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Abstract

FinTech is one of the new technologies of financial innovations and solutions which are fueling financial accessibility especially in the businesses of developing countries. Therefore, this has led to growth in consumer demand for digital financial services as innovations in the financial sector continue to advance. However, the emergence of FinTech usage has been received both as an opportunity for businesses and as a threat to other lending institutions like banks and microfinance institutions among others. Digital credit consumers have been faced with many challenges including late repayment and loan defaulter due to lack of transparency in the repayment period and the high amount of interest charged. This study therefore, sought to address the issue of financial technology and credit usage among small and medium enterprises in Kisumu central business district in Kenya. The study used descriptive research design. It targeted all the 6,688 SMEs registered to operate in the CBD of Kisumu in the year 2020 from which sample size of 100 SMEs was picked. This study gathered primary data through use of a questionnaire. The collected data was then analyzed using descriptive and inferential statistics. The findings indicated that amount of credit requested from digital lenders affected credit usage significantly. Moreover, number of branches/agents of FinTech available were also found to be a strong determinant of credit usage among the SMEs operating in Kisumu CBD. Conversely, the results showed that number of subscriptions and amount remitted do not have significant effect on credit usage. The SMEs are therefore, advised to adopt and use FinTech in order to enhance their credit usage in business operations.

Keywords: *FinTech, Credit Usage, SMEs, Digital Lenders, Kisumu CBD*

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1.0 Introduction

Trends in Financial Technology (FinTech) are shaping the business environment, revamping the operation models, redefining the client rules and driving other investment activities at the same time ensuring customer experience across mobile, internet and cloud channels and safeguarding customer transactions and customer sensitive information across the divide (Rao, Saxena & Bagchi, 2016). FinTech is one of the new technologies of financial innovations and solutions which are fueling financial accessibility especially in the businesses of developing countries (Demirguc-Kunt, *et al.,* 2015). The benefit of accessing to credit offered through FinTech together with its usage has attracted most of the customers and therefore increasing its acceptability around the globe (Ntwiga, 2019). Kenya has embraced the digital revolution and seen widespread usage of digital solutions in various sectors including commerce, transport, communication, finance and banking (Central Bank, 2018). However, access to credit still remains a challenge in Kenya, especially those in businesses and this subject has continued to dominate discussion both within business cycle and at the corridor of various governments (Juma, 2017).

Emerging financial technology and innovations in traditional business models can take advantage of Kenya's rapidly digitizing economy to expand SMEs' access to credit in Kisumu Central Business District (CBD) through several complementary improvements (WB, 2018). Kenyan SMEs play important roles in the socio-economic development of the country. Its importance has been realized in terms of contribution towards economic growth, employment creation, poverty reduction and development of an industrial base (Juma, 2017). Kenya has also been recognized as a world leader when it comes to the evolution and progression of mobile money as well as digital credit which depends on the platform of the mobile money infrastructure.

Digital credit revolution has been in existence for a decade now attracting many clients than the traditional banks. With the mobile phone access to services, digital credit is serving a lot of clients as compared to the banks, reaching people in the remote parts of the village where normal banks cannot offer unsecured loans with reasonable interest rate (Biscaye, Callaway, Greenaway, Lunchick-Seymour, & McDonald, 2017). It is evident from Financial Services Deepening (FSD) report of 2018 that most of the mobile users have taken digital loans in either M-Shwari, KCB-Mpesa, Tala, Branch or M-Coop Cash. The percentage of the digital requesters is also high, at 60%

in Kenya (Kaffenberger, Totolo, & Soursourian, 2018). Due to availability of mobile loans, uptake of credit in Kenya has been rising (Njoroge, 2017).

Digital credit revolution has brought everybody on board, the poor and the rich, marginalized communities, the unemployed and unbanked population with alternative ways of accessing loans both formal and informal loans. This has led to tremendous growth in other financial services like the Fintech so that to accommodate everyone (Biscaye, Callaway, Greenaway, Lunchick-Seymour, & McDonald, 2017). Financial inclusivity on the other hand has seen many banking services beyond the normal traditional banking being accessed by many clients from the comfort of their house due to technological revolution. Moreover, financial inclusivity is the way clients can have access to bank accounts, using their credit cards to transact business, and using mobile platforms to transfer money and pay bill to different accounts comfortably (Musau, Muathe, & Mwangi, 2018).

With many financial services providersand financial inclusivity are priority to developing nations part of the greatest innovation banks have experienced in the financial sector currently at the market. This has been characterized by rapid and advanced technological changes, new diversified services and different forms of business transactions that includes payments and money transfer with the presence of mobile money platforms like Mpesa, Airtel Money and Eazy Money, has made it easier for people to transact conveniently (Musau, Muathe, & Mwangi, 2018). On the other hand, there is an emerging trend in digital financial service based on scalable and innovative business models that targets the most difficult unbanked communities. This is done through creation of new payment methods, new ways of livelihood and new access method to capital goods and productive assets. This has also seen the development of inclusive models that serves the low-income earners (AFI, 2017).

Collins (2019) stated that Kenya rides on the success of mobile money platform M-Pesa, and hence becoming a hotbed of all things FinTech. Having been placed in first position in Africa's top-performing economies, in the year 2019, Kenya continued leading the continent in financial accessibility as it has been in over a decade time this according to the latest African Development Bank (AfDB,2019). It is approximated that currently in Kenya, there are over 49 mobile applications offering digital credit. Some of the digital platforms currently available in Kenya

include: KCB-Mpesa, M-Shwari, Tala, Okash, Eazzy loan, Timiza, Mkopo Rahisi, Branch, and the recent overdraft facility by Safaricom, "Fuliza" (Totolo, 2018).

1.2 Research Problem

The demand for digital financial services has been on the rise calling for advancement in innovations and creativity within the financial sector. However, the emergence of FinTech usage has been received both as an opportunity for businesses and as a threat to other lending institutions like banks, and microfinance institutions among others (Nakaso, 2016). Credit accessibility and its usage in particular, tend to be at its peak of the economic activities and this technology has brought about growth challenges in various nations which has in turn led to changes in the operations of businesses (Blancher, et. al., 2019). Digital credit consumers have been faced with many challenges including late repayment and loan defaulter due to lack of transparency in the repayment period and the amount of interest charged (Kaffenberger, Totolo, & Soursourian, 2018). Schicks (2011) indicated that the concept of FinTech credit is a challenge in its own making in that, while it's convenient for the customer, its highly risky business to the banks and other financial providers. It also comes with other challenges including the over pricing and blatant disregard to customer privacy.

Due to higher interest charges put on digital loans, customers are suffering from psychological stress, treats and harassments, shame of being listed on Credit Reference Bureau (CRB), and sometimes insults and loosing of one's belongings to the lenders (Totolo, 2018). Based on a household survey conducted by FinAccess (2019) in conjunction with the Kenyan National Bureau of Statistics, Central Bank of Kenya, together with FSD Kenya, revealed that about 82.9% of the adult population in Kisumu county were able to access to at least one financial product, however, despite the increase in the number of credit agents/agencies who are capacity to lend so as to help in the growth of SMEs, greater number of digital consumers encountered debt distress due to lack of guidance from the government on ways of requesting in sustainable way. This has led to the Kenya's Credit Reference Bureau (CRB) blacklisting about 2.7 million people who were unable to repay their loans as little as KES 200.

The reviewed literature showed that credit accessibility through use of FinTech have impacted users/consumers both positively and negatively. Some evidences have shown that SMEs using FinTech had improved their businesses (Nakaso, 2016; Buchak, Matvos, Piskorski & Seru, 2017; FinAccess, 2019) while others have indicated that it had come along with many shortfalls (Schicks, 2011; Toronto Research Centre, 2019; Totolo, 2018; Kaffenberger, Totolo, & Soursourian, 2018). This created an indication that there was lack of consensus on credit usage gotten through financial technology in businesses. It is therefore due to these shortcomings that this research sought to answer the question that "What impact does financial technology have on credit usage among small and medium enterprises in Kisumu Central Business District (CBD), Kenya.

2.0 Conceptual Model

This study was guided by the following conceptual framework as indicated in Figure 1. The independent variable was financial technology whose indicators were amount of credit requested, remittances made, number of branches/agents and number of subscriptions. On the other hand, the dependent variable was credit usage indicated by credit used and amount advanced. The current study therefore, focused on SMEs operating within Kisumu CBD.

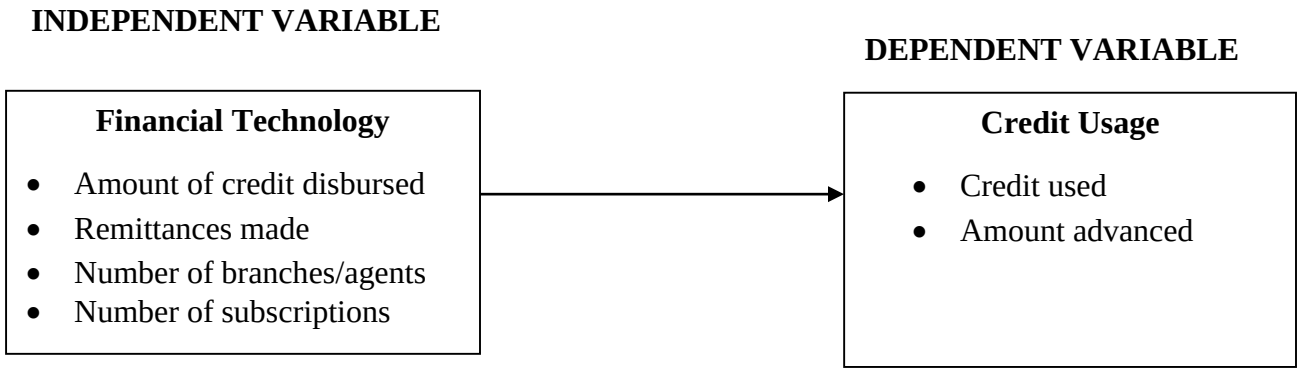

Figure 1: Conceptual Model

Source: Author (2021)

3.0 Research Methodology

This research used descriptive research design. The study targeted all the licensed SMEs operating in Kisumu CBD. Based on the available records, there are 6,688 SMEs registered to operate in the CBD of Kisumu in the year 2020 (Kisumu County Government, 2020). The sample size of 100

SMEs was drawn from Kisumu CBD. This study gathered primary data through use of a questionnaire. The study only focused on owner managers, senior management or supervisory level since they are key decision makers. Data obtained from the field was converted into useful information using quantitative method. Data was analyzed through use of descriptive and inferential statistics. Regression analysis was used to establish the relationship between financial technology and the credit usage among small and medium enterprises in Kisumu CBD. This research employed use of a regression model as stated in equation 1.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

Where: Y = Credit usage, X_1 = Amount credit requested, X_2 = Remittances made, X_3 = Number of branches/agents, X_4 = Number of subscriptions, $\beta_0 - \beta_4$ are coefficients of the regression model and ε is the error term.

4.0 Findings of the Study

Regression analysis was done to establish the effect of FinTech on credit usage among the SMEs situated in Kisumu Central Business District. The summary results given in Table 1 indicate that the regression model provided a combined correlation *R*-value of 0.779 and an *R* squared value of 0.607. This indicates that the aspects used in this study to represent FinTech as independent variables have ability of explaining 60.7% of change in credit usage.

The output of ANOVA shown in Table 1 gave a regression sum square of 22.541 and a residual sum square of 14.595 with a mean squares of 5.635 for regression and 0.192 for residual. With an *F* – statistics of 29.345 and a significant value of 0.000. This has implication that all the independent variables used in this study were jointly significant and fit in determining the dependent variable and therefore an indication that the study should reject any null hypothesis that amount of credit requested, remittances made, number of branches/agents and number of subscriptions do not influence credit usage among small and medium enterprises.

Table 1: Regression Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.779[a]	.607	.586	.43822

a. Predictors: (Constant), Amount of credit requested, Remittances made, Number of branches/agents and Number of subscriptions

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.541	4	5.635	29.345	.000[b]
	Residual	14.595	76	.192		
	Total	37.136	80			

a. Dependent Variable: Credit Usage

b. Predictors: (Constant), Amount of credit requested, Remittances made, Number of branches/agents and Number of subscriptions

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.387	.209		1.851	.068	-.029	.804
	Amount of credit requested	.593	.071	.686	8.297	.000	.451	.735
	Number of branches/agents	.385	.130	.241	2.964	.004	.126	.644
	Number of subscriptions	-.083	.058	-.116	-1.439	.154	-.198	.032
	Remittances made	-.035	.058	-.044	-.608	.545	-.152	.081

Source: Research Findings (2021)

Moreover, the model gave estimations on the effect of individual aspects of independent variables under investigation and the findings of the regression coefficients are as illustrated in Table 1. The estimations on coefficients revealed that amount of credit requested from digital lenders affects credit usage significantly since this variable provided a positive coefficient value of 0.593 accompanied by a strong t – value of 8.297 supported by strong p – value of less than 0.05. Number of FinTech branches/agents available were also found to be a strong determinant of credit usage among the SMEs operating in Kisumu CBD as it gave a beta value of 0.385 (t = 2.964, p = 0.004).

The results further show that number of subscriptions do not have significant effect on credit usage as it provided a coefficient value of -0.083 (t = 1.439 and p = 0.154). Likewise, amount remitted as well seem not to have a significant effect on credit usage since it gave a coefficient value of -0.035 (t = 0.608) and a weak p – value of 0.545. An implication that FinTech affects credit usage of businesses majorly through amount of credit requested from digital lenders and number of branches/agents available for lending.

4.1 Interpretation of the Key Findings and Discussion

The study has established that FinTechs in terms amount of credit requested from digital lenders influenced credit usage significantly. This could be interpreted to mean that and increase in the rate of transacting digitally increases chances of credit usage by 59.3%. In relation to these findings, Bharadwaj, Jack and Suri (2019) found out that the borrowings given to customers tend to improve household resilience. They further showed that 34% of the customers who were found to be eligible to take a loan were able to borrow. In conclusion, the study observed that digital loans were able to lead to improvement on financial access and resilience, which was not the only course for greater failures of credit market. Mugo and Kilonzo (2017) realized that innovations offer immense possibilities for reducing poverty; achieving sustainable development, as well as inclusive economic growth. It was also established that financial inclusion had moved to new frontiers and at the same time was found to reduce poverty level, create employment as well as led to advancements in sustainable economic development.

The findings also established that number of FinTech branches/agents available strongly influences credit usage among the SMEs operating in Kisumu CBD given a coefficient value of 0.385 (t = 2.964, p = 0.004). In other words, the findings imply that an increase in branches/agents of FinTech in any given location is associated by increase in chances of digital credit being utilized more. A research carried out by Haddad and Hornuf (2017) revealed that countries which witnessed growth in formation of FinTech startups were found more subscriptions of mobile phones by customers which led to well-developed capital markets, and readily available modern technology. Another study in agreement with the current research findings is that of Kemboi (2018) who found out that adoption of online, mobile and internet as well as agency banking had a significant effect on financial performance of commercial banks. The findings further revealed

that number of subscriptions do not have significant effect on credit usage. Similar results were produced by the construct of amount remitted.

5.0 Conclusion

Based on the objective, the study concludes that amount of credit requested affects credit usage in SMEs' operations. This results make sense since credit usage will definitely dependent on credit availability. An increase in credit request tend to increase chances of credit usage in businesses. It was further found out that number of branches/agents of FinTech impacted credit usage in businesses positively. Financial technology is operated inform of applications which are placed either in mobile phones or computers, therefore, they serve as a platform of FinTechs transaction. However, some of the FinTech like M–Pesa and Airtel Money among others, require branches or agents of such service providers to facilitate their transactions. Therefore, the more the availability of agents, the higher chances of increasing credit usage.

The amount requested and repaid in time determines the increase in the chances of borrowing even higher since when one borrows and repays in time he/she raises the chances of getting higher figure in the next requesting. However, the study concluded that FinTech existing in Kenya charge high interest rates. The high interest rates can scare away the potential businesses willing to utilize such services. Furthermore, the study showed that FinTech adoption contributed to improvement in the way of doing business, and this enabled the increment of SME's stock. Those SMEs which were found to have embraced usage of FinTech, tend to expand more in terms of branches/network.

6.0 Recommendations

The study suggested the following recommendations. The managers of small and medium enterprises operating in Kisumu City should effectively follow and apply proper guidelines in adoption of financial technology and credit usage. The financial regulators should come up with the viable policies to control digital transaction to ensure that the consumer and the loan providers are protected from exploitation or loss of their money respectively. Furthermore, the SMEs are advised to adopt and use FinTech in order to enhance their credit usage in their business operations.

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