

Loan Repayment Period and Loan Performance in Microfinance Institutions in Nakuru City, Kenya

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Abstract: Microfinance institutions play a key role in any country's economic development. These institutions generate most of their income from interest on loans. However, they are exposed to different types of risks including loan default whose management would ensure their survival. Furthermore, they continue to face a rise in loan defaults leading to higher non-performing loan ratios estimated at 32.9%. The main objective of this study was to establish the influence of loan repayment period on loan performance in microfinance institutions in Nakuru City, Kenya. The study was anchored on Credit Default Theory and employed a descriptive survey research design. The study targeted 6 microfinance institutions and the unit of observation was 152 employees. Using statistical formula, a sample of 110 respondents was obtained which was allocated proportionately. Simple random sampling was then used to target the respondents in each of the microfinance institution. Data was collected using questionnaires. Before inferential analysis, the data was tested to ascertain that it met the various assumptions of regression. The study established that loan repayment period [$r=.774$] had a strong positive correlation with loan performance. Furthermore, the R-square value of 0.599 indicated that the loan repayment period explained 59.9% of variation in loan performance. The study concluded that loan repayment period was a significant predictor of loan performance.

Key Words: Loan Repayment Period, Loan Performance, Microfinance Institutions

1. Introduction

Microfinance institutions (MFIs) play a key role in any country's economic development since they provide credit facilities to borrowers (Karanja, 2019). MFIs generate most of their income from interest on loans. However, MFIs are exposed to different types of risk whose management would ensure their survival. One of the major risks faced by MFIs is loan default risk. According to Chege (2021), a loan is said to have been defaulted when the borrower fails to pay the principle after the first day when the loan instalment falls due. According to Lux and Tsolacos (2021), loan performance pose a credit risk to the lender and may lead to losses and financial constraints when the borrower completely fails to repay and efforts to recover the loan are futile. Furthermore, the borrower might end up been blacklisted and might end up unable to access credit facilities from formal financial institutions (Mwembezi & Lusanjala, 2019). In addition, their collateral end-up being sold in order to recover the loans advanced to them (Baidoo et al., 2020). Loan performance is influenced by many factors including institutional factors, borrower characteristics and loan- specific factors. While these factors vary on their impact on loan performance, Dangisso and Deyganto (2020) suggested that loan-specific factors critically affect loan performance.

Loan specific factors are usually contained in the loan offer that the loaner presents to the loanee and stipulates the loan, collateral type, purpose, amount offered, rate of interest, period of the loan, when the first installment will fall due and the subsequent installment dates (Baidoo et al., 2020). According to Li et al., (2022), if these terms are not sensitive to changes in the economic environment, loan default is bound to occur. MFIs are financial institutions that offer credit to would-be borrowers that enhanced financial outreach and sustainability. However, according to CBK (2024), there has been a rise in repayment defaults due to various macroeconomic shocks that have affected businesses and households' ability to repay loans leading to higher non-performing loan ratios estimated at 32.9% for microfinance banks, 11.6% for credit-only microfinance institutions and 6.2% for wholesale microfinance institutions. Similarly, the MFI subsector annual growth in gross loans contracted further by 7.3 percent, indicating low uptake of loans/disbursements. According to CBK (2024), MFIs face various risks including insurance risk arising from the nature of insurance contracts to receive premiums and offer protection against loss, market risk arising from adverse fluctuations in market interest

rates or asset prices resulting in overstating of assets or understating of liabilities and credit risk arises arising from loan defaults. Other risks include cyber security threats, political risks and risks arising from various global actions. However, credit risks stand as the one of the major risks to MFIs and thus managing various factors influencing loan performance would be of paramount importance to MFIs.

The length of the repayment period for loans has a considerable effect on the credit amount received. Longer loan repayment period provides more time for the beneficiaries to work with the loan, and the smaller the installment payments, the lower the repayment burden (Kiros, 2023). Therefore, longer repayment periods minimize the possibility of default and thus increase the likelihood of credit access. An important aspect to consider is usually the timeliness of loan dispersal. According to Owich and Mutswenje (2021), if a loan is released on time, it is unlikely that it will be diverted to non-intended purposes. They suggested that as the repayment period gets longer the probability that the borrower might be tempted to spend the income in the early duration or time of the project resulting in a potential struggle to make loan payments during later periods of the project. According to Kiros (2023), the shorter the repayment period, the higher the probability of loan repayment. Therefore, microfinance institutions should revise the policy of loan disbursement and loan collection as well as modernize loan tracking system using information technology to ensure timely collection of loans outstanding thereby sustaining the operation and outreach of the institution.

According to Murage (2021), flexible repayment of loans meant that they could service multiple loans at a time. They suggested that in the presence of low interest rates and flexible repayment periods, the loan performance of lending is assured. Additionally, they noted that the ability to pay loans without problems can be linked to the flexibility in repayment times. As noted by Kiros (2023), loans with short repayment periods discouraged the borrowers from borrowing due to immense pressure and the likely inability to repay. They suggested that long repayment periods are preferable since the borrower is able to stabilize their loan usage and income, the borrower is able to budget with consistent income and expenditure estimates and there is a higher likelihood that the borrower may use the loan amount for the intended use and thus meet the loan objectives. Furthermore, as argued by Murage (2021), the flexibility of the repayment period guided by the ability of the financial institution to renegotiate the repayment periods for existing loan in relations to the borrower's ability to repay enhances the reduction in loan default rates. Therefore, it can be suggested that the timeliness of loan dispersal, length of repayment and flexibility of repayment period would significantly affect loan performance.

2. Statement of the Problem

Ideally, microfinance institutions lend to borrowers after an evaluation process with an aim of earning from interest on loans with the expectation that loanees will not default. MFIs, however, continue to face loan performance challenges due to various factors leading to higher non-performing loan ratios estimated at 32.9% for microfinance banks, 11.6% for credit-only MFIs and 6.2% for wholesale MFIs (CBK, 2024). Since loan default weakens their financial operations and affects borrower credibility, various efforts have been put in places to reduce the problem include lending methodologies, screening mechanisms, pledging of collateral, third party credit guarantee, credit rating and use of collection agencies (Kwang'a, 2020). However, in order to determine the likelihood of a borrower to default the lender must estimate borrower's ability to pay back based on loan characteristics and the ability to incorporate these characteristics into the MFIs loan policies. Furthermore, according to CBK (2024), the microfinance subsector in 2023 compared to 2022 remains weak and vulnerable given its low level of key indicators. The report noted that the subsector annual growth in gross loans contracted further by 7.3% indicating low uptake of loans and or disbursements. Similarly, in the period under review, the loan default rate increased leading to an increase in provisions for bad debts which negatively affected the institutions. Furthermore, only four (28.6%) of the 14 licensed microfinance banks recorded profits. Slow growth in loans, increased default rate and reduced profitability therefore raises viability issues of these MFIs. The CBK (2024) report therefore concluded that credit risk remains elevated for MFIs which can be partially be attributed to loan default.

Studies have revealed family size, gender, marital status, business location and business age as determinants of loan performance (Umar, 2022; Maina, 2020). Other studies indicate consumer financial situations (Li et al., 2022), moral hazard problems, lack of proper monitoring, high lending interest rate, inadequate collateral and nepotism (Ghosh et al., 2020). In addition, studies suggest lack of collateral, complex loan procedures and high-interest rate influence loan performance (Dangisso & Deyganto, 2020). Other client-related factors include loan diversion, inconvenience of loan payback period, lack of financial skills and poor planning (Maina, 2020). Studies such as those of Kwang'a (2020), Karanja (2019) and Syomane (2019) suggested that loan size, loan repayment period, interest rates, mode of loan repayment and

loan supervision influence loan performance. While the reviewed studies (Umar, 2022; Li et al., 2022; Ghosh et al., 2020; Dangisso & Deyganto, 2020) indicate various loan characteristics have divergent effects on loan performance in diverse contexts, the reviewed studies have however not exclusively focused on loan repayment period in licensed MFIs in Kenya. Furthermore, there is little or no evidence in literature of studies that have pursued loan repayment period and how it influences loan performance. This study intended to fill this knowledge gap.

3. Objective of the Study

To determine the effect of loan repayment period on loan performance in microfinance institutions in Nakuru City, Kenya.

4. Literature Review

The study was anchored on the Credit Default Theory proposed by Merton in 1974. The theory postulates that the risk in loan repayment stems from the reality that repayment ability which varies with time. As time increases, there is a risk of change in the economic situation of the individual and general environment (Zeller, 2019). The unpredictable environment and economic conditions may inhibit the ability of the borrower to repay the loan. According to Frank *et al.*, (2020), delinquency occurs when a borrower is unable to make a loan payment by the due date caused by liquidity constraint over time. According to the theory, the risk in loan repayment stems from the reality that repayment ability which varies with time. According to Chege (2021), as time increases, there is a risk of change in the economic situation of the individual and general environment. According to Frank *et al.*, (2020), delinquency occurs when a borrower is unable to make a loan payment by the due date caused by liquidity constraint over time. Zeller (2019) proposed a causal framework where credit default theories can be systematically developed to examine the causes for loan default. The proposition was that credit default is caused by both delinquency and insolvency. Loan repayment period can therefore be seen as a source of a loan going bad and therefore can help in understanding the process of delinquency.

Previous studies have also investigated loan repayment period with varied findings. For example, Field and Rohini (2020) investigated repayment frequency and loan default in microfinance institutions in India. Their study used data from a field experiment which randomized client assignment to a weekly or monthly repayment schedule. The authors found no significant effect of type of repayment schedule on loan default. They further opined that that most microfinance contracts require that repayments start nearly immediately after loan disbursement and occur weekly thereafter. They suggested that the fiscal discipline imposed by frequent repayment in microfinance institutions is critical in preventing loan default. Furthermore, their study revealed that a more flexible repayment schedule can significantly lower transaction costs without increasing client default. Endris (2022) sought to analyze the loan repayment performance of Micro and Small- scale Enterprise (MSEs) in North Wollo Zone, Ethiopia. Their study employed a descriptive research design and targeted 336 sample using questionnaires. The authors revealed that repayment period and loan diversion negatively and significantly influenced loan repayment performance. Furthermore, the authors revealed that enterprise manager education level, collateral security, and financial literacy positively and significantly affected loan repayment performance. Their study recommended the need for lending institutions to have secure collaterals, align repayment schedules and enhance monitoring and supervision of loans.

Abu, Domanban and Issahaku (2020) sought to determine the factors which influence the probability of loan default and the rate of default in upper west region, Ghana. Their study employed a descriptive survey design and targeted 200 small scale entrepreneurs using questionnaires. Their study indicated that enterprise size, interest rate, loan duration, level of profit and loan amount were the simultaneous determinants of probability and rate of default. In particular, the authors argued that loan duration and loan amount were a significant predictor of probability of loan default and as such financial institutions should establish mechanisms of aligning loan amount and loan duration to borrower ability to repay. They further recommended the need for enhanced training programs aimed at enhancing managerial and technical capabilities and hence reduce defaults. Opa and Tabe-Ebob (2020) sought to establish the effects of loan default on profitability of commercial banks profitability in Limbe, Cameroon. The authors employed a quantitative research design and targeted 140 employees using questionnaires. The authors established that borrower character, capacity, collateral, condition, monitoring, screening, repayment maturity and interest rates were amongst the key indicators of loan default and hence greatly influence the banks profitability. They suggested that repayment maturity and interest rates which dictates the repayment period were the most significant factor while borrower capacity and collateral had the least effect on loan default. They therefore recommended the need to revise their interest rates and make them fairer to all clients, enhance monitoring systems and devising longer and sustainable repayment periods to ease loan repayment burdens.

On loan repayment, Field and Rohini (2020) found no significant effect of type of repayment schedule on loan default. Endris (2022) revealed that repayment period and loan diversion negatively and significantly influenced loan repayment performance. Abu et al., (2020) argued that loan duration and loan amount were a significant predictor of probability of loan default and as such financial institutions should establish mechanisms of aligning loan amount and loan duration to borrower ability to repay. Opa and Tabe-Ebob (2020) suggested that repayment maturity and interest rates which dictates the repayment period were the most significant factor while borrower capacity and collateral had the least effect on loan default. While these studies found contrasting evidence on the effect of loan repayment period, the fact that they were undertaken in a different context and did not solely focus on microfinance institutions therefore calls for more empirical research. We therefore proposed the following hypothesis:

H₁: Loan Repayment Period has statistically significant influence on Loan performance in Microfinance Institutions in Nakuru City, Kenya

5. Research Methodology

The study employed a descriptive research design since the design focuses on studying a situation or a problem in order to explain the relationships between variables. the target population of the study was all 6 MFIs and the unit of observation of the study was all 152 employees of these MFIs who actively participate in the entire loan processing, award and recovery process comprising debt recovery manager/officers, credit manager/officers, loans manager/officers, operations and finance manager. Using statistical formulae, a sample size of 110 respondents was obtained. A mixed sampling technique was then employed; firstly, proportionate stratified sampling was used to allocate the sample of 110 respondents in the 6 MFIs. Secondly, in each of the MFI, simple random sampling technique was adopted in targeting the respondents. A self-administered questionnaire was used to collect data. The instrument was piloted to ensure it was reliable and valid. Diagnostic test including linearity, normality, multicollinearity and homoscedasticity were undertaken. Data was analyzed descriptively and inferentially with the aid of Statistical Package for Social Sciences and the results presented in tables.

6. Research Findings

The descriptive findings for the independent variables and the dependent variables in terms of percentages, means and standard deviations based on a 5-point Likert scale where SD=Strongly Disagree, D=Disagree, N=Neutral, A=Agree and SA=Strongly Agree are presented in this section. The section also attempted to link the descriptive findings to the findings of other scholars who have investigated similar subject areas.

Loan Repayment and Loan Performance

The respondents were asked to state the level of agreement to various propositions on loan repayment period and loan performance and the findings are presented in Table 1.

Table 1: Descriptive Statistics for Loan Repayment Period

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev
Our MFI has clear timelines for repayment of each type of loans	0	2.4	17.1	56.1	24.4	4.02	.720
Timelines for repayment are usually subject to negotiation between the customer and the MFI	0	12.2	25.6	35.4	26.8	3.77	.985
Timelines are based on customer ability to service instalments	0	7.3	18.3	34.1	40.3	4.07	.940
Instalment size is determined based on the customer ability to repay	0	6.2	28	32.9	32.9	3.93	.927
Our MFI has documented mechanisms of review of loan terms where customers are unable to repay	0	2.5	29.3	40.2	28	3.94	.822
The review process is jointly agreed by the customer and MFI thus easing loan repayments	0	3.7	19.5	40.2	36.6	4.10	.840

From the findings in Table 1, the respondents (80.5%) agreed with the statement that their MFI had clear timelines for repayment of each type of loans [Mean=4.02, SD=.720]. The respondents (62.2%) also agreed that the timelines for repayment were usually subject to negotiation between the customer and the MFI [Mean=3.77, SD=.985]. The findings implied that MFIs had predetermined timelines for loan repayment and that these loan periods would be negotiated based on customer needs. Furthermore, the respondents (74.4%) agreed with the statement that timelines were based on customer ability to service instalments [Mean=4.07, SD=.940]. The respondents (65.8%) also agreed that instalment size was determined based on the customer ability to repay [Mean=3.93, SD=.927]. The findings on loan instalments implied that MFIs had predetermined instalment sizes negotiated based on customers abilities to service these instalments and based on customer repayment ability. Similarly, the respondents (68.2%) agreed with the statement that their MFI has documented mechanisms of review of loan terms where customers were unable to repay [Mean=3.94, SD=.822]. The respondents (76.8%) also agreed that the loan review process was jointly agreed by the customer and the MFI thereby easing loan repayments [Mean=4.10, SD=.840]. The findings on loan review therefore implied that MFIs had well documented loan review mechanisms covering situations where customers were unable to pay and that MFIs deployed a joint process with their customers when reviewing loan terms which enabled easier loan repayments. The findings mirror those of Endris (2022) who revealed that enterprise manager education level, repayment schedules, collateral security, and financial literacy positively and significantly affected loan repayment performance. The findings also are agreement with those of Abu *et al.*, (2020) who indicated that enterprise size, interest rate, loan duration, level of profit and loan amount were the simultaneous determinants of probability and rate of default. In particular, the authors argued that loan duration and loan amount were a significant predictor of probability of loan performance. Furthermore, the findings mirrored those of Opa and Tabe-Ebob (2020) who established that borrower character, capacity, collateral, condition, monitoring, screening, repayment maturity and interest rates were amongst the key indicators of loan performance and hence greatly in fluency the bank's profitability.

Measurement of Loan Performance

The respondents were asked to state the level of agreement to various propositions on loan performance and the findings are presented in Table 2.

Table 2: Descriptive Statistics for Loan Performance

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev
Customers pay all their loan dues on time based on the timelines and instalments given.	2.4	0	8.5	52.4	36.7	4.21	.797
Customer have low frequency of default in payment of their loan instalment payments.	2.4	2.4	13.4	59.8	22	3.96	.823
Our can customers can be rated as being among the low-level defaulters in terms of repayment.	0	6.1	20.7	47.6	25.6	3.93	.843
Whenever loans are defaulted, we keep the default level to the most minimum number of instalments.	2.4	4.9	22	45.1	25.6	3.87	.940
Our customers rarely default an amount equal to twice the size my monthly instalment.	3.7	1.2	20.7	34.1	40.3	4.06	.998
Defaulting on loans affects the credit scores and limits customers' ability to get large loans in future.	1.2	8.5	17.1	39	34.1	3.96	.987
Our customers rarely ask for any form of renegotiation on the instalment size.	0	4.9	18.3	36.6	40.2	4.12	.880
Our customers also rarely ask for any form of renegotiation on the repayment period	0	2.4	25.6	34.2	37.8	4.07	.858

From the findings in Table 2, the respondents (89.1%) agreed that customers usually paid all their loan dues on time based on the timelines and instalments given [Mean= 4.21, SD=.797]. The respondents (81.8%) also agreed that

customer had low frequency of default in payment of their loan instalment payments [Mean= 3.96, SD=.823]. The findings implied that MFIs had experienced low levels of frequency of loan defaults and that most customers general paid their instalments on time. Furthermore, the respondents (73.2%) agreed that their customers can be rated as being among the low-level defaulters in terms of repayment [Mean= 3.93, SD=.843]. The respondents (70.7%) also agreed that whenever loans were defaulted, the default level was kept to the most minimum number of instalments [Mean= 3.87, SD=.940]. The findings implied that MFIs had managed to lower their percentage of loan defaults significantly. Similarly, the respondents (77.4%) agreed that their customers rarely default an amount equal to twice the size my monthly instalment [Mean= 4.06, SD=.998]. The respondents (73.1%) also agreed that defaulting on loans affected the credit scores and limits customers' ability to get large loans in future [Mean= 3.96, SD=.987]. The findings on number of default renegotiations implied that though defaults were present, MFIs attempted to keep these levels as low as possibles so as manage loan defaults. Furthermore, the respondents (76.8%) agreed that their customers rarely asked for any form of renegotiation on the instalment size [Mean= 4.12, SD=.880]. The respondents (72%) also agreed that their customers also rarely asked for any form of renegotiation on the repayment period [Mean= 4.07, SD=.858]. This implied that customer credit scores had minimal changes based on the limited loan renegotiation.

Inferential Analysis

The study undertook inferential analysis through correlation and regression analysis. Correlation analysis is used to describe how two distributions of scores are related to each other and indicates the strength and a direction of the r relationship between variables. Regression analysis on the other hand is a statistical process of estimating the relationship between a dependent variable and one or more independent variables. The study undertook regression analysis between loan repayment and loan performance and the model summary findings are presented in Table 3.

Table 3: Model Summary

Indicator	Coefficient
R	.774
R Square	.599
Adjusted R Square	.594
Standard Error of the Estimate	.38485

On loan repayment period, the correlation (R) in Table 3 indicated that loan repayment period [R=.774] had a strong and positive correlation with loan performance in MFIs in Nakuru City, Kenya. This finding implies that an increase in the level of loan repayment period offered by MFIs would lead to a significant increase in the level of loan performance. The findings agree with those of Abu *et al.*, (2020) who indicated that enterprise size, interest rate, loan duration, level of profit and loan amount were the simultaneous determinants of probability and rate of default. In particular, the authors argued that loan duration and loan amount were a significant predictor of probability of loan default. Furthermore, the findings mirrored those of Opa and Tabe-Ebob (2020) who established that borrower character, capacity, collateral, condition, monitoring, screening, repayment maturity and interest rates were amongst the key indicators of loan performance and hence greatly in fluence the banks profitability. From the findings in Table 3, the R-square value of 0.599 indicates that the loan repayment period explained 59.9% of variation in loan performance in MFIs in Nakuru City, Kenya. Furthermore, in order to establish whether the fitted model, the study analyzed the ANOVA output arising from the regression analysis. Table 4 shows the analysis of variance (ANOVA) findings.

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.717	1	17.717	119.622	.000b
	Residual	11.849	80	.148		
	Total	29.567	81			

The findings in Table 4 indicated a statistically significant model (F= 119.622, p=.000). The finding therefore implied that the model can be used for infer relationships through hypothesis testing and can be used to test the significance of the parameter estimates of the model. The findings on the regression coefficients are presented in Table 5.

Table 5: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.532	.322		1.652	.102
Loan Repayment Period	.879	.080	.774	10.937	.000

From the findings in Table 5, it was established that holding all other factors constant, loan repayment period would cause a change in loan performance by a factor of 0.879 [B=.879, p=.000]. Further, using the regression coefficients in Table 5, the following specific model was developed as: $Loan\ Performance = 0.532 + 0.879Loan\ Repayment\ Period$. From the findings of the linear regression analysis, loan repayment period ($t = 10.937$, $p=.000<.05$), the null hypothesis was rejected and the study concluded that loan repayment period has a significant influence on loan performance. The findings tally with those of Opa and Tabe-Ebob (2020) who established that borrower character, capacity, collateral, condition, monitoring, screening and repayment maturity were key indicators of loan performance.

7. Conclusions and Recommendations

The study concluded that MFIs had clear timelines for repayment of each type of loans and that the timelines for repayment were usually subject to negotiation between the customer and the MFI. The study therefore concluded that MFIs had predetermined timelines for loan repayment and that these loan periods would be negotiated based on customer needs. Furthermore, the study concluded that timelines were based on customer ability to service instalments and that instalment size was determined based on the customer ability to repay. The study therefore concluded that MFIs had predetermined instalment sizes negotiated based on customers abilities to service these instalments and based on customer repayment ability. Similarly, the study concluded that MFIs had documented mechanisms of review of loan terms when customers were unable to repay and that the loan review process was jointly agreed by the customer. The study therefore concluded that MFIs had well documented loan review mechanisms and that MFIs deployed a joint process with their customers when reviewing loan terms. Finally, the study concluded that loan repayment period had a strong and positive correlation with loan performance and that loan repayment period was a significant predictor of loan performance. On loan repayment period, the study recommends the need for MFIs to diversify their sources of funding so as to enable widening of loan periods, reduction of loan instalment amounts and enhanced uptake of loans as a mechanism of enhancing loan uptake and reducing loan default.

References

- [1] Abu, B. M., Domanban, P. B., & Issahaku, H. (2020). Microcredit Loan Repayment Default among Small Scale Enterprises: A Double Hurdle Approach, *Ghanian Journal of Development Studies*, 14(1), 146-165
- [2] Baidoo, S. T., Yusif, H., Ayesu, E. K., & Mensi, W. (2020). Improving loan repayment in Ghana: does financial literacy matter? *Cognitive Economics and Finance Journal*, 8(1), 1-20.
- [3] CBK (2024). *Kenya Financial Sector Stability Report 2023*. Nairobi: Government Press
- [4] Chege, M. L. (2021). *Credit Management Practices and Loan Default in Agricultural Finance Corporation, Kenya*, (MBA Research Project, Kenyatta university)
- [5] Dangisso, M. Y., & Deyganto, K. O. (2020). Assessing the institutional outreach and sustainability of microfinance institutions in Ethiopia: Evidence from Omo microfinance institution Hawassa branch. *American Journal of Theoretical and Applied Business*, 6(1), 1-5.
- [6] Endris, E. (2022). Loan repayment performance of micro and small-scale enterprise: evidence from North Wollo Zone, Ethiopia, *Heliyon*, 8(12), e12085.
- [7] Field, E., & Rohini, P. (2020). *Repayment Frequency and Default in Micro-Finance: Evidence from India*. (MBA Project, Havard University)
- [8] Frank, B., Simon, G., & Josephine, M. (2020). Risk Management Practices adopted by Financial Firms in Malta. *Managerial Finance*, 40(2), 587-612.
- [9] Ghosh, R., Sen, K. K., & Riva, F. (2020). Behavioral determinants of nonperforming loans in Bangladesh. *Asian Journal of Accounting Research*, 5 (2), 327-340.
- [10] Karanja, J. (2019). Determinants of Loan Repayment Defaults in Microfinance Banks in Kenya, *International Journal of Social Sciences Management and Entrepreneurship*, 3(1), 97 - 109.
- [11] Kiros, Y. (2023). Loan repayment performance and its determinants: evidence from micro and small enterprises operating in Dire-Dawa, Ethiopia. *Journal of Innovation and Entrepreneurship*, 12(5), 1-9

- [12] Kwang'a, M. A. (2020). *Loan Characteristics and Repayment Performance at The Higher Education Loans Board in Kenya*. (MBA Thesis, Kenyatta University).
- [13] Li, H., Campbell, D., & Erdem, S. (2022). Measuring time preferences using stated credit repayment choices. *Journal of Quantitative Economics*, 20(1), 43–67.
- [14] Lux, N., & Tsolacos, S. (2021). Loan Characteristics as Predictors of Default in Commercial Mortgage Portfolios. *International Journal of Economics and Financial Research*, 7(71), 1-4. DOI: 10.32861/ijefr.71.1.4.
- [15] Maina, D. W. (2020). *Influence Of Members' Demographic Characteristics on Loan Default in Savings and Credit Co-Operative Societies in Kiambu County, Kenya*. (Master Thesis, The Cooperative University of Kenya).
- [16] Murage, M. (2021). Mobile loan frequency of repayment as a predictor of the financial performance of SMEs in urban informal settlements in Kenya. *African Journal of Empirical Research*, 2(2), 97-113.
- [17] Mwembezi, G. P., & Lusanjala, G. A. (2019). Determinants For Loan Defaults in Financial Institutions: A Case of Two Selected Institutions in Sumbawanga Municipality, Tanzania, *Tengeru Community Development Journal*, 6(2), 1-19
- [18] Opa, V. O., & Tabe-Ebob, W. T. (2020). *The Effects of Loan Default on Commercial Banks Profitability: Case Study BICEC Limbe, Cameroon*. (MBA Project, University of Buea)
- [19] Owich, M. A., & Mutswenje, V. S. (2021). Debt management and loan performance of commercial banks in Kenya. *International Academic Journal of Economics & Finance*, 3(7), 45-71.
- [20] Syomane, S. F. (2019). *Financial Institution Factors Influencing Loan Default by SMEs in Kitui Central Sub-County, Kenya*. (MBA Thesis, South Eastern Kenya University)
- [21] Umar, N, A. (2022). Examining the determinants of loan default among microfinance banks' borrowers in Kano State, Nigeria. *International Journal of Financial, Accounting, and Management*, 3(4), 335-347.
- [22] Zeller, M. (2019). Determinants of credit rationing: a study of informal lenders and formal credit groups in Madagascar, *World Development*, 22(12), 1895-1907.