan uptake is accounted for by other variables not captured in this model.

Table 5: Model of Fit (ANOVA Table)

Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Regression	88.809	3	29.603	102.610	.000[b]
Residual	46.160	160	.288		
Total	134.969	163			

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

b. Dependent Variable: Mobile loan uptake

In order to assess the significance of the model, simply whether the study model is a better significant predictor of the Mobile loan uptake rather than using mean score which is considered as a guess, the study resorted to F Ratio. From the findings, the F value is more than one, as indicated by a value of 102.610, which means that enhancement as a result of model fitting is much larger than the model errors/inaccuracies that were not used in the model (F (4,163) = 102.610, P=0.000). The large F value is very unlikely to exist by chance (99.0%), thus implying that the final study model has significant improvement in it is prediction ability of Mobile loan uptake by the micro and small businesses in Kakamega Municipality. The presented in Table 6 shows unstandardized coefficients, standardized coefficients, t statistic and significant values. The study has an option of either using Unstandardized Coefficients or Standardized Coefficients depending on the type of data. The study used unstandardized coefficient column because we want to compare Mobile loan uptake effect across same measures (Likert Scale 1 through 5).

Table 6: **Regression Coefficients**

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	-.519	.231		-2.244	.026
Financial technology	.298	.068	.274	4.412	.000
Cost of credit	-.279	.062	-.250	-4.489	.000
Credit information sharing	.505	.080	.433	6.304	.000

a. Dependent Variable: Mobile loan uptake

A regression of the four predictor variables against Mobile loan uptake established the multiple linear regression model as below as indicated in Table 6:

$$\mathbf{Y=--0.519+0.298X_1-0.279X_2+0.505X_3}$$

where:

Y= Dependent Variable [Mobile loan uptake]

$\mathbf{X_1}$= Independent variable 1 [financial technology]

$\mathbf{X_2}$= Independent variable 2 [Cost of credit]

$\mathbf{X_3}$= Independent variable 3 [credit information sharing]

From the findings presented in Table 6, we look at the model results and scan down through the unstandardized coefficients B column. All Mobile loan uptake determinants had significant effect on the Mobile loan uptake. If Mobile loan uptake determinants are held at zero or it is absent, the Mobile loan uptake among micro and small business in Kakamega Municipality would be -0.519, p=0.026. It was revealed that financial technology had unique significant contribution to the model with B=0.298, p=.000 suggesting that controlling of other variables (Cost of credit and Credit information sharing) in the model, a unit increase in financial technology would result to significant decrease in Mobile loan uptake by 0.298 units. These findings are in agreement with Capgemini (2017) who established that financial technology significantly influences Mobile loan uptake among SMEs. In another study, Kirui, Okello, Nyikal and Njiraini (2013) studied the impact of financial technology on mobile loan uptake among individuals in Kenya. The findings supported current study since the study established that mobile loan uptake is significantly influenced by financial technology. Majority of mobile loan lender are experiencing high mobile loan uptake since individual can easily access their loans through mobile phone application.

The coefficient of Cost of credit was -0.279, which was significant (p=.000) and Negative. When the variance explained by all other variables (Financial technology and credit information sharing) in the model is controlled, a unit increase in cost of credit would result to significant decrease in Mobile loan uptake by 0.279 units. 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 decrease uptake of mobile loans amongst the traders in Gikomba market. The study results showed that higher borrowing rates have a negative statistically significant effect on mobile loan uptake. 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 mobile loan uptake rate.

Another variable that also had a unique significant contribution to the model was the value for credit information sharing (B=0.505, p=.000). When other variables in the model are controlled (Cost of credit and Financial technology), a unit increase in credit information sharing would result to significant increase in Mobile loan uptake by 0.505 units. The findings are in agreement with Koros (2017) and Bonaya (2017) who established that mobile loan performance as measured by mobile loan uptake rate is positively related to credit information sharing, lending rate and total loans. Murimi (2017) assessed the impact of credit information sharing on Mobile loan uptake. The study found that credit information sharing has significant negative impact on the quality of mobile loan portfolio. The results of the study indicate that sharing of customer credit information helps reduce mobile loan uptake. The results of the study also show that CIS is quite useful in the management of Mobile loan uptake.

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V. Conclusion and Recommendation

The growth of a country is anchored on how innovative individuals can be and more so how quickly the country can adopt technology. The growth of financial technology has an effect on mobile loan uptake. The study recommends that the financial institutions and the mobile network operators can adopt financial technology on full blown mode. The government should also be able to invite and attract FinTech companies to the country to enhance sound financial services circulation. The cost of credit by mobile lenders is considered to be very high which increases mobile loan uptake 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 s from the main stream financial institutions. The study established that sharing of borrowers' credit information with other lenders influence Mobile loan uptake. However, borrowers were comfortable with sharing of borrowers' credit information with third parties such as debt recovery agencies. The study, therefore recommended that Central Bank of Kenya should come up with policies and regulations which will enhance utilization of credit information as well as sharing of credit information among mobile loan lenders in more prudent manner that will encourage greater uptake of mobile loans.

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