

Role of Credit Risk Management Practices in Sustainability of Micro Credit Schemes in Nakuru County

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Abstract: *Over time financial exclusion for the poorest of the poor from the formal banking system has been a major development challenge hindering the flow of capital to the poor. Groups constituting as few as ten members engage in savings and loaning among themselves through the micro credit system. Credit lending in these groups is based on mutual trust which is questionable for future growth and sustainability of the groups. This study sought to assess credit risk management practices and their effects on financial sustainability of these groups. The study objective was to establish how credit risk management affects the sustainability of micro credit schemes. The study was conducted in Nakuru County, using descriptive survey research design. The target population comprised all the treasurers of the 127 micro credit schemes in Nakuru County. The sampling frame was drawn from the registrar of societies in Nakuru County. The sample size included in the study was 95 treasurers of Micro Credit Schemes in Nakuru County. Simple random sampling technique was used in respondents. Primary data was obtained from micro credit treasurers using structured questionnaire designed by the researcher. Data was analyzed using descriptive statistics and inferential statistics. The study has revealed that majority of the groups were keen on ensuring proper credit management practices in their groups. In addition, credit risk management was established to significantly, positively and strongly affect sustainability of micro-credit schemes. It is recommended that a standardized credit management practice should be developed from the best practices observed from micro credit schemes in Nakuru for adoption by start-up micro credit schemes to minimize the chance of mistakes at start-up.*

Keywords: Micro-credit schemes, Sustainability, Microfinance, Group dynamics, Credit risk

1. Introduction

The term micro credit has been confusing and assumed various meanings, as a result, United Nations agencies have proposed that the terms “microcredit” and “microfinance” be used interchangeably. However these two are not identical concepts as microfinance includes access to a range of financial services and products such as credit, savings, money transfers, insurance and asset building mechanisms required by the unique and widely varying needs of poor people to enhance their ability to increase incomes and mitigate vulnerability in times of economic stress [10].

Microfinance excludes the poorest of the poor” from the definition of microfinance because for a variety of reasons they are unable to engage in economic activity and cannot be the responsibility of the financial sector [17]. The exclusion of the „poorest of the poor” sets up a dichotomy between financial systems and poverty lending approaches. The former is based on sustainable institutions, and the later on subsidized institutions such as the Grameen Bank.

Exclusion of the poorest of the poor from formal finance and the subsequent lack of access to credit has therefore been focused on as a key economic challenge affecting the poorest of the poor. As a result, it is emphasized [20] that there is the need for credit by the poor especially in the rural areas, though this has been termed difficult due to the strict demand for collateral by credit lending institutions.

Microcredit groups have proven to be effective at ensuring all members have access to savings and credit services. In fact, micro-credit is regarded as an essential input to increase agricultural productivity, mainly land and labour.

Credit boosts income levels, increase employment at household level and there by alleviate poverty [14]. In other words, small and easily repayable loans enable poor people to overcome liquidity constraints and under take some micro investments. Subsequently, increase the poor households risk bearing ability and improves their coping strategies. However, the system of managing their business which revolves around saving and loaning poses a challenge to the micro credit schemes. It is asserted that what makes the micro credit model unusual is that it attempts to build sustainable traditions rather than sustainable institutions [18].

Microcredit providers face numerous risks that threaten their financial and institutional viability and long-term development. Their portfolio may suffer sudden rises in loan delinquency and arrears. Providers may be subject to fraudulent loans made by their loan officers. Therefore, it is imperative that providers have robust systems and procedures for identifying, assessing and prioritizing risks, internal controls for preventing or detecting undesirable outcomes.

Critics of the micro credit model have shown that these organizations have not been able to meet their objectives of economic empowerment for the poorest of the poor. There is also very little empirical evidence that micro-credit will directly empower the poorest of the poor [21]. Empowerment, as a concept, is highly contextual and changes from one environment to another, whereas micro-credit delivery process is applied in almost the same way in most countries for which they are designed.

2. Statement of the Problem

The concept of micro credit schemes has been widely adopted as a strategy to improve the economic status of the poor communities by creating funds for social security and capital for members to borrow to finance rural investment. To date, this concept has been mainstreamed in all corners of the world and has been integrated with formal financial institutions such as banks and micro finance institutions. One of the biggest adoptions in Kenya was in September 2013 where the government launched a country wide Uwezo Fund programme to form 35 youth groups in each of the 290 constituencies in the county to undertake table banking which is a micro credit concept. This was done without due considerations to the weaknesses of micro credit schemes. Micro credit schemes are concerned mainly with savings and loaning to members; the concept is not based on sound credit risk management principles and practices rather, it is based on indigenous approaches and mutual trust among. Little empirical evidence also exists on the effects of the credit management practice on the sustainability [14]. This study therefore seeks to establish the role of credit management practices employed by micro credit schemes and their effects on sustainability.

3. Objective

To establish how credit risk management affects the sustainability of micro credit schemes in Nakuru County.

4. Research Question

What is the effect of credit risk management on sustainability of micro credit schemes in Nakuru County?

5. Conceptual Framework

The studies variables are conceptualized by the framework in order to illustrate the relationship between them. The framework as shown in Figure 1 shows how credit risk management influences sustainability of microcredit schemes. Group dynamics and government regulations are the intervening variables which, indirectly influences the relationship between the aforementioned variables (independent and dependent).

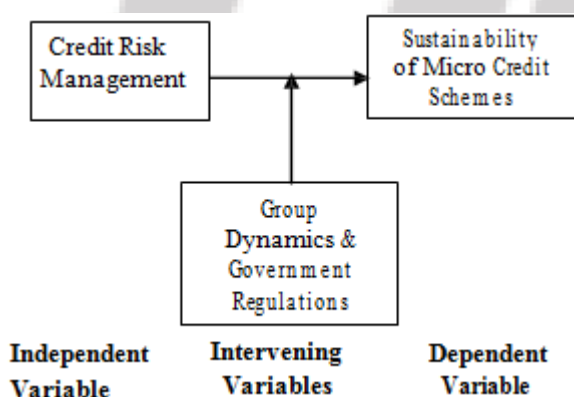


Figure 1: Conceptual Framework

6. Literature Review

The study delved into pertinent concepts, theories and empirical studies.

6.1 Theoretical Literature

The study reviewed relevant concepts and theories in the light of credit risk management and sustainability of microcredit schemes.

6.1.1 The Pecking Order Theory of Finance

The theory holds that, due to asymmetric information external funds are costly, so the firm prefers to finance investments internally. If the internal funds are not sufficient then the firm raises capital through debt rather than through equity. Rational investors realize that firms that prefer to issue equity are the ones with lower Net Present Value (NPV) projects and discount their shares accordingly. Since the financial markets are perfectly competitive, this dilution cost is passed back onto the firm in the form of a higher cost of capital. In other words, in the presence of asymmetric information, firms prefer to raise funds via securities that are less information-sensitive [2].

This theory can be used to explain the sense in micro credit schemes. Micro credit schemes were introduced as a strategy to address the financial needs of the poorest of the poor who have been excluded from the formal financial institutions. The members start by saving to create capital which they loan to one another either to finance their business or to finance their own social life. Therefore based on the pecking order theory, this can be defined as an internal strategy for creating capital.

6.1.2 Microfinance and Imperfect Financial Markets

The concept of group lending is commonly heralded as the main innovation of microfinance and claims to provide an answer to the shortcomings of imperfect credit markets, in particular to the challenge of overcoming information asymmetries. Information asymmetries may lead to the distinct phenomena of adverse selection and moral hazard. In the case of adverse selection, the lender lacks information on the riskiness of its borrowers. Riskier borrowers are more likely to default than safer borrowers, and thus should be charged higher interest rates to compensate for the increased risk of default. Accordingly, safer borrowers should be charged less provided each type can be accurately identified. Since the lender has incomplete information about the risk profile of its borrowers, higher average interest rates are passed on to all borrowers irrespective of their risk profile [1].

6.2 Empirical Literature Review

Empirical studies touching on credit risk management and sustainability of microcredit schemes.

6.2.1 Credit Risk Management

Credit risk management refers to the potential for loss due to failure of a borrower to meet its contractual obligation to repay a debt in accordance with the agreed term. Credit risk evaluation is the process through which a bank assesses the creditworthiness of prospective loan that exposes the

financial institutions to credit risk. The credit analysis ultimately results in an estimation of the likelihood of customer default. Outside microfinance, to optimize the credit decision, there exist three main approaches to estimate borrower's probability of default: Structural approach or reduced form models, statistical approach and expert-judgement approach (Ibtissem & Bouri, 2013)

Structural approach is based on modelling the underlying dynamics of interest rates and firm characteristics that can lead to a default event. These financial dynamics, generally described by stochastic processes evaluate the default probability. This approach is used in portfolio credit risk models. However, it needs the use of complex mathematical and stochastic techniques that can be hardly modelled. In addition, a clear disadvantage of this approach is their limited applicability to public firms because it requires specific information, e.g. borrower's stock prices, which are not available for all borrowers. Hence, MFI and banks offering consumer loans cannot benefit from this approach.

In a review of literature on the determinants of repayment performance in microcredit programs, it is pointed out that micro credit schemes are made for the poor are usually excluded from credit facilities because of many reasons including insufficient collateral to support their loans, high transaction costs, unstable income, lower literacy and high monitoring costs [13]. Usually they survive through involvement in micro business activities or informal activities that comprises food processing and sales, small scale agriculture, services, crafts and petty trading. For these reasons, micro credit schemes are meant for high risk group of people. Despite this, financial sustainability is a prerequisite for making microcredit financial services permanent as well as widely available [9]. Moreover, it is argued that to continue providing financial services to the poor on a sustaining basis, the micro credit themselves must be viable and sustainable and the study shows that many of the microcredit schemes are far from attaining these goals [11]. In a study on issues and constraints faced by MFIs in Malaysia the issues and constraints were identified especially with respect to viability/sustainability where credit management was identified as a major impediment.

The literature on factors influencing loan repayment performance among financial institutions targeting the poor are very sparse and limited mainly to microfinance experience in low-income countries [4]. The results of the studies show mixed result. Based on past literature, the factors affecting repayment performance can be divided into four factors namely individual/borrowers factors, firm factors, loan factors and institutional/lender factors [19]. Several studies [7], [3], and [15] show that when a loan is not repaid, it may be a result of the borrowers' unwillingness and/or inability to repay. It is recommended that the banks should screen the borrowers and select the "good" borrowers from the "bad" borrowers and monitor the borrowers to make sure that they use the loans for the intended purpose. This is important to make sure the borrowers can pay back their loans. It is further suggested that it is crucial to look at a borrower's past record and economic prospects to determine whether the borrower is likely to repay or not. Micro credit schemes being financial institutions are not exempted from these credit management

principles. In fact, by virtue of their size and financial strength, they are

6.2.2 Sustainability of Micro Credit Schemes

Sustainability of micro credit schemes is defined by a number of variables. For a micro credit scheme to be sustainable, grants and soft loans cover operating expenses and establish the revolving loan fund. Fully revolving fund interest income earned covers the cost of funds and some operating expenses. For operational sustainability, income covers cost of funds and operational expenses. However, some element of subsidy remains due to the financial costs of maintaining the value of a revolving loan fund in a highly inflationary environment, or of paying commercial rates of refinancing costs. For a micro credit scheme to be financially sustainable, all costs are covered with the interest and fees charged by the organisation and funds are raised at commercial rates from formal financial institutions

Programs that do not cover 100 percent of their operational costs will remain dependent on donations or government subsidies to maintain their current activity level. Therefore a drop in subsidies would automatically deplete loan capital and result in a reduction in sustainability [5].

7. Research Methodology

The research design adopted was a descriptive survey. A survey research allows a researcher to obtain information that describes existing phenomena by asking individuals about their perception, attitude and behaviour or values [12]. The study target population was all the treasurers of the 127 micro credit schemes in Nakuru County

A sample of 95 respondents was used in the study. Simple random sampling technique was used in selecting the respondents. The researcher relied exclusively on primary data which was collected using structured questionnaires. The researcher undertook a pilot study prior to the main study. The object was to determine both the reliability and validity of the research instrument. Reliability was tested using the Spearman Brown Prophecy formula while the content validity of the instrument was determined by seeking expert judgment on the same from the University supervisors. The Statistical Package for Social Sciences (SPSS) tool was used in data processing and analysis. Both descriptive and inferential statistics were employed in analyzing the collected data.

7.1 Data Processing and Analysis

The Statistical Package for Social Sciences (SPSS) tool was used in data processing and analysis. Both descriptive and inferential statistics were employed in analyzing the collected data.

7.2 Research Findings

The response rate was found to be 90.5%. The conspicuously high response rate was argued to largely occasion by having the researcher issuing and collecting the questionnaires herself instead of relying on research assistants.

7.2.1 Credit Risk Management Practices

From the findings, 98.8% of the groups provided credit facilities for their members; therefore they were potential victims of credit risks. However their preparedness and the level of training on credit risks varied. In order to manage risks better, finance staff requires up to date training on how to identify, asses, monitor and control risks. Therefore, the study first sought to understand the training of group treasurers on credit risk management. Majority (69.8%) of the group treasurers as shown in Table 1 indicated that they had trained on credit risk management, 30.2% were not trained.

Table 1: Training on Credit Risk Management

	Frequency	Percent
Yes	60	69.8
No	26	30.2
Total	86	100

Treasurers assume the roles of finance managers in groups therefore absolute lack of training on credit risk management itself is a risk factor to the group.

In addition to the training, the study sought to understand the risk management practices by the groups on credit risks. The findings presented on Table 4.19 revealed that, credit ceiling was highly observed since most of the respondents indicated that there was a well defined limit on the maximum amount of loan that one could get (mean = 4.79, standard deviation = 0.44). Secondly groups ensured that members were vetted through a well defined procedure before accessing loans as a strategy to minimize credit risks (mean = 4.72, standard deviation = 0.48). Group by laws in most of the groups are designed in a manner that they do not allow loaning to non-members (mean = 4.69, standard deviation = 0.62). This also reduced the risk of default in credit. Group members were also strict on invoking loan recovery mechanisms in case of a default so as to discourage the practice and recover their money back (mean = 4.67, standard deviation = 0.85). Other practices that were common in reducing credit risks include charging hefty penalties are charged on loan defaulters (mean = 4.52, standard deviation = 0.59), loans are awarded after the signing of a binding contract with the group (mean = 4.24, standard deviation = 1.27) alongside the management of a group risk taking worksheet for scoring possible which is regularly updated.

Table 2: Credit Risk Management Practices

Credit Risk Management Practices	n	Mean	Standard Deviation
Members are vetted through a well defined procedure before accessing loans	86	4.72	0.48
There are well defined limits on the maximum amount of loan that one can get	86	4.79	0.44
Hefty penalties are charged on loan defaulters	86	4.52	0.59
Loans are awarded after the signing of a binding contract with the group	86	4.24	1.27
The group is strict on invoking loan recovery mechanisms in case of a default	86	4.67	0.85
The group by laws do not allow loaning to non-members	86	4.69	0.62
Group has risk taking worksheet for scoring possible	86	4.16	1.22
Risk rating worksheet is updated immediately	86	4.11	1.2

The high credit risk scoring indicates that risk management practices were highly upheld among most micro credit schemes.

7.2.2 Relationship between Credit Risk Management and Financial Sustainability

To determine whether the risk management practices translated to better financial sustainability of micro credit groups, Pearson correlation was done as shown on the results on Table 2.

Table 3: Relationship between Credit Risk Management and Financial Sustainability

	X	Y
X	Pearson Correlation	.721*
	Sig. (2-tailed)	0
	n	86
Y	Pearson Correlation	.721*
	Sig. (2-tailed)	0
	n	86

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

Key:

X = Credit Risk Management

Y = Sustainability

According to the findings there is a positive and strong relationship between credit risk management and financial sustainability of self-help groups (r = 0.721; p < 0.01). This implies that any change on credit risk management resulted in an almost similar effect on financial sustainability of self-help groups. As such, therefore, management of credit risks need to be better managed if at all the self-help groups are to enhance their financial sustainability.

8. Summary, Conclusions and Recommendations

This section outlines the summary of the study findings, draws relevant conclusions and then suggests recommendation in tandem with the research objectives.

8.1 Summary

In assessing the effects risk management practice on sustainability of micro schemes, the study revealed that, majority of the groups provided credit facilities for their members; therefore they were potential victims of credit risks. About one third of the treasurers were not trained on credit risk management. Some of the credit risk management practices by micro credit schemes included: credit ceiling was highly observed and in most groups there was a well defined limit on the maximum amount of loan that one could get. Groups also ensured that members were vetted through a well defined procedure before accessing loans as a strategy to minimize credit risks. Group by laws in most of the groups were designed in a manner that they did not allow loaning to non-members to guard the groups from credit risk losses, the risk of default in credit. Group members were strict on invoking loan recovery mechanisms in case of a default so as to discourage the practice and recover their money back. Hefty penalties were also charged on loan defaulters. Correlation results revealed a significant relationship between credit risk management practices and the financial sustainability of micro credit schemes. The relationship was also positive and strong.

8.2 Conclusions

Credit risk management is very essential in financial sustainability of micro credit schemes. When the credit advanced to self-help groups is managed prudently, the financial sustainability is bound to be enhanced to a great extent.

8.3 Recommendations

It is recommended that a standardized credit management practice should be developed from the best practices observed from micro credit schemes in Nakuru for adoption by start-up micro credit schemes to minimize the chance of mistakes at start-up.

References

- [1] Armendáriz de, Aghion, B. & Morduch, J. (2010). *The economics of microfinance*, 2nd ed. Cambridge: MIT Press.
- [2] Boot, A & Thakor, J. (1993). "Security design." *Journal of Finance*, 48(4), 1349-1378.
- [3] Coyle, B. (2000). *Framework for Credit Risk Management*. CIB Publishing, UK.
- [4] Derban, W., Binner, J. & Mullineux, A. (2005). Loan repayment performance in community development finance institutions in the UK. *Small Business Economics*, 25, 319-332.
- [5] Evers, J., Jack, S., Loeff, A. & Siewertsen, H. (2000) *Reducing Cost and Managing Risk in Lending to Micro Enterprises Handbook for Micro-Lending in Europe*. FACET, Zeist, The Netherlands and Institute for Finanzdienst Leistungen: Hamburg.
- [6] Greenbaum, S., & Thakor, A. (1995). *Contemporary financial intermediation*. Forth Worth, Texas: Dryden Press.
- [7] Hoque, M. (2000). *Guided industrial credit*. Monash University. <http://www.bizresearchpapers.com/Document4.pdf>. Retrieved on 22 April 2010.

- [8] Ibtissem, B & Bouri, A. (2013) Credit Risk Management In Microfinance: The Conceptual Framework. *ACRN Journal of Finance and Risk Perspectives*. 2(1), 9 – 24
- [9] ICC (2001). *Financial sustainability of micro saving and credit scheme: three option for multi sectoral NGOs*. www.cmfnet.org.za/Library.htm. Retrieved on 26 December 2013.
- [10] Levin, G. (2012) Critique of Microcredit as a Development Model. *The Journal of Undergraduate Research at the University of Tennessee*, 4(1), 109 – 117.
- [11] Llanto, G., Garcia.E., & Callanta, R. (1996). *An assessment of the capacity and financial performance of microfinance institutions: the Philippine case*. Discussion Paper 96-12, Philippine Institute for Development Studies, Makati, Philippines.
- [12] Mugenda, A. & Mugenda, O. (2003). *Research Methods: Quantitative and Qualitative Approach*. Nairobi: Acts Press
- [13] Nawai, N. & Mohd, N. (2010) Determinants of Repayment Performance in Microcredit Programs: A Review of Literature. *International Journal of Business and Social Science*, 1(2) 152 – 161.
- [14] Okurut, F., Banga, M. & Mukungu, A. (2004). "Microfinance and Poverty in Uganda." Research Series (41) Economic Policy Research Centre. Kampala. Makerere University.
- [15] Ozdemir, O., & Boran, L. (2004). An empirical investigation on consumer credit default risk. *Discussion Paper*. 2004/20. Turkish Economic Association.
- [16] Robinson, M. (2001). *The Microfinance Revolution: sustainable finance for the poor*. World Bank and the Open Society Institute, Washington DC
- [17] Rutherford, S. (2002). *The poor and their money*. Oxford University Press, Oxford.
- [18] Silwal, R. (2003). *Repayment performance of Nepali Village Banks*. Unpublished Master Dissertation. Swarthmore College, Swarthmore
- [19] State. E. (2008). The Dynamics of Informal Rural Credit Schemes (IRCS) and Social Capital Outcomes in Uganda. *The Eastern Africa journal of Development Studies*, 1(2): 53-73.
- [20] Zaman, H. (1999) Assessing the Impact of Micro-credit on Poverty and Vulnerability in Bangladesh. Working Paper No.: 2145. World Bank, Washington D.C. USA

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