Determinants of loan repayment performance: A study of microfinance institutions in Nepal

ID **Basu Dev Lamichhane**[1+]

ID **Amiya Bhaumik**[2]

ID **Achyut Gnawali**[3]

[1]*Tribhuvan University, Nepal, and Lincoln University, Malaysia.*
Email: basudev.lamichhane@smc.tu.edu.np
[2]*Lincoln University, 47301 Petaling Jaya, Selangor D. E., Malaysia.*
Email: amiya@lincoln.edu.my
[3]*Tribhuvan University, Kathmandu, Nepal.*
Email: achut.gyanwali@cdm.tu.edu.np

(+ Corresponding author)

ABSTRACT

The study's main goal is to empirically examine the association between loan repayment performance among microfinance institutions (MFIs) in Nepal regarding institutional characteristics (ICs), client characteristics (CCs), and loan characteristics (LCs). Further, the study emphasizes a causal relationship between the variables that directly corresponds with the regression research model for organic validity. For this, the researcher has chosen twenty Nepalese microfinance institutions along with 217 respondents for the study, respectively. The study found that institutional factors, client characteristics, and loan characteristics were positively and significantly associated with the loan repayment performance of Nepalese MFIs. The above-mentioned variables remain pivotal to determining the loan repayment performance of Nepalese MFIs, including institutional policy formation, loan and savings product design, and corporate culture formation for senior-level management. The results of the study will be effective for Banks and Financial Institutions (BFIs), Microfinance Institutions (MFIs), regulatory authorities, Human Resources (HR) analysts, and planners to take corrective actions to improve the repayment performance of MFIs for credit risk management.

Contribution/Originality: The originality and contribution of this article lie in its focus on determinants of loan repayment performance in Nepalese microfinance institutions. The study examines the relationship between ICs, LCs, and CCs and loan repayment performance. The study's findings will apply particularly to BFIs, regulatory institutions, MFIs, and economists.

1. INTRODUCTION

Among various banking systems introduced globally as well as nationally, microfinance programs differ from other traditional banking systems like commercial banking systems, merchant banking, and wholesale banking. Microfinance programs must be transparent, efficient, and sustainable to promote long-term economic development. Historically, the Nepalese government initiated reform in the financial sector in the mid-1980s with technical and financial assistance from the World Bank (2001). It had implemented a comprehensive financial sector reform program with the goal of creating an effective, competitive, transparent, disciplined, and sustainable banking sector to support the nation's economic growth (Budhathoki & Rai, 2020; Shrestha, 2004).

Hence, microfinance institutions (MFIs) are crucial to Nepal's economic development, regardless of the critical condition of loan recovery performance. Besides, women's economic empowerment has been largely supported by microfinance institutions, which provide them with company ownership, asset ownership, income, and living

standards. Microfinance is an effective technique for delivering financial services to the poor and disadvantaged groups that the formal sector has not covered yet. Microcredit serves both investment and household consumer needs (Dhakal, 2010). The poor and underprivileged members of society view microfinance as an effective way to provide a variety of financial services (NRB, 2018). Microfinance is a potent tool for women's social and economic empowerment. Furthermore, using microfinance institutions for credit, savings, and other essential services increases women's business metrics (Thapa & Chowdhury, 2022). It is a developmental intervention that gives microloans to poor and low-income people, helping them become self-sufficient through micro-savings and credit activities (Dhungana, 2013). Microfinance institution's (MFIs) are comprehensive to any country's economic success. Loans are the most important source of operating income in microfinance institutions, and they carry a higher risk (Ndung'u, 2014). MFIs provide social intermediation services such as group formation, confidence development, and money management skills to their group members (Ledgerwood, 1999). Microfinance is the provision of a wide range of financial services to underprivileged and low-income households and their micro enterprises (MEs), including deposits, loans, payment services, money transfers, and microinsurance (Conroy, 2002). Microfinance institutions (MFIs) can close the gap in the financial services industry by giving money to the poor and lower-income people, thereby reducing poverty and enhancing their economic activities. MFIs focus on assessing their clients to differentiate between creditworthy and non-creditworthy borrowers by looking at past credit histories, collateral, financial characteristics, and private information about local credit applicants (Lamichhane, 2022).

The loan is considered in default when the borrower fails to pay the principal and/or interest, or a portion of the principal (Phillips & VanderHoff, 2004). If the borrower does not make a payment on the first day the loan installment is due, the loan is said to have defaulted; if it is not repaid within 30 days, it is considered to have negative credit (Ndung'u, 2014). As a result, borrowers and institutions both suffer from loan defaults. When a borrower entirely defaults on a loan and attempts to collect the money become unsuccessful, bad loans pose a credit risk to the lender and may result in losses and financial constraints (Maigua, 2017). Poor economic conditions and high interest rates affect a borrower's ability to repay loans (Kibosia, 2012).

Negative loan repayment performance is critical while ensuring MFIs' sustainable performance in operation. Hence, the goal of this paper is to identify the factors influencing repayment performance in Nepalese microfinance institutions that use both a solidarity group guarantee called Grameen model microfinance and an individual lending approach. Repayment performance refers to the total amount of loans paid on time as stated in the loan agreement contract with microfinance clients. Maigua (2017) states that credit monitoring and effective control of non-performing advances are critical to the performance of any BFI and the financial environment of the economy. There is a credit risk involved with loans made to borrowers, and this might result in a financial crisis or other types of difficulties for the institutions. The future is never guaranteed. Loan repayment default can be either voluntary or involuntary, and it can cost lenders more money in the form of refinancing and loan recovery fees, which directly affect both the lender and the borrower (Muthoni, 2016). As a result, the microfinance sector's success directly proportional to loan repayment performance for outreach and financial sustainability.

The previous discussion highlights the absence of consistent research in the microfinance service sectors that assesses the relationship between institutional characteristics, client characteristics, and loan characteristics in relation to the loan repayment performance of microfinance institutions. Thereby confirming the objectives of the study and examining the major factors that affect the loan repayment performance of Nepalese MFIs.

Nepalese microfinance institutions (MFIs) offer financial services to the underprivileged to ease credit control and fight poverty. All of the aforementioned factors substantially correlate higher repayment rates with advantages for both the MFIs and the borrower (Dhakal, 2012). Institutional characteristics include credit monitoring, business training for credit officers, and effective knowledge of credit processes. On the other hand, low income levels, high loans and advances to borrowers, short loan repayment terms, and excessive debt lead to high loan default rates, which have a direct impact on loan repayment performance (James, 2019; Maigua, 2017). Higher loan ratios, deposit

ratios, profitability ratios, capital ratios, and steady inflation, in the opinion of depositors and investors, can boost banking sector profitability (Mishra, Kandel, & Aithal, 2021). Hence, the gravity of the study lies in evaluating the factors that influence loan repayment performance in Nepalese MFIs.

2. REVIEW OF LITERATURE

2.1. Determinants of Loan Repayment Performance of Microfinance Institutions

MFIs need to be sustainable and viable without government and donor financial support. Additionally, donors, practitioners, and consultants must use performance metrics to assess the effectiveness, viability, and outreach of microfinance institutions. The study continuously shows that many MFIs fail to achieve these aims, alongside providing financial services to the poor on a sustained basis, the MFIs themselves must be viable and sustainable (Llanto, Garcia, & Callanta, 1996). Besides, Microfinance institutions are still struggling with several issues, such as growing their customer base, maintaining high loan payback rates, keeping consumers, and reducing the opportunity for fraud in their branches (Roodman & Qureshi, 2006). The effectiveness of microfinance programs is primarily assessed using five important indicators: client poverty level, client outreach and coverage, collection performance, and financial sustainability and efficiency. MFIs rely heavily on loan repayments to provide funding for new loans (Pantoja, 2002). Based on the prior research, we can break down the factors affecting the repayment performance of MFIs into four categories: individual/borrower factors, firm factors, loan factors, and institutional/lender factors. The studies on repayment performance by borrowers show that unwillingness or inability to repay a debt may be the cause of late payments (Berkovitch & Greenbaum, 1991). MFIs should conduct a screening process to distinguish high-performing borrowers from low-performing ones, and monitor their usage to ensure the loans align with their projected purposes (Stiglitz & Weiss, 1981). Thus, before making loans to borrowers, lenders should take into account their characteristics, collateral requirements, capacity or ability to repay, and market conditions. Based on the previous findings, the study proposes the following variables:

The variables that affect loan repayment performance can be discussed in the following section, including institutional characteristics (IC), client's characteristics (CC), and loan characteristics (LC). These are the reasons why borrowers fail to repay loans under the terms of a loan or debt contract or when they disobey contractual requirements. A loan repayment default is defined as the borrower's failure to repay the loan when installments are due.

2.2. Institutional Characteristics (ICs)

Njoku (2016); Ugbomeh, Achoja, Ideh, and Ofuoku (2008); Copisarow (2000) and Lamichhane (2022) revealed a positive impact of institutional characteristics on loan repayment performance in MFIs. They concluded that loan defaults typically result from inadequate loan product design, poor implementation of credit policies, and program management. However, Chaulagain and Lamichhane (2022) found a negative relationship between internal control and loan-repaying performance of MFIs. They found the loan lending system to be an influencing factor in determining financial performance and loan repayment performance. The majority of the previous studies show a positive impact of internal control on loan performance. Based on the previous empirical findings, the study proposes the following hypothesis:

H_1: *Institutional characteristics are positively associated with loan repayment performance.*

2.3. Client's Characteristics (CCs)

Similarly, Nannyonga (2000); Arene (1992) and Oke, Adeyemo, and Agbonlahor (2007) claimed that there is a positive impact on client's characteristics, which is primarily influenced by educational infrastructure, business knowledge, loan repayment capacity, and financial characteristics of the loan performer, which have a positive impact on loan repayment performance. However, Njeru Warue (2012) declared a negative relationship between CC and LP.

From the vantage point of the previous studies, it shows that there is a positive impact of CC on LP and highlights that loan repayment performance is caused by external environmental (socio-political instability, economic downturn, weather, and inability to enforce covenant) factors. Thus, the above-mentioned studies confirm the relationship between clients characteristics and loan repayment performance.

H_2: *Client's characteristics are positively associated with loan repayment performance.*

2.4. Loan Characteristics (LCs)

The studies by Derban, Binner, and Mullineux (2005); Vigenina and Kritikos (2004) and Addisu (2006) exposed a positive impact of loan characteristics on loan repayment performance. They found loan repayment performance depends on loan characteristics, that is, loan product, loan tenure, loan screening process, credit monitoring and exposure, and close and informal relationships between MFIs and borrowers to carry out a positive impact on loan performance. Nawai and Shariff (2010) found a negative relationship between loan characteristics and loan repayment performance. The majority of the previous studies have shown that loan characteristics have a positive impact on loan performance. Based on the previous empirical findings, the study proposed the following hypothesis:

H_3: *Loan characteristics are positively associated with loan repayment performance.*

2.5. Microfinance Lending Approaches

There are differences between microfinance lending schemes in various nations. Microfinance lending often comes in two flavors: group and individual lending (Lehner, 2009). share accountability for microcredit repayment is a key component of group lending schemes. The main benefit of the group lending program is its ability to encourage participants to inspect and monitor each other. As a result, MFIs' overall costs have decreased, and they no longer need to undergo thorough individual screening procedures. The main drawback of group financing, in contrast, is that certain people might exploit their shared responsibility and engage in free-riding behavior. We can avoid this issue by establishing a direct connection between the MFIs and the borrower. The firm will incur greater transaction costs because screening and monitoring of borrowers is essential for individual lending. Because of this, the majority of microfinance institutions now use group-based lending models to make loans (Hermes & Lensink, 2007).

Therefore, Nepalese microfinance institutions (MFIs) have utilized both individual and group lending strategies. In general, group lending, also known as the 'Grameen' model of microfinance, and individual lending approaches for small and microenterprise (SME) finance have been used by microfinance institutions rather than cooperative organizations. Each financing strategy has its advantages and disadvantages. Because of the group guarantee for loan recovery and saving stimulations, the solidarity group model is one of the most distinctive. Yet, MFIs must have a systematic credit monitoring and follow-up process to ensure loan repayment, social transformation, and the development of financial literacy.

3. DATA AND METHODS

This study used a descriptive and causal research approach to determine the causal relationship between independent and dependable variables. The study, which covers 60 MFIs in Nepal, recommends using cross-sectional data to accomplish the research objectives. The data for the proposed study were collected using structured questionnaires as closed-ended questionnaires, which were distributed online via Google to employees working in various branches, area offices, and the head office of microfinance institutions in Nepal, including managerial, officer, and assistant (credit officers). We used a simple random sampling technique to gather the data, targeting a total of 300 respondents and selecting 15 employees from each MFI. Ultimately, 217 respondents participated, resulting in a response rate of 72% for the analysis. We collected the data from December 2023 to January 2024 and used SPSS for careful editing, coding, categorization, and analysis. We applied both descriptive and inferential analysis techniques to test specific hypotheses and explore relationships between the independent variables and loan repayment

performance. Descriptive methods of statistical tools provide clarity in data presentation, are simple to understand, and are helpful to initial data exploration. Regarding the use of correlation and regression as statistical tools, it helps to identify the relationship and predict with statistical accuracy. However, people often view descriptive tools as basic analyses with limited interference. Further, correlation does not imply causation, assumption challenges, or data quality to affect the loan repayment experiences of MFIs.

3.1. Instrumentation

We developed a structured questionnaire to assess the dimensions of institutional characteristics, client characteristics, loan characteristics, and loan repayment performance. We measured each item in the questionnaire using a five-point Likert scale, with responses ranging from 1 (strongly disagree) to 5 (strongly agree). The researcher used this scale to rate the respondent's response to the statements related to each variable. Therefore, I adopted certain methodological tools from James (2019) that were relevant to my study area. Further, descriptive methods consistently presented demographic characteristics, i.e., experience, gender, age, designation, and educational background, through frequency distribution and their percentage. We have similarly adopted a causal research design to assess the correlation between explained variables and explanatory variables. Regression analysis has been used to examine the impact of independent variables on the dependent variable. The reliability of the data was verified using Cronbach's Alpha, which yielded a value greater than 0.6, indicating satisfactory reliability.

3.2. The Model and Framework

The model developed for this study assumes that institutional characteristics, client characteristics, and loan characteristics are necessary for loan repayment performance in Nepalese microfinance institutions (MFIs). The estimated model has the following structure:

$$LRP_i = \alpha + \beta_1 INC_i + \beta_2 CC_i + \beta_3 LC_i + \varepsilon_i$$

Where,

INC_i = Institutional characteristics.

CC_i = Client's characteristics.

LC_i = Loan characteristics.

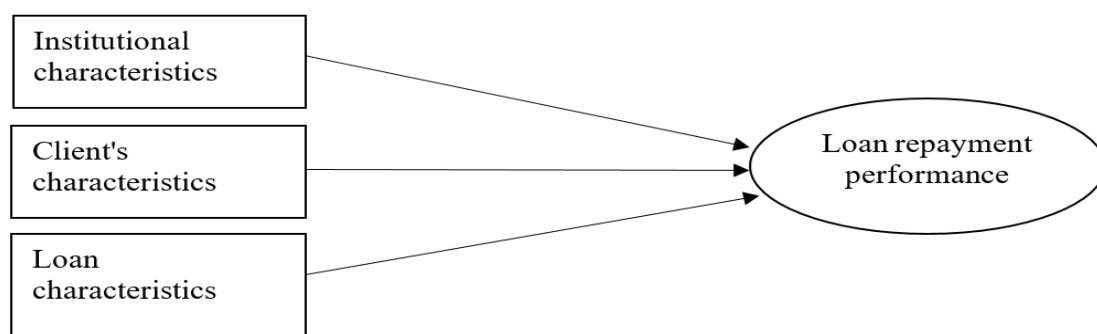LRP_i = Loan repayment performance.

α = Constant or value of dependent variable which is unaffected due to change in Independent variables.

β_1 = Rate of change in LRP with respect to unit change in INC.

β_2 = Rate of change in LRP with respect to unit change in CC.

β_3 = Rate of change in LRP with respect to unit change in LC.

The study framework is presented in Figure 1.

Independent variable   **Dependent variable**

Figure 1. Conceptual framework for loan repayment performance of Nepalese MFIs.
Source: James (2019).

4. RESULTS AND DISCUSSIONS

4.1. Demographic Profile of Respondents

Out of the total respondents, 171 (78.8 percent) are males, while 46 (21.2 percent) are females. Likewise, the age group of 59 (27.2 percent) to below 30 years, 103 (47.5 percent) to 31- 40 years (17.1 percent), 37 (17.1 percent) to 41-50 years, and 18 (8.3 percent) are above 51 years. Similarly, among the 64 respondents, which is 29.5 percent in total, 29.5 percent are from managerial levels, and 88 respondents, which is 40.6 percent, are from officer levels. While the minority of the respondents was 65 (30 percent). The majority of the respondents, which is 88 are 48.8 percent at the master's level and 71 (32.7 percent) at the bachelor's level. While, the majority of respondents are masters, 106 (48.8 percent) and 71 (32.7 percent) are bachelors, 37 (17.1 percent) are intermediate levels, and 3 (1.4 percent) are School Leaving Certificate (SLC) levels.

Table 1. Summary of demographic information of respondents.

Demographic variables	Range metrics	Frequency	Percentage
Experience	0-5	74	34.1
	6-10	81	37.3
	11-15	43	19.8
	16-20	19	8.8
Gender	Male	171	78.8
	Female	46	21.2
Age	Below 30	59	27.2
	31-40	103	47.5
	41-50	37	17.1
	51 Above	18	8.2
Designation	Manager	64	29.4
	Officer	88	40.6
	Assistant	65	30.0
Education	Masters	106	48.8
	Bachelors	71	32.7
	Intermediate	37	17.1
	SLC	3	1.4
Total		217	100.0

Table 1 shows that the majority of respondents are highly qualified and skilled, while the minorities, which are 17.1 percent and 1.4 percent, are below the university education.

4.2. Relationship between Institutional Characteristics, Client's Characteristics and Loan Characteristics on Loan Repayment Performance

The analysis, as focused on while examining the factors related to loan repayment performance in microfinance institutions in Nepal has a significant influence on the loan repayment performance of the clients. Together, the variables chosen for meaningful association between the two stakeholders confirm the loan repayment performance of Nepalese MFIs. Institutional variables describe the microfinance organizations, whereas client characteristics describe the borrowers. Loan characteristics are influenced by clients and institutional variables. Loan features include interest rates, payback conditions, and loan amounts offered by microfinance institutions. The study examines how institutional and client characteristics affect loan repayment performance. Loan repayment performance is critical to measuring the activities performed within microfinance institutions to improve financial health and sustainability. Thus, it's important to understand how customer and institution variables affect loan repayment.

In this analysis, four variables were examined: institutional characteristics, client characteristics, loan characteristics, and loan repayment performance. We measured each variable on a numerical scale, and the descriptive statistics (mean and standard deviation) were calculated to understand the central tendency and variability of the data.

Institutional characteristics: The mean score for institutional characteristics is 21.68. The average rating of various attributes related to the microfinance institutions themselves represents this value. These attributes may include factors such as; the efficiency of the institution, transparency in operations, customer service, and overall management practices. The standard deviation of 2.58 indicates that there is moderate variability in the perceptions or ratings of institutional characteristics among the participants.

Client Characteristics: The mean score for client characteristics is 25.78. This value signifies the average evaluation of various attributes associated with the clients or borrowers of microfinance institutions. Client characteristics may include factors such as the demographic profile of the client, their creditworthiness, repayment history, and financial literacy. The standard deviation of 3.03 suggests that there is a considerable variation in the perceptions or ratings of client characteristics among the participants.

Loan Characteristics: The mean score for loan characteristics is 16.85. The microfinance institutions have assigned an average rating to various aspects of their loans. Loan characteristics may include factors such as the interest rates, loan terms, repayment schedules, and flexibility in loan products. The standard deviation of 2.07 indicates that there is relatively less variation in the perceptions or ratings of loan characteristics compared to other variables.

Loan Repayment Performance: The mean score for loan repayment performance is 17.23. The clients rate their loan repayment performance on average with this value. Higher values indicate better loan repayment performance, suggesting that the clients are meeting their loan repayment obligations promptly. The standard deviation of 1.97 suggests that there is moderate variability in the loan repayment performance ratings, with some clients performing better or worse than the average.

The findings presented in Table 2 show that there exists a moderately positive correlation between loan repayment performance and institutional characteristics, client characteristics, and loan characteristics. In addition, all the factors are highly significant for the dependent variable. This suggests that there are direct variations in loan repayment performance resulting from these variations.

Table 2. Pearson's correlation.

Variables	Mean	SD	INC	CC	LC	LRP
Institutional characteristics	21.68	2.58	1			
Client characteristics	25.78	3.03	0.475**	1		
Loan characteristics	16.85	2.07	0.539**	0.642**	1	
Loan repayment performance	17.23	1.97	0.542**	0.628**	0.690**	1

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

4.3. Impact of Loan Characteristics, Institutional Characteristics and Client's Characteristics on Loan Repayment Performance

Table 3 given below depicts the beta coefficients for loan repayment performance of microfinance institutions in Nepal. It reflects that there is a positive impact of institutional characteristics on loan repayment performance (β = 0.190, p value = 0.01). Additionally, there is a positive impact of client characteristics on loan repayment performance (β = 0.273, p value < 0.01). Moreover, the observation projects that there is a positive and significant impact of client's characteristics on loan repayment performance (β = 0.412, p value < 0.01). Here, we have considered level of significance as 1% (i.e., α = 0.01). Here, we observe that coefficient of multiple determination R^2 = 0.553, or 55.3%, which means 55.3% of total variation of loan repayment performance is due to the variation of independent variables used, viz., INC, CC, and LC, and remaining 44.7% of variation of loan repayment performance of employees is influenced by the variation of other unused independent variables in the model. Here, the fitted multiple regression model is significant, as p-value = 0.000. The fitted model for the given data is LRP= 2.889+0.145INC+0.178CC+0.393LC+ ε.

Table 3. Regression analysis.

Variables	Unstandardized coefficients		Standardized coefficients	P- value	Adjusted R square	F- value	P- value
	B	Std. error	Beta				
(Constant)	2.889	0.904		0.002	0.553	90.067	0.000
INC	0.145	0.042	0.190	0.001	-	-	-
CC	0.178	0.039	0.273	0.000	-	-	-
LC	0.393	0.060	0.412	0.000	-	-	-

Note: Dependent variable: LRP.

4.4. Hypothesis Testing –Results

In view of the regression analysis, the regression weight mentioned below provides a clear understanding of the impact of INC, CC, and LC on loan performance. Table 4 indicates the hypothesis that institutional characteristics, client's characteristics, and loan characteristics are inextricably and significantly associated with loan repayment performance of Nepalese microfinance institutions (MFIs).

The result shows that beta coefficient of institutional characteristics (INC) is 0.145 and was found to be significant as p value is less than 0.05. It means one unit change in INC leads to 0.145 change in loan repayment performance (LRP), which shows the positive impact of INC on LRP. Similarly, beta coefficient of client characteristics (CC) is 0.178, with a value indicating P<0.05. It means one unit change in CC leads to 0.178 change in LRP, which shows positive impact on LRP. Moreover, beta coefficient of loan characteristics (LC) was 0.393 and found significant at P<0.05. It depicts that one unit change in LC leads to 0.393 change in LRP, indicating a positive impact. The loan repayment performance directly impacts on financial sustainability and outreach of MFIs.

Table 4. Summarized hypothesis result.

Hypothesis	Variables	P-value	Results
H$_1$:	INC → LRP	0.001*	Associated
H$_2$:	CC → LRP	0.000 *	Associated
H$_3$:	LC→ LRP	0.000*	Associated

Note: * indicates significance level at 0.01 level.

From the above Table 4, the findings show that there is no ground to reject the hypothesis at the 1 percent level of significance.

5. CONCLUSION, DISCUSSION AND POLICY RECOMMENDATIONS

5.1. Discussion

Based on the primary data collection and empirical analysis, the study finds numerous factors that influence the performative quality of the client's performance on Nepalese MFIs. The study uses a sample from MFIs operating in the central part of Nepal. The study's findings show that institutional characteristics, client characteristics, and loan characteristics all have a positive impact on the loan repayment performance of Nepalese MFIs. We cannot overstate the importance of strategic interventions and individualized training programs, as elements related to loans, clients, and institutions all positively influence the loan repayment performance of borrowers. Microfinance institutions can empower their clients to improve their businesses and increase their profits through sound loan repayment practices by providing training to borrowers on essential skills such as marketing their products, effective money mobilization, loan management, and accounting for proper business record-keeping. Microfinance institutions can provide training on topics like product marketing, effective money mobilization, loan management, and proper business record-keeping. In addition, to improve their capacity to handle loan portfolios efficiently, credit officers could profit from receiving training in credit evaluation and loan monitoring. In addition, the research highlights how important it is for institutions to have policies on loan and savings product designs that are in line with the requirements and

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capabilities of their customers. The senior management team of MFIs can help develop an environment of accountability and ethical lending practices by cultivating an environment that is conducive to the corporate culture.

The repercussions of this study are particularly crucial for microfinance organizations that attempt to improve the quality of their loan portfolios and reduce the amount of credit risk they face. These organizations can not only increase their financial sustainability but also extend their outreach to underprivileged populations by placing an emphasis on the performance of loan repayment, which contributes to the overall economic development and the empowerment of marginalized citizens as well as the enterprises.

As a result, the finding shows it is inherent for the microfinance institutions to make the performance of loan repayment as 'a key performance indicator' that is actively promoted and taken into consideration. The increased financial health of both the institutions and their customers can help to develop a relationship that is advantageous to the respective stakeholders. Microfinance institutions in Nepal can be made more robust by implementing the recommended strategies and interventions, which would also strengthen the sector's position as a driving force for economic growth and poverty alleviation, which is still a catchphrase for most of the banking and commercial sectors of Nepal. In a similar way, the study shows that the improvement in loan repayment performance of microfinance institutions is positively associated with financial sustainability and outreach of MFIs in Nepal. Therefore, conducting training programs for the borrowers, such as how to publicize their products, how to mobilize the money they have, loan management and accounting courses for business record keeping, credit appraisal and loan monitoring training for the credit officers. Besides there are other factors that influence microfinance sectors, such as; institutional policy formation, loan and saving product design, and corporate culture formation. These factors will help senior-level management improve their businesses and increase their profits through sound loan repayment performance. One of the major problems facing MFIs is the repayment situation, which directly or indirectly affects all parties involved in lending, regulation, and clients of microfinance as well (Sharma & Zeller, 1997). The high loan default rate is the main reason why MFIs fail (Yaron, 1994). The primary causes of these events are the intervention issue, opposing selection, and ethical threats that come from barriers in communication and a lack of proper knowledge in the field of microfinance management. Despite this, lenders struggle to distinguish between the honest and dishonest behavior of their clients. MFIs may only watch the results of their loans, whether the borrowers pay them back or not. As a result, maintaining a tight contact between the lender and the borrower through monitoring, business advice, and regular meetings can help reduce the repayment issues. In addition, the MFIs can implement a subsidy or discount program for customers who make on-time payments on their installments.

5.2. Conclusion

In conclusion, this study sheds light on the factors affecting loan repayment performance in microfinance programs in Nepal, with a focus on MFIs. The findings disclose that institutional characteristics, client's characteristics, and loan characteristics play a crucial role in influencing loan repayment performance in Nepalese microfinance institutions. Moreover, the study investigates that there is reciprocal relationship among the institutional characteristics, client's characteristics, and loan characteristics on loan repayment performance, significantly contributing to the financial sustainability and outreach of MFIs.

5.3. Limitations and Future Directions for Research

Hence, the study's findings can provide productive insight for the researchers working in the same field, but they must be interpreted with caution due to severe limitations of the research design. The study's sample size, restricted to microfinance organizations in Nepal, constrains the scope and generalizability of the findings. Future research can be made by incorporating a broader variety of variables and increasing the geographical areas under investigation to ensure a more comprehensive understanding. Further, the associations investigated in this study were explored using cross-sectional data, which may not fully capture the dynamic nature of the relationships across the time. To

strengthen this restriction and gain a better understanding of the factors influencing loan repayment success, future research could use longitudinal data analysis, extending the observation period regarding changes and trends in the days to come. In conclusion, the current study provides valuable preliminary insights into the factors influencing loan repayment performance in Nepalese microfinance institutions, but it is critical to recognize the limitations and the need for additional research with a more diverse sample and longitudinal data. By overcoming these constraints, future research will be able to provide thorough understanding of the dynamics of the microfinance sector that ultimately paves the way for more effective measures to improve loan portfolio quality and credit risk management.

REFERENCES

Addisu, M. (2006). Micro-finance repayment problems in the informal sector in Addis Ababa. *Ethiopian Journal of Business & Development, 1*(2), 29-50.

Arene, C. J. (1992). Loan repayment and technical assistance among small-holder maize farmers in Nigeria. *African Review of Money Finance and Banking, 1*, 63-74.

Berkovitch, E., & Greenbaum, S. I. (1991). The loan commitment as an optimal financing contract. *Journal of Financial and Quantitative Analysis, 26*(1), 83-95.

Budhathoki, P. B., & Rai, C. K. (2020). The effect of specific factors on bank profitability: Evidence from Nepalese banks. *Journal of Economics and Business, 3*(1), 82-89.

Chaulagain, K. P., & Lamichhane, B. D. (2022). Determinants factors of microfinance performance in Nepal. *Journal of Nepalese Business Studies, 15*(1), 46-59. https://doi.org/10.3126/jnbs.v15i1.50380

Conroy, J. D. (2002). Microfinance in Malaysia: A time to rebuild. *Foundation for Development Cooperation.*

Copisarow, R. (2000). The application of microcredit technology to the UK: Key commercial and policy issues. *Journal of Microfinance/ESR Review, 2*(1), 1-30.

Derban, W. K., Binner, J. M., & Mullineux, A. (2005). Loan repayment performance in community development finance institutions in the UK. *Small Business Economics, 25*(4), 319-332.

Dhakal, N. H. (2010). *Microfinance and local economic development in Nepal.* Unpublished Dissertation on Master of Philosophy in Economics, Global Open University, Nagaland, India.

Dhakal, N. H. (2012). *Portfolio and delinquency management in microfinance institutions.* Lalitpur: Center for Empowerment.

Dhungana, B. R. (2013). Accessibility of micro-finance services through Grameen Bikas banks: A case of Nepal. *HermenuticS: A Biannual Refereed International Journal of Business and Social Studies, 3*(2), 5-10.

Hermes, N., & Lensink, R. (2007). The empirics of microfinance: What do we know? *The Economic Journal, 117*(517), F1-F10.

James, K. (2019). Determinants of loan repayment defaults in microfinance banks in Kenya. *International Journal of Social Sciences Management and Entrepreneurship, 3*(1), 1-13.

Kibosia, N. C. (2012). *Determinants of loan defaults by small and medium enterprises among commercial banks in Kenya.* Doctoral Dissertation.

Lamichhane, B. D. (2022). Loan delinquency in microfinance institutions (MFIs): Ways to overcome the problem. *Nepalese Journal of Management Research, 2*(1), 37-43. https://doi.org/10.3126/njmgtres.v2i1.48264

Ledgerwood, J. (1999). *Microfinance handbook: An institutional and financial perspective.* Washington, DC: World Bank.

Lehner, M. (2009). *Group lending versus individual lending in microfinance*. SFB/TR 15 Discussion Paper. No. 299.

Llanto, G. M., Garcia, E., & Callanta, R. (1996). *An assessment of the capacity of financial performance of microfinance institutions: The Philippine case*. PIDS Discussion Paper Series. No. 1996-12.

Maigua, T. W. (2017). *Determinants of loan repayment default in micro-finance institutions in Kenya*. Doctoral Dissertation, University of Nairobi.

Mishra, A. K., Kandel, D. R., & Aithal, P. S. (2021). Profitability in commercial bank–a case from Nepal. *International Journal of Case Studies in Business, IT, and Education, 5*(1), 61-77. https://doi.org/10.47992/ijcsbe.2581.6942.0101

Muthoni, M. P. (2016). Assessing borrower's and business' factors causing microcredit default in Kenya: A comparative analysis of microfinance institutions and financial intermediaries. *Journal of Education and Practice, 7*(12), 97-118.

Nannyonga, H. L. (2000). *Determinants of repayment behavior in the centenary rural development bank in Uganda*. Unpublished Doctoral Dissertation. The Ohio State University. United States.

Nawai, N., & Shariff, M. N. M. (2010). Determinants of repayment performance in microcredit programs: A review of the literature. *International Journal of Business and Social Science, 1*(2), 1-10.

Ndung'u, J. K. (2014). *Factors influencing non-performing loans of microfinance Institutions in Kenya*. Doctoral Dissertation, University of Nairobi.

Njeru Warue, B. (2012). Factors affecting loan delinquency in microfinance institutions in Kenya. *International Journal of Management Science and Business Research, 1*(12), 22.

Njoku, M. S. E. (2016). Analysis of factors affecting agribusiness cooperators' access to credit from formal sources in Abia State, Nigeria. *Agro-Science, 15*(2), 23-28.

NRB. (2018). *Monthly banking and financial statistics*. Kathmandu: Nepal Rastra Bank, Nepal.

Oke, J. T., Adeyemo, R., & Agbonlahor, M. U. (2007). An empirical analysis of microcredit repayment in Southwestern Nigeria. *Journal of Human Behavior in the Social Environment, 16*(4), 37-55.

Pantoja, E. (2002). *Microfinance and disaster risk management: Experiences and lessons learned*. Washington, DC: The World Bank.

Phillips, R. A., & VanderHoff, J. H. (2004). The conditional probability of foreclosure: An empirical analysis of conventional mortgage loan defaults. *Real Estate Economics, 32*(4), 571-587. https://doi.org/10.1111/j.1080-8620.2004.00103.x

Roodman, D., & Qureshi, U. (2006). *Microfinance as business*. Center for Global Development, No. 101.

Sharma, M., & Zeller, M. (1997). Repayment performance in group-based credit programs in Bangladesh: An empirical analysis. *World Development, 25*(10), 1731-1742. https://doi.org/10.1016/s0305-750x(97)00063-6

Shrestha, G. K. (2004). Financial sector reforms in Nepal. *Economic Review, 16*, 75-90. https://doi.org/10.3126/nrber.v16i1.54741

Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American Economic Review, 71*(3), 393-410.

Thapa, B. S., & Chowdhury, S. (2022). Impact of microfinance on the empowerment of women entrepreneurs in Rupandehi district, Nepal. *Journal of Business and Management, 6*(1), 100-115.

Ugbomeh, G. M., Achoja, F. O., Ideh, V., & Ofuoku, A. U. (2008). Determinants of loan repayment performance among women self-help groups in Bayelsa State, Nigeria. *Agriculture Conspectus Scientificus, 73*(3), 189-195.

Vigenina, D., & Kritikos, A. S. (2004). The individual micro-lending contract: Is it a better design than joint-liability?: Evidence from Georgia. *Economic Systems, 28*(2), 155-176. https://doi.org/10.1016/j.ecosys.2004.03.006

World Bank. (2001). *World development indicators*. NW Washington, USA: The World Bank.

Yaron, J. (1994). What makes rural finance institutions successful? *The World Bank Research Observer, 9*(1), 49-70. https://doi.org/10.1093/wbro/9.1.49