

# Influence of Predatory Borrower Practices On Loan Performance among Commercial Banks in Kenya. A *Positivists View*

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**Abstract:** Commercial banks are pivotal to the socio-economic development of a Country. In Kenya, their intermediation role is key to the progressive delivery of Kenya's vision 2030 economic Pillar. The banking sector contributes approximately 5% of Gross Domestic Product in Kenya. These institutions provide the payment system in the economy and access to credit to many other sector(s) in the economy through loans to individual(s), corporate(s) and government(s). However, loan performance is a great concern in the sector. Loan performance has deepened by over 185% in the last decade. Consolidated nonperforming loans stood at a whopping over Kes 500 Billion by 2022. The risk categorization indicated deterioration by 11% in a single year (2021/2022). This situation is a great threat to the sustainability of commercial banks in Kenya. The objective this study was to examine the influence of predatory borrower practices on loan performance among commercial bank in Kenya. The study adopted positivism research philosophy and a descriptive research design. The sampling frame and unit of analysis was the 39 commercial banks in Kenya (CBK,2022). The unit of response was 234 managers of these 39 commercial banks. A closed ended questionnaire was used to collect primary data for the predict and a secondary data collection sheet in the case of the predict and. In order to assess the internal consistency of the instrument, a pre- test was carried out using managers of three Micro Finance Banks in Naibori, Kenya. Further, to enhance construct validity, Confirmatory Factor Analysis (CFA) was utilized by generating variable Kaiser-Meyer-Olkin coefficient and the Bartlett's Chi- Square for factorability analysis. Total variance explained, scree plot and rotated component matrix were generated and further interpreted. Simple linear regression was used for inferential analysis after testing the data for Gaussian distribution, linearity and autocorrelation. The study found that 31.7% of the variations in loan performance could be explained by borrower practices and that there is a statistically significance influence of borrower practices on loan performance. The study recommended that commercial banks review the borrower driven predatory loan practices leading to weak loan performance and incorporate them in the Know Your Customer (KYC) tool for loan evaluation(s) and pricing. The interventions include assessing financial literacy of the borrower, provide financial counseling services and strengthen loan processing practices within the banks. These among others will provide a mechanism of curbing borrower-predators from accessing loans from commercial bank and hence reduce exposure to weak loan performance ratios and unfavorable trends currently experienced in the banking sector in Kenya.

**Keywords:** Borrower, predatory, loan performance

## 1. Introduction

### 1.1 Background of the Study

Loan performance is critical to the financial performance of commercial banks globally. The primary source of income for commercial banks is interest on loans. Kagan (2021) defined a bank loan as an amount of money loaned at interest by a financial institution to a borrower, usually on collateral security and for a specified period. Banks advance a wide range of loans, including personal unsecured check-off loans, personal unsecured non-check-off loans, personal secured loans, salary advances and various business loans. These loans are issued either as normal/ traditional/ conventional or through a digital platform. The difference between a normal loan and a digital loan is that a digital loan operates entirely online, offers a no-fee account, and most use toll-free loan apps to apply. Normal loans require the borrower to visit a physical bank, with the bank opening a loan account for each borrower, usually at a fee. A lot of paper work is involved for a conventional loan (CBK, 2022). Banks expect borrowers to repay the loans per the terms of the agreement. However, this is not always the case. Commercial banks globally are losing trillions of shillings to bad loans every year. Between December 2019 and

December 2020, Kenyan commercial banks' non-performing loans (NPLs) stock grew by 29.6%, from Ksh.336.6 billion to Ksh.436.1 billion. Assets quality declined from 12.5 % in December 2019 to 14.5 % in December 2020, as indicated by the ratio of gross NPLs to gross loans. Non-performing loans increased by 29.6%, in contrast to an 11.7 % growth in gross loans. Over the same period, the banking industry registered a 29.5 % drop in earnings before tax, from Ksh.159.1 billion in December 2019 to Ksh.112.2 billion in December 2020. The lower profitability was due to increased expenses by Ksh.77.47 billion compared to the income that increased by Ksh.30.54 billion. The rise in overall costs was mainly due to a Ksh.71.0 billion increase in loan loss provisions in 2020. However, the ratio of NPLs to gross loans slightly declined to 14.1% by December 2021 due to commercial banks' intensification of loan recovery efforts (CBK, 2022). Kenya Bankers Association (2020) noted that NPLs remained at a double-digit fraction of gross loans of 12.6% by the end of 2019, almost the same as 12.7% of the previous year. Though the banking system was adequately capitalized, which is an implication that the banking system had the sufficient loss-absorbing ability to wither market shocks without triggering systemic instability, the ratio is way above the CBK recommended threshold of 5% and below. Bank stability would promote the

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sustainability of economic growth, productive employment, and decent work. CBK (2019) noted that banks are expected to accelerate the attainment of Social Development Goals (SDGs) by alleviating poverty by mobilizing savings and transforming them into investments through a loaning system. Further, a well-regulated and transparent banking system provides debt financing critical in implementing the SDGs. Commercial banks are also crucial in realizing African Agenda 2063 through the flow of money in the economy for prosperity. Banks are at the center stage of attaining Kenya's Big Four Agenda. They are expected to facilitate the flow of money from the government to its citizens and back to the government through taxation and prices for public services. The banking sector's failure would lead to the economy's downfall.

## 1.2 Problem Statement

The profile of commercial banks in Kenya partly a healthily performing sector. These banks operate in an economy underpinned by diversity and sound economic policies. The sector is regarded as stable, resilient with healthy capital adequacy ratios 18.9% against the minimum requirement by central banks on 14.5%, liquidity of approximately of 50.8% against a statutory level of 20% (Central Bank of Kenya, 2022). Commercial bank Lending happens in an economy where credit information sharing framework is under focus, to support and enhance the effectiveness of Credit information sharing in pricing of credit and expanding access to credit. CBK has continued to caution and remind commercial banks to consider (among others) borrower's credit scores in lending decisions. The rationale for this is that the nonperforming loan continues to rise. In the last decade, loan performance had declined by over 185%.

The global economy analysis indicated that the average global percentage of non-performing loans to gross loans in 2020 stood at 5.86%, with the highest value reported in San Marino at 63.51 % and the lowest value in Macao at 0.35%. The ranking was based on 102 countries. (World Bank, 2021).

Over the last decade, African banks have struggled with numerous non-performing loans (NPLs), although they have not led to structural damage to their balance sheets. Global Financial Stability Report noted that NPLs in Africa stood at 10.99 % in 2019, three times higher than the global average of 6.45% and were projected to increase significantly in the wake of the Covid-19 pandemic. The average for 2019 was based on 23 countries, with the highest value reported in Equatorial Guinea at 48.81% and the lowest value in Lesotho at 3.3% (World Bank, 2020). According to the World Bank (2018), Burundi had the highest NPL ratio of 17.4 % in June 2017, trailed by Kenya (11%), Tanzania (8.2%), and Rwanda (8.2%), while Uganda had the lowest NPL ratio of 6.2%. The spike in risky debts was linked to a challenging business environment brought about by rising inflation, political uncertainty, a weak economy, and low-interest rates. When a borrower fails to honor repayments, commercial banks at times resource to security seizures. Statistics released by CBK in 2021 showed that thousands of borrower properties had been flagged for auction. Banks went slow on property seizure in 2020 due to the

moratorium given by the CBK (regulator) on loans due to COVID-19 Pandemic. However, after the moratorium was lifted in March 2021, the debt recovery mechanisms were stepped up. From March 2021, the properties on auction and sale in the Daily Newspaper fills up between six to ten pages daily, reflecting the intensity of property recovery due to defaulted loans from commercial banks. In a record month, August 2021, KCB repossessed 28 vehicles from loan defaulters, NCBA 90, Family Bank 30, Cooperative Bank 50, Gulf Bank 23, and HF group 12 parcels of developed land, among others. The auctioneer's adverts grow by over 75% between 2016 and 2021 lone (301 to 526). The ratio of NPLs in Kenya was more than twice the global average. This is a cause for great concern (World Bank, 2021). In the context of financial intermediation point that loan performance can be a function of a number of factors including, borrower practices, lender practices or loan processing practices. In a weak regulation environment predatory practices of the borrower or the lender would negate effects towards enhancing loan performance. This would inherently negate he efforts and contribution of the sector towards shared prosperity as enshrined in the Sustainable development Goals (SDGs) and further threatening their role of financing the transition towards a sustainable, low carbon economy in both developed and emerging markets.

## 1.3 General Objective

The general objective of the study was to examine the influence of predatory borrower practices on loan performance among commercial banks in Kenya.

## 2. Literature Review

### 2.1 Theories

#### 2.1.1 Theory of Consumerism and Leisure Class

Thorstein Veblen first proposed this notion in 1899. Chappelow (2019) noted that consumerism is an idea of increasing consumption of goods and services as a sign of a person's well-being and happiness which depends fundamentally on the acquired consumer goods and material possessions. It is linked to Keynesian's notion that consumer spending is the economy's primary driver and that encouraging people to spend is a primary governmental goal of growing the economy. In this view, consumption is a beneficial phenomenon that promotes economic growth. Consumerism is a term used to describe a tendency among people living in a capitalist system to indulge in an excessive materialistic lifestyle centered on reflexive, wasteful, or conspicuous over-consumption. In this sense, consumerism is widely recognized as contributing to the erosion of traditional values and ways of life, consumer exploitation by big businesses, environmental damage, and severe psychological consequences. Reeves (2019), in his post on why consumerism is not a sellout if capitalism works for everyone, mentioned that one of the complaints of consumerism is financial mismanagement which has a direct influence on personal finances since people buy many things for the present use and mainly on debt and put too little money down for the future. World Bank (2019) report

indicated that many people spend a considerable portion of their income on household consumption, which does not generate revenue. When old age needs come, and without a steady source of income, the victims borrow to sustain self-induced lavish lifestyles. Lenders tend to take advantage of such desperate people by advancing their credit at unfair terms that could easily lead to loan default. This theory alluded to the possibility of predatory loan practices being triggered by the borrower's conspicuous consumption & display of social status, and lack of proper preparedness for future life. Borrowers could seek loans purportedly for productive reasons but use them for sustenance or finance their self-induced lavish spending, which is way beyond their means. These loans have a high chance of being defaulted since they do not generate income to repay themselves. This theory supported the objective of assessing the influence of borrower's practices on loan performance among commercial banks in Kenya.

## 2.2 Information Asymmetry Theory (IAT)

In financial intermediation, the volume and number of business transactions executed are a function of profitability. The major source of income from commercial banks is interest income from loan advanced. The lender and the borrower do not necessarily have a shared screen on "interest" and hence information asymmetry. Akerlof propounded this theory in 1970, also known as information failure, which occurs when one party to an economic transaction possesses more excellent material knowledge than the other party (Akerlof & Shiller; 2018). This usually occurs when a product or service supplier has more information about the product than the consumer. On the other hand, the borrower may have significantly more knowledge about his financial situation than the lender. The likelihood of a borrower's default may be unknown to the lender. To some extent, the lender will try to offset this risk by looking into the borrower's previous credit history and proof of a steady income. This, however, only provides a limited amount of information. As a result, lenders will demand higher interest rates to compensate for the risk. Banks would not need to impose this risk premium if all information they needed about the borrower was flawless.

Lenders usually deal with agency issues by requesting collateral to offset the loss in the case of default or by looking into the borrower's ability to repay. Collateral requirements are frequently troublesome, particularly in developing nations and new businesses and SMEs, which often lack sufficient assets technically recognized as acceptable collateral. Furthermore, the expenses of seizing and liquidating assets used as collateral for lenders can be substantial, and the procedure can be lengthy. One strategy to mitigate the effects of asymmetric information is to monitor and screen borrowers' behaviour. Previous conduct is a good predictor of future behaviour (World Bank, 2019). This theory brought out the possibility of banks incorporating unfair terms and rates on loans to cushion themselves against uncertainties and the possibility of borrowers being unable to repay their loans by the due dates. Unreasonable terms and rates, such as balloon payments, inflated fees, and pre-payment penalties, are predatory. Information Asymmetry Theory, therefore, supported the

objective that explored the influence of loan processing practices on loan performance among commercial banks in Kenya.

## 2.3 Empirical Literature

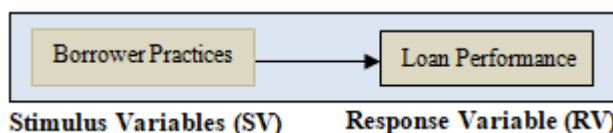
Many pieces of research have been done on borrower's practices and their influence on loan performance among financial institutions. Some of the borrowers' practices identified to influence loan performance include; loan refinancing, multiple borrowing, asymmetric information, opportunistic behaviour of borrowers, defaulting strategically, marital status, low education, lying about monthly income, diversion of cash, poor loan use, nature of business, diversion of funds, repayment schedule, age of borrowers, loan repayment pressure, pressure and ill-treatment from loan officers, ability to pay, additional up-front loan origination costs and financial literacy. Mia (2017) conducted a study on what causes multiple borrowing in microfinance based on the developing country's experience. After examining some factors of multiple borrowing, he found out that the leading causes of multiple borrowing, from supply-side factors, included the increased number of operating MFIs, aggressive business expansion, institutional leakages, high penetration rates, and uneven distribution of MFIs across the country. Furthermore, borrowers tended to use multiple loans for consumption purposes, significant investments, and repayment of previous loans. Households and individual characteristics were contributors to multiple borrowing in the microfinance industry. He noted that multiple borrowing could be severe for the poorest in society, while other more affluent borrowers could adequately manage the funds and prosper in their business endeavors.

Agarwal et al. (2015) found out that borrowers with previous refinancing experience were less likely to wait too long before refinancing again. The concern was that refinancing provides short-term relief, but in the long run, the borrowers may end up paying higher loan costs since every refinancing is treated as a new loan. Some lenders also charge a prepayment penalty for loans redeemed before the agreed period. Sakyi et al. (2019) examined the impact of multiple borrowing on loan default based on evidence from small and medium enterprises (SMEs in Ghana). The results showed that borrowers with multiple borrowings were more likely to default. Information asymmetry, according to Bofondi and Gobbi (2003); Bofondi and Ropele (2011); Makri, Tsagkanos & Bellas (2014), leads to adverse selection, in which high-quality borrowers were displaced by low-quality borrowers, resulting in degradation in the cumulative quality of bank loan portfolios, buildup of non-performing loans, decreased profitability, and capital depletion in the long-term. Trautmann (2013) studied the impact of bank and borrower fundamentals on borrowers' loan repayment behavior. He found that solvent borrowers were more likely to default strategically when stricter disclosure rules create common knowledge about bank weaknesses. He further noted that borrowers were less likely to repay during economic downturns, which were characterized by uncertainty regarding borrowers' financial health regardless of the disclosure rules. For the individual borrower, loss aversion and negative past experiences reduced repayment,

suggesting that bank failure could be contagious in distress. Yeboah & Oduro; 2018 in their study also found that borrowers should also be informed about the effects of diverting cash to non-profitable initiatives. Another study done in Micro Finance Institutions in Shah Alam Selangor, Malaysia, found that the nature of business, diversion of funds, repayment schedule, and age of borrowers contributed to loan default. Uma & Mariadas, 201. Afroze (2014), in his article on multiple borrowing through Microcredit and its impact on loan repayment in Bangladesh, found out that a noticeable portion of the Microcredit borrowers (71% of the respondents) were involved in multiple borrowing. Sarker (2013) found that customer pressure caused loan officers to recommend big-sized loans to clients without proper due diligence. As a result, poor clients were forced to get more loans from other financial institutions to repay the loans at hand, making them over-indebted. The cycle created an environment where clients could not repay the loans, eventually putting them into debt traps. Musabwasoni et al. (2018) did a study in Rwanda on the effects of financial literacy on loan repayment among small and medium entrepreneurs of microfinance institutions: a case study of Inozamihigo Umurenge Sacco in Nyaruguru District and found a high positive correlation between bookkeeping, budgeting, debt management literacy, and loan repayment. Kariuki and Muturi (2017), in their study on the effect of financial literacy on loan repayment found that financial negotiation, budgeting, debt management, and bookkeeping literacy had a significant and adverse relationship with the probability of a respondent delaying loan repayment.

## 2.4 Conceptual Framework

The study's conceptual framework is based on the borrower practices (as the predictand and loan performance (NPL/Gross Loans, number, frequency and amount of nonperforming loans) as the measure of response variable.



**Figure 1:** Conceptual Framework for Predatory Borrower Practices and Loan Performance

## 2.5 Research Gaps

The current study incorporated factors considered in past studies but with contextual, conceptual or methodological gaps. The factors considered in this study include; loan restructuring, loan flipping, multiple loans, false disclosures/representations, inconsistent repayments, multiple loans, loan processing period, expensive voluntary loans, loan flipping appetite and financial literacy gap. This study sought to assess the influence of these factors on loan performance among commercial banks in Kenya.

## 3. Research Methodology

### 3.1 Research Design

This study adopted principles of positivism research philosophy; phenomenism, objectivism, deductivism and inductivism and adopted a descriptive research design Koshy (2010); Mertens (2010); Sekaran & Bougie (2010). The unit of response was the head office bank managers; office branch manager, branch operations manager, sales manager, credit manager, relationship manager and risk managers. The unit of analysis was the thirty nine (39) commercial banks in Kenya licensed as at December 31, 2022. Two hundred and thirty four (234) respondents were therefore included in the study. Based on market share analysis, nine (9) are large peer group with 75.14% of the market share, eight (8) are in medium peer group with 16.29% of the market share and twenty two (22) are in the small peer group of commercial banks with 8.58 % of the market share (CBK,2022). A census approach was taken since the population was regarded as small (Bryman, 2012).

A structured questionnaire was used in the collecting primary data and a collection sheet in the case of secondary data. The questionnaire assumed the equivalences of strongly disagree (1) on one side with a scale, followed by disagree (2), neutral (3), agree (4) and strongly agree (5) on the other side of the scale (Charandrakandan, Venkatapirabu, Sekar & Anandakumar 2011). For the purpose of triangulation, secondary data collection sheet too was designed to further measure the variable loan performance using a different method. The study utilized the Statistical Package for Social Sciences (SPSS) version 21 in data analysis process. SPSS was preferred owing to its systematic capabilities on a wide range of statistical analyses and presentations (Porter & Gujarat, 2009).

### 3.2 Reliability of Instrumentation

This was carried out to assess the internal consistency using Cronbach Alpha Coefficient. Cooper and Scheduler (2011) and Bonett and Wright (2015) affirmed that dependability, consistency, stability of a tool is critical before its application in data collection. They note that Cronbach Alpha Coefficient is among the most widely used tool to assess the instrument for internal consistency.

**Table 1:** Reliability test Results

Variable	Number of Items	Cronbach Alpha Coefficient
Borrower Practices	10	0.675

The results of internal consistency test are presented in Table 1. The results in this Table show that reliability of this construct using Cronbach was 0.675. Several researchers; Salkind (2017) , Delpont and Roestenburg (2011), Mertens, (2010). Bonett and Wright (2015) , opine that Cronbach's coefficients of 0.7 should be acceptable as a rule of thumb to indicate a threshold for acceptable level of stability assessment. These findings indicate that construct measure retained had high internal consistency. This level of construct measure reliability of 0.960 is well above threshold set by Zikmund, Babin, Carr & Griffin (2010) ,

Bryman (2012), Cooper & Schindler (2011), and Koshy (2010).

### 3.3 Data Analysis and Presentation of Results

Data analysis was carried in a systematic and step by step process; data coding, data entry and then data analysis. The eleven (11) parameters' mean and standard deviation were generated for preliminary evaluation. Secondly, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy generated to evaluate the parameters suitability for factor analysis. Further, Confirmatory Factor analysis (CFA) was done using varimax, orthogonal rotation technique. Total Variance Explained, Scree Plot and Rotated Component matrixes were extracted. This was followed by test of regression assumptions and finally inferential analysis. Hypothesis testing was done using Bivariate Linear Regression (BLR) model. Model R-Square, ANOVA statistics (F Statistic and associated p-value) and regression coefficients (Beta and associated p-value) were extracted. The equation used in this study was in the form;  $Y/\text{Loan Performance} = \alpha + \beta_1 + \epsilon$ ; where loan performance (LP) is (regressand) and  $\beta_1$  is borrower practices (regressor). This equation is supported by Montgomery, Peck, & Vining, 2001; Garson, 2012; Argyrous, 2011).

## 4. Findings & Discussions

### 4.1 Response Rate

**Table 2: Response Rate**

Bank Size	Questionnaires Distributed	Questionnaires Received	% Response
Small Bank	126	96	76.19
Medium Bank	54	48	88.89
Large Bank	54	46	85.19
<b>Total</b>	<b>234</b>	<b>190</b>	<b>81.20</b>

A total of 234 (54 to large commercial banks, 54 to medium size commercial banks and 126 to small peer commercial banks) questionnaires were distributed to the three peer category bank. One hundred and ninety (190) questionnaires were totally filled and returned; 96 from large peer commercial banks, 48 from medium size peer commercial banks and 46 from small peer commercial banks. In total 190 questionnaires were filled and returned giving a composite response rate of 81.2%. This was deemed as an adequate response rate. Therefore, the response rate was regarded good for this study; an indicator that the results are generalizable and inferences could be drawn from the analysis. The response rate was attributed to anonymity and self-administration of the instrument. (Charandrakandan, Venkatapirabu, Sekar & Anandakumar, 2011)

### 4.2 Drivers for Borrower Practices

Confirmatory Factor analysis was carried out on the ten (10) statements measuring borrower practices. The objective of conducting factor analysis was to evaluate the associated factor loadings for each of the parameter measuring the variable (Costello & Osborne, 2005; Uma & Mariadas, 2017).

#### 4.2.1 Test for Sampling Adequacy for Borrower Practices in Commercial Banks

In order to check if the nine (9) statements used to measure financing practices were correlated or factorable, test of sampling adequacy was done and the results are presented in Table 3

**Table 3: Results for Test for Sampling Adequacy for Borrower Practices**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.533
Bartlett's Test of Sphericity	Approx. Chi-Square	83.651
	Df	45
	Sig.	0.000

The results in Table 3 show that the KMO value for borrower practices was 0.533 which was above the minimum threshold of 0.5. This statistic point that the ten (10) statements used to measure borrowing practices were adequate and factorability. In addition, the results show that the Bartlett's Test of Sphericity show a Chi-square (83.651), df (45), Sig. (.000). These statistics imply that the statements measuring financing practices are highly related and the hence suitable for structure detection in the Confirmatory Factor Analysis. Based on the test results of factorability, this study confirmed that further analysis could be conducted on factor analysis on the predictor variable borrower practices. (Brett, Ted & Andrys, 2010, Costello & Osborne, 2005)

#### 4.2.2 Total Variance Explained for Borrower Practices in Commercial Banks

After confirming the factorability of borrower practices, the next feature of interest was to evaluate how strong the ten (10) parameters measuring borrower practices were in the measurement of the stimulus variable. As a result, the next factor analysis output generation for this predictand was Total Variance Explained (TVE). Both extraction sums of Squared Loadings and the rotation sums of squared loadings values were generated. The results are presented in the Table 4. Tables 4 represent the distribution of the variance after the varimax-orthogonal rotation of the borrower practices.

**Table 4: Total Variance Explained- Borrower Practices**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.368	73.683	73.683	7.368	73.683	73.683	7.288	72.882	72.882
2	1.045	10.449	84.132	1.045	10.449	84.132	1.125	11.250	84.132
3	.819	8.194	92.327						
4	.302	3.024	95.351						

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
5	.113	1.132	96.483						
6	.107	1.075	97.558						
7	.102	1.021	98.579						
8	.091	0.909	99.489						
9	.051	0.512	100.000						
10	3.058E-16	3.058E-15	100.000						

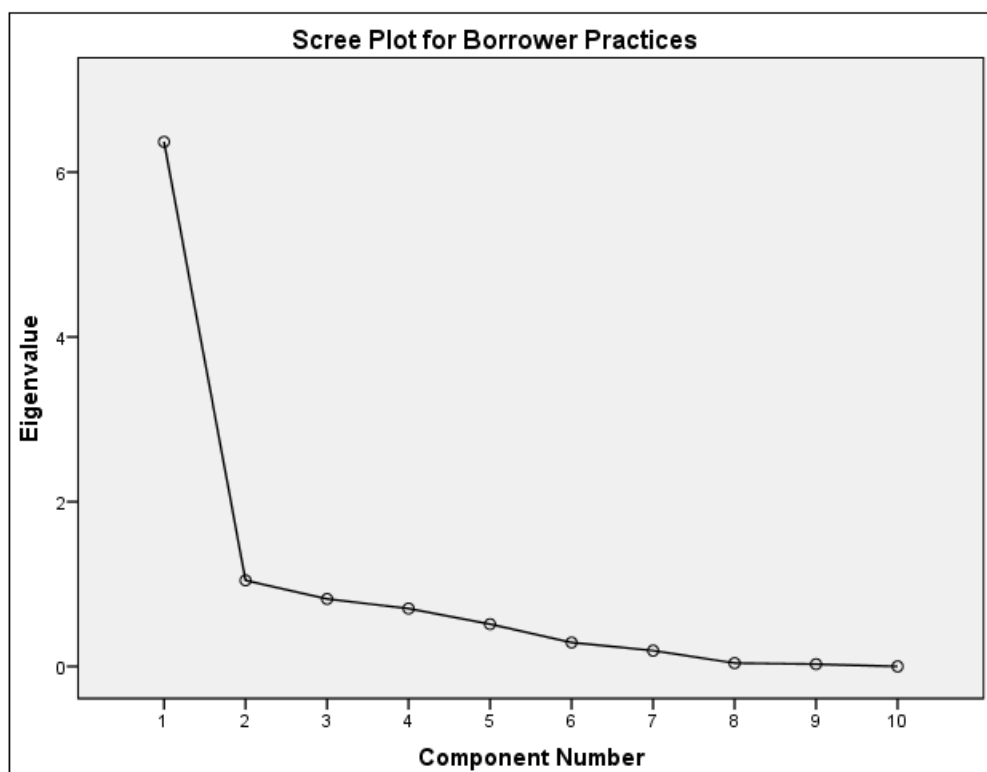
**Extraction Method: Principal Component Analysis.**

Table 4 shows that component two (2) to components had Eigen values of 7.368 and 1.045 respectively and in total accounting for a total variance Rotation Sum of Squared Loadings (RSSL) of 84.132%. The variance explained is a greater than minimum threshold recommended threshold TVE is 60%. These results imply that the two (2) components are adequate for measurement of borrower practices variable as the total variance explained (TVE)

(Tabachnick & Fidel, 2012; Brett, Ted & Andrys,2010, Costello & Osborne, 2005).

### 4.2.3 Scree Plot for Borrower Practices

In order to visually evaluate how many factors to retain for sustainability for further analysis, a scree plot was generated for the ten (10) statements. The results of scree plot result are presented in Figure 2.



**Figure 2:** Scree Plot for Borrower Practices

Figure 2 shows a downward curve with a leveling-off (elbow) between component one (1) and component two (2). Further, the plot shows that beyond component two (2), all the other components, which are component three (3) to component ten (10), had Eigen values less than 1.00. These results show that largely only two (2) components were generated by the analysis for the variable borrower practices. Figure 4.6 implies that out of the ten (10) statements used to

measure borrower practices, all could be reduced to two (2) components. (Tabachnick & Fidel, 2014).

### 4.2.4 Rotated Component Matrix for Borrower Practices

In order to evaluate the constructs for borrower practices, two components were generated, and the results of varimax orthogonal rotation are presented in Table 5.

**Table 5:** Results of Rotated Component Matrix for Borrower Practices

		Rotated Component Matrix <sup>a</sup>	
		Component 1	Component 2
BP9	Loan processing costs are usually not a key consideration to our potential loan customers	.960	
BP7	We receive pressure from customers to process loans faster than our processes could allow	.960	
BP1	Customers apply for or request for refinancing loan before fully payment of an existing loan	.928	
BP3	We experience cases where the customers out-rightly make false disclosure in a loan application form(s)	.839	

BP4	We experience customers who fail to honour loan installments even if they can afford to pay.	.795	
BP6	Some defaulting customers are noted to have multiple loan products concurrently running.	.755	
BP8	Our customers are willing to pay higher interest rates for shorter period processed loans	.576	.554
BP10	Our defaulting customers appear to have financial literacy gaps	.517	
BP2	Customer(s) can apply for several loan products as long as they demonstrated ability to pay		.884
BP5	Experience has shown that there are customers who divert loan funds from initial purpose(s)		.713

The results in Table 5 show that, seven statements were retained for measurement of the variable. Statement (BP8) was dropped for cross loading between component one and component two. Statements (BP2) and (BP5) were also dropped as they were deemed too few to constitute a solid cluster of constructs. The borrower practices hence were measured on statements that had factor loadings from a high

of 0.960 to a low of 0.517. Nine of the statements had factor loading below the threshold factor loading of 0.4. Based on this analysis, borrower practices were measured using one component and seven (7) statements. The remaining measures were re-assessed for reliability and the result are presented in Table 6.

**Table 6: Reliability of Drivers for Borrower Practices**

Scale Item	Number of Items	Cronbach's alpha	Number of Items	Cronbach's alpha
	Before Factor Analysis		After Factor Analysis	
Borrower Practices	10	0.675	7	0.960

Table shows that Cronbach coefficient alpha improved from a low scale of .675 to a high of .960, implying that factor analysis effectively also improved the reliability of the constructs used in the measurement of borrower Practices.

### 4.3 Test of Regression Assumptions

Shevlin and Miles (2010) stated that before data analysis is done, it is important to assess a number of statistical assumptions about the distribution of the dependent variable and the properties of the variables in general. The assumptions are basically on the response variable distribution and that of the residuals distribution.

#### 4.3.1 Test of Normality for Loan Performance

Loan performance (LP) was measures using both primary data and also secondary data for the years 2017-

2021. Average LP measures were computed for the five years and termed as "secondary measures of LP". The primary data measuring loan performance was also weighted for the four (4) parameters used to measure the same: the number of non-performing loans, the frequency of reported non-performing loans, the amount of non-performing loans reported, and finally, the number of branches reporting non-performing loans. The resulting scores were labeled loan performance (primary data measures). The third measure computed for the measurement of loan performance was a composite measure computed by weighting the primary measure scores for loan performance and the secondary measure score for the loan performance. The same was labeled "weighted loan performance" measures. The Kolmogorov-Smirnov and Shapiro-Wilk statistics for numerical tests of normality for LP are presented in Table 7.

**Table 7: Normality Test for Loan Performance Measures**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
LP: Primary data Measure	.160	36	.200*	.955	36	.152
LP: Secondary Data Measures	.144	36	.159	.938	36	.143
LP: Weighted Measures	.133	36	.111	.958	36	.184

**a. Lilliefors Significance Correction: \*. This is a lower bound of the true significance.**

Table 7 shows that the statistics are insignificant with p-values of Kolmogorov – Smirnov coefficients of .200\*, .159 and .111 respectively for the three (3) measures of loan performance, that is, primary data measures, secondary data measures and the weighted scores, respectively. Similarly, the Table shows that the coefficient of Shapiro –Wilk statistics were .955 for the case of primary data measures, .938 in the case of secondary data measures and .958 in the case of weighted score for loan performance. These three statistics indicate that the three measures of loan performance were normally distributed in general, implying that the data was adequate for a linear regression subject to satisfactory tests of other assumptions (Shapiro & Wilk,1965; Garson 2012)

#### 4.3.2 Test of Autocorrelation

The test of independence for each of the study variables was carried out using Durbin-Watson *d* statistics. A Durbin-

Watson *d* statistics of 1.963 was extracted. This was within the recommended range of 1.5 and 2.5 for an acceptable level of no autocorrelation in a variable measure. Based on these results, it implies that the assumption of absence of autocorrelation among the study variables in an inferential model was achieved for the tested study variables based on the Durbin Watson test of independence of observations (Shevlin & Miles 2011;. Porter & Gujarat 2009)

#### 4.3.3 Test of Linearity

The stimulus variable (borrower practices) and the response variable (loan performance) were subjected to a linearity test using Pearson's correlation coefficient (*r*). The rationale behind this test was that before applying a linear model for inferential analysis, test of linearity among independent and dependent variables should be carried out (Gujarati and Porter, 2009). A correlation coefficient of 0.563\*\* was generated at p-value of .000. These statistics implied that

indeed a linear relationship existed between borrower practices and loan performance. Bivariate linear model was deemed appropriate for inferential analysis. (Shevlin & Miles 2011).

**4.4 Inferential Results**

In order to assess the influence of borrower practices on loan performance among commercial banks in Kenya, the following null hypothesis was tested by the study.

*H<sub>01</sub>: Predatory borrower practices do not have a statistically significant influence on loan performance among commercial banks in Kenya.*

So as to test the null hypothesis, (H<sub>01</sub>) weighted scores of borrower practices were regressed against weighted measures of loan performance. Model summary, ANOVA and regression model coefficients output were generated and the results presented in Table 8, Table 9 and Table 10 respectively.

Model Fitness results were presented in Table 8 below.

**Table 8: Model Fitness for Predatory Borrower Practices and Loan Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.563a	.317	0.297	0.83836

**Table 10: Regression of Coefficient for Predatory Borrower Practices**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	-3.702	.942	-3.931	.000
	Borrower Practices	1.100	.277		

a. Dependent Variable: Loan Performance transformed

Table 10 shows that borrower practices have beta coefficient of 1.100 and associated p value of 0.000. This implies that a unit change in borrower practices is associated with a 1.100 change in loan performance in commercial banks in Kenya. The resistant Bivariate Linear Model for the borrower practices will be in the form;

*Loan Performance = -3.702 + 1.100 (Borrower Practices).....Model 1*

These findings agree with a study on loan defaults and non-performing loans jeopardizing Credit Unions' long-term viability in Nigeria. The study found that marital status, low education, lying about monthly income, diversion of cash, and poor loan monitoring techniques were all critical factors contributing to loan defaults. According to the study, Credit Union members who obtain loans should be encouraged to work hard and manage their money wisely to earn enough money to repay the loans. They should also be told not to use the money they borrowed for purposes other than intended (Yeboah & Oduro 2018). On the other hand, these findings vary from a study by Twesige et al. (2021), which sought to determine the causes of loan defaults within microfinance institutions in Kigali, Rwanda, found that loan

Table 8 shows that the R was 0.563. This implies that borrower practices had a moderate correlation with loan performance in commercial banks in Kenya. In addition, the R-Square was 0.317. This implies that borrower practices accounted for approximately 31.7% of the variations in loan performance among commercial banks in Kenya. The model in Table 8 was further examined for its significance borrower practices in predicting loan performance using ANOVA. The results for ANOVA for borrower practices and loan performance are presented in Table 9.

**Table 9: ANOVA Output for Predatory Borrower Practices**

		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.103	1	11.103	15.797	.000b
	Residual	23.897	34	.703		
	Total	35.000	35			

Table 9 show that F statistic of 15.797 and the associated p-value of 0.000 < .05. This implies that the borrower practices have statistically significant influence on loan performance among commercial banks in Kenya at a 95% confidence level. Based on these results the Null hypothesis (H<sub>01</sub>) that stated: borrower practices does not have statistically significant influence on loan performance among commercial banks in Kenya was rejected and instead confirmed that borrower practices have a statistically significant influence on loan performance in commercial banks in Kenya. Regression coefficients of borrower practices and loan performance are presented in Table 10.

delay, loan shortage, loan deviation, interest rate, improper management, and business environment significantly impacted loan performance. The researcher recommended that entrepreneurs be trained on financial discipline and managing loan finance before loan disbursement.

**5. Conclusions and Recommendations**

**5.1 Conclusions**

The ANOVA statistics for borrower practices had an associated p-value of p=.000 < p-value of .05. Based on this, the associated objective's null hypothesis was rejected. This study therefore concludes that indeed, at 5% level of significance, there is a positive and statistically significant relationship between borrower practices and loan performance among commercial banks in Kenya. In addition, the study concluded that in terms of predatory finance theory, borrower practices contribute to the rising rate of nonperforming loan in the commercial banks in Kenya. Some selected practices by borrowers at the point of loan application and subsequent loan refinancing and/or loan restructuring, there are indicative attributes of possible loan



default. However it appears that commercial banks do not consider these in their credit scoring tools. These could be the borrower-driven predatory practices of commercial banks.

## 5.2 Recommendations

The study recommended that commercial banks should progressively evaluate and actively consider borrower practices and profile in the credit scoring tools. These practices were found to have a statistically significant influence on loan performance. The Central banks of Kenya, as a regulator should enforce compliances with stringent and robust credit scoring tools in scoring and pricing of credit within the commercial banks. This will enhance a risk based pricing of loans in the banking sector. Some of the borrower behavior cut across several banks. As such credit information sharing (CIS) should incorporate the borrower practices so that the tendency to advance predatory borrowing is managed and effectively management the rising nonperforming loans among the commercial banking Kenya.

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