

Effect of Financial Technology Loans on Financial Inclusion Among the Unbanked Low-Income Earners in Makueni County

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ABSTRACT

Financial inclusion is crucial in fostering individual prosperity, poverty eradication and stimulating economic growth. It is therefore a major policy concern for majority of governments across the world. Despite the rampant growth of financial technology in Kenya, the number of adults who are financially excluded is still high among the rural area residents. Lack of financial services access in rural areas has resulted to rural economic growth retardation and inequality. Further, financial exclusion has led to increased poverty levels because those excluded have been forced to depend on their limited savings to pursue their entrepreneurial interests. Small businesses have had no choice but to rely on their inadequate earnings to pursue viable business opportunities. The main objective of this study was to establish the effect of financial technology loans on financial inclusion among the unbanked low-income earners in Makueni County. Descriptive research design was used, with the target population being the unbanked low-income earners over the age of 18 in Makueni County. A sample size of 384 respondents was chosen using the convenience sampling technique. Personal interviews were conducted using an interview guide to collect primary data. The study found that fintech loans have a positive and significant effect on financial inclusion among the unbanked low-income earners in Makueni County. According to the findings of the study, since the unbanked people in Makueni County associate the use of financial technology loans to meeting personal financial needs and especially coping up with day-to-day expenses and emergencies, this study recommends that such people embrace the use of the fintech loans more as it will aid them in improving their financial lives to a greater extent. This is because for instance, by using the fintech loans, they can create employment for themselves and generate sufficient income by financing micro businesses using this credit.

Key words: Financial technology Loans, Financial Inclusion

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1.0 Introduction

In the global context, 69% of the adults have a bank account while 1.7 billion are unbanked (Fin Access, 2017). In comparison with the rich economies, twice as many of the adults who are unbanked live in poor households in their economies. In Sub-Saharan Africa, the adult population estimated to own a transaction account in a financial institution is 43% (Pelletier & Stijns, 2018). In Kenya, formal financial inclusion has gone up from 75.3% in 2016 to 82.9% in 2019 (Fin Access, 2019). This shows that Kenya is making a remarkable progress in increasing financial

inclusion. However, according to Fin Access household report (2019), the country is still experiencing the problem of financial exclusion among some of its citizens which currently stands as 11.0%. Misati *et al* (2010) notes that financial technology has widely been seen as the emergence of new financial products such as digital loans which has been brought about by the growth and development of fintech companies. Financial inclusion, on the other hand, refers to a person's ability to get and use financial services in a cost-effective manner. According to ATISG report (2010), financial technology has evolved to be one of the important and valuable ways of expanding access to financial services. Further, the group asserted that the very long lasting solution to expanding the access to financial services lies in financial technology loans through technology. In the recent decades, such financial technology loans have increased the financial inclusion levels (Mutua, 2018). For instance, through fintech loans, people are able to access finances from various fintech lenders via their mobile phones. This enables them to finance their daily financial needs and more so respond to emergencies such as illness. According to Dupas and Robinson (2009), individuals with the ability to access any form of finances whether formal or informal exhibited greater possibilities of enhancing their income, productivity and consumption and tremendously minimized exposure to sickness and other unforeseen uncertainties.

Fintech companies' major goal has been to give financial services to people who have been turned down by traditional banking institutions (Martin, 2016). The paradigm of financial service delivery is therefore being-shifted by fintech to offer low cost financial products while focusing on the vulnerable category of individuals whose access to formal financial services is limited. The technology-enabled solutions provided by these fintech companies have resulted to creation of fintech loans that have the potential of fostering and enhancing financial inclusion in Kenya and play a key role in reaching to those individuals in remote and rural areas. The fintechs have widened their scope far off the traditional microcredit products. They have made use of technology in designing, customizing and distributing fintech loans that are tailored to suit the needs of those in low income bracket. Fintech has the capability of increasing financial inclusion by helping those financially excluded in developing a credit score that will consequently enable them to access the financial system. Kenya is classified as a lower middle income country, according to a UNDP 2018 report. In this regard, 36.1 percent of her population lives below the international poverty level of \$1.90 per day, with the majority of them residing in rural areas where formal banking services are difficult to access (Omwansa & Waema, 2018). The average number of the unbanked adults in Makueni County stands at 61,835 which translate to 11.0% of the total adult population (Fin Access, 2019). According to Demirguc *et.al*, (2017) and Fin Access, (2019), the reasons for being unbanked result from several factors that include absence of money to save, distance barriers to the nearest bank, high documentation requirements asked during opening a bank account which keep off many people especially the illiterate and absence of regular income. In addition, the cost of opening and operating a bank account is too high due to other related costs such as fixed monthly fee, sign-up fee and minimal account balance requirements and therefore most people just decide to remain unbanked.

1.1 Statement of the Problem

Financial inclusion is a major policy concern for many governments across the world. Ideally, every individual should be in a position to access and use formal financial services so as to transform their lives and enhance the lives of their families. Apart from facilitating access to and use of financial resources, financial inclusion is critical in assisting people in better managing their resources and improving financial capacities through savings. Despite the excellent effort made

thus far to improve financial inclusion, those residing outside of Kenya's major cities still have limited access to formal financial services. In Makueni County, 11% of the adult population is unbanked and the majority of those who do have formal accounts with various financial institutions rarely use them because they do not solve real day to day financial problems for many households, farmers and small and micro businesses, so the focus has shifted to the use of financial technology loans (Fin Access report, 2019). Financial exclusion has resulted in not just slowed rural economic growth but also increased poverty rates. People have been compelled to rely on their meager savings to pursue their entrepreneurial ambitions and invest in their children's education. Small businesses have had no choice but to rely on their inadequate earnings to pursue promising growth opportunities. According to Jao (2017), financial technology loans are essential in promoting sustainable economic development as they aid in smoothening consumption and improving people's livelihoods by making it possible for them to have access to credits hence leading to individual prosperity. Optimum access to credit which is an essential financial product play a key role in ensuring that farmers invest largely, take risks that poses a potential of increasing their earnings and in turn increase the production of food (L Klapper et al., 2016).

Ozili (2018) investigated the influence of digital finance on financial stability and inclusiveness. Through fintech providers, he discovered that digital finance has a favorable impact on financial inclusion in both advanced and emerging economies. He further concluded that digital finance has brought a lot of convenience to low income earners in accessing essential financial services as compared to higher costs that the individuals would incur from regulated banks. However, from the findings, Ozili never narrowed down to a specific country but instead his research presented generalized findings of developing countries which may not hold true to all countries due to country specific differences. Kenyoru (2013) looked at the effect of financial innovations on financial deepening in Kenya. In his findings, financial innovations had an insignificant positive impact on financial deepening. However, Kenyoru's study only focused on innovations by the formal financial institutions (banks) such as mobile banking as opposed to innovations by fintech firms such fintech loans which are being investigated by the current study. Further, the study never looked at financial deepening in a specific County hence giving a generalized view on financial deepening. While these studies have cited evidence into the implementation of financial technology and their effect on financial inclusion, achieving optimal financial inclusion in Makueni County remain a challenge. Furthermore, such studies present mixed findings and therefore there is a great need for additional evidence to support the financial technology- financial inclusion relationship to the unbanked low income earners in Makueni County.

1.2 Research Hypothesis

H₀1: There is no statistically significant relationship between fintech loans and financial inclusion among the unbanked low-income earners in Makueni County.

2.0 Literature Review

2.1 Theoretical Foundation

2.1.1 Financial Intermediation Theory (FIT)

This theory was advanced by Shaw and Gurley in 1960. It explains the process in which financial institutions accept deposits from the surplus units of the economy and ultimately lend the same to the deficit units (Andries, 2009). In other words, intermediaries in the financial sector play a key role of ensuring that funds flow steadily to the deficit units from surplus units. According to

Scholten (2003), certain factors prompt the existence of financial intermediaries. Such factors include high costs of transaction, lack of adequate and timely information and methods of administering regulation. The most focused on factor in many researches is the informational asymmetry as far as financial intermediation is concerned. This asymmetry may result to moral hazard and adverse selection problems (Kimiru, 2018). Andries (2009) notes that market flaws witnessed in many financial markets are as a result of persistent informational asymmetry that exist between sellers and buyers. In regard to this for instance, the borrowers know and comprehend their moral integrity, collateral and industriousness more than the lenders available in the financial markets.

For quite some time now, poor saving structures and lack of consistent earnings have made the rural areas people and farmers to experience acute sidelining in financial inclusion. This theory is ideal to this study because with the emergence of fintech companies, farmers can readily access some of the most essential products such as fintech loans without any guarantor or collateral, insurance products and also make payments via mobile phones. Through this, the fintech companies are promoting individual prosperity and also impacts on the economy positively through the provision of the much needed credit to the unbanked low income earners who then make investments thus promoting economic growth.

2.1.2 Technology Acceptance Model

This theory of technology acceptance was advanced by Davis in 1986 (Park, 2009). It is majorly anchored on two major beliefs such as the perceived ease of use and perceived utility. The model also looks at the intentions, attitudes and the behavior of the computer usage exhibited by the users. According to Davis (2009), this influences their ultimate decision on whether to adopt the technology or not. Perceived ease of use is the confidence level that is put to a system by people. According to Mojtahed, Nunes & Peng (2011), if the perception by the users is that the proposed technology shall benefit and support their short and long term goals, then the overall feeling is to use the system. Technology Acceptance Model asserts that the real utilization of the system is usually inspired and established by the perception and the intention to use the system as depicted by the behavior of the user.

This theory is important in this research because it is used to explain how financial technology is adopted by the people living in rural areas. Indeed, financial technology adoption and utilization in rural areas is greatly influenced by the perception that the people have towards its friendliness in terms of use (Nyagilo, 2019). The ease of use of fintech loans may to a larger extent influence the technology adoption and utilization. This is backed by the fact that even the uneducated people in rural areas are in a position to use them as most of them possess phones. In addition, the perception held towards financial technology is that it is useful in the light that it draws access to financial services closer to farmers.

2.2 Empirical Review

Gibson (2015) carried out a study on the impact of fintech on the Ireland financial services industry. The study was carried out with a cross-sectional design of research. In this investigation, both primary and secondary data were used. Interviews were conducted for primary data collection. Secondary data was collected from existing sources such as company websites in order to give more information on the subject of the study. The respondents for the study were selected using purposive sampling techniques. In his findings, he revealed that actually, financial technology had disrupted the way financial services had traditionally been offered as far as lending

is concerned. fintech has increased financial inclusion by reducing entry barriers hence opening an opportunity to the low income earners to have access to credit (Gibson, 2015). The recommendations for the study were that financial institutions needed to develop financial technology products that aim at reaching the marginalized segment in order to remain competitive. However, this study did not include any conceptual framework to summarize the study variables as is the case with the current study. The research was also done in Ireland and therefore the research findings may not be effectively applied in Kenya. The current study was conducted in one of the rural area counties in Kenya (Makueni County) and therefore, the findings are likely to give a clear picture on the effect of fintech loans on financial inclusion among the rural area residents.

Hwang & Telez (2016) carried out a research that aimed at assessing the growing digital credit penetration. 10 case examples were used 5 of which being drawn from Sub-Saharan Africa. The research employed a descriptive design. The findings showed that digital credit plays a vital role in broadening financial inclusion. Further, the findings of the study indicated that through its expansion, digital credit is creating an avenue through which essential financial services can be accessed by the poor. The study made a conclusion that digital credit and financial inclusion had a positive relationship. However, this research by Hwang & Telez used a wide scope and therefore generalizing those results to Kenya would not be appropriate. There is therefore a need for country specific study seeking to address the effect of financial technology on financial inclusion. The current study sought to fill this gap by conducting a research in Kenya specifically in the rural areas of Makueni County.

Nyagilo (2017) conducted a study on the role of financial technology as an instrument in financial inclusion in Kenya's rural areas from 2011 to 2016. The study looked at mobile banking, agency banking, and ATMs as independent variables and their impact on financial inclusion (Dependent variable). Central Bank of Kenya provided quantitative secondary data for the study, which was conducted using an explanatory research design. According to the study's findings, mobile banking had a significant positive impact on financial inclusion in Kenya's rural areas. However, the study concentrated on financial technology innovations in the financial sector, whereas the current study concentrated on financial technology loans which are innovative products advanced by various fintech lenders. Furthermore, the scope of Nyagilo's study was broad and because different rural areas in Kenya are more developed than others and may face different challenges in terms of access to essential financial services, there is a need to narrow the scope down to a specific rural area. This has been handled in the current study where it was conducted specifically in Makueni County.

Wathome (2020) conducted a study on the effects of Digital Credit on Financial Inclusion of the Youth in Kenya: A Survey of Kangemi, Nairobi County. The study used a cross-sectional survey approach, with a target sample of 152,000 young people in Kangemi aged 18 to 25 who use digital credit. A sample size of 384 respondents was obtained through the application of stratified random sampling. Questionnaires were utilized to acquire primary data from respondents for the study. According to the findings of the study, digital credit facilities have substantially increased their financial access, resulting in a significant reduction in poverty and an increase in financial independence among the youth. In general, the research indicates that there is a link between digital credit and financial inclusion. However, Wathome's study focused only on the youth (15-25 years) leaving out those falling in the age brackets of above 25 years. This presented a generalized view and results leaving out room for biasness. In addition, the study was done in a more developed County where the availability of these essential financial services is almost guaranteed as opposed

to other not so developed countries and hence the findings may not reflect the true relationship between the study variables. The current study is more inclusive as it targeted all the unbanked individuals above the age of 18 years.

Short-term loans (Nano) from fintech play a major role to transform the lives of many households by enhancing financial inclusion (Agarwal & Chua, 2020). They have greatly reduced face to face discrimination that individuals experience with the traditional banks due to their doubtful creditworthiness or even lack of collateral to support their loan applications. Households that have previously been excluded from formal financial services can now take advantage of fintech loans' availability, convenience and manageable interest rates to enhance their consumption of essential goods and services (Agarwal & Chua, 2020). However, according to Agarwal & Chua (2020), this may result to over-borrowing and over-consumption especially to the individuals with less financial literacy resulting to serious detrimental effects. According to Claessens et.al (2018), the availability of fintech loans has resulted to well-planned financing decisions by various households and small businesses alike. These loans come with reduction in processing times hence enhancing efficiency of the entire process. Fintech lenders have become the backbone in provision of short term working capital to the low-income enterprises and small but prospective businesses (Liu, 2019). These firms are in most cases excluded from accessing formal financial services due to their low creditworthiness and failure to meet the traditional bank requirements for securing a loan. They enjoy quicker, opportunity-centric acceptance (approval) timelines through the alternative fintech lending products hence enhancing financial inclusion. Fintech loans can actually be received on the same day of application unlike with the traditional banks where the application by such small business may take longer periods while consideration is being made (Bharadwaj, Jack & Suri, 2019).

Financial inclusion encompasses all activities aimed at making formal financial services more affordable and accessible to all segments of a country's population (Triki & Faye, 2013). Various steps have been implemented to guarantee that different groups of the society are financially included. For instance, in 2017, the World Bank Group launched the World Bank Universal Financial Access (UFA2020), an initiative aimed at ensuring that the adults from developing countries who are financially excluded have been given an opportunity to manage their financial status by being able to access a transaction account (Venet, 2019). In view of these developments, most countries have shown their interest and commitment in promoting financial inclusion by mapping out and supporting such initiatives. In addition to local country aims and plans, these countries have stayed committed to global initiatives like the G-20 Financial Inclusion Action Plan and the Maya Declaration. For example, a financial inclusion task force with the mandate of monitoring and evaluating the financial inclusion progress in United Kingdom was formed in 2005. Inclusive financial system that is effective is poised to benefit the low income earners. It is a concept which is considered key to inclusive and sustainable economic development. For sustainability and inclusivity to be achieved in economic growth, evaluation on how vital financial products and services will be delivered to people in the society should be considered (Triki & Faye, 2013). In this study, financial inclusion will be measured in two dimensions such as access and usage of financial services. African Development Bank (2013), states that access, usage and quality of financial services are vital dimensions of inclusive financing. According to Muguchu (2013), access to financial services refers to the likelihood that people can get the essential financial products such as insurance, loans etc. in an affordable way. Accessing these services has been a challenge to the poor people living in rural areas since they are regarded as risky cohorts by financial institutions. In addition, most of these services like bank loans are expensive and given

the inadequate earnings of these people, majority cannot afford them. Proximity to the nearest bank branch in rural areas and lack of collateral has also contributed to financial exclusion of this segment of population (Agola, 2017). According to Michelle (2016), the onset of fintech has presented an opportunity to ensure that the poor and low income earners in rural areas are connected to financial intermediation providers.

3.0 Methodology

A descriptive research design was used in this study. It is a data collection method that involves conducting interviews and distributing questionnaires with the primary goal of eliciting responses from respondents. The target population for this study was the unbanked low income earners in Makueni County. According to 2019 census report, there were 562,134 individuals who were aged 18 years and above in Makueni County. The 2019 Fin Access household survey report indicated that 11.0% of this population was unbanked and therefore the target population for the study was 61,835 individuals. The researcher used convenience sampling technique in which samples for incorporation in the study were chosen based on their accessibility and availability.

The sample size for this study was established using Fisher et al (1998)'s formula for calculating minimum sample size of a target population greater than 10,000.

$$n = \frac{pqz^2}{d^2}$$

Where:

n = Sought sample size, if the study's targeted population is over 10,000

p = Proportion in the targeted population approximated to have the characteristic of interest.

q = 1-p: (percentage of the population that does not exhibit the characteristic of interest)

d = Maximum error required in percentage form (set at 5% margin of error)

z = Level of confidence value obtained from the Z tables. It basically represents the extent to which the researcher is certain that the population characteristics have been estimated accurately by the chosen sample. For this study, it was set at 95% (z=1.96).

According to Fisher et al. (1998), if no estimate of the percent of the target population with the same characteristics is available, the researcher can utilize 50% of the sample. After substituting for the formula, the sample size for the study was;

$$n = \frac{0.5(1-0.5)1.96^2}{0.05^2}$$

$$= \frac{0.9604}{0.0025}$$

$$= 384 \text{ respondents}$$

The study used the following regression model;

Financial Inclusion = f (Fintech loans)

$$FI = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where; FI represents financial inclusion

β_0 = Constant

β_1 =coefficient of determination

λ_1 represents aggregate mean of fintech loans

ε =Error term

4.0 Research Results

4.1 Descriptive Statistics

On a scale of 1 to 5, the researcher purposed to determine the extent to which respondents used fintech loans, (where 5= very great extent, 4=great extent, 3=moderate extent, 2=little extent and 1= no extent). It was found that majority of the respondents acknowledged to use fintech loans at a moderate extent at (52.1%), followed by those who acknowledged to have used at a great extent (35.6%), 7% use fintech loans to a very great extent while 2.3% use at a little extent. Ultimately, 2.8% of the respondents never use fintech loans at all.

The aim of the study was to examine the effect of fintech loans on financial inclusion among the unbanked low income earners in Makueni County. Respondents were asked to react to important statements by expressing the extent to which they agreed with them in order to attain this objective. Responses were gathered using a five-point Likert scale (where: 5-very great extent, 4-great extent, 3-moderate extent, 2-little extent, 1-no extent). Mean scores of 1 to 1.4 indicate that the respondents disagreed with the statements (no extent), 1.6 to 2.4 indicates that the respondents agreed with the given statements to a little extent, 2.5 to 3.4 indicates that the respondents agreed with the given statements to a moderate extent, 3.5 to 4.4 indicates that the respondents agreed with the given statements to a great extent and mean values of 4.5 to 5.0 indicate that the respondents agreed with the statements to a very great extent. This was then analyzed using mean and standard deviation. According to Boone and Boone (2012), descriptive statistics including mean, mode and standard deviation are appropriate for analyzing Likert scale data. As shown in table 4.3, most of those who responded concurred with assertions on the impact of fintech loans on financial inclusion among the unbanked low-income earners in Makueni County. In particular, the respondents agreed that fintech loans are effective in helping them cope with income fluctuations to a great extent (3.45); that with fintech loans, they need not to have a prior bank account for them to qualify (3.45); that fintech loans have enhanced their access and use of financial services (3.42), that the use of fintech loans is an effective way of enhancing financial inclusion (3.40) and that they use fintech loans as a source of working capital (2.72). These findings are in agreement with those of Wathome, (2020).

Table 1: Fintech Loans and Financial Inclusion among the Unbanked Low-Income Earners in Makueni County

Attribute	Mean	Std. Deviation
I use fintech loans as source of operating capital for my business	2.72	.686
Fintech loans are effective in helping me cope with income fluctuations	3.45	.761
With fintech loans I don't need a prior bank account to qualify	3.45	.795

Attribute	Mean	Std. Deviation
Fintech loans have enhanced access and use of financial services	3.42	.777
Use of fintech loans is an effective way to enhance financial inclusion	3.40	.749

Source: research data (2021)

4.2 Inferential Statistics

The study used a univariate regression analysis guided by the following null hypothesis;

H₀₁: There is no statistically significant relationship between fintech loans and financial inclusion among the unbanked low-income earners in Makueni County.

Table 2: Model Summary of Fintech Loans and Financial Inclusion

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842 ^a	.709	.708	.387

Predictors: (Constant), Fintech Loans

Dependent Variable: Financial Inclusion

Source: research data (2021)

The R-squared as indicated in table 2 for the relationship between fintech loans and financial inclusion among the unbanked low-income earners in Makueni County was 0.709. This shows that fintech loans explain 70.9% of the financial inclusion among the unbanked low-income earners in Makueni County.

Table 3: ANOVA for Fintech Loans and Financial Inclusion

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	127.299	1	127.299	850.368	.000 ^b
	Residual	52.245	349	.150		
	Total	179.544	350			

a. Dependent Variable: Financial Inclusion

b. Predictors: (Constant), Fintech Loans

Source: research data (2021)

The F-calculated (850.368) was more than F critical (2.63), and the p-value (0.000) less than the significance level (0.05) as shown in the ANOVA table 3. This means that the linear regression model is a good fit for the data and may therefore be used to predict the effect of fintech loans on financial inclusion among the Makueni County's unbanked low-income earners.

Table 4: Coefficients for Fintech Loans and Financial Inclusion

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	.823	.093		8.823	.000
	Fintech Loans	.776	.027	.842	29.161	.000

a. *Dependent Variable: Financial Inclusion*

Source: research data (2021)

As shown in table 4, when the use of fintech loans is held constant, the study's findings show that financial inclusion among the unbanked low-income earners in Makueni County will have an index of 0.823. Furthermore, the relationship between fintech loans and financial inclusion among the unbanked low-income earners in Makueni County had an unstandardized beta coefficient (B) of 0.776. This means that increasing the use of fintech loans by one unit will result in a 0.776 rise in financial inclusion among the unbanked low income earners in Makueni County. Because the P-value (0.000) was less than the significance level of 0.05, the relationship is deemed significant. In addition, the t calculated (29.161) was greater than the t-critical (2.626). As a result, the study fails to accept the null hypothesis that there is no statistically significant relationship between fintech loans and financial inclusion among the unbanked low income earners in Makueni County and consequently accepts the alternative hypothesis.

5. Conclusions and Recommendations

5.1 Conclusions

Based on the findings, the study concludes that fintech loans have a direct and significant effect on financial inclusion among the unbanked low income earners in Makueni County. The study established that financial technology players (Fintechs) have played a key role in enhancing financial inclusion by offering alternative lending solutions to the previously underserved (financially excluded) population in Makueni County. Further, the study concludes that, with the availability of essential financial products such as fintech loans, individuals are able to cope with income fluctuations by being able to access and use financial services. This is even made easier by the fact that; such persons do not need ownership of prior bank account for them to qualify.

5.2 Recommendations

Based on the findings, the study recommends that financial technology players in the country should be greatly supported by the government. This is due to the roles that they play in offering essential financial technology products like fintech loans in a convenient manner to the previously underserved population by the formal financial institutions. Use of financial technology loans offered by various fintechs can be one of the best ways to reduce the high number of the unbanked populations in the country. To ensure credibility and transparency on the operations of the fintechs in the country, then the government should institute formal regulations that shall guide their activities so that consumer's privacy as far as their data is concerned is safeguarded. This would go a long way in preventing any form of exploitation that arises in the use of the financial technology products.

The unbanked people in Makueni County link the use of financial technology loans to meeting personal financial needs and especially coping up with day-to-day expenses and emergencies. As a result, this study recommends that such people embrace the use of such fintech loans more as it will aid them in improving their financial lives to a greater extent. This is because for instance, by using the fintech loans, they can create employment for themselves and generate sufficient income by financing micro businesses using this credit.

References

- ATSG Report 2010, Innovative Financial Inclusion: Principles and Report on Innovative Financial Inclusion from Access through innovation. *Sub-Group of the G-20 Financial Inclusion Experts*
- Chiu, I. H. (2016). Fintech and disruptive business models in financial products, intermediation and markets-policy implications for financial regulators. *J. Tech. L. & Pol'y*, 21, 55
- Claessens, S., Frost, J., Turner, G., & Zhu, F. (2018). Fintech credit markets around the world: size, drivers and policy issues. *BIS Quarterly Review September*
- Davis, F.D. (2009), "Perceived usefulness, perceived ease of use, and user acceptance of information technology", *MIS Quarterly* (13) 3, 319-340
- Demuric-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hessel, J. (2017), "The Global Findex Database: Measuring Financial Inclusion and the Fintech Revolution", World Bank
- Hassija, V., Bansal, G., Chamola, V., Kumar, N., & Guizani, M. (2020). Secure Lending: Block chain and Prospect Theory-Based Decentralized Credit Scoring Model. *IEEE Transactions on Network Science and Engineering*
- Kenya National Bureau of statistics Census Results 2019 in Kenya
- Kimiri, M. (2018). *Effect of Fintech Strategy On Financial Services Delivery to The Unbanked Low Income Earners in Nairobi County* (Doctoral Dissertation, School of Business, University of Nairobi).
- Klapper, L., El-Zoghbi, M & Hess, J. (2016). Achieving the sustainable Development Goals: The Role of Financial Inclusion. CGAP, Washington DC.
- Liu, C. (2019). Finance strategies for medium-sized enterprises: Fintech as the game changer. In *Strategic Optimization of Medium-Sized Enterprises in the Global Market* (pp. 162-184). IGI Global
- Misati, R et. al, (2010). Financial Innovation and Monetary Transmission in Kenya, *International Research Journal of Finance and Economics*, Vol 50 pp.123-136
- Mojtahed, R., Nunes, J.M.B. & Peng, G.C. (2011). The role of The Technology Acceptance Model in Information Systems' Research. *In proceeding of the International Workshop on Information Systems Research Trends, Approaches and Methodologies Rome, Italy*
- Muguchu, M. (2013). The relationship between access to credit and financial inclusion
- Mutua, P. N. (2018). *The Effect of Financial Innovation on Financial Inclusion in Kenya* (Doctoral dissertation, University of Nairobi).
- Nyagilo, V. (2019). Financial Inclusion in Rural Kenya: An Investigation of the Role of Financial Technology as an Instrument. *International Journal of Business Management and Finance*, 1(1). on 14th October 2020 from <https://www.cgap.org>
- Omwansa, T. K., & Waema, T. M. (2018). *Deepening financial inclusion through collaboration to create innovative and appropriate financial products for the poor*. 36.
- Padachi, K. (2006). Trends in working capital management and its impact on firms' performance: an analysis of Mauritian small manufacturing firms. *International Review of business research papers*, 2(2), 45-58.

- Park, S.Y (2009). An analysis of the Technology Acceptance Model in Understanding University Student's Behavioral intention to use-learning. *Educational Technology & Society*, 12(3)150-162
- Pelletier, A., & Stijns, J. P. (2018). Sub-Saharan African Banking Sectors: Results from a Survey of Banking Groups. Performance of small and medium enterprises in Kenya. University of Nairobi
- Scholtens, B., & Van Wensveen, D. (2003). *The theory of financial intermediation: an essay on what it does (not) explain* (No. 2003/1). SUERF Studies
- Triki & Faye. (2013). Financial inclusion in Africa. Ghana: African Development Bank
- Venet, B. (2019). FinTech and financial inclusion. In *A Research Agenda for Financial Inclusion and Microfinance*. Edward Elgar Publishing
- Wathome, F. N. (2020). Effects of Digital Credit on Financial Inclusion of the Youth in Kenya: A Survey of Kangemi, Nairobi County (Doctoral dissertation, United States International University-Africa).

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