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Article

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FINANCIAL LITERACY AND CONSUMER PROTECTION: A ROAD MAP TO DIGITAL FINANCIAL ACCESS BY SMEs IN KENYA

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Cover Page Footnote

I would like to acknowledge my two co-authors Dr. S. Muathe Dr. L. Mwangi

FINANCIAL LITERACY AND CONSUMER PROTECTION: A ROAD MAP TO DIGITAL FINANCIAL ACCESS BY SMEs IN KENYA

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Abstract

This paper seeks to ascertain the influence of financial literacy and financial consumer protection on digital financial access. The objectives of the study were to find out the effect of financial literacy on digital monetary access, and to find out the effect of financial consumer protection on digital access of finances of SMEs in Sub County of Ruiru in County government of Kiambu, Kenya. Financial Literacy Theory, Information Asymmetry Theory and Social Learning Theory are the theories that guided formulation of study's objectives. Descriptive research design was used with the population of interest comprising of all SMEs owners in Ruiru Sub County in Kiambu County. The sample size for the study was 384 respondents derived by Fisher (1998) formula. Primary data as collected by use of questionnaires. Descriptive statistics of mean, frequency, percentages and standard deviation were used combined with inferential analysis of correlation as well as multiple regression to analyse the data. Findings of the study indicated that financial literacy and financial consumer protection significantly and positively influence on digital financial access of SMEs. The paper concluded that an improvement in the knowledge of financial products, developing a financial attitude towards the long term, debt management literacy of SME owner, financial product choice knowledge and having the ability to make informed decisions regarding finances generally improves digital financial access of SMEs.

INTRODUCTION

A significant proportion of enterprises globally fall under small and midsize firms which are essential in creation of new job opportunities, fostering economic growth and value addition which ensures that there is growth in incomes in various sections of the labour force as well as growth in the livelihood (OECD, 2017). According to Planes-Satorra, Paunov (2017), small and mid-size firms are characterised with creativity, innovation and productivity increase and diversification of the economy as well as social cohesion. Nevertheless, about half of these firms particularly in the medium and low earning nations are financially limited, thus their financial needs are unsettled or unsolved. According to Stein, Ardic and Hommes (2013), the magnitude

of this problem is nowhere higher than in African sub Saharan countries in which the financing gap is equivalent to three times the outstanding SME credits. Markets as well as corporate failures faced by SMEs give rise to market inefficiencies and imperfections which leads to huge financing gap between SMEs and other businesses. Adverse selection as well as moral hazard results to interferences in the financial markets where by especially small businesses are denied external finances due to their impenetrability (Musau, Muathe & Mwangi 2018)

Majority of financial institution finds it difficult to give credit to small businesses who cannot provide financial statements, credit bureau information or a credit history nor enough security like land and building. Financial literacy and financial consumer protection are likely to become increasingly important contributors of digital financial access (Lusardi, 2019). Through financial literacy, SMEs become accountable for their own financial planning as well as saving and investment management because of the tendency of changing to defined-contribution from defined-benefit pension plans. They are required to have higher-level financial literacy to utilise digital financial products as well as services and avoiding costly mistakes and fraud.

These developments show the purpose to develop digital monetary education programs as well as formulation of financial consumer protection policies to improve digital financial access (Goyal & Kumar, 2021).

1.1 Financial Literacy

It is defined as them motivation, confidence as well as the skills to apply financial understanding as well as knowledge so as to come up with sound judgement across a range of monetary context for the purpose of enhancing the financial well-being of society as well as individuals and to enable taking part in economic life as well as knowledge of financial concepts (Ademola, Musa & Innocent, 2019). Financial literacy enhances ultimately financial stability, financial development as well as financial inclusion. According to Lusardi and Mitchell (2011) approximately, a third of the global population on average is familiar with the common concepts that guide financial decisions everyday.

As financial markets become increasingly complicated, the common people are faced with the challenge of making rational decisions relating to financial products and services. Access to digital finance comes with potential dangers. New encounters in the digital finance market arena have indicated that the numbers of defaulters are worrying mainly because mobile loans are mediums through populations for the first time are becoming credit active. Mobile banking is superior in including on board the neglected persons, but also negatively affecting their credit worthiness (Mustafa, Mazhar, Asghar, Usmani, Razaq & Anderson, 2019). Among other factors debt distress owing to factors among them outright unavailability of payment plan, staking advances from various lenders as well as unavailability of consumer assertiveness have contributed to large numbers of defaulters among the youth as well as the poor people resulting to subsequent negative listing in CRBs. Credit challenges has made many people to commit suicide. Unless financial inclusion works together with financial literacy, other than assisting the less fortunate and the youth, they will be put into more troubles.

A change in the integrity and quality of markets as well as the quality of life a person can afford can be brought about by financial literacy. It also equip people with essential instruments for forecasting, assist people to be able to save and thus, ensuring that individuals live a better life even after retirement. Monetarily informed consumers, in return, are beneficial to the economy

through forcing the service providers to innovate and enhance their levels of efficiency as well as encouraging genuine competition (Musau, Muathe & Mwangi 2018)

There is sufficient prove of the effect of monetary literacy on financial behaviour as well as peoples' decisions. For instance, financial literacy has been evidenced to alter both and debt management and borrowing practices as well as investment and saving behaviours. As per Lusardi and Mitchell, (2014), wealth is more likely to be accumulated by financially knowledgeable persons. There are a number of explanations for why higher financial literacy give rise into more wealth. It has been documented by various studies that individuals who are more likely to plan for their retirement have higher financial literacy, possibly because they are able to do better calculations as well as being more likely to appreciate the power of interest compounding.

As per Mwathi (2017), a significant proportion of Kenyans rely on their own knowledge instead of expert opinion for financial advice. For instance, the sluggishness faced by the insurance industry for the last few years shows to low access to digital financial services in this sector despite the fact that other financial sectors of the Kenyan economy continue to do well. This has been blamed on lack of proper financial literacy by a vast majority of the population. According to Kodongo (2018), Kenya finds itself in the dilemma of growing financial inclusion and emergence of a very unclear and unpredictable financial landscape. This leads to a financial decision headache that require a high level of individual understanding and financial information.

1.2 Financial Consumer Protection

The changing nature of the financial service sector of the economy requires frequent changes of the regulation of the sector. Ensuring that there is enhancement of competition, financial stability and safeguarding the public are the key reasons why the financial sector is regulated. With regard to promoting financial user protection, its unavoidable to bring into consensus financial stability as well as promotion of competition to enhance favourable protection in the whole financial sector (Lempere, 2019). Causative to the problems is the user safeguarding is served by the initiatives to enhance good conduct on the section of financial service providers. There may be lack of adequate alignment between the enjoyment of the providers of the financial services and those of the users of the products which is a key challenge (Yang & Li, 2018).

Financial user safeguarding is concerned with enhancing a equitable exchange between financial services providers and consumers such as general public and SMEs. This knowledge is key because there is requirement to safeguard the user of the services from the misconduct as well as excesses of monetary institution which take benefits from the empty spaces that exists in the consumer protection regulators' thus making consumers susceptible (Kriese, Abor & Agbloyor, 2019). Consumer protection measures includes maintaining financial system integrity as well as protecting consumers against unethical practices like fraud, unfair pricing and lack of complain solving (Finaccess, 2019). Customers are sometimes punished for small violations in repayments, although they lack enough redress mechanism to correct inadequacies in service by banks According to Goulard, Aziz & Gragtmans (2020), consumer protection is vital to the provision of financial services and actions to protect consumers include those taken to promote transparency, fair pricing, and disclosures on penalties. In addition, it is critical that customers accessing digital financial services should have access to an avenue for complaints or support.

Financial consumer protection as measures taken to safeguard the customers when dealing with digital finance. Transparency and fair treatment are very crucial when dealing with SMEs due to their vulnerable nature. Lack of measures facilitating transparency and fair treatment means that the consumers are unable to understand the implications of the digital financial services they access (World Bank, 2017). In addition, consumer protection assures fair pricing of financial services for instance fair interest rates as well as protects the consumer from fraud and misrepresentation. Uncontrolled market policies as well as forces that hinder regulations in a step to come up with financial markets to help the bottom of the pyramid can lead to consumers they are harmed as a result of digital financial access. Consumer protection measures encourage the providers of the financial services to outdo each other by offering services and products apart from exploitation of the inadequately informed consumer (Mitheu, 2018).

Kenya's main financial regulator, the Central Bank of Kenya controls and oversees all commercial banks as well as deposit accepting micro finance institution. Insurance regulatory authority controls Underwriting companies while securities market authority regulates the securities market. On the other hand, retirement benefits authority regulates the pension sector and while Sacco Societies Regulatory Authority regulates the running of SACCOs. Regulatory gaps, regulations inconsistency, overlaps as well as ineffectiveness in cost have resulted from this financial regulation stratification which have left consumers to bear the brunt of all shortcomings (Lempere, 2019). The ineffectiveness in guaranteeing financial consumer protection in Kenya is due to the inadequacies of the fragmented system. Moreover, despite the growth of digital money platforms in Kenya, there are a little or no regulation on mobile money in Kenya. This is without regard that inherent like money laundering, operational risks as well as financial fraud are being carried by the technology used to deliver mobile money services (Moibi, 2019).

The Constitution of Kenya 2010, gives a right to consumer financial protection. Broad goals like promoting financial inclusion, improving transparency, affordability of financial services and increasing competition in the sector to benefit consumers and the overall economy are also incorporated in the Kenyan vision 2030. A developed, vibrant and stable financial system by considering all the factors that will guarantee financial stability through financial consumer protection is also envisaged (Mitheu, 2018). The financial services sector has established principles for good business practice. They comprise of commercial behaviour disclosure, transparency and disclosure, awareness raising and education, protection of privacy and consumer complains and disputes as well as fair and equitable treatment. In providing financial consumer protection these principles are key determinants.

1.3 Digital Financial Access

Digital finance refers to the long-reaching technologies available to perform financial services from a widespread range of providers to an extensive category of recipients (Peake, 2012). Use of digital remote means including e-money, mobile money, card payments, and electronic funds transfers makes digital financial access possible (Asian Development Bank, 2016). Digital financial payment products give opportunity to users to access funds from business people who are not in their immediate vicinity (Klapper, ElZoghbi & Hess, 2016).

Kenya has the largest and most successful mobile money sector in Africa and has consistently led the continent both in scale and innovation. M-Pesa introduced in 2007 has become a ubiquitous way to transfer money among individuals, driving formal financial inclusion to over

80% of the population in 2019 which is the highest in Africa. By December 2019, there were 58.3 million mobile wallets, representing 1.7 mobile wallets for every adult. Mobile money has actively lifted 2% of Kenyan households out of poverty, driven by changes in financial resilience and savings, a shift from farming towards business, and a significantly positive effect on women (Van Hove, & Dubus, 2019).

The advent of digital credit has extended access to instant, automated, remote credit to millions of borrowers. But who is accessing these loans? How are borrowers using the money? And to what extent are we seeing risks emerge such as late repayments and defaults, lack of transparency in loan terms and requirements, and debt stress or over-indebtedness? It is not difficult to lend money out. It is very difficult to collect the repayments. Getting people into debt is not helping anyone. There is need to put more focus on teaching people to save and to make their lives more convenient, safer and cheaper in using electronic payments gradually moving them away from cash (Muthiora, 2015). Digital Credit Systems have had an interesting impact on financial inclusion in Kenya as there are multiple lending platforms but unregulated market players pose a risk. There is need for an oversight body to monitor FinTech market as it seems more players may enter the market over time (Bharadwaj, Jack, & Suri, 2019).

Over the last five years, digital finance in Kenya has seen first-hand the challenges in the efforts to sustainably offer products and services that address the unique needs of underserved customers (Ahmed & Cowan, 2021). This has led to the formation of the Digital Lenders Association in June 2019 to stimulate fintech growth in Kenya. The Association will incentivize the growth of digital lending models as a way to promote greater financial inclusion and extend high-quality financial services to underserved communities and businesses as well as to improve regulation landscape and standards in the industry. DLAK will also focus efforts on dealing with the regulatory challenges that presently require attention while promoting ethical business practice in the industry as well as consumer sensitization programmes.

1.4 Statement of the Problem

SMEs play a key responsibility in the socio-economic advancement of a nation but despite this pivotal responsibility, the SME sector has been associated by many problems or constraints among them been lack of digital financial access due to unavailability of business records and financial information. Unavailability of adequate financial skills continues affect digital financial access of SMEs and this is a key problem in the development and growth of SMEs throughout Kenya. Kenyan SMEs are faced with challenges that lower their resistance to risk as well as restrict them from expanding as well as reaching economies of scale (CMA, 2018). Both internal and external factors constrain the challenges associated with gaining access to financial information. According to Odongo (2014), this makes it difficult for them to achieve their performance in terms of liquidity, long term solvency and profitability hence leading to lost business opportunities, and failure to grow in terms of size and financial resources.

The Kenyan sectoral system of regulating finances is also not effective in maintaining consumer protection. Without necessarily keeping in regard to the negative effect of consumer protection, the regulators currently lean towards strengthening the stability of their specific sectors and thereby increase competition for economic growth and development. This is not bearing to the fact that consumer confidence is necessary for economic stability and it is dependent on strengthened consumer protection. This is exacerbated by a weak segmented legal regime on

consumer protection. The handicap of the regulatory framework as shall be demonstrated in this study is that it is impossible to monitor the growth of the financial sector as a whole, resulting in the inability to address failures or crisis which have detrimental effects on the consumers. The problem is aggravated by lack of regulation of a large part of the financial sector and thus massive gaps that lead to adverse effects on the consumers of financial services.

A recap of extant literature disclosed contextual, methodological as well as conceptual spaces which this research seeks to address. Empirical studies about the impact of financial consumer protection and financial literacy on digital monetary access of SMEs in Kenya are also limited. Njoroge (2013) found out that many of Kenyan SMEs are faced by limited access to financial services and high cost of transaction as well as weak levels of financial literacy. Ongesa et al (2014) found that financial literacy training improves loan repayment among medium and small business owners after evaluating the impact of financial literacy on loan repayment by small and medium entrepreneurs in Ngara. However, the impact of financial literacy and financial consumer protection on the general digital monetary access of the SMEs has not been adequately examined.

At conceptual level, most of the studies used different conceptualizations of financial literacy, financial consumer protection and digital financial access. Majority of the researches separately examined straight relationships between financial literacy (Grohmann, Klühs and Menkhoff, 2018; Ibadoghlu, 2018; Morgan, and Long 2020) or financial consumer protection (Sahay et al., 2015; Jenik, Lyman and Nava, 2017) on digital financial access with none combining the two predictors. The reviewed studies used different measures to operationalize the research variables at the methodological level. Different data analysis techniques as well as different research designs are used in the studies. Thus, the configuration of the relationships among the variables, the selection of the study variables, depicting the joint effect of financial literacy and financial consumer protection on digital monetary access of SMEs is unique to this study.

1.5 Objectives of the Study

This investigation sought to investigate the influence of financial literacy and financial consumer protection on digital financial access of SMEs in Sub County of Ruiru in Kiambu County, Kenya. Specifically, the study seeks to:

- i. Determine the effect of financial literacy on digital financial access of SMEs in Ruiru Sub County in Kiambu County, Kenya.
- ii. Find out the effect of financial consumer protection on digital monetary access of SMEs in Ruiru Sub County in Kiambu County, Kenya.

LITERATURE REVIEW

2.1 Theoretical Literature Review

2.1.1 Financial Literacy Theory

Framework monetary understanding is a type of investment in human resource, and majority of related surveys establish that there is importance of people knowing more much more being taught (Gallery, Newton and Palm, 2011). Financial literacy shapes the economic outcomes as per the authors. They came in to conclusion that thinking on study should better tell empirical and theoretical models as well as public policy. According to financial literacy theory the behaviour of persons who has high levels of monetary literacy may rely on the existence of

double thinking styles as per dual process theories: cognition as well as intuition. The idea that judgement can be driven by the cognitive and intuitive processes is embraced by double process theories (Idowu 2010). many distinguishing fields have studied and applied theories of double-process for example reasoning as well as social cognition (Idowu 2010).

In both developed and developing countries financial literacy still remains an interesting factor as most recently with fast change in the finance landscape it has elicited much interest. Financial literacy is the combination of investors knowledge of financial products as well as ideas and also their ability as well as confidence to recognise financial opportunities and risks, to make rational choices, to understand where to get aid from, and to undertake alternative causes of actions to enhance the well-being of their finances (Atkinson and Messy 2005). For investors to be knowledgeable on finance in such a way that is related to their firms as well as helps them to utilise this understanding to come up with rational decisions as well as evaluate products they require the education and empowerment of financial literacy. According to Lusardi and Oliver, 2006 it is greatly anticipated that with greater financial understanding we will be able to overcome latest difficulties in the credit markets.

Through techniques that reduce risk which comprises of diversifying assets, purchasing insurance as well as accumulating risks financial literacy prepares investors for hard financial moments. Financial literacy improves the credit worthiness of prospective borrowers to aid livelihood; effective financial systems, economic growth and development as well as reducing poverty through facilitation of decision-making processes like proper management of debt as well as timely payment of bills. Greater control on sound utilization of financial products and services, one's financial future as well as minimum exposure to fraudulent schemes as well as overzealous retailers is also achieved through financial literacy. As per Falicov, 2001, encountering and educated group forces financial regulators to enhance the quality and efficiency of financial services.

2.1.2 Information Asymmetry Theory

Market failure can be as a result of imbalance of information between the buyer or the seller according to information asymmetry theory. Advance selection as well as moral hazard is some of the problems caused by asymmetric information before the transaction as well as after the operation. In the case whereby the prospective borrowers who are the most likely to generate an adverse or displeasing results or effects are the ones who are participating actively seeking to be funded and therefore mostly likely to qualify for a loan then advance selection is said to have occurred (Mishkin & Eakins, 2006). Ex-post asymmetric information or moral hazard is the trouble created by asymmetric information after transaction (Musau, Muathe & Mwangi 2018)

Financial inclusiveness of SMEs by repairing information asymmetry in between the SMEs owners (consumers) as well as financial providers is promoted by financial consumer protection and that is according to information asymmetry theory. For example, consumers are informed of prices and options of financial products through disclosure regulations. According to Dalton, Pamuk, Ramrattan, van Soest & Uras, 2019, consumers are enabled to make comparisons between offers and be confident to move to providers who makes them better offers. Through this competition between the providers is caused and therefore they are mostly likely to come up with better offers as well as cheaper products leading to innovation which is key for economic growth. Economic growth is promoted by reducing the use of practices like pursuing supply driven innovation which comes up with complicated financial production that it is difficult for

consumers to understand and this is further promoted by the existence of disclosure regulations. According to Dalton et al., 2019 when the consumers of financial do not understand then, they fear making sub optimal choices and thus making them to shift from utilising them. The financial consumer protection which is a variable of the study is anchored by the theory of information asymmetry.

2.1.3 Social Learning Theory

The proposers of theory of social learning, Bandura and Ross (1961), demonstrated the way in which persons behaviour is shaped by social factors like financial advice as well as sources of information. The peoples' environment is the one that comes up with the financial attitudes as well as values they have about money. According to Bandura, 1977 the impacts of social interactions on behaviour of an individual have been applied and modelled tested to a large variety of situations. As people get and process information by mixing with others financial decisions are likely to be influenced by social interaction. Retirement saving plans were influenced by fear effect since many persons had not carefully thought through the benefits and challenges of certain plans for themselves that is as per US pension participation study, Greenspan (2002). Since many employees do not have their own reasoned information for coming up with effective decisions on retirement investment, they made use of information from their peers when deciding on taking part. Moreover, according to Gravetter & Forzano, 2003 employee's decisions are additionally influenced by social norms due the desire to have similarity with those in their social groups.

Based on this theory, investors are more likely to come up with investment decisions as per the information which is there in the market, investors are more likely to invest in investments which accrue higher returns in future provided they have information about the existence of such investment in the market (Goel & Dolan, 2003). As per the proposers of this theory learning brought about a permanent change in behaviour, especially when considering making financial decisions observational learning demonstrates that people can learn new information without demonstrating new behaviours (Glaeser & Scheinkman, 2003). According to Wise, 2013 financial literacy is a large body of information made up of understanding of financial products, understanding of financial concepts, having the numeracy or mathematical skills for sound financial decision making and financial behaviours like financial planning as operationalized in academic literature. In order to show the purpose of SMEs to look for financial literacy comprising of understanding of financial concepts as well as understanding of financial products that can aid in enhancing financial inclusion the Social Learning Theory was therefore adopted in this study.

2.2 Empirical literature review

2.2.1 Financial Literacy and Digital Financial Access

The capability to know and effectively utilise different financial skills, among them managing personal finances, investing as well as budgeting is said to be financial literacy. Financial literacy is a long-life journey of learning as well as being the foundation of your relationship with money (Blue, 2016). According to Lusardi (2019) financial literacy is the understanding as well as knowledge of financial risks and concepts, and the confidence, skills and motivation to use such understanding and knowledge so as to come up with sound decisions so as to enhance the financial well-being of society as well as individuals and to allow participation in economic life across a range of financial contexts.

Past studies have proven that serious implication for financial behaviour are brought about by financial literacy. For example, people who are more likely to be associated with debt problems have low financial literacy (Lusardi & Tufano 2009), such people also least take part in the securities exchange market (van Rooij, Lusardi & Alessie (2007), least likely also to select mutual funds with lower fees (Hastings & Tejada-Ashton 2008), least likely to make wealth and manage wealth soundly (Stango & Zinman 2007; Hilgert, Hogarth, and Beverly 2003), as well as least likely to plan for retirement (Lusardi & Mitchell, 2009). Many young people wish they had more financial understanding since financial literacy is an important component of sound financial decision-making, (Sallie Mae 2009). Knowledge on financial literacy is therefore beneficial to policy makers in several areas: it is useful to those who wish to devise laws as well as regulations to protect younger consumers and also can assist the one who wish to come up with sound financial education programs for the youths.

2.2.2 Financial Consumer Protection and Digital Financial Access

According to World Bank (2012) Financial consumer protection refers to all the laws, regulations, and institutional measures that aim at safeguarding consumers in the financial marketplace. Financial consumers require to get correct as well as non-exaggerated information concerning the services and products they select to buy. This prevents them from being misled by sellers and at the same time ensure that they are able to come up with the correct choices as per their preference. The major role in improving user welfare by making businesses responsible is played by Consumer safeguarding laws, regulations as well as policies. Firms those that have a reputation of serving their consumers better acquire an outstanding goodwill and become increasingly looked for. This leads to economic growth in the long run as well as increasing competitiveness and profitability in the short run. These laws, regulations as well as policies ensure that firms are regulated. Safeguarding consumers leads to changing and sound markets for firms to expand.

According to Levine (2009) countries that have better functioning of financial intermediaries tend to have a high legal system that provide high support for creditor rights. The research also discovered that have better developed financial intermediaries tend to have laws that enforce contracts furthermore countries with fairly developed financial markets tend to have corporation that allow for accurate and comprehensive financial statements. The findings were also discovered that investors are more than willing to invest where there is corporation in exchange for securities, leading to larger equity and debt markets due to the truth that, where safety is high, investors are safeguarded from exploitation by management. These studies provide little evidence on the impact on the growth of the economy of safeguarding the non-investor retail financial consumer since they are looked more on the shareholder and creditor rights.

Rutledge (2010) propose that before financial consumers make a purchase they are supposed to be vanishing with accurate as well as simple information about a product or a service as well as accessing financial education. The writers still proposed that when advertising or even selling their products or services to consumers, financial institutions are required to use no forced, reasonable as well as fair practices and that the consumers personal data should be highly safeguarded. In hand with this idea, Brix and McKee (2010) argues that revealing loan terms to clients aid in lowering cost of borrowing. They also recommended that computation methods which are complex should be avoided since this can misguide buyers but instead to disclose information to customers simple and understandable language should be used.

According to Elliehausen (2010), consumers do not look at the data which is in the market nor deliberately weigh every cause of action. They just apply profile information and shortcuts which is not accurate all the time but also can be a less costly way of accomplishing the goals desired. In support of this idea, Barr et al. (2008), advised that due to behavioural tendencies, regulations which are behaviourally informed are required and not based only on competition assumption and rational choice since even efficient disclosures may not be sufficient this is after assessing disclosures to mortgage borrowers in the USA.

2.4 Conceptual Framework

The study variables and their constructs were operationalised as shown in Fig. 1 below.

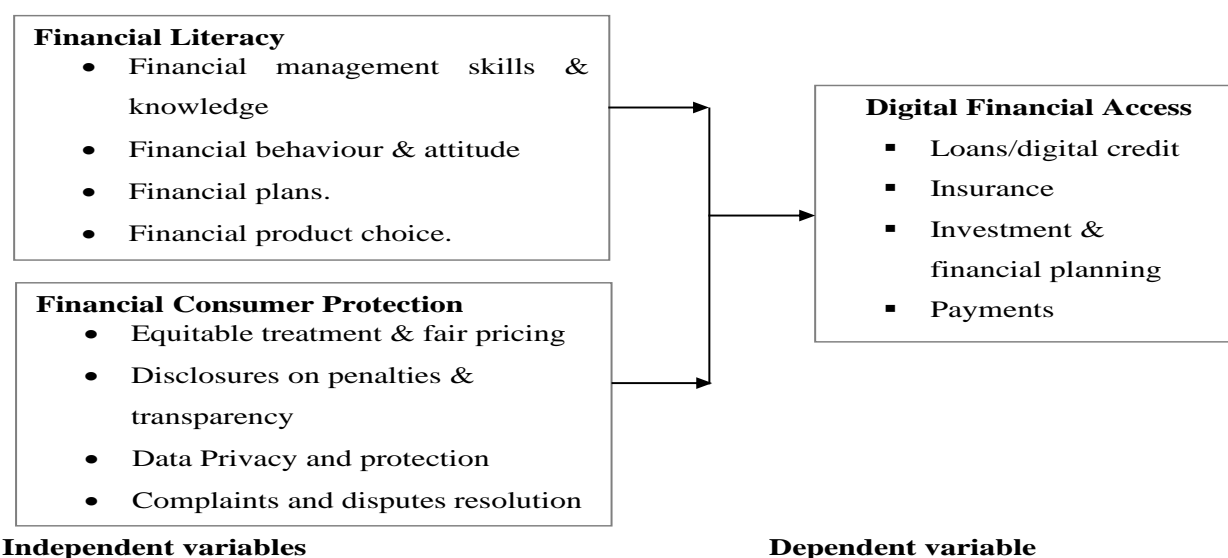


Figure 2.1: Conceptual Framework

Source: Researcher (2021)

RESEARCH METHODOLOGY

3.1 Research design

The research utilized a cross-sectional research design together with quantitative analysis to test the impact of financial consumer protection as well as financial literacy on digital financial access of the SMES in Kenya (Cooper & Schindler 2008). The data was collected at one point in time to answer hypotheses generated under this study. The target population comprised of SME owners in Ruiru Sub County in Kiambu County. The SMES were selected for this study because existing evidence indicates that formal financial institutions are less prominent interested in financing them. The choice of study location was informed by the region being home to many smallholder traders; it's a cosmopolitan region and has both rural and urban settings. Hence it was ideal for the purpose of the study. Fisher(1998) formula was used to calculate a sample size of 384 respondents.

The level of precision refers to the range within which the true value in the population lies and in this case was fixed at $\pm 5.0\%$. The level of confidence shows the range to which the value in the

true population is equal to the value of an attribute when the population is repeatedly sampled. In this scenario the level of confidence used was 95.0%. The level of distribution of different attributes in the study population is shown by the degree of variability (Kasiulevicius, Sapoka&Filipaviciue, 2006). To obtain the most desired precision level in a heterogenous population a large sample size is required whereas a a small sample size is required in an homogenous population.

$$n = \frac{Z^2 pq}{e^2}$$

Where:

n = sample size expected

Z = confidence level desired which is 95% in this case

P= proportion of a population attribute estimated

e = the precision level desired

thus, 384 a sample size was obtained as below:

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

$$= 384 \text{ respondents}$$

This study used cluster sampling where the target population was put into clusters of rural and urban. The study then randomly selected 190 SMEs from these two clusters and administered the question to the owner of the SME.

3.2 Model Specifications

To enable meaningful interpretation and description, descriptive statistics of percentages, means, overall mean and standard deviation were used. In addition to this, correlation coefficients and multivariate regression analysis were used to analyze the relationship between financial literacy, financial consumer protection and digital financial access of SMEs (Gujarati,2003). The following multivariate model was used:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where: Y= Digital financial access, X_1 = Financial literacy, X_2 = Financial consumer protection, ε = Error term, β_0 = Regression constant or intercept and β_1 & β_2 , are the unknown parameters.

DATA ANALYSIS, INTERPRETATION AND PRESENTATION

4.1 Response Rate

Out of 384 SME owners in Ruiru Sub County in Kiambu County targeted to provide primary information for the study, 276 respondents filled and returned the questionnaires. This represented a response rate of 71.88%. According to Fincham (2008), response rate of above 70% is adequate to conduct statistical analysis of the collected data which justified the response rate of this study. The results are presented in figure 2.

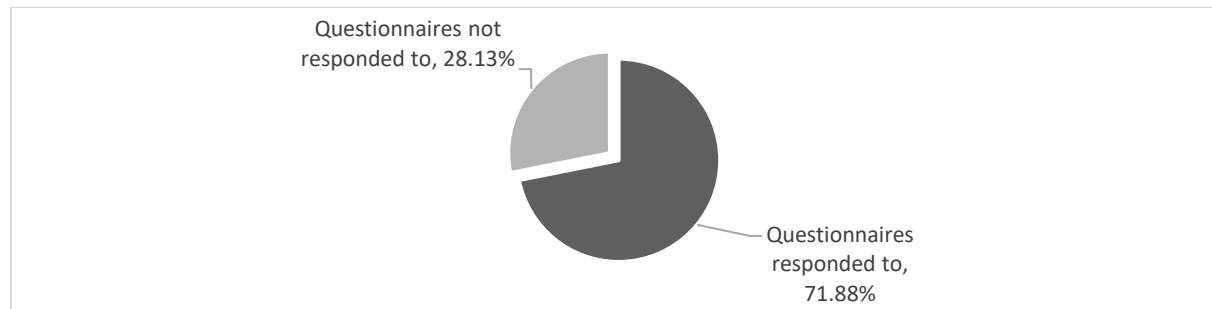


Figure 2: Response Rate

Source: Study data (2021)

4.2 Demographic Characteristics

The study sought to establish the demographic characteristics of the respondents in terms of their gender, Age bracket, Highest Level of education, Years in the SME sector and category of SME. The results are presented in the following sub-sections using figures.

4.2.1 Gender of Respondents

The study sought to examine the gender of the respondents (SME owners in Ruiru Sub County in Kiambu County). The results are as presented in figure 3 below.

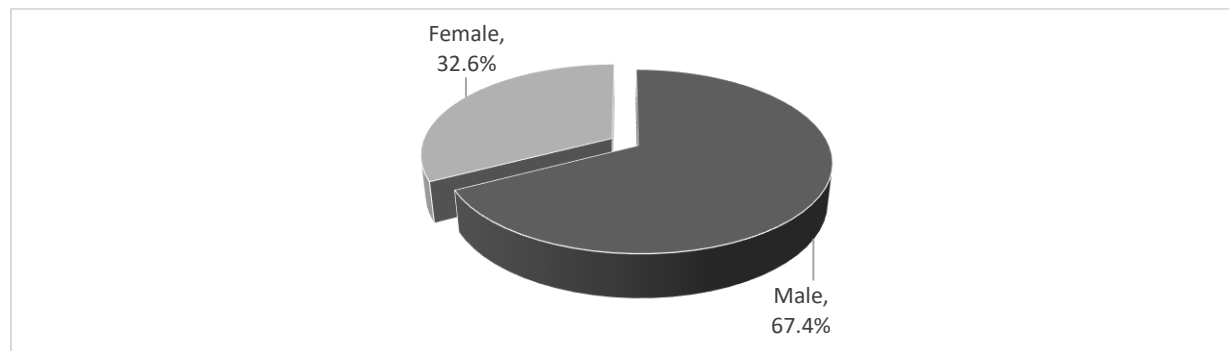


Figure 3: Respondent Gender

Source: Study data (2021)

From figure 3, majority of the respondents, 67.4%, were male while 32.6% were female. This implies that gender related perceptions do influence to success of SMEs (Watson, Gatewood, Lewis, Weber&Genests, 2014).

4.2.2 Age Bracket

The study sought to examine the age bracket of the respondents. The results are as presented in figure 3 below.

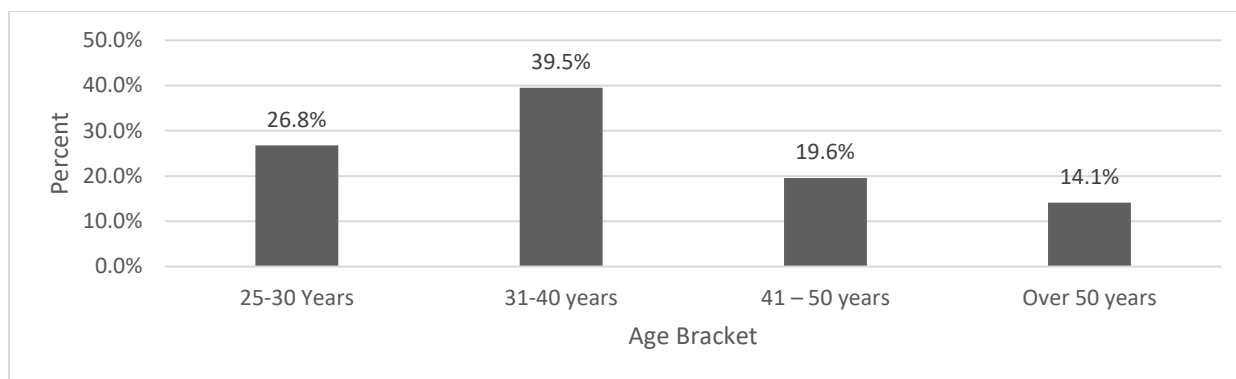


Figure 4: Respondent Age Bracket

Source: Study data (2021)

As presented in figure 4, the largest proportion of the respondents as represented by 39.5% were aged between 31 and 40 years followed by 26.8% who were aged between 25-30 years and a further 19.6% were aged between 41-50 years. Only 14.1% of the respondents were aged above 50 years which implies that majority of SME owners in Ruiru sub county are aged below 50 years.

4.2.3 Highest Level of Education

The study sought to examine the age bracket of the respondents (SME owners in Ruiru Sub County in Kiambu County). The results are as presented in figure 5 below.

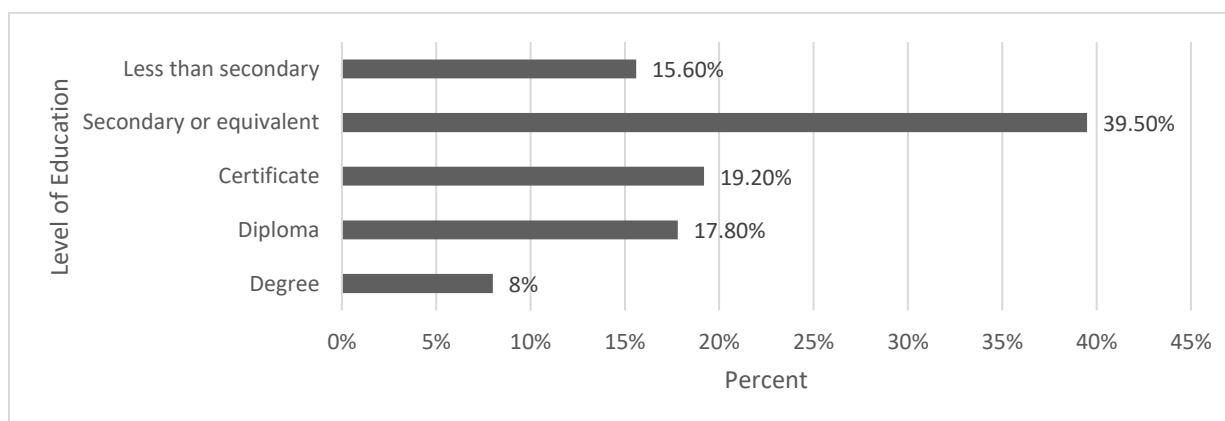


Figure 5: Respondent Highest Level of Education

Source: Study data (2021)

From figure 5, the largest proportion of the study's respondents had secondary school or its equivalent level of academic qualification (39.5%) followed by 19.2% who had college certificate academic qualification and a further 17.8% had college diploma qualification. This implies that majority of respondents involved in this study had college level of academic qualification.

4.3.4 Years in the SME Sector

The study sought to examine the age bracket of the respondents (SME owners in Ruiru Sub County in Kiambu County). The results are as presented in figure 3 below.

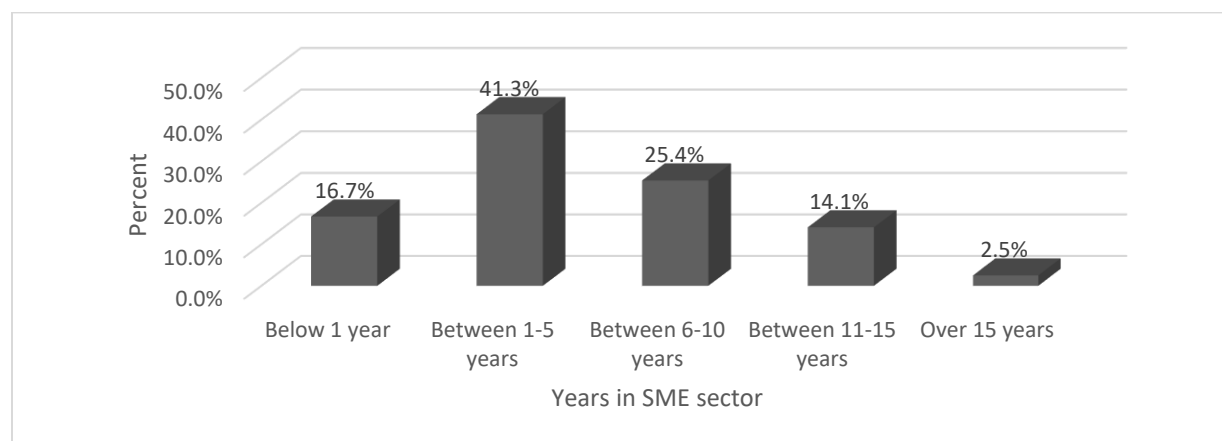


Figure 6: Respondent Years in the SME Sector

Source: Study data (2021)

As shown in figure 6, 41.3% who represent the largest percentage of respondents had been in the SME sector for a period of between 1-5 years followed by 25.4% of the respondents whose number of years in the sector was between 6-10 years. Moreover, 2.5% and 16.7% of the respondents had been in the SME sector for a period of over 15 years and below 1 year respectively. The findings imply that majority of the respondents of this study had operated in the SME sector long enough to understand its dynamics and were therefore better placed to explain the need for financial literacy and financial consumer protection to boost their access to digital finance.

4.3.5 Category of SME Operated

The study sought to examine the age bracket of the respondents (SME owners in Ruiru Sub County in Kiambu County). The results are as presented in figure 3 below.

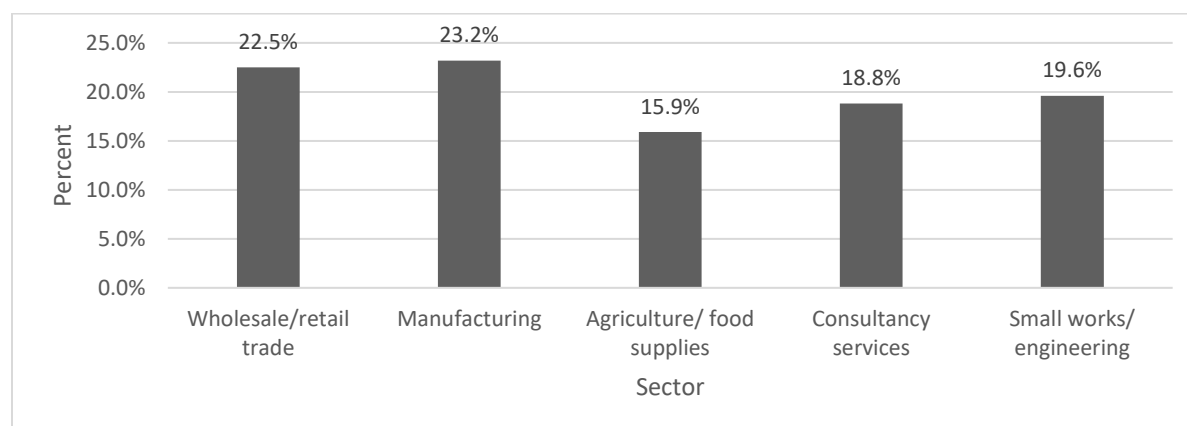


Figure 7: Category of SME Operated

Source: Study data (2021)

From figure 7, the largest proportion of the respondents, 23.2%, were in manufacturing followed by 22.5% who were in wholesale or retail trade and a further 19.6% who were in small works and engineering sector. Moreover, 18.8% of the respondents were in consultancy services while 15.9% were in agriculture and food supplies sector. Generally, the results showed that SME owners in Ruiru Sub County in Kiambu County were spread across different sectors.

4.3 Descriptive Analysis Results

Descriptive statistics of mean and standard deviation descriptive statistics were used in this study for the purpose of summarizing the responses with regard to the variables of the study. The responses were based on a Likert scale of 1-5 where 5= Strongly Agree; 4 = Agree; 3= Neutral; 2= Disagree and 1= Strongly Disagree. The average responses of the respondents on each of the variables are therefore presented in this part with standard deviation values showing the magnitude of variations in the responses.

4.3.1 Financial Literacy and Digital Financial Access of SMEs

The first objective of the study sought to determine the effect of financial literacy on Digital Financial Access of SMEs in Ruiru Sub County in Kiambu County, Kenya. Accordingly, respondents were required to rate various statements on financial literacy based on a scale of 1-5 as shown in table 1.

Table 1: Financial Literacy and Digital Financial Access of SMEs

	Mean	Std Dev
Knowledge of financial products	3.17	1.41
Financial attitude towards the long term	3.39	1.44
Debt management literacy	3.31	1.36
Financial product choice.	3.39	1.36
I have the ability to make informed decisions regarding my finances	3.52	1.30
I can make informed investment decisions	3.50	1.32
I have perfect budget making skills	3.31	1.29
I have an effective saving plan	3.21	1.39
I use financial knowledge to make strategic investment decisions	3.16	1.34
I can diversify the assets of my business	3.04	1.38
I have the ability to make comparison regarding different payment instruments	3.21	1.42

Source: Study data (2021)

From the results in table, majority of the respondents agreed that knowledge of financial products, financial attitude towards the long term, debt management literacy and knowledge on financial product choice influenced digital financial access as shown by respective mean values of 3.17, 3.31, 3.39 and 3.52 respectively. Similarly, most of the respondents agreed that they have the ability to make informed decisions regarding their finances (mean

=3.52) with a standard deviation of 1.3 an indication of low variation of responses. Regarding ability to make informed investment decisions, most of the respondents agreed as shown by a mean of 3.5 and a low standard deviation of 1.32 showing little variation of responses. It was also established that most respondents have perfect budget making skills as shown by a mean of 3.31, have an effective saving plan(mean=3.21), use financial knowledge to make strategic investment decisions (mean=3.16), can diversify the assets of their business (mean=3.01) and have the ability to make comparison regarding different payment instruments (mean=3.21). In general, the result in this section indicated that financial literacy influenced digital financial access of SMEs.

4.3.2 Financial Consumer Protection and Digital Financial Access of SMEs

The study also established the effect of financial consumer protection on digital financial access of SMEs. Accordingly, statements were formulated to capture the extent to which respondents agreed to existence financial consumer protection and how this influenced SME Digital Financial Access as shown in table 2.

Table 2: Financial Consumer Protection and Digital Financial Access of SMEs

Statement	Mean	Std Dev
Equitable treatment	3.31	1.34
Fair pricing	3.31	1.43
Disclosures on penalties & transparency	3.61	1.28
Safeguarding consumers against malpractices such as fraud	3.63	1.27
Access to an avenue for complaints or support	3.58	1.29
Prudent commercial behaviour	3.59	1.33
Education and awareness raising	3.58	1.34
Data Privacy and protection	3.02	1.42
Complaint handling and disputes resolution	3.21	1.39

Source: Study data (2021)

From table 2, financial consumer protection was found to play a vital role in digital financial access of the SMEs. This was shown by the largest proportion of respondents who agreed that financial service providers should provide equitable treatment (mean=3.31), fair pricing (mean=3.31), transparency with regard to disclosures on penalties (mean=3.61), safeguard consumers against malpractices such as fraud (mean=3.63), provide access to an avenue for complaints or support (mean=3.58) and demonstrate prudent commercial behaviour (mean=3.59). Similarly, majority of the respondents agreed the financial service providers make available education and awareness raising (mean=3.58), practice data privacy and protection and (mean=3.02) and provide complaint handling and disputes resolution mechanisms.

4.3.3 Digital Financial Access of SMEs

Digital Financial Access of SMEs in Ruiru sub county was the dependent variable of the study. Firstly, respondents were required to indicate whether they used mobile loans. Results are illustrated in table 3 below.

Table 3: Whether SME owners use mobile loans

Use mobile loans	Frequency	Percent
Yes	234	84.8
No	42	15.2
Total	276	100

Source: Study data (2021)

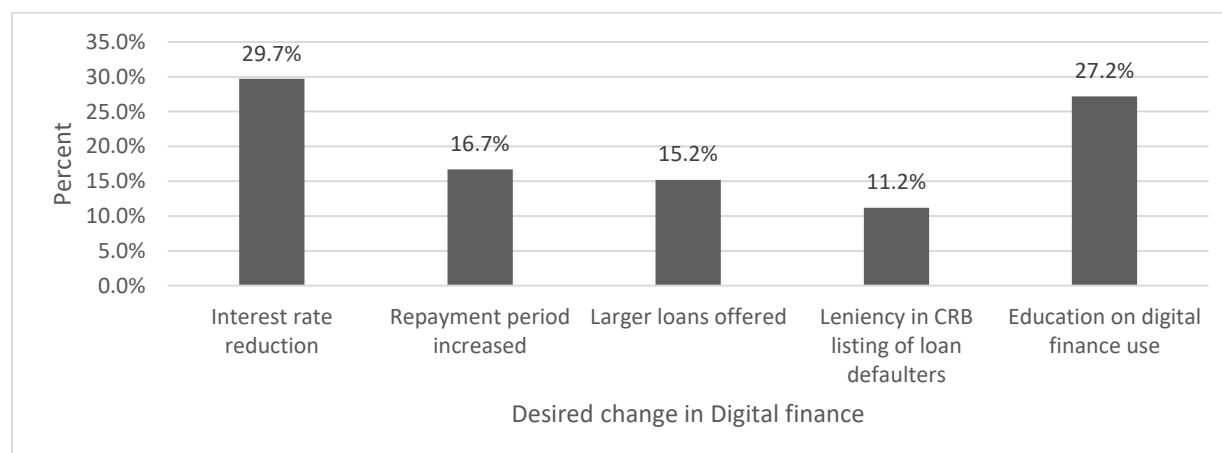
From table 3 above, majority of the respondents as represented by 84.8% agreed that they use mobile loans while 15.2% disagreed. The results confirm extensive use of mobile loans by SMEs in Ruiru sub county to support various business activities. The second statement sought to establish the frequency of digital loans taken by respondents. Results are shown in table 4.

Table 4: Frequency of Using Digital Loans

Frequency of digital loans taken	Frequency	Percent
Every month	89	32.2
Once every six months	124	44.9
Once a year	63	22.8
Total	276	100

Source: Study data (2021)

From table 4 above, the largest fraction of respondents as represented by 44.9% indicated that use digital loans once every six months followed by 32.2% of respondents who indicated that they take digital loans every month while 22.8% take digital loans once a year. With regard to most crucial change SME owners would prefer made to the digital finance industry, the results are presented in figure 8.

**Figure 8: Preferred change in the Digital Finance Industry.**

Source: Study data (2021)

As presented in figure 8, the largest proportion of the respondents as represented by 29.7% would prefer to have interest rate for loans and other digital financial items reduced followed by 27.2% of respondents who would prefer digital financial service providers education on digital finance use while a further 16.7% would prefer to see repayment period for loans increased. Similarly, 15.2% agreed that there is need for larger loans offered and 11.2% suggested leniency in CRB listing of loan defaulters. To establish the level of digital financial access of SMEs, the study required respondents to indicate the extent to which they agreed with certain statements relating to digital financial access. The results from the analysis of findings are illustrated in table 5.

Table 5: Digital Financial Access of SMEs in Ruiru Subcounty.

Digital finance	Mean	Std Dev
Access to mobile loans/digital credit	3.87	1.17
Access to mobile insurance	3.66	1.32
Access to mobile Investment & financial planning	3.71	1.27
Use of mobile payments	3.84	1.16
Access to mobile savings	3.78	1.21
Mobile transaction accounts	3.74	1.21
Access to mobile shares	3.90	1.20

Source: Study data (2021)

From the findings in table 5, most of the respondents conceded that they have access to mobile loans/digital credit (mean=3.87), mobile insurance (mean=3.66), mobile Investment and financial planning (mean=3.71), and use mobile payments (mean=3.84). Moreover, most of the respondents agreed that they have access to mobile savings (mean=3.78), mobile transaction accounts (mean=3.74) mobile shares (mean=3.9). The results in this section indicate that SMEs owners in Ruiru sub county in Kiambu county have access to several digital financial facilities.

4.4 Correlation Analysis Results

In order to determine the relationship among the study variables, the study adopted a significance level of 5%. Pearson correlation analysis was done in order to determine the of association between financial literacy, financial consumer protection and digital financial access of SMEs. The results are presented in table 6.

Table 6: Pearson Correlation Matrix

		Financial Literacy	Financial consumer protection	Digital Financial access
Financial Literacy	Pearson Correlation	1		
	Sig. (2-tailed)			
Financial consumer protection	Pearson Correlation	-0.003	1.0	
	Sig. (2-tailed)	0.966		

Digital Financialaccess	Pearson Correlation	.417**	.546**	1
	Sig. (2-tailed)	0.000	0.000	
	N	276	276	276

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

Source: Study data (2021)

From table 6, there is a positive and significant relationship between financial literacy and digital financial access of SMEs in Ruiru sub county($R = 0.417$, $Sig=0.000$). The correlation results imply that an improvement in various indicators of financial literacy would result to a significant increase in digital financial access of SMEs. Similarly, a significant as well as positive connection between financial consumer protection as well as digital financial access of SMEs in sub county of Ruiru was deduced ($R = 0.546$, $Sig=0.000$). This implies that an improvement in various indicators of financial consumer protection would result to a significant increase in digital financial access of SMEs.

4.5 Regression Analysis Results

To find out the effect of monetary literacy and monetary consumer protection on digital financial access of SMEs examined in this study, the following regression model was used: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$ Where; Y = Digital financial access of SMEs, X_1 = financial literacy and X_2 = financial consumer protection. The model summary results are presented in Table 7.

Table 7: Model Summary Results

R	R Square	Adjusted R Square	Std. Error of the Estimate
.688	0.474	0.47	0.50935

a Predictors: (Constant), Financial consumer protection, Financial Literacy

Source: Study data (2021)

From model summary results as presented in Table 7, financial consumer protection and financial literacy had a joint strong positive association with digital financial access as shown by Pearson correlation, R of 0.688. This implies that an improvement financial consumer protection and financial literacy results to a strong positive change in digital financial access of SMEs. The coefficient of determination, R -square was 0.474. This means that financial consumer protection and financial literacy jointly explain 47.4% of the variation in digital financial access of SMEs. The model significance is presented in table 8.

Table 8: Model Goodness of Fit

	Sum of Squares	df	Mean Square	F	Sig.
Regression	63.724	2	31.862	122.813	.000b
Residual	70.826	273	0.259		
Total	134.551	275			

a Dependent Variable: digital Financial access

b Predictors: (Constant), Financial consumer protection, Financial Literacy

Source: Study data (2021)

From table 8 above, the significance of the regression model linking digital financial access to both financial literacy and financial consumer protection was confirmed by the probability value of 0.000 which is less than 0.05. Regression coefficients are as shown in Table 9.

Table 9: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	0.434	0.272		1.593	0.112
Financial Literacy	0.528	0.055	0.418	9.526	0.000
Financial consumer protection	0.724	0.058	0.548	12.469	0.000

a Dependent Variable: Digital Financial access

Source: Study data (2021)

The following optimal regression model is thus established:

Digital Financial Access of SME = 0.434 + 0.528 Financial Literacy + 0.724 Financial Consumer Protection.

With regard to model coefficient results, when all other factors including financial literacy and financial consumer protection are held constant at zero, digital financial access of SMEs is equal to 0.434. Similarly, holding other factors constant at zero, a t increase in one unit of financial literacy would lead to a 0.528 unit significant increase in digital access to finances of SMEs. Same as, increase in one unit of financial consumer protection, keeping other variables constant at zero would result to 0.724 unit significant increase in digital financial access of SMEs in Ruiru sub county, Kiambu county.

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

From the findings of the study, it is apparent that financial literacy and financial consumer protection play a vital role in ensuring digital financial access of SMEs. To this end, the study concludes that financial literacy and financial consumer protection positively and significantly influence digital financial access of SMEs in Ruiru sub county. In particular, an improvement in the knowledge of financial products, developing a financial attitude towards the long term, debt management literacy of SME owner, financial product choice knowledge and having the ability to make informed decisions regarding finances generally improves digital financial access of SMEs. Other financial literacy aspects that were found to be crucial in enhancing digital financial access of SMEs include investment decision-making and budget making skills, having an effective saving plan, skills to use financial knowledge to make strategic investment decisions and ability to diversify the assets of the business.

The study also concludes that financial consumer protection through financial regulatory framework has a positive and significant effect on digital financial access of SMEs. Efforts by financial sector regulators to enhance equitable treatment, fair pricing, adequate disclosures on penalties and information transparency, safeguarding consumers against malpractices such as fraud and improve access to an avenue for complaints or support would go a long way in enhancing access to mobile loans/digital credit, mobile insurance, mobile Investment & financial planning, mobile payments and mobile savings. In addition, the study concludes that practise of prudent commercial behavior by various players in the financial sector, provision of education and awareness raising, ensuring data privacy and protection and timely complaint handling and disputes resolution enhances digital financial access of SMEs.

5.2 Recommendations

Based on the conclusions made, this study recommends SME owners to strive to have knowledge of financial products, develop a financial attitude towards the long term, debt management literacy of SME owner, gain financial product choice knowledge and have the ability to make informed decisions regarding finances generally improves digital financial access of SMEs. There is also need for financial service providers to enhance other literacy aspects of SMEs such decision-making and budget making skills, having an effective saving plan, skills to use financial knowledge to make strategic investment decisions and ability to diversify the assets of the business.

The study also recommends financial service providers and financial sector regulators to expedite efforts to enhance equitable treatment, fair pricing, adequate disclosures on penalties and information transparency, safeguarding consumers against malpractices such as fraud and improve access to an avenue for complaints. In addition, the recommends practise of prudent commercial behavior by various players in the financial sector, provision of education and awareness raising, ensuring data privacy and protection and timely complaint handling and disputes resolution. These would go a long way in enhancing access to mobile loans/digital credit, mobile insurance, mobile Investment & financial planning, mobile payments and mobile savings.

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