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Review Article

Digital Credit Borrowing on the Financial Risk Exposure of Micro and Small Enterprises in Nairobi City County, Kenya

Ngulale Majala Elizabeth[1], Jagongo A.O[2]

[1]*Masters of Business Administration Student, Kenyatta University Kenya*
[2]*Senior Lecturer, Department of Accounting and Finance Kenyatta University Kenya*

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Abstract *- Digital credit has currently developed as an alternative instrument for providing short-term loans to uninformed borrowers. As digital credit products have thriven, so too have reports of greedy behaviors by some lenders. In free or loosely regulated markets, the use of digital credit may pose serious menaces to consumers, including manipulation, accidental leakages, over-indebtedness, identity theft, and fraud. This study sought to investigate the financial risk exposure from the use of the Digital credit borrowing on the micro and small enterprises in Nairobi City County in Kenya. The objectives of this study were to find out through research the design & delivery of digital credit loans, cost of borrowing the loans, Literacy levels of the borrowers, Income levels of the borrowers, and credit risk management. The information that provided by this research was benefited digital credit lenders, the borrowers, academicians, and policymakers. The study adopted the theory of Micro-Loan borrowing Rates, Credit risk Theory, Loanable Funds Theory, and The Enterprise Risk Management Theory & Practice. A sample of 385 respondents drawn from a population of 21,100-registered Micro and Small enterprises registered in Nairobi City County was used to arrive at a conclusion. Primary data was collected from the sample population using open and closed-ended questionnaires. The questionnaires were administered through self-allocated surveys and scholarly managed surveys. The reliability of the questionnaires was determined by Cronbach's Alpha. The variables were considered reliable because their reliability values exceeded the prescribed threshold of 0.7. The study adopted both inferential and descriptive research designs. Data was coded and sorted by the use of SPSS. Descriptive statistics such as percentages, frequencies, mean and standard deviation were used. Afterward, the research findings were presented using pie charts, frequency tables, and bar graphs. A multiple linear regression was used to analyze the relationship and draw inferences from research data. The study found out that Digital Credit borrowing was predominant because the respondents appreciated the convenience and disbursement speed. Despite the high-interest rates and transactional costs levied, the borrowers who seemed not to be aware, most of them undertook multiple borrowing. Due to the nature of the digital loans, most defaults and late repayments resulted in negative listing at CRB's. The study indicated that the Design and Delivery, Cost of borrowing the digital loans, Financially Literacy Levels, Credit Risk Management, were statistically significant in the financial risk exposure. The moderating variable was found to be insignificant. The study recommends transparency and consumer protection, Digital sensitizations and campaigns, and regulation of the digital lenders.*

Keywords *- Digital Credit Borrowing, Financial Risk Exposure, Micro and Small Enterprises, Nairobi City County, Kenya.*

I. INTRODUCTION

Financial risk exposure refers to the possibility that the monetary outcome will not be as expected precisely in reference to returns on investments, Bartram (2015). For the purposes of this study, financial risk exposure for digital credit borrowers refers to the problems of liquidity/Strain in being able to turn assetsinto cash. This is caused by one or more financial market partakers not having enough cash to meet all financial responsibilities by the due dates ofaccounts. This risk involves financial loss to micro and small enterprises.Digital credit refers to the use of virtual expertise to initiate and refurbish loans in order to deliver faster and more efficient decisions. (Biery, 2018). The loans aregiven out and reimbursed over mobile phones. There are no formal loan forms tobe filed. We differentiate digital credit from conventional loans by categorizing them into four key features: digital credit is prompt, secluded, automated, and highly risky.Borrowing is receiving money from the digital app in exchange for a commitment to pay back the cash at the usually greater value at a particular time in the future, (Within the month).

According to Kaffenberger, M., &Totolo, E. (2018), in their study on similarities and differences digital credit markets in Kenya and Tanzania. Digital credit has transformed entry to prescribed credit in Tanzania and Kenya, transforming the area into a temperament for technology and lending advances. Even though both republics logged fast reception, a new study by FSD Kenya and CGAP with almost 8000 persons found large alterations as well as similarities in operation and practice of digital credit in the two regions. The similarities propose features that may be shared to digital credit as products, while alterations are mainly due to dissimilar arrangements of the banking sectors, indigenous financial settings,and telecommunication.

To be prosperous in Micro and small enterprises, finance plays a key role, in the startup, expansion, diversification, and working capital of the business firm. Without finance, no one-business enterprise can accomplish its resolutions. Capital is the pillar of MSEs and several other business enterprises (McKiernan& Chen, 2005). A smaller amount of aid to external finance, has been found to have and to more inhibit in their operation and growth both in the unindustrialized and industrialized sphere small firms (Galindo &Schiantarelli, 2003). In Kenya, the trivial business sector has both the perspective and the important duty of getting multitudes of individuals from the struggling level, including the casual economy, to the conventional economy. The segment was projected to hire over 50 percent of the waged population - equal to 2.3 million persons, according to a survey conducted in 1999. Formal MSEs hire over 40 percent of the operational population, as much as the majority of the MSEs in Kenya function informally (Kenya Economic Report, 2013).

Just as a slow-moving economy in which exports have underachieved has forced Kenya to assemble for another credit to repay a loan that was maturing, harsh economic times such as poor industry performance, retrenchments, or deferred salary have seen digital borrowers' scuffle to pay their loans. The prevalence of mobile money transfer services and high mobile internet connectivity have enticed wealthy investors into the country's vibrant fin-tech. Banks, to have closed down their mortar-and-brick divisions and set up shop in smartphones where they have made great monies by pricing the micro-credits extravagantly despite the little overhead costs incurred. Stakeholders in digital loans have been able to dole out loans running into billions without ascribing tough conditions. There are currently over 49 digital credit providers in Kenya, with new services being flung persistently, according to a report by Totolo (2018). All they have required of borrowers is for the latter to allow them access to their call records, Facebook accounts, and text communications.

Loan requests and distribution have been truly prompt, creating an extraordinarily wonderful capability for borrowers who were previously bogged down by the wearisome loan application process used by banks, microfinance institutions (MFIs), and Saccos. However, there might be a sad finish to what was hypothetical to be an inspiring story of financial inclusion in Kenya. Rather than leave the borrowers well off, the many digital credit suppliers might have pushed them into a financial slavery. Numerous Kenyans are now addicted to a number of such firms, sometimes being compelled to borrow from one mobile loan app to repay another.

A. STATEMENT OF THE PROBLEM

One of the most difficult tasks faced by the small and medium scale business is obtaining sufficient finance to start and operate their business. As contained in the GOK survey (1999), lack of credit has been rated the second most challenging factor facing Mses. This has not been easy for SMEs due to the stringent credit terms offered by financial institutions. Most of the small businesses do not have access to finance due to a lack of minimum requirements from profitable banks in Kenya. Most profit-making banks have been hesitant in lending to the

Small business owing to the absence of security, credit past, financial statement, and banking history. Desperate households and SMEs have been forced to turn to casual cradles of credit, including Sacco, shylocks, and digital lenders, which charge exorbitant interest rates. A report on digital lending released by Financial Services Deepening Kenya (FDS) in August 2017 shows that there are 49 digital credit providers in the country, with a new one launching every year.

Although the CBK governor was talking about informal digital lenders, formal banks have taken the cue from such platforms, coming up with innovative digital and mobile lending tools that charge interest of between 4 and 7.5 percent per month. These rates translate to an APR of between 48 and 90 percent per annum, way above the recommended cap of four percent above CBK's base lending rate that currently stands at nine percent. Instant loans have become the redeeming feature for most households who rely on them to supplement stagnated revenues. These loans, though exceedingly priced, are enticing to unfortunate borrowers. (Consumer Downtown Association, 2018), It is around time regular interests charged are controlled, so uninformed borrowers are not deceived, CDA executive director Japheth Ogutu said. It is also against risk-based interest pricing being fronted by the government and lenders. Lack of a uniform credit rating mechanism was giving lenders a loophole to charge interests as they wished.

Several studies have been done on mobile lending; according to Nzayisenga, (2017), a study on the consequence of mobile loaning on the monetary presentation of profit-making banks in Kenya. The research found out that mobile lending definitely and Expressively affects the monetary presentation of profit-making banks. The research, however, looked at only one side of the coin, and a criterion for commercial banks was not elaborate. Makena 2018, steered a research on the regulation of digital credit in Kenya, the instance of consumer protection. The focus here was mainly the regulatory framework that could be adopted in Kenya to protect the consumers. According to Kaffenberger, M., Totolo, E. &Soursourian, M. (2018) on the study of a digital credit Uprising; Perceptions from debtors in Kenya and Tanzania, the purpose of the study was to identify who is using digital credit, the purposes for which it is used, and the risks borrowers' experience.

This current study focuses on the Nairobi City County context and thus, is necessary to further assess points comprehensively on financial risk exposure that arise because of digital credit borrowing. This stimulated the need to design the present study to block up in the existing crack by evaluating the relationship between the two among Micro and Small Enterprises in Nairobi City County, Kenya. The risk of over-indebtedness due to the extraordinary interest tariffs levied, easy access to multiple advances, lack of disclosures of prices, standings and circumstances of the advances, extensions and rollovers, negative listing in credit reference bureaus, non-performing loans, the use in which these digital loans are utilized for and digital borrower's persona (Repayer, Juggler and defaulter). The researcher intends to exhaustively- study the possible factors that have not been empirically verified.

B. RESEARCH OBJECTIVES

1) To determine the relationship between the design and delivery of digital credit loans and the financial risk exposure of the MSE's of Nairobi City County, Kenya.
2) To establish the relationship between the cost of borrowing of the digital loans and the financial
3) risk exposure of the MSE's of Nairobi City County, Kenya.
4) To determine the relationship between the financial literacy levels of the borrowers and the financial risk exposure of the MSE's of Nairobi City County, Kenya.
5) To determine the relationship between the credit risk management and the financial risk exposure of the MSE's of Nairobi City County, Kenya.
6) To establish the relationship between the income levels of the borrowers and the financial risk exposure of the MSE's of Nairobi City County, Kenya.

C. THEORITICAL REVIEW

a) A Theory of Micro-Loan Borrowing Rates

Cheung, S., &Sundaresan, S. (2006), advanced the Theory of Micro-Loan Borrowing Rates based on the idea of a prototype of loaning and assimilating in markets where the financier has no contact to tangible security and where the debtor is severely funds inhibited. The prototype of small loans slots in a) the absence of contact to tangible security, b) Gentleman watching, c) risk of reprimand on nonpayment, and d) exorbitant inspection by financiers is utilized to govern the steady borrowing tariffs. Observing by financiers is revealed to be stern for balance to be in the prototype if the ripeness of the advance is excessively extended. However, with small Ripeness advances, extreme observing is revealed ineffective. One-to-one care shows a double character: on the single pointer, observing by financier's drops the borrowing cluster's capacity to distract the advance for barren uses, nevertheless, it raises the managerial charges of the advance; this escalates the borrowing tariff and subsequently the likelihood of evasion. The way in which the advance tariffs and the choice of balances rest on the observing overheads, collective-drawback supplies, and penalty proficiency is considered when the borrowing cluster ideally selects the mastery of nonpayment to capitalize on the collection's worth. Upsurges in the price of finance of financiers are revealed to end up in extremely superior upsurges in the borrowing tariffs, at great charges of interest. Lastly, all things held constant, an upsurge in the magnitude of the advance characteristically results in greater evasion likelihood.

This philosophy is pertinent to this research, because it forms one of the independent variables, which is the cost of borrowing of digital loans. The interest rates charged are determined by the non-collateralized loans nature, which is expensive to manage, and this price is essentially transmitted on to the debtor, either in the arrangement of the interest tariff levied or in a distinctive charge. Hence, the interest tariff levied on a small tenure digital advance wa the hinge on the predominant charge of monies to digital lenders, the present yardstick tariff (the main tariff), the solvency of the debtor, the current and future dealings of the debtor with the digital lender, and occasionally additional deliberations. Further, since there are permanent charges incurred in credit inquiry (Credit reference bureaus) and in the dispensation of the advance, we would presume the tariff charges on trivial digital advances to be greater than the tariff on hefty advances.

b) The Credit Risk Theory

Credit risk, according to Anderson and Salas, &Saurina, (2002), denotes the danger that exists when a debtor fails to pay on some kind of liability by missing to submit obligatory outflows. The danger is mainly that of the financier, and it comprises vanished capital and bank rate; unsettled damage might be full, or part and can come up in several conditions, for example, a bankrupt investment company incapable to reimburse funds to an investor. To lessen the financier's menace, the financier

can execute a credit scrutiny on the potential debtor. This might entail the debtor to undertake suitable cover, such as secured loan cover, or pursue sureties of mediators. In the case of Digital credit borrowing, the lender may observe the Mpesa transactions to show the liquidity level of the borrower. Generally, the greater the danger, the greater the tariff charges that the borrowers were requested to recompense on the liability. (Owojori, Akintoye&Adidu, (2011).

This philosophy is also pertinent to this research since it forms one of the independent variables of the research, the credit risk management. The connection between the digital credit lenders and the MSEs in terms of interest rates charged and repayment patterns of the digital loans is defined by the credit risk management theory.

c) The Loanable Funds Theory

The philosophy describes the association between loanable monies and tariff charges. It states that the source of loanable monies, request for deferred payments determines interest rates, and that there is an affirmative association amid a rise in request for loanable monies and borrowing tariffs. It indicates similarly that there is an optimistic association amid growth in tariff charges and the supply of loanable funds. The stream of cash accessible for using and request for cash to be lent determines the tariff charges. A tariff charge is resolute by the extent of undertaking of the request and source of loanable monies. Domestic businesses, clients, regimes, and overseas debtors initiate a petition for monies. The stream is caused by local reserves, diffusion of cash equilibriums, and cash formation in the funding structure, and distant loaning (Mutezo, 2005). Example is a rise in requests for money, which grounds an upsurge in the tariff charges, which subsequently increases the accessible fund and *vice versa*. (Kimuyu, 2000).

Loanable monies fair encompasses of debtors and financiers of cash which control extended period tariffs charges while small period interest tariffs are determined by economic and commercial circumstances in the region (Gorder, 2008). Request for cash to loan was equilibrium with the stream of cash to loan at a precise tariff charge. Tariff charges normally vary with marketplace conditions, so that request aimed at and stream of distributable cash was always continued to be equivalent. Fluctuations in any of the requests for cash or the stream of cash were effect an alteration in tariff rate to reinstate equilibrium.

The philosophy is pertinent to the research as it illustrates how the digital credit lenders take advantage of the high demands of the Mses.Quest for informal loans to exploit them on the interest rates charged. It deals with the independent variable, the financial literacy levels.

d) Enterprise Risk Management: Theory and Practice

This was proposed by Nocco, B. & René, Stulz. (2006). who defined Enterprise Risk Management as where totally substantial business threats are regarded and achieved in a solitary basis—can be a basis of long-run viable benefit and value over its stuff at mutually a “large” or association-extensive entity and a “small” or trade-entity zone. On a large scale, ERM allows the high-ranking executive to detect, quantify, and edge to suitable ranks the remaining revelations met in the company. Through handling such disclosures mostly with the knowledge of mitigating problematic results and defending the company credit score, ERM aids uphold the company’s admission to assets and supplementary funds needed to device its policy and corporate project. On the small plane, ERM enhances worth by warranting that entirely substantial dangers are “possessed and danger-recur adjustments prudently assessed, through functional leaders and personnel all the way through the company.

Hence, the commercial entity leaders at Countrywide are obligated to offer evidence around main threats related to entirely fresh investment ventures—data that can then be used by high-ranking supervision to assess the bordering effect of the ventures on the company’s full danger. This was inspiring functional leaders to concentrate on the danger-recur adjustments in their private dealings. The writers deliberate in what way a business must evaluate its danger “craving,” quantify exactly how much danger it is carrying, and resolve which dangers to hold and which to transfer to others. Steady with the value of proportional benefit it utilizes to monitor such choices, Countrywide tries to edge “not- essential” disclosures, for example, lending tariff and parity dangers, thus broadening the company’s ability to tolerate the “data-demanding, cover- precise” dangers at the fundamental of its corporate and capabilities.

This philosophy is pertinent to the research as it forms one autonomous variable of the research and defines how the owners of the MSE’s and Digital credit lenders relate. The use of digital credit borrowing, digital credit facilities, and financial risk exposure is explained by the theory. According to the theory, the challenge of the finance gap occurs mainly due to the enterprise risk management that occurs between the financial service providers and borrowers. What matters when it comes to the relationship between digital credit lenders and MSEs is information asymmetry, especially in regards to extending credit. This, therefore, places the theory in a better position as the study seeks to inaugurate the affiliation between Digital credit services and monetary risk exposure of SMEs.

D. EMPIRICAL REVIEW

According to Nyaga (2013), who steered a research to find out existing perception and acceptance of numerous mobile cash facilities. This was to decide if mobile cash facilities acceptance has some influence on SMEs progression over-amplified transactions or investments and advance ease of access, find out if mobile cash facility potentials of little charge, expediency, and availability result in improved SMEs performance, and find out if mobile money facilities are reflected competent and dependable by SMEs in Naivasha Town. The research established that mobile cash had accomplished a

substantial impact on the SME segment. Typical traders depend on it as contrasting to the official funding segment for their daily dealings. Furthermore, all who replied in the research took a strong consideration of the elementary purposes of mobile cash facilities. Proficiency and steadfastness offer more to mobile cash usefulness and SMEs development. Mobile cash facilities have an optimistic influence on sales.

According to Mutiso (2012), in the study of constraints of financing: an event research of modest initiatives in Machakos Region, Institutional credit to MSE's has not been substantially used despite a strong interest in debt financing. Interest rates, collateral requirements, cumbersome documentation, and time involved were identified as factors constraining access to formal credit. Recommendations made are the enactment of interest regulatory law, creation of a credit institution to provide information to MSE's and making the current stringent regulatory framework more flexible to allow the use of collateral substitutes for securing loans.

According to Mararo (2018), on the study of the result of mobile money amenities on the development of SME in Nakuru Town, Kenya. The study established that mobile payments, mobile finance, and mobile banking had significant positive relationships with the growth of SMEs. Therefore, the researcher recommended that mobile money providers should encourage SME traders to adopt the use of mobile cash facilities through enhanced advertisement.

According to Totolo*et al* (2018) conducted a study on a digital credit uprising, intuitions from debtors in Kenya and Tanzania. The findings and discussions with digital lenders propose that evolution in the digital credit display is determined by a section of dynamic operators who borrow every month or even every week. This segment would benefit from opportunities to graduate to larger, more affordable loans with longer repayment periods that can be put to more productive purposes than the typically short-term, high-cost current offerings. The results also indicate that better transparency and consumer protection requirements are needed, and a regulator was needs tools to monitor compliance and consumer outcomes. This includes tracking the potential risks of over-indebtedness and multiple borrowing, as up to 20 percent of borrowers report reducing food purchases to repay their loans, and about half in each country report having repaid a loan late. Credit reporting requirements and credit bureau functions may need to be updated, as the current practice of monthly reporting by lenders is not well suited for the speed of digital credit. Such rules should be extended to cover all lenders, including those that are currently unregulated, so that all borrowers have the same protections.

According to Ngaruiya*et al* (2014), the beginning of mobile handset monetary deals has conveyed great assistance to SMEs. Cash transmission is now obtainable at a small fee likened to the outdated lending arrangement whereby almost all dealings would be executed inside the banking buildings. By way of a concern, there arose a necessity to research on the cause of mobile cash dealings on the monetary viewpoint of Minor and Average initiatives. The purpose of this research was to establish the consequence of mobile cash dealings on the monetary presentation of Minor and Average initiatives in Nakuru Town (CBD). The research engaged descriptive study policy. The research tested 120 out of 640 trades by means of the purposive sampling method. Survey existed as a statistics gathering tool. The outcomes of the research showed that mobile cash dealings ensure an important outcome on trade's income.

According to the study by FSD Kenya (2018) on Digital, credit in Kenya: indication from demand-side examinations, recognized that, in the previous five eras, digital advances have altered the trade meant for borrowing in Kenya. For masses of grown-ups, the opportunity of borrowing from their handsets has unlocked the access to secluded, prescribed customer borrowing for the initial phase. Nevertheless, the valuing, promotion, and possible mismanagement of this merchandise, joined by the widespread undesirable recording of debtors who fail to reimburse these minor advances, has elevated a rising response of anxiety about their decree and the negative influences they have on debtors and the monetary structure generally further.

II. RESEARCH METHODOLOGY

Research design

Descriptive research defines proceedings, circumstances, and status quo of the current as contrasting to the past research, which defines the historical (Good, 1963). Descriptive design often involves determining the association between two or more variables. Therefore, a descriptive analysis was being carried out among the MSEs who werebeing selected to respond to the prepared questionnaire. This study used descriptive statistics to describe the consequence of digital credit borrowing on the monetary risk exposure of MSE's in Nairobi County.

A. Target population

The researcher targeted owners and managers of SMEs in the CBD across all sectors as listed in the Nairobi city county licensing department in the year 2017. There are about eight clusters of different sub-sectors in Nairobi CDB, which are clustered by NCC using business codes across different sectors. These main sectors targeted in this study include; Retail sector, Transport, Hospitality, catering, entertainment, pharmaceuticals & health services, technology, and Real Estate. Nairobi business licensing department estimate that, from the above main sectors, there are about 21,100 in the CBD area.

B. Sampling Design

A valid sample size was determined using the Fisher et, al (2007) formula. A purposive sampling approach was used to allow the researcher to pick the digital borrowers in each of the eight clusters of the MSE's.

C. Sampling Technique

Sampling technique is the procedure whereby the objects in a section are identified and selected (OECD, 2004). This study relied on stratified sampling through which 8 clusters of categories were used to classify the businesses. According to Kothari (2004), stratified sampling enables the participation of all components that make up a study population. From these clusters, it was possible to get a representative sample from each individual cluster and enabled to cover all the businesses that operate within the city of Nairobi. Sampling frame is the definite register of components over which the trial that forms the units of observation is drawn (Cooper and Schindler, 2006). This sample frame in current research is comprised of owners of the 21,100 SME businesses operating from the central business district in Nairobi city. In addition, the SME's through which the sample is drawn from were required to at least possess the Nairobi City County business-trading license.

D. Sample Size

This was determined by the Fisher's et al. (2007) formula**$n=Z^2\ pq/d^2$**

Where n=the desired sample size, Z=standard normal deviation at required confidence level 95% or 1.96, P= Business owners, 0.5 of the entire population of SME's, q=1-p (the proportion without characteristics), d=level of statistical significance (degree of freedom=0.05), n $=1.96^2(0.5)\ (0.5)/\ (0.05)^2$ n**=385 respondents**

E. Sampling Frame

This sampling design was utilized since the populace of the research was not alike and was to be distributed into units, namely Juan-Kali, General traders, Agriculture, Accommodation, Professional, Education, Transport, and Factories. Kothari (2004) commends stratified chance selection since it is precise, straightforward, detachable into applicable divisions, and it improves better evaluation; hence representation across sections.

F. Data Collection Instruments

Main data was composed using self-allocated surveys, and scholar-managed surveys to illustrate the MSE's Respondents. For the self-allocated, the drop and pick technique was be utilized. This permitted the plaintiffs to provide their replies in an unrestricted setting and helped the scholar acquire statistics that would not be assumed if discussions were used. The survey constituted of close-completed queries using the liker scale and open-completed queries. The open-completed queries delivered supplementary data that would not be captured in the close-completed inquiries. The scholar was trained dual inquiry aides on entire matters relating to the statistics gathering processes and measures afore embarking on the research. The inquiry aides helped the scholar in collecting the data.The established 385 surveys were distributed to a tiny and minor businessperson in Nairobi Town.

a) Validity Test

Mugenda and Mugenda (2003) clarify that, the correctness of data mainly hinges on the value of statistics collection gadgets. Kaliapen and Hillman (2013) illuminate that validity is the grade to which an investigation instrument is gifted to process what it is madeup to measure. The research was using substance legitimacy since it actions the extent to which the trial of the stuff characterizes the substance that the exam is intended to compute. A trial findings were steered by giving selected surveys to certain MSE's to be completed by populaces arbitrary. After the trial study, the scholar was capable of perceiving queries that need erasure and those that are unclear. The ultimate survey was then produced and was be utilized to gather statistics for investigation.

b) Reliability Test

It concentrates on the constancy of computation done in a period; consequently, the outcome from that computation ensures slight disparity (Bryman& Bell, 2011). In the study, a priorexam of the survey was being available before the real statistics gathering. The established form was being tested for its validity and reliability through experimental analysis. Reliability test was an aid to find out the interior steadiness of the tool. Assessment re-assessment technique was be utilized to experiment with the surveys, which do not conform to the example of the research. Reliability was be verified through the Cronbach's alpha check, which was designed through the aid of the Statistical Package for Social Sciences (SPSS). An experimental study of 8 respondents was being embarked on from the pursued populace done by random sampling. Cronbach's Alpha check gauges the inside steadiness. The reliability standard was tested for the four autonomous variables. The variables were considered reliable if theirreliability values exceeded the prescribed threshold of 0.7, according to Loehlin (2004).

G. Data Analysis and Presentation

According to Mugenda and Mugenda (2003), statistics got on the ground in unprocessed look is problematic to understand except it is prepared, implied then examined. Qualitative inquiry comprised of investigative, classifying, charting, and relinking facts to report the study queries. Qualitative data was be clustered into expressive designs and subjects, which was be perceived to aid in the briefing and grouping of the statistics.

Quantitative inquiry was being studied by the usage of arithmetical methods, for instance, occurrence totals, one hundredth, mathematics averages, normal nonconformities, pie charts, and formulation to demonstrate variations in incidences. Qualitative statistics was be examined descriptively by the usage of questionnaires. Bar diagrams were utilized to show nominal or ordinal data. Statistical Package for Social Sciences (SPSS) version 21.0 was utilized to help in coding, recording, and examination of quantitative data attained from the closed-done queries.

The study adopted the ensuing regression prototype to create the system of connection amongst the digital credit borrowing and the level of financial risk exposure by the MSE's in Nairobi County, Kenya.

The equation took the following form;

$$\mathbf{Y = \beta 0 + \beta 1\ Dd + \beta 2\ Co + \beta 3\ Fl + \beta 4\ Cm + \varepsilon}$$

Where: Y = Financial risk exposure; Loan Repayment-Dependent Variable, Dd= Design &Delivery of Digital Credit Loans, Co = Cost of borrowing the loans, Fl = Financial Literacy Levels, Cm= Credit Risk Management, β0 = the constant,β1-n = the regression coefficient or change included in NPL by each factor, ϵ = error term

Thereafter the researcher pursued to establish the effect of the moderating variable. In this research, it was the Income levels of the Borrowers of the Micro and Small Enterprises of the Nairobi City County. Its effect was analyzed using the multiple regression analysis. The model was revised as follows to assess its effect:

$$\mathbf{Y = \beta 0 + \beta 1\ Dd + \beta 2\ Co + \beta 3\ Fl + \beta 4\ Cm + \beta 5\ In + \varepsilon}$$

Where: All the other variables remain the same as the above model whileβ5= the regression coefficient of the Income Level of Borrowers, In= Moderating variable (Income Level of the Borrowers).

H. RESEARCH RESULTS

The researcher administered 385 questionnaires, out of which we received 368 questionnaires back, which is a response rate of 94.8%, which is above the minimum threshold of 70-80%, according to Mugenda and Mugenda (2003). The response rate is hence a valid conclusion.

a) Satisfaction level on the lending terms of credit

Research findings indicated that the Loan amounts given by the digital platforms are not sufficient to meet project needs as indicated by the high mean 4.42,4.3,4.16,and 3.82, respectively. This indicates that the low amounts granted for the credit loans have a significant influence on financial risk exposure experienced by the Micro and Small Enterprises in Nairobi, City County, Kenya.

b) Financial Literacy Levels

Survey findings indicated that most of the respondents have good Marketing skills with a mean of 4.27, Business Management skills mean of 4.11, and financial record keeping skills at mean of 3.88.This indicates the financially literate have the cognitive ability to make good credit consumption decisions.

c) Experience in Loan investments

From the study, it was evident that respondents were not experienced in loan investments, which had a significant effect on the financial risk exposure as indicated by the mean of 3.52, 3.02, and 2.96, respectively. Budgeting skills to enable the running of the business did not have a significant effect on the financial risk exposure.

I. Credit Risk Management

From research findings, it is evident that queries are not asked before digital loans are disbursed to the borrowers shown by the 65% of the response. When the questions are asked, they are not answered truthfully, as shown by the 73% response. This shows a significant effect on the credit management of the digital credit borrowers of MSE's of Nairobi City County.

J. Digital Loan Defaults

Survey findings have shown that almost half of the respondents confessed to defaulting on the loan disbursed by the digital credit lenders. 68% of the respondents confessed to late repayments of loans. This shows a significant effect design and delivery of the digital credit in which the ease and access has caused many borrowers to be heavily indebted and hence default in repayment or pay late.

K. Steps taken to mitigate late payments of Defaults of Digital Loans

Research findings indicated that to alleviate late payments of the digital loans, the MSE's getCRB listing, borrowing from other sources to repay, Sale of other assets to repay, and business closure as evident by 33%, 30%, 20%, and 19% responses respectively. This indicates the solutions to ease the late payments that lead to multiple borrowing can indicate debt cycling – taking out a loan to pay off another.

a) REGRESSION ANALYSIS

Table 1. Model Summary

Model	R	R Square	Adjusted R Square	R Std Error of Estimate
	0.7583	0.685	0.52673	2.58154

The model summary indicates thatThe R Square in this study is 0.685, which shows that the 4 independent variables (Design and Delivery, Cost of borrowing, Financial Literacy, and Credit Risk management) can explain 68.5% of the Financial Risk Exposure while other factors explain 31.5%. An R of 0.7583, on the other hand, signifies a strong positive correlation between the variables of the study.

Table 2. ANOVA

Model		Sum of Squares	df	Mean Square	F test	Sign.
	Regression	12.128	11	1.102545	68.5	0.000
	Residual	71.156	357	0.199317		
	Totals	83.284	368			

From the ANOVA table above, the F calculated of (68.5) is more than P (0.005), which shows the model is fit for predicting the influences of the independent variable on the dependent variable. The overall regression model was significant and, therefore,a reliable indicator of the study findings.

Table 3. Regression Coefficients

Model		Unstandardized Coefficient Beta	Std Error	Standardized Coefficient Beta	T	Sign.
	Constant	0.698	1.132		4.009	0.000
	Design & Delivery	0.635	0.235	0.365	2.365	0.043
	Cost of Borrowing	0.171	0.025	0.251	6.462	0.000
	Financial Literacy Levels	0.206	0.013	0.674	17.952	0.001
	Credit Risk Management	0.213	0.030	0.405	11.341	0.013

The resultant regression equation becomes;

Y = 0.698 + 0.213 Dd + 0.171Co + 0.206 Fl +0.635 Cm

Whereby Y = the dependent variable (Financial risk exposure), Regression coefficients are β0, β1, β2, β3 and β4 and Dd, Co, FI,& Cm represent Design and delivery, Cost of Borrowing, Financial Literacy Levels, Credit Risk Management respectively.

This means that holding all the variables constant, the financial risk exposure would be 0.698. A Unit improvement in Design and delivery of the digital credit loans while other factors held constant resulted in 0.635 of financial risk exposure of MSE's in Nairobi City County, Kenya. A unit increase in the cost of borrowing the digital credit loan withthe other factors held constant results in 0.171 increase of financial risk exposure of MSE's in Nairobi City County, Kenya. Similarly, a unit increase in financial literacy level while other factors ceteris Paribus translates to a 0.206 increase of financial risk exposure of MSE's in Nairobi City County, Kenya, while a unit increase in credit risk management with other factors held constant leads to 0.213 improvements of financial risk exposure of MSE's in Nairobi City County, Kenya.

Table 4. Regression Coefficients with Moderating Variable

Model		Unstandardized Coefficient Beta	Std Error	Standardized Coefficient Beta	T	Sign.
	Constant	1.562	0.258		5.365	0.000
	Design & Delivery	0.615	0.082	0.435	4.896	0.431
	Cost of Borrowing	0.223	0.078	0.169	3.865	0.061
	Financial Literacy Levels	0.563	0.120	0.235	3.512	0.201
	Credit Risk Management	0.635	0.235	0.365	8.365	0.103
	Income Levels of Borrowers	0.060	0.260	0.142	2.596	0.584

The Table 4 above indicates that after the introduction of moderating variable (Income levels of Borrowers), the independent variable had an insignificant effect on the dependant variable of the study. This is because their p values were all greater than 0.05. Dd has a significance level of 0.431>0.05, Co has a significance level of 0.431>0.05, Fl significance level of 0.201>0.05, and CRM significance level of 0.103>0.05. IL significance level was 0.584>0.05. This resulted in the moderating variable being dismissed in the study.

III. CONCLUSION

The study concluded that the design and delivery of the digital credit loans, Cost of borrowing the digital loans, financial literacy levels of the respondents, and Credit risk management have a significant effect on the financial risk exposure of the MSE's in Nairobi City County, Kenya. The variables explained 75.83% of the changes in financial risk exposure of the MSE's. A unit improvement of design and delivery led to 0.635 increases in financial risk exposure of the MSE's.A unit improvement in the Cost of borrowing led to 0.171 increases in financial risk exposure of the MSE's. A unit improvement of Financial literacy levels led to a 0.206 increase in financial risk exposure of the MSE's while a unit increase in credit risk management led to a 0.213 increase in financial risk exposure of the MSE's. The moderating variable, which was the income levels of the borrowers, had an insignificant effect on the financial risk exposure of the MSE's.

The study concluded that for most MSE respondents in Nairobi City County are active in digital credit borrowing as an important tool to manage business needs and pay utility and medical bills (non-productive use) because they appreciated the convenience and disbursement speed. Despite the high-interest rates and transactional costs levied, the borrowers who seemed not to be aware, most of them undertook multiple borrowing. This could reflect the low loan limits (that fail to satisfy needs), the short tenures that increase pressure on repayment; hence they required a new loan to repay the previous one, which led to debt snare. Due to the nature of the digital loans, most defaults and late repayments resulted in negative listing at CRB's. The penalty for defaults and late payments is hefty. The respondents had a low understanding of the interest rates charged, terms & conditions were never disclosed plainly, and they were not aware of how their personal data was shared. The study also established that the interest rates offered by a variety of digital lenders varied extensively, as the government of Kenya did not equally regulate them.

IV. RECOMMENDATIONS

Based on the study findings, the study recommends curbing over-indebtedness, multiple borrowing, and risk of negative listing at CRB's which affect future credit rating, transparency, and consumer protection, should be upheld. The borrowers should be educated on the digital products so that they make informed decisions, and the digital lenders should be regulated to avoid overcharging on the interest rates and transaction costs.

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