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## Abstract

Governments step by step have encouraged the improvement of digital lending models as a means of advancing more prominent financial consideration and conveying excellent financial administrations to underserved populaces and organizations. Digital lending has given excessive number of upper hands to FSPs to negligence, and expect that it has lastingly affected the financial division. This investigation targeted setting up the credit the executives rehearse and their relationship to lending choices by digital financial firms in Kenya. The particular targets was to decide the impact of credit scoring, loan survey framework, purchaser security, financial proficiency on lending choices by digital lending firms in Kenya. It was likewise to incorporate self-guideline as a moderating variable. Speculations utilized were financial intermediation hypothesis, advancement dissemination hypothesis and the portfolio hypothesis. Questionnaires was utilized as they were anything but difficult to control, in contrast to interviews, and regularly have organized reactions that made it simple to gather data and dissect data. Data will be investigated utilizing graphic statistics, for example, mean, mode and media. Inferential statistics, for example, relapse and Pearson's relationship coefficient was employed in the assessment. The outcomes was revealed in the Charts, Frequency Distribution Tables, and Bar Charts. The factual pack for the sociologies (rendition 17) PC programming was the data examination apparatus. The study found that the organization have specific credit policies for managing loan risks. The study

also found that the company ensures that the loan security/insurance is sufficient to cover loan. The study found that the firms had a loan review system to reduce loan defaults. The study also found that loan review system is done monthly in most of the companies. . Finally, the study found at 5% level of significance and 95% level of confidence, credit scoring, loan review practices, consumer protection, and financial literacy were all significant on lending decisions by digital financial firms in Kenya. The study concluded that the nature of their customer influence the lending decisions of the firm. On the effect of policy and decision making of management of digital financial firms in Kenya, it is advisable that sound credit risk management practices are adopted and implemented especially through credit risks management information systems.

**Keywords:** *Credit, Management, Practices, Lending, Decision, Digital, Financial, Firms, Kenya*

### 1.1 Background of the Study

The developing utilization of digital loans is influenced by fast access to assets by the debtors, zero security prerequisites, no paperwork by money creditors, remote accessibility, and utilization of other credit scoring methods like mobile money exchange data to determine capability for credit (Hwang, 2016). Advanced digital lending on the planet is on the rise (World Bank, 2014). Digital loan services are both huge in formal financial consideration and a regulatory minefield. Hence, spotlight ought to be on the improvement of a sound regulatory structure which won't disincentive development and yet give answers to challenges experienced by customers as the service continue to expand (Hwang, 2016).

In America, the present environment is ready for digital development. Policies and regulations to mandate electronic invoicing have been launched, considerably expanding access to digital exchanges. Peru and Ecuador have successfully launched government initiated mobile money stages. Practically 45% of fintech services are centered around serving under banked MSMEs, and customer loaning and payment modes that take into account vendors is on the rise (for example Tienda Pago in Peru). In December 2014, more than one fourth of all mobile money exchanges capacities in Latin America involved an outsider, for example, charge payments and merchant payments (GSMA, 2015).

India Stack is an open digital payment and documentation framework that is exceptionally favorable for advanced loaning. It was made by the administration in 2010 and is making a replacement time of paperless, frictionless, and unimportant exertion budgetary trades (ACCION, 2018). The base of this technique uses biometric information for uncommon recognizable proof and will after a short time be associated with secure record confirmation for e-KYC and e-marks. The Enabled Payments System (AEPS) reinforces online trades through any bank.

In Africa there are several partnerships. For example, between MNOs and FSPs (for example Safaricom, MTN Mobile Money, and CBA from mShwari), yet revenue allocation contracts can be of pressure between huge MNOs with solid negotiating power and fintech new businesses or little FSPs (ACCION, 2018). Further allowing more digital lending, most digital items are intended for USSD in spite of the fact that there's a push to create devices and bolster financial infrastructure, the extension of digital lending services in Africa will presumably be hampered as advanced budgetary education.

### **Credit management practices**

Credit management seeks to assemble money inflows, delay money outpourings, invest money to acquire a return, get money at the best accessible rates, and keep up an ideal money level (Aminu, 2012). For improved credit and income management practices, an association can hold the perfect measure of money to offer the business a chance receive payment in time. The main objective of loan management is to guarantee that an association tends to its needs in time to keep away from income emergency. Three qualities – moment, automated, and remote – underscore the intensity of digital credit and its ability to scale quickly (Horner, 2013).

Moreover, the industry is improving by producing apparatuses that assess credit risk in a assortment context. They're moreover using credit subsidiaries to shift risk efficiently while protecting consumer affiliation (Gakure, 2012). Taking everything into account, this examination will concentrate on digital credit management practices on credit scoring, loan review system, regulation and financial literacy, customer protection and limit system.

### **Digital lending decisions**

Digital data ought to be used by lenders to make quick mechanical and more precise decisions. Digital lenders use orthodox data sources and advanced calculations investigation too rapidly acquire clients and make credit decisions. It's imperative for decision makers like business investigators, credit examiners and investment experts to research a companies' financial data as a pivotal apparatus for creating decision on whether the organization's financial performance meets their decision threshold (Stanga and Benjamin, 2014). One such significant instrument utilized in calculation and investigation of monetary proportions to measure the financial strength of an organization. In recent times, solid emphasis on the necessity for data to be transparent has provoked contemplations to further understand the creditors' use of monetary statement data. Yap (2015) in his investigation on the necessity for income statements concluded that financial statements take a central role during a creditor's decision to lend or not

### **Digital financial firms**

We distinguish digital credit from conservative loans by recognizing three key attributes: digital credit is immediate, automatic, and distant (Chen and Mazer 2016). Instant Digital lenders utilize digital data, for example, airtime top-ups, versatile call records, and application-based information (on cell phones), on likely debtors to settle on moment credit decisions. From enlistment to application, disbursement, and repayment, loan specialist choices and activities are motorized dependent on preset boundaries.

Digital loaning services take three unique forms. To start with, is that the bank-sponsored portable loaning initiated by Safaricom and Commercial bank of Africa named M-Shwari in 2012, KCB-Mpesa by Kenya business bank presented in 2015, Eazzy banking by Equity bunch Finserve presented in 2016, MCo-operation Cash by Co-employable Bank presented in 2016, and Timiza pushed in 2018 by Barclays Bank (Kaffenberger, 2014). Additionally, loaning can be founded on portable applications by money related advancement firms, which structure the majority of the versatile administrations stage. These applications are downloaded from Google Play store and Apple-store and they consolidate things like Tala, and Branch, which are bolstered by investors from Silicon Valley (FSD Kenya and national bank of Kenya, 2017).

Non-bank money related establishments have moreover grasped the versatile credits model as suppliers of the item. These consolidate microfinance establishments and Savings and Credit Cooperative Societies (Saccos), which have expanded their item portfolios through computerized acknowledge, benefits either along with a system administrator or through Fintech. Model is the Caricash versatile advances via Caritas Microfinance bank and M-advance by Kenya Bankers Sacco (Kaffenberger, 2014). Credit evaluation in the portable advancing movements with different versatile advances suppliers. One can acquire without having a record with the supplier, not at all like bank's systems where one must be a record holder.

Fintech stages like Branch, Tala, and Stawika utilize online life accounts, versatile data utilization examination, character stock and in this way the borrower's encouraging group of people to make a borrower's credit profile. This investigation will represent considerable authority in lending by versatile applications by financial innovation firms. Digital Lenders Association of Kenya (DLAK) and are 12 establishing individuals enrolls these firms

## **1.2 Statement of the Problem**

Many challenges face the digital loan service industry. In digital lending, there's no way for lenders to understand how many other loans borrowers have. The firms struggle with the increasing burden of bad debts. Murray (2011) points out that the problem of bad loans is a common phenomenon in most countries limiting firms' ability to issue loans and grow. Prudent management of loan-book portfolio results to increased profitability and enhances the confidence of the people including investors and depositors in the sector. On a similar note, inability to manage credit risk well is the major threat to a lending institution's survival (Murray, 2018).

Digital credit is resulting in over borrowing in Kenya, with a mobile phone many people have the equivalent of a bank account, which has brought about new wave of financial inclusion but this financial inclusivity is also resulting in financial exclusion. According to a study by FSD Kenya (2019), digital credit lending has changed the market for credit in Kenya, with mobile phones, automated credit scores, agent networks, and credit data sharing enabling digital lenders to offer loans rapidly and on a scale. Over 2.7 million Kenyans have negative listing credit bureau reports for late repayment or default. Due to late payment and defaulting, the credit worthiness of many borrowers is damaged thus they face blacklists by credit bureaus, which locks them out from accessing future credit.

Studies administered previously have shown that credit management practices play a crucial role in making lending decisions among banks in developed countries. Samreen and Zaidi (2013) considered the design and growth of credit scoring model for the commercial banks of Pakistan they focused in credit rating, credit history, sales growth and debt advantage as variables of the study. Mabvure (2012) scrutinized the foundations of non-performing loans in Zimbabwe using variables as low capitalization, poor credit monitoring and price of borrowing. Nyorekwa (2014) studies the fiscal performance of banks in Tanzania. The variable studied are credit restrictions, fixed cash ratio, also as a minimum deposit and maximum lending rates.

Studies done recently in Kenya also seem to agree on past researches done elsewhere. Mwithi (2012) administered a study of credit risk management and the level of NPLs the variables here were credit risk management and nonperforming loans. Aduda et al (2012) carried out a investigation to identify the connection between access to credit by small enterprises in Kenya and credit scoring in banks. From the above researches, none has looked deeper into the particular

inputs that result in making a lending decision. One such key input in making lending decision is management of credit practices for example credit scoring, loan review system, consumer protection and financial literacy. This study seeks to fill these gaps identified.

### 1.3 Objectives of the Study

- i. To explore the influence of credit scoring on lending decision by digital financial firms
- ii. To evaluate the influence of loan review practices on lending decision by digital financial firms
- iii. To determine the influence of consumer protection on lending decision by digital financial firms
- iv. To measure the influence of financial literacy on lending decision by digital financial firms
- v. To examine the moderating influence of self-regulation on lending decision by digital financial firms.

## 2.1 Empirical Literature Review

### 2.1.1 Credit scoring and Lending Decision

Samreen and Zaidi (2013) examined the design and advancement of credit scoring approach for the commercial banks of Pakistan. The fundamental objective of this investigation was to gauge credit risk in commercial banks of Pakistan using credit-scoring models. For example, a set of 260 individual borrowers who had taken individual credits from different commercial banks of Pakistan, out of which 154 candidates had clear history having no default, 51 candidates had default for up to 30 days, and 37 candidates had 90 days default. This investigation recognized that the Credit Scoring Model for individuals (CSMI) evaluated the financial soundness of individual debtors with 100% precision rate and perceived the high-hazard advance applications to for the most part safe before default.

An examination to investigate the affiliation among credit scoring by Kenyan banks and access to credit by little ventures was led by Aduda, et al. (2012) in Kenya. This was an instructive assessment where the investigation attempted to choose an association between the utilization of credit scoring and access to credit for SME advances by Kenyan banks. A list study was driven recalling all of the Commercial Banks for Kenya enrolled and authorized under the financial show about as at 31st December 2009 according to the national bank of Kenya. This assessment used fundamental information that was assembled from the audit respondents. Information was breaking down using SPSS. Ng'etich *et al.* (2011) presumed that financing cost spread impact performing resources in banks since it manufactures the cost of credits subjected on the borrowers. Rules on loan fee have impacts on resources non-execution, for such rules choose the financing cost spread in banks to help relieve moral dangers coincidental to NPAs.

### 2.1.2 Loan Review Practices and Lending Decision

Murray (2011), recognized that the board can gauge its capacity to get salary from the bank's finished pool of advantages utilizing advances, that if not done well it could incite to decay of benefit returns thus money related execution of business banks in U.S.A. Cautious credit assessment of the advance up-and-comer before advance advancing with a state of surveying the examination suggested that there was necessity for business banks to support their client advance assessment technique. This examination depicts that adherence to courses of action of the credit

assessment in various business banks stays a test, which impacts the general money related execution of the concerned business banks.

Owino (2012) in his examination on impacts of loaning arrangements on credit defaults on business banks says that the motivation behind advance assessment is to assess the probability that the advance assey for be presented to consumers has higher premium edge that drives expanded profit for resources thus budgetary execution of the business banks. The borrower's character, comprehension and skill to deal with the business and to employ the advantages for the point that they're advanced are usually mulled over. There was an opening with how the advance assessment could be set up if the bank's loaning could be insufficient or over the top concerning the need to cause issues.

### **2.1.3 Consumer Protection and Lending Decision**

Cain, Loewenstein, and Moore (2011) discovered confirmation that, advisers with contending interests give more prejudiced advice than in the absence of disclosures. This overblown advice, together with poor limiting by advisees as expressed in the past segment, realizes advisees earning lower adjustments when irreconcilable circumstances are disclosed than when they are not uncovered. Cain, Loewenstein, and Moore (2011) have recommended two fundamental reasons behind the inadequate limiting. To begin with, conflicted advice can fill in as a grapple to the decision toward a suggestion. Second it is impossible that people would figure out how to coordinate the uncovered irreconcilable circumstance data into their decision-creation procedure and modify their decisions appropriately.

Jones, Loibl and Tennyson (2012) assess the effect of enhancements delegated by the CARD Act on client reclamation decisions dependent on month to month survey data from 300–500 households month to month. Jones, Loibl and Tennyson (2012) infer that the likelihood of a nuclear family dealing with its most current credit card bill in full improved definitely (with a variance somewhere in the range of 3.8% and 4.8%) after the new revelation. The likelihood of skipping payment is about 1% to 1.5% lower after the CARD has been unveiled. However, there is negligible confirmation of debt repayment behavior among the people who keep on conveying debts.

Lotto (2018) conducted an examination to take a gander at the effect on capital guideline on bank working efficiently in Tanzania. The examination utilized bank level information for the period somewhere in the range of 2008 and 2014. The discoveries show an optimistic and noteworthy connection among capital extent and bank operating effectiveness as a sign that commercial banks in Tanzania with increasingly severe capital guidelines are more operationally productive. This affiliation recommends that capital amplenness doesn't simply strengthen financial soundness by giving a greater capital but by working efficiency by preventing moral danger issue among investors and debt holders. This outcome inferred that the expanded guidelines on capital prerequisites sway the decision of the bank to return to their inner operations strategy to the extent strong corporate organization, risk evaluation techniques, credit assessment processes, engagement of more competent staffs, and upgraded internal control strategies.

### **2.1.4 Financial literacy and Lending Decision**

Agarwal *et al.* (2010) conducted an investigation to see the effect of a required monetary proficiency on credit reimbursement for urban female microfinance consumers in India and

perceived that microfinance packs that got advance education getting ready had higher reimbursement execution, affirming the positive result of budgetary proficiency. Individuals in purposeful budgetary getting ready program are likely going to fall behind on their home loan installments showing that extended money related education accomplishes lower misconduct rates.

Mutegi, Njeru and Ongesa (2015) established the outcomes of EGF's instructive program on loan reimbursement by the small enterprises. The objective of the investigation was to establish the degree to which bookkeeping, credit management and budgeting aptitudes sway loan repayment. Conducted on small enterprises in Ngara, Nairobi County, 40 out of 300 small enterprises participated in the study. Questionnaire was fundamental instrument used for data collection. Discoveries demonstrated that the aptitudes referenced here above incredibly decide the intensity of small enterprises to reimburse loans.

### **3.1 Research Methodology**

The report used a detailed research design. Descriptive experiments seek to explain something that is ordinarily market-specific or handy (Kothari, 2007). This takes into consideration the identification of the parameters of a phenomenon at a particular point in time, with the objective of acquiring precise means of catching the characteristics of a populace at a single point in time related to what, where, how, who and when of a research subject (Cooper and Schindler, 2005). The discoveries of the investigation would help to generalize the populace as a whole.

### **3.2 Target Population**

Target populace is a set of people, cases/objects with some basic visible features of a specific nature particular from other populace. The examination targeted the chief executive officers (CEO), head of credit department, and credit officer in digital financial firms in Kenya. There are 12 digital financial firms registered under Digital Lenders Association of Kenya (DLAK) head quartered in Nairobi, Kenya. The lending firms are O-kolea, L-Pesa Tala, Kopacent, Zenka Finance, Stawika Capital, Alternative Circle, My Credit, FourKings, FourKings Investment Sotiwa, Mobile Financial Solutions, Kuwazo Capital and Finance Plan Limited.

### **3.3 Sampling**

This examination embraced census-sampling technique to identify the respondents. Census sampling technique targets a specific gathering of people of less than 200 population size, investigation of association, network, or some other clearly defined and relatively limited gathering (Patton, 1990). Therefore, all the 36 respondents comprised the sample scope of the study. The 36 respondents included just the CEOs, head of credit, and credit risk officer from digital lending companies in Kenya.

### **3.4 Data Analysis**

Data obtained was analysed utilizing descriptive and inferential measurements. The research used linear regression model. The responses data were grouped into categories through coded data. The use of SPSS assisted in the assessment of the information gained through the questionnaires. Tables were employed as appropriate to depict the information gathered for ease of comprehension and analysis. Measures of central tendency, for example, mean and standard deviation were employed.



### **3.4.1 Diagnostic Tests**

Regression models rely upon certain suspicions about the variables used in the analysis. The accompanying tests were conducted: Multicollinearity happens when two or more variables that are independent are exceptionally correlated, subsequently making it hard to come up with the separate impact of individual variables.

**Homoscedasticity:** Assumption of homoscedasticity likewise denoted to as homogeneity of variance, the range within which the information values for the variables that are dependent. Homoscedasticity means that the error of variance terms is the same over all levels of the independent variable (Osborne and Waters, 2002). Heteroscedasticity test is aimed at detecting linear type of heteroscedasticity.

### **4.1 Findings and Discussions**

Out of the sampled population, 30 questionnaires were returned duly filled in making a response rate of 83.3%. The response rate was representative and was adequately used to answer the research questions. According to Mugenda (2003) that a response rate above 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

### **4.2 General Information**

The general information included current designation within the firm, period that your firm been in operation, and average level of non-performing loans of the digital credit firms in Kenya shillings.

#### **4.2.1 Current Designation within the Firm**

The respondents were requested to indicate their current designation within the firm. From the findings, most (49%) of the respondents were credit officers, 35% were head of credit, while 16% were the CEOs. This implies that majority of the respondents were credit officers and thus were in a position to offer more credible information.

#### **4.2.2 Period the Firm Has Been in Operation**

The respondents were requested to indicate the period that their firm has been in operation.

From the findings majority (50%) of the respondents indicated that their firm had been in operation for a duration of 5-10 years, 38% indicated 1-4 years, and 7% indicated more than 10 years, while 5% indicated less than 1 year. This depicts that most of the firms had been in operation for a long duration and thus high chances of getting credible information.

#### **4.2.3 Average Level of Non-Performing Loans**

The respondents were requested to indicate the average level of non-performing loans of the digital credit firms in Kenya shillings. From the findings majority (58%) of the respondents indicated that the average level of non-performing loans of the digital credit firms in Kenya shillings was between 101-500 million, 33% indicated less than 100 million, 7% indicated 500-1 billion, while 2% indicated over 1 billion. This depicts that the average level of non-performing loans of the digital credit firms in Kenya shillings was between 101-500 million.

### 4.3 Credit Scoring

This section presents findings on credit scoring which are presented in the following subsection:

#### 4.3.1 Credit Policies for Managing Loan Risks

The respondents were requested to indicate whether their organization have specific credit policies for managing loan risks. From the findings majority (67%) of the respondents indicated that their organization have specific credit policies for managing loan risks while 33% were of the contrary opinion. This depicts that the organization have specific credit policies for managing loan risks.

### 4.4 Loan Review Practices

#### 4.4.1 Loan Review System to Reduce Loan Defaults

The respondents were requested to indicate whether they have loan review system to reduce loan defaults. From the findings majority (78%) of the respondents indicated that they had loan review system to reduce loan defaults while 22% were of the contrary opinion. This depicts that the firms had a loan review system to reduce loan defaults.

#### 4.4.2 Frequency of Loan Review System in the Company

The respondents were requested to indicate how often is the loan review system done in their company. From the findings most (48%) of the respondents indicated that the loan review system is done monthly, 23% indicated quarterly basis, 13% indicated annually, 12% indicated semi-annually, while 4% indicated continuously. This depicts that loan review system is done monthly in most of the companies.

### 4.5 Consumer Protection

#### 4.5.1 Consumer Protection and Lending Decisions

The respondents were requested to indicated the extent to which the following issues on consumer protection and regulation considered in making lending decisions. The findings are shown in Table 1.

**Table 1: Consumer Protection and Lending Decisions**

Consumer Protection And Regulation	Mean	Std. Dev
Borrower empowerment	3.52	0.8901
Disclosure provisions	3.68	0.7723
Prohibition of unfair practices	3.58	0.9240
Provisions dealings	3.72	0.8245

From the findings the respondents agreed to a great extent that provisions dealings are considered in decision making (mean=3.72), followed by disclosure provisions (mean=3.68), prohibition of unfair practices (mean=3.58), and borrower empowerment (mean=3.52). This depicts that to a great extent that provisions dealings are considered in decision making.

#### **4.5.2 Measures to Protect the Consumers**

The respondents were requested to indicate the measures the company has taken to protect consumers. According to the respondents measures to protect consumers include laws. Consumer protection laws in the company work to protect the consumers' against improper business practices. They provide credit protection, debt collection protection, identity theft protection, and bankruptcy and reorganization protection.

#### **4.6 Financial Literacy**

This section presents findings on financial literacy and the findings are presented in the following subsections:

##### **4.6.1 Credit Risk Sanctions and Approval of Credit in the Firm**

The respondents were requested to indicate who is responsible for credit risk sanctions and approval of credit in the firm. From the findings majority (56%) of the respondents indicated that senior management is responsible for credit risk sanctions and approval of credit in the firm, 38% indicated risk and credit managers, while 6% indicate the board of directors. This depicts that senior management is responsible for credit risk sanctions and approval of credit in the firm.

##### **4.6.2 Credit Management Practices and Lending Decisions**

The respondents were requested to indicate in what ways do credit management practices help them in lending decisions. According to the respondents, credit management practices help understanding the borrower. A common approach is by evaluating them by the 5 Cs of credit to obtain a profile on their financial risks. This assessment runs on the belief that past

#### **4.7 Lending Decision**

This section presents findings on lending decisions. The findings are presented in the following subsections.

##### **4.7.1 Nature of Customers and Lending Decisions**

The respondents were requested to indicate whether the nature of their customer influence the lending decisions of the firm. From the findings majority (58%) of the respondents indicated that the nature of their customer influence the lending decisions of the firm while 42% were of the contrary opinion. This depicts that the nature of their customer influence the lending decisions of the firm. In addition, the respondent indicated that the safest borrower is the customer whose credit rating is high and who has not defaulted to pay a loan from the digital firms.

##### **4.7.2 Influence of Lending Decisions**

The respondents were requested to indicate the extent to which various issues influence the lending decision. The findings are shown in Table 2.

**Table 2: Influence of Lending Decisions**

Lending issues	Mean	Std. Dev
How much to lend	3.89	0.7901
Credit limit available for lending	3.40	0.8464
The interest rate to be charged on the loan	3.29	0.9613
Duration through which the loan will last	4.18	0.9005
Number of credit	3.60	0.9612

From the findings the respondents indicated to a great extent that duration through which the loan will last influences the lending decision (mean=4.18), followed by how much to lend (mean=3.89), number of credit (mean=3.6), credit limit available for lending (mean=3.4), and the interest rate to be charged on the loan (mean=3.29). This depicts that to a great extent that duration through which the loan will last influences the lending decision.

### Regression Analysis

The relationship between the variables (both the dependent and independent) was established by applying regression analysis. The model was applied to determine the relationship between (independent variables) credit scoring, loan review practices, consumer protection, financial literacy and lending decisions. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (lending decisions) that is explained by all the four independent variables. The analysis used the Social Science Statistical Package (SPSS V21.0) to code enter and compute the measurements of the multiple regressions.

### Model Summary

The model summary in Table 5 shows the relationship between the predictor variable and lending decisions by digital financial firms in Kenya. The results are as indicated in Table 3.

**Table 3: Model Summary**

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate	F	P-value
1	.942 <sup>a</sup>	.887	.848	.02424855	2.244	.001

a. Predictors: (Constant), credit scoring, loan review practices, consumer protection, and financial literacy

b. Dependent Variable: Lending Decisions by Digital Financial Firms in Kenya

From the findings, the  $R^2$  was found to be 0.887 which is 88.7% difference in lending decisions by digital financial firms in Kenya. The difference is explained by the independent variables in the model. In addition, from the table the unexplained difference of 11.3% is a result of other factors not in the model. From the results in the table it can be depicted that the model is good and can be utilized for the purposes of estimation (sig value is less than 0.05).

### ANOVA Results

Table 4 presents the findings on ANOVA results of the relationship between the predictor variables and lending decisions by digital financial firms in Kenya.

**Table 4: ANOVA of the Regression**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.18	4	0.545	4.618	.0420 <sup>a</sup>
	Residual	2.95	25	.118		
	Total	5.13	29			

a. Predictors: (Constant), credit scoring, loan review practices, consumer protection, and financial literacy

b. Dependent Variable: Lending Decisions by Digital Financial Firms in Kenya

From the findings it was found that the significant value was 0.0420 which is way below 0.005 thus showing the model was statistically significant. This depicted that the model would be used in predicting the relationship between the predictor variables and lending decisions by digital financial firms in Kenya. From the model it was further found that the F critical was less than the F calculated (value = 4.618) and thus the model was statistically significant.

**Table 5: Coefficient of Determination**

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
Model 1(Constant)	0.349	0.573		0.610	0.546
Credit Scoring	2.955	0.146	0.747	6.558	0.004
Loan Review Practices	2.582	0.626	3.272	2.527	0.0240
Consumer Protection	2.463	0.523	3.214	3.145	0.0312
Financial Literacy	2.345	0.457	3.337	2.755	.05001

a. Dependent Variable: Lending Decisions by Digital Financial Firms in Kenya

Simple regression analysis was conducted as to determine the influence of credit scoring, loan review practices, consumer protection, and financial literacy on lending decisions by digital financial firms in Kenya. According to the SPSS the following equation was generated:

$$(Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon)$$

Becomes:

$$(Y = 0.349 + 2.955X_1 + 2.582X_2 + 2.463X_3 + 2.345X_4 + \epsilon)$$

From the regression taking the independent variable at constant (credit scoring, loan review practices, consumer protection, and financial literacy) constant at zero, lending decisions by digital

financial firms in Kenya was 0.349. The data findings also indicated that holding other independent variables at constant zero, a unit increase in credit scoring will lead to a 2.955 increase in lending decisions by digital financial firms in Kenya, a unit increase in loan review practices will lead to a 2.582 increase in lending decisions by digital financial firms in Kenya, a unit increase in consumer protection will lead to a 2.463 increase in lending decisions by digital financial firms in Kenya, and a unit increase in financial literacy will lead to a 2.345 increase in lending decisions by digital financial firms in Kenya. At 5% level of significance and 95% level of confidence, credit scoring, loan review practices, consumer protection, and financial literacy were all significant on lending decisions by digital financial firms in Kenya.

### Stepwise Regression for Regulation

Objective five of this study was to examine the moderating influence of self-regulation on lending decision by digital financial firms. The following hypothesis was formulated and tested:

H<sub>5</sub>: self-regulation does not moderate the relationship between credit management practices and lending decisions by digital financial firms in Kenya.

The hypothesis was tested using the following linear regression model

Lending Decisions by Digital Financial Firms = f (self-regulation)

$$Y = \beta_0 + \beta_5 X_5 + \varepsilon$$

Where

Y = Lending Decisions by Digital Financial Firms

X<sub>5</sub> = self-regulation

β<sub>0</sub>: = Constant term

ε = Error term

This hypothesis was tested using Baron and Kenny (1986) four-step method. Linear regression was used in each step. In step one, lending decisions by digital financial firms was regressed on credit management practices. If R<sup>2</sup> and beta coefficients are statistically significant, the process would move to step two. If they are not significant, the process terminates and would be concluded that self-regulation does not mediate relationship between credit management practices and lending decisions by digital financial firms.

Step 2 involved regressing of credit management practices on self-regulation. If the results are significant, the process moves to step 3 because the necessary condition for moderation exist. In step three the influence of self-regulation on lending decisions by digital financial firms is tested using a simple linear regression model. A statistically significant effect of self-regulation on lending decisions by digital financial firms is a necessary condition in testing for the moderation. The analysis then moves to step 4. Finally, Step four tested the influence of credit management practices on lending decisions by digital financial firms while controlling for the effect of self-regulation. These tests were done using simple linear regression analysis. The influence of credit management practices on lending decisions by digital financial firms should not be statistically significant when self-regulation is controlled. This is a necessary condition in testing for moderation.

Step one: Test of the influence of influence of credit management practices on lending decisions by digital financial firms. The results of the regression analysis are presented in Table 6.

**Table 6: Regression Results Test on Variables**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.814	.663	.671	.71399		
Predictors: (Constant), Credit Management Practices						
ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.404	4	.351	.688	.000
	Residual	12.75	25	.510		
	Total	13.154	29			
Dependent Variable: Lending Decisions by Digital Financial Firms						
Predictors: (Constant), Credit Management Practices						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.372	.584		18.332	.000
	Credit management practices	.243	.151	.042	.830	.000
Dependent Variable: Lending Decisions by Digital Financial Firms						
Predictors: (Constant), Credit management practices						

The results in Table 6 show that credit management practices had a moderate positive relationship with lending decisions by digital financial firms ( $R=.814$ ). The model explained 66.3 percent of the variation in lending decisions by digital financial firms which was significant ( $R^2=.663$ ,  $F=.689$ ,  $P<0.05$ ) leaving 33.7 percent unexplained. The results thus confirmed the first step of testing for the moderation of self-regulation between credit management practices

Step two: the test for the moderation of self-regulation in the relationship between credit management practices and lending decisions by digital financial firms involved testing the influence of credit management practices on self-regulation. The results of the tests are presented in Table 7.

**Table 7: Regression Results Test on Self-Regulation**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.871	.759	.767	.64597		
Predictors: (Constant), Credit Management Practices						
ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	.444	1	.444	1.065	.004 <sup>b</sup>
1	Residual	11.676	28	.417		
	Total	12.12	29			
Dependent Variable: Self-Regulation						
Predictors: (Constant), Credit Management Practices						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	3.228	.166		19.397	.000
1	Credit management practices	.248	.146	.052	1.031	.004
Dependent Variable: Self-Regulation						
Predictors: (Constant), Credit Management Practices						

The results presented in Table 7 indicate that credit management practices had a positive strong and significant effect on self-regulation ( $R=.871$   $P< 0.05$ ). The model explained 75.9 percent ( $R^2=.759$ ,  $F=1.065$ ,  $p < 0.05$ ) of the variation in self-regulation, leaving 24.1 percent unexplained. The results, therefore suggest that the second step of testing confirms intervention of self-regulation in the relationship between credit management practices and lending decisions by digital financial firms and thus permits analysis to move to step 3.

The third step of the test for the moderation of self-regulation in the relationship between credit management practices and involved testing the influence of parental mediation on lending decisions by digital financial firms. The results for the step 3 are presented in Table 8.



**Table 8: Moderation**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.111	.012	.014	.2989		
ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.188	2	.094	1.057	.307
	Residual	2.403	27	.089		
	Total	2.591	29			
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	Self-regulation	.015	.061	.030	.252	.006
	Credit management practices	.087	.055	.186	1.566	.307

Predictors: (Constant), Credit Management Practices, Self-Regulation  
 Dependent Variable: Lending Decisions by Digital Financial Firms

The results in Table 8 indicate that self-regulation had a weak positive relationship with lending decisions by digital financial firms ( $R=.111$ ). The model explained 1.2 (0.012) percent of the variation in lending decisions by digital financial firms. 98.8 percent of lending decisions by digital financial firms is explained by other factors not considered in the model. The results were not statistically significant at  $P=>0.05$ . The results therefore did not satisfy condition in the third step in testing for moderation effect of self-regulation in the relationship between credit management practices and lending decisions by digital financial firms. The influences of self-regulation ( $B=.015$ ,  $t= .252$ ,  $p>0.05$ ) and credit management practices ( $B=.087$ ,  $t= 1.566$ ,  $p>0.05$ ) were not statistically significant. The model was also not statistically significant ( $R^2=.012$ ,  $F=1.057$ ,  $p>0.05$ ).

The statistical results at step three are not significant and thus did not provide the necessary conditions to progress to step 4 in testing for the moderating effect and did not support the intervening effect of self-regulation in the relationship between credit management practices and lending decisions by digital financial firms. Thus, the process terminated at step 3 and consequently there cannot be results for step 4 to present. The results were indicative of the fact that credit management practices interact with self-regulation and the interaction has an effect on their influence on lending decisions by digital financial firms though the indirect effect was not clear from the results in this study. The study accepts the hypothesis that self-regulation does

not moderate the relationship between credit management practices and lending decisions by digital financial firms.

## **5.0 Conclusion**

The study concluded that to a great extent that amount of outstanding debt is considered in decision making. The study also concluded that to a great extent that provisions dealings are considered in decision making. Further the study concluded that the measures to protect consumers include laws. Consumer protection laws in the company work to protect the consumers against improper business practices. They provide credit protection, debt collection protection, identity theft protection, and bankruptcy and reorganization protection.

The study concluded that senior management is responsible for credit risk sanctions and approval of credit in the firm. The study also found that the respondents had customer financial literacy on financial negotiations. The study concluded that credit management practices help understanding the borrower. A common approach is by evaluating them by the 5 Cs of credit to obtain a profile on their financial risks. This assessment runs on the belief that past payment performance (as well as current finances) can be an indicator of a borrower's future actions. The study found that self-regulation influences the lending decisions by digital financial institutions. The study also concluded that to a great extent that self-regulation affects overall lending decisions.

The study concluded that the nature of their customer influence the lending decisions of the firm. In addition, the study concluded that the safest borrower is the customer whose credit rating is high and who has not defaulted to pay a loan from the digital firms. The study concluded that to a great extent that duration through which the loan will last influences the lending decision. Finally, the study concluded at 5% level of significance and 95% level of confidence, credit scoring, loan review practices, consumer protection, and financial literacy were all significant on lending decisions by digital financial firms in Kenya.

## **6.0 Recommendations**

1. On the effect of policy and decision making of management of digital financial firms in Kenya, it is advisable that sound credit risk management practices are adopted and implemented especially through credit risks management information systems.
2. The study further recommends that digital financial firms should actively participate in the legislation of credit risk management practices by the government through the association of digital financial firms in Kenya in the implementation of the credit sharing information Act.
3. The Association of digital financial firms should consider provisions for specific credit risk management practices to be adopted and implemented uniformly by all digital financial firms to reduce the amount of nonperforming loans of digital financial firms in Kenya. Further the two should establish policies and guidelines of determining NPLs and loans write offs to avert excessive loan losses.
4. The study further recommends that digital financial firms should put in place collection prioritization strategies through developing a more focused collection strategy by

determining which accounts have the highest payment potential. Implementation of advanced scoring and segmentation tools will be helpful in providing.

5. It is also clear that the most digital financial firms use the existing credit policy as the primary document for formulating a new credit policy. It will also be important if digital financial firms consider using credit policy documents from other successful similar organizations as a benchmark for the best credit management practices.

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