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Loan Portfolio Quality of Microfinance Institutions in Uganda: A Qualitative Assessment

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Abstract

The primary purpose of this study was to examine the loan portfolio quality of Uganda's Microfinance institutions. Specifically, the study investigated respondents' perception of capital structure, cost of capital, credit risk management, and quality of clientele base and their impact on loan portfolio quality. The study adopted an exploratory research design. The point of saturation was achieved after 16 managers (10 credit managers and 6 senior managers) were interviewed. Data were analyzed using content analysis techniques with the aid of NVivo version 12 software, and verbatism tests were used to explain the emergent themes. The findings indicate that capital structure was perceived as internal and external funding, cost of capital was perceived as pricing of funds, credit risk management was perceived as client/borrower engagement, quality of clientele base was perceived as social capital and loan portfolio quality was perceived as repayment. The findings suggested that funding, pricing of funds, client/borrower engagement, and social capital influence loan repayment. The study recommends that MFIs should source for affordable lines of credit, employ competent staff, ensure due diligence, further financial education, and ensure client sensitization. The study confirmed the relevance of the Modern Portfolio Theory in explaining loan portfolio quality. Future studies could investigate the loan portfolio quality of Microfinance Institutions in Sub Saharan Africa to find out whether the results would be similar.

Keywords

Loan Portfolio Quality, Microfinance Institutions, Qualitative, Uganda

1. Introduction

Uganda, as a country, has been praised as one of the few economies with a thriving Microfinance industry in Africa (Bond, 2011). Both the new and budding Microfinance institutions in the country have recorded substantial growth with a growing clientele base. A high number of these institutions continue to become self-sustaining, with some transforming into fully registered commercial banks (Tripp, 1994). The significant contribution of these institutions to narrow the financial exclusion gap has not gone un-noticed. The financial services these institutions offer are not only prominent in eradicating poverty in the country, but they have also built up a diversified capital base for the low-income earners (Cull, Demirguc-Kunt, & Morduch, 2011). A series of impact studies conducted in Uganda have demonstrated that the provision of microfinance services through microfinance institutions reduces client vulnerability to economic shocks, enables microfinance clients to acquire valuable skills, and generally improves financial inclusion. For instance, a series of FinScope studies in Uganda have tracked the trends of financial inclusion in the country since the late 2000s. According to the current FinScope study, more Ugandans access financial services through Microfinance institutions today compared to 10 years back (FinScope, 2018).

Despite their evolution, resilience, and contribution to the financial eco-system, Microfinance Institutions in Uganda continue to grapple with a deteriorating loan portfolio quality (Bananuka et al., 2019). These institutions have continuously failed to achieve the total value from their outstanding loans, evidenced by a large portfolio at risk (PAR) levels registered above 10.22%, higher than the internationally accepted threshold of 3%; continuous increase in Non-Performing Loans (NPLs) to over 22.8% by 2018; rapid growth in loan losses to over 300 billion shillings by the third quarter of 2017; and a tremendous decline in the risk coverage ratio to less than 65% in 2019, below the globally accepted standard of 100% (Bananuka et al., 2019; Onuko, Muganda, & Musiega, 2015). Loan portfolio quality is critical in Microfinance Institutions (MicroRate, 2010) as it gives an insight in the overall loan performance, provides actionable steps to identify potential risks (Singh & Padhi, 2015), and, improves MFIs' operational efficiency, profitability, and sustainability (Magali, 2014).

This declining trend may be attributed to several factors; capital structure, cost of capital, credit risk management, and the quality of MFIs' clientele (Bananuka et al., 2019). Despite the widely accepted notion that capital structure decisions, cost of capital, credit risk management and quality of clientele base enhance loan portfolio quality, several studies have either reported a negative or no relationship between these variables (Ghani & Mahmood, 2015; Basle Committee on Banking Supervision & Bank for International Settlements, 2004; Ahmed & Malik, 2015; Swain & Floro, 2010). Also, most studies have focused on fully registered commercial banks in developed countries. Also, these studies have been inconclusive from a developing country's context. The explanations to these inconsistencies point to the use of publicly available data that is limited in

scope and restrictive use of methods. This research addressed the current theoretical, empirical, and methodological gap by qualitatively studying the influence of capital structure, cost of capital, credit risk management, and quality of clientele base on loan portfolio quality from a developing country's perspective (Uganda).

The primary purpose of this qualitative study was to assess the influence of capital structure, cost of capital, credit risk management, and quality of clientele base on the loan portfolio quality of Microfinance institutions in Uganda. This study focused on the following research questions;

Rq_1: *What is the impact of capital structure on the loan portfolio quality of Uganda's Microfinance Institutions*?

Rq_2: *Does the cost of capital influence the loan portfolio quality of Uganda's Microfinance Institutions*?

Rq_3: *How does credit risk management affect the loan portfolio quality of Microfinance Institutions in Uganda*?

Rq_4: *How does the quality of a Microfinance Institution's clientele base influence its loan portfolio quality*?

2. Theoretical and Literature Review

2.1. Modern Portfolio Theory

This study adopted the Modern Portfolio Theory (MPT) (Mangram, 2013; Constantinides & Malliaris, 1995; Markowitz, 1952). The MPT theory explains as an investment framework for the selection and construction of investment portfolios based on the maximization of expected returns of the portfolio and the simultaneous minimization of investment risk (Fabozzi, 2002). It remains one of the most commonly used and widely tested theories as far as portfolio and risk management are concerned. The fundamental assumption of the MPT; investors are rational. That is, they seek to maximize returns while minimizing the risk or loss; and that Investors timely receive all pertinent information related to their investment decision. The risk that affects the Microfinance institutions in Uganda may include the risk of default, untimely repayments by clients, inadequate financial analysis knowledge by staff as well as limited knowledge on how to effectively manage client repayments. Therefore, the higher this perceived risk is, the higher the likelihood of experiencing a deteriorating loan portfolio. The decline in credit standing by a firm may not necessarily mean that a firm will default, but the probability of this happening increases.

2.2. Literature

2.2.1. Loan Portfolio Quality

A loan portfolio is the largest asset that microfinance institutions possess (Samba, 2017; Ssekiziyivu et al., 2017; Klomp, 2018). The quality of these loans determines the risk posed to the microfinance institution (Addai & Pu, 2015). A loan portfolio is of good quality when it has minimal non-performing loans/assets, low Portfolio at Risk, and Low Probability of Default (Onuko, Mu-

ganda, & Musiega, 2015). Previous literature on loan portfolio focused on loan pricing, loan disbursement, reasonable interest rates, the influence of macroeconomic conditions on loan performance (Mileris, 2012; Onuko, Muganda, & Musiega, 2015; Addae-Korankye, 2014). A review of these studies does not provide a framework for understanding loan portfolio quality in Microfinance Institutions in a developing country context. This study conceptualized loan portfolio quality using capital structure, cost of capital, credit risk management, and quality of clientele base. Insights from previous studies draw the following conclusions.

2.2.2. Capital Structure and Loan Portfolio Quality

The impact of capital structure on loan portfolio quality in MFIs has previously been researched (Lislevan, 2012; Bogan, 2012; Cheng & Tzeng, 2011; Kyereboah-Coleman, 2007). Studies by Bogan (2012) and Lislevan (2012) confirm that most MFIs are highly leveraged. They use approximately four times more debt financing than equity. Additionally, Cheng & Tzeng (2011) argued that high leverage increases firm value. According to Kyereboah-Coleman (2007), total debt, short-term debt, and long-term equity are used as capital structure indicators. The above studies have concentrated on the overall impact of capital structure on profitability rather than on loan portfolio quality. There is still scanty literature on the impact of capital structure, equity capital, and debt capital on the level of default (Swain & Floro, 2010). The default level is critical in determining the loan portfolio quality of MFIs since it shed light on the delinquency of the total asset portfolio (Bananuka et al., 2019).

2.2.3. Cost of Capital and Loan Portfolio Quality

Drawing from various empirical studies, it is evident that there is a relationship between the cost of capital and loan portfolio quality (Siddik, Kabiraj, & Joghee, 2017; Fersi & Boujelbéne, 2017; Gashayie & Singh, 2014). For example, MFIs that borrow at lower interest are more like to initiate and maintain their loan portfolio quality (Tehulu, 2013; Tailab, 2014). Additionally, administrative costs comprise of costs and fees that MFIs incur in maintaining an optimal capital structure (El-Masry, Elbahar, & AbdelFattah, 2016). Administrative costs associated with small loans could lead to mission drift under debt financing as MFIs struggle to maintain the quality of their loan portfolios (Brau & Woller, 2004). Dividend claims, debt covenants, and transaction costs arising from the firm's "nexus of contracts" (El-Masry, Elbahar, & AbdelFattah, 2016) affect loan portfolio quality. They cause financial distress, and claims of new debt holders are likely to dilute the claim of existing shareholders (Bayai & Ikhide, 2016). Empirical studies in Nigeria, Kenya, Ghana, and Uganda have shown that such costs push MFIs to limit granting loans to low borrowers (Cull et al., 2011; Tehulu, 2013; Natamba et al., 2013).

2.2.4. Credit Risk Management and Loan Portfolio Quality

Empirical studies on credit risk management and loan portfolio quality have re-

vealed that credit risk is the most critical and expensive risk associated with MFIs (Mangram, 2013; Crabb & Keller 2006). Credit risk is also a potential threat to MFI solvency (Kayode et al., 2015). Ledgerwood (2000) recommends that to manage credit risk effectively, MFIs should put in place systematic distribution of loans according to well-established credit policies and procedures provided. Further, Ahmed & Malik (2015) identified that credit risk management involves loan appraisals to minimize loan losses. However, reviewed literature has either ignored or overlooked how critical measures of credit risk management like risk identification, risk assessment/analysis and risk monitoring influence loan portfolio quality.

Kaaya & Pastory (2013) tangled credit risk management with loan performance. He used return on equity (ROE), return on assets (ROA), and capital adequacy ratio (CAR) as measures for credit risk management/loan performance. It is worth noting that credit risk management and loan performance are separate concepts and should be measured separately (Ghani & Mahmood; 2015; Ahmed & Malik, 2015; Basle Committee on Banking Supervision & Bank for International Settlements, 2004). Ahmed & Malik (2015) measured credit risk management using credit terms and policy (CTP), client appraisal (C.A.), collection policy (C.P.), and credit risk control (CRC). Though these classifications are important, they do not constitute a comprehensive approach to credit risk management (Basle Committee on Banking Supervision & Bank for International Settlements, 2004). There must be systems in place to identify, assess, and analyze and monitor credit risk.

2.2.5. Quality of Clientele Base and Loan Portfolio Quality

The quality of clientele base has a significant effect on an MFI's loan portfolio quality. Several studies have investigated the importance of the clients' networks and reputation in loan recovery and made mixed conclusions. For instance, Wydick et al. (2011) used information from an MFI in Guatemala that measured clients' social networks using social ties. He did not find evidence that stronger social ties were associated with better repayment of borrowers. Additionally, Ahlin & Townsend (2007) used survey data from borrowers of BAAC, an MFI in Thailand. They used social capital to understand clients' social networks and reputation. They focused on the extent to which group members were willing to share money, free labor and the extent to which they were willing to coordinate the transportation of crops, the purchase of inputs and sale of crops. They found a negative association between measures of social networks and client reputation and loan repayment. Postelnicu et al. (2015) focused on Microfinance institutions in Eritrea and used similar measures of social ties. Their research revealed that social networks and client reputation resulted in lower incidences of non-payment problems hence lowering non-performing loans and the risk of default.

In another study conducted on MFIs in Peru, Karlan (2005) focused on the extent to which group members share the same culture and live close to each other. His analysis suggested that social ties measured in this way are associated

with better repayment performance. Also, Cassar, Crowley & Wydick (2007) used survey data from borrowers in South Africa and Armenia. They focused on group homogeneity and intra-group trust and showed that both these measures were positively associated with a low portfolio at risk. Bao et al. (2018) investigated the impact of reputation on trustworthiness. Their findings revealed that despite reputation being quite limited, it remarkably affects trustworthiness and strengthens access to loans. Benabu & Tirole (2006) measured reputation using the social image. The idea here was that people care about how they or others perceive them, which increases the salience of the promise-keeping norm, thus inducing higher moral costs to promise-breaking. Through a series of these studies have shown a relationship between the quality of the clientele base and loan portfolio quality, it is worth mentioning that most of them are based on the group lending model. Nevertheless, MFIs also serve clients who borrow individually.

3. Method

This study adopted a constructive paradigm research philosophy to investigate the factors influencing the state of loan portfolio quality in Uganda (Guba & Lincolin, 1994). This paradigm was preferred because it encouraged researchers to create knowledge through interacting with study participants, creating dialogue and reasoning as the principal method of data collection or investigation (Guba & Lincolin, 1994). More specifically, a phenomenological method was adopted to understand how research participants (senior managers and credit managers) make meaning of the impact of capital structure, cost of capital, credit risk management, and quality of clientele base on loan portfolio quality in MFIs. Also, this approach allowed the researchers to effectively study a small number of subjects-16 participants to identify the core of their experiences about the topic (Creswell, 2003). The study purposively targeted MFI members of staff (senior managers and credit managers. According to Bhattacherjee (2012), the specific groups had adequate information on capital structure, cost of capital, credit risk management, and quality of clientele base. Hence, the technique ensured that appropriate elements were drawn from all institutions in the population to reduce the sampling error and simultaneously maximize representativeness. Qualitative data was collected using semi-structured interviews because they involve a level of questioning that is guided by identified themes. These themes consistently and systematically and allow the researcher to interject with probes to elicit more detailed responses (Qu & Dumay, 2011). With the permission of the respondents, all the interviews were audio-recorded. Each of the interviews lasted between 30 minutes to 1 hour, with an average time of 45 minutes. The responses generated were analyzed using QSR*NVIVO version 12 to get emerging themes and subthemes. Using Miles & Huberman (1994), and interactive model for qualitative data analysis, a conceptually-ordered matrix, and a dynamic-event causal network were generated, as seen in the emerging themes, sub-themes, and model as seen later in the results section.

4. Results

The study collected data from 16 interviewees; 10 senior managers and six credit managers from Microfinance Institutions registered with the Association of Microfinance Institutions in Uganda (AMFIU). This sample size was considered reasonable since it was in the range of 5 to 50 respondents recommended by previous scholars (Morse, 2000; Baker & Richards, 2012; Charmaz, 1990). Also, at this sample size, the researchers reached the point of saturation (Charmaz, 1990). This was done to understand the nature of the loan portfolio quality of registered Microfinance Institutions in Uganda. The demographic characteristics in Table 1 below show that the majority of the informants were male (11 respondents), with only 4 female respondents. The table also shows that most of the respondents were aged between 36 years and 45 years of age. This group was followed by respondents aged 46 years and 55 years, as well as respondents aged between 56 years and 65 years. The youngest group was the least aged between 26 years and 35 years. Most of the study respondents had attained a bachelor's degree (10 respondents) while a few had a master's degree (3 respondents) as well as a diploma (3 respondents). According to the study findings, the average number of work experience for the respondents was 13 years.

Table 1. Characteristics of key informants.

Cases	Age	Gender	Marital Status	Level of Education	Years in MFI	Position Held
1	26 - 35	Male	Single	Bachelor's Degree	7	Credit manager
2	36 - 45	Male	Married	Bachelor's Degree	11	Credit Manager
3	46 - 55	Male	Married	Bachelor's Degree	15	Senior Manager
4	36 - 45	Male	Married	Master's Degree	9	Credit Manager
5	46 - 55	Female	Married	Bachelor's Degree	16	Senior Manager
6	56 - 65	Male	Married	Diploma	19	Senior Manager
7	56 - 65	Male	Married	Bachelor's Degree	23	Senior Manager
8	36 - 45	Female	Married	Bachelor's Degree	8	Credit Manager
9	36 - 45	Female	Married	Bachelor's Degree	7	Credit Manager
10	36 - 45	Female	Married	Master's Degree	15	Senior Manager
11	36 - 45	Male	Married	Bachelor's Degree	12	Senior Manager
12	46 - 55	Male	Married	Diploma	16	Senior Manager
13	26 - 35	Male	Married	Bachelor's Degree	8	Credit Manager
14	46 - 55	Male	Married	Bachelor's Degree	14	Senior Manager
15	36 - 45	Male	Married	Master's Degree	12	Senior Manager
16	56 - 65	Male	Married	Diploma	20	Senior Manager

Source: Primary data.

4.1. Perceived Understanding of the Study Variables

The interviewees were asked to describe their understanding of each of the study variables (capital structure, cost of capital, credit risk management, quality of clientele base, and loan portfolio quality). This enabled the researchers to translate the narrative account into emerging themes and subthemes. These themes and sub-themes were used to come up with a hierarchical model connecting the themes and sub-themes with the aid of the model function in the NVivo version 12 program. The following sections present the perceived meaning of the five-study constructs and their key themes and sub-themes.

4.1.1. Perceived Understanding of Capital Structure

1) Theme-1: external and internal funding. The majority of respondents described equity capital to mean internally generated funds and debt capital to mean external funding. On analyzing the transcripts more in-depth, researchers established two sub-themes, savings/shares, and loans.

a) ***Savings***; Informants indicated that Microfinance institutions raise funds through accumulating savings for an extended period. However, these institutions face liquidity management challenges as a result of poor savings management. This problem gets deeper when MFIs fail to strike a balance between having adequate liquidity levels and having enough savings as capital. Also, although informants admitted to using share capital, they stressed that this form of funding would never raise enough capital for the firm.

b) ***Loans***; Interview transcripts revealed that external funding was perceived to mean loaned money from external funders. On the issue of loans, key informants noted that most Microfinance Institutions have asset-liability management challenges, coupled with a lack of competences at a firm level to engage with funders. Key informants clarified that MFIs need to engage the funders because the area of pricing is significant. Also, informants acknowledged that although the funding sources and policies are still favorable, most Microfinance Institutions have not reciprocated such policies from their lenders to their clients. Figure 1 summarises the above themes and subthemes in a reality radial diagram.

4.1.2. Perceived Understanding of the Cost of Capital

1) Theme-2: Pricing: The key informants described the cost of capital to mean the pricing associated with sources of funds. According to interviewees, when an MFI has a pool of funds, it is essential to look to the funding mix critically because that price is indirectly passed on to clients. This study identified two sub-themes; a) terms of credit and b) loan servicing fees.

a) ***Terms of credit***; Key informants acknowledged that terms of credit determine the price of individual loan facilities. Generally, respondents agreed that most of the borrowed funds have good terms. According to informants, loans have interest rates that range between 10% and18% percent per annum. One respondent re-counted "*on the upper hand*, *MFIs borrow at* 18% *annually*, *which*

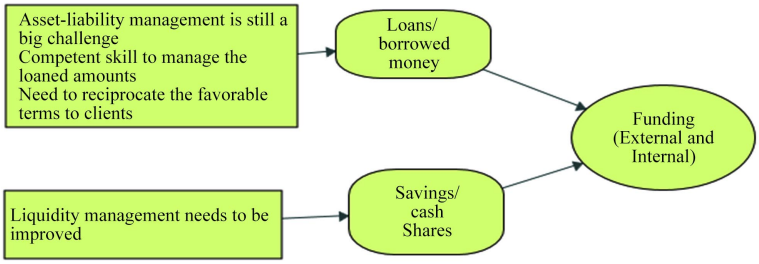

Figure 1. A reality radial diagram showing funding (External and Internal). Source: Primary data.

is 1.5% *per month*, *they lend at* 30% …. *the* 12% *difference enables them to do good business. On the lower end*, *MFIs that borrow at* 12% *and lend at* 30%, *they still have a margin of* 18%, *which is also still good*." According to respondents, the problem comes in when the affordable terms of credit are abused. For instance, it was surprising to find out that some institutions go-ahead to get lines of credit that are 70% or even 90% higher than the average lending rates in the market. Because of this, MFIs have been encouraged to have a sustainable plan other than borrowing. Informants were also quick to point out that when an institution is likely riskier, according to the funders' rating, then the pricing goes a little higher.

b) ***Loan servicing fees*****;** informants noted that service fees usually increase the cost of funds. According to the qualitative findings, service fees affect loan pricing. Service fees depend on the type of loan and the source of the loan. The majority of the respondents showed that service costs by most funders are usually between 1% and 2%. These fees are in the form of legal fees and loan processing fees. However, in some circumstances, there are other costs involved in loan servicing. For instance, qualitative findings showed that service costs also depend on the denomination in which the institution is borrowing. Firms that borrow in foreign currencies incur foreign currency translation fees. These views are indicated in the reality radial diagram for pricing shown in Figure 2 below.

4.1.3. Perceived Understanding of Credit Risk Management

1) Theme-3: Client/Borrower engagement. Informants perceived credit risk management as a client or borrower engagement. Two sub-themes emerged; review of client information before advancing loans and follow-up. The interviews suggested that it is imperative to engage clients or borrowers both, before granting them a loan facility and after issuing a loan.

a) ***Review borrower's information*****;** Informants noted that through the appraisal process, MFIs could understand the actual needs of the borrower. It was noted that firms need to first provide the prospective client (s) with the required information in the form of financial education. The informants urged loans officers to answer two basic questions before granting a loan; i) where does the process of lending to clients' start? ii) What process did the MFI go through to satisfactorily get the right clients? At the level of sensitizing and getting in touch

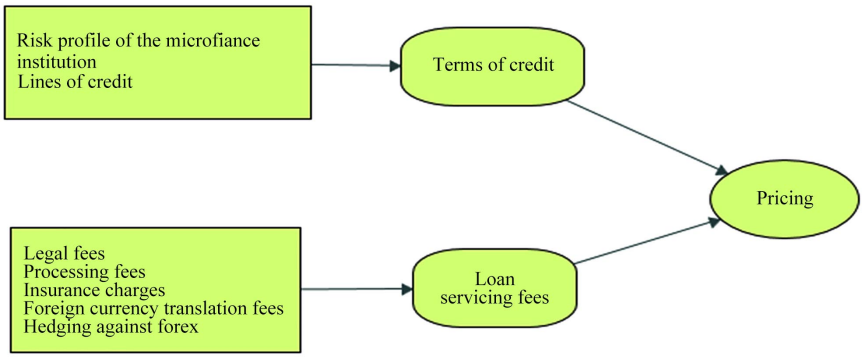

Figure 2. A reality radial diagram for pricing.

with clients, the kind of information given enables prospective borrowers to assess whether they need loans. The informants argued that in many cases, loan officers do not give sufficient and correct information to prospective borrowers. Informants noted that when handling the application process, most loan officers are only interested in getting the client to sign up for a loan. Therefore, information on the application form must be verified to assess if it is necessary and helpful in getting the right clients. Besides, key informants pointed out the desire by most MFIs to provide demand-driven and customized products, yet, there are not systems in place to support such a drive. As a result, different types of loan facilities are assessed using the same loan appraisal tools. Informants acknowledged that MFIs use generic repayment sheets for assessing all categories of loans. For instance, it was noted that an agricultural loan is appraised in the same way as any other business loan. Although many MFIs do agricultural financing, the capacity to assess the right clients for this type of Finance is still inadequate. A case in point is that of **Respondent 13,** who noted that more than 75% of our loans are in agriculture, but we do not have people trained in agriculture to assess who qualifies for an agricultural loan.

b) ***Follow-up*****;** Key informants acknowledged that due diligence is done before and after a loan is disbursed. For instance, one respondent narrated that on the loan application form, the MFI asks the borrower (s) to indicate how the money will be spent. Another informant added that "*If you indicated that you want the loan to mulch, within a certain time we come and see whether you have mulched.*" As part of the follow-up, if the loan was used for mulching, then, the skills of a person trained in agriculture are required to assess whether mulching was appropriately done, or was it just a matter of throwing grass everywhere. Also, with time loans, officers should require the borrowers to present their passbooks. Loan officers review the passbooks to determine the number of times borrowers get penalties. Monthly penalties are an indicator of a likely bad borrower if given another loan. Therefore, an institution could go ahead and advance a loan facility to such a borrower but with caution and appropriate stringent measures. The subthemes and themes (above) that emerged are summarised into a reality radial diagram for client engagement. See **Figure 3**.

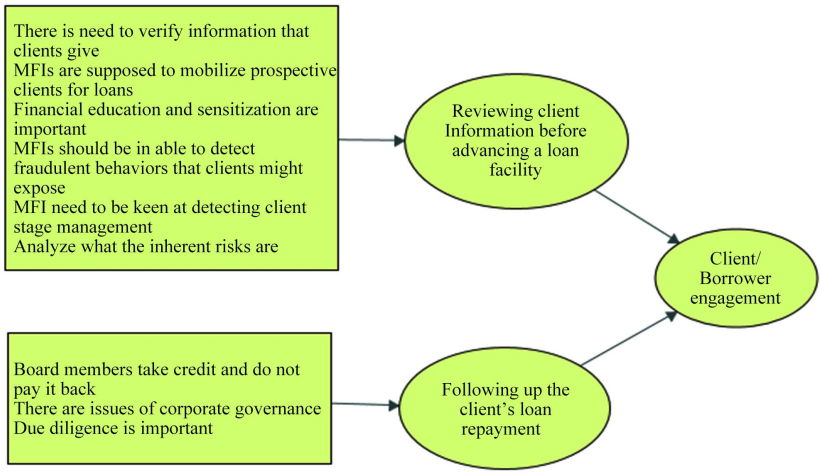

Figure 3. A reality radial diagram for client engagement.

4.1.4. Perceived Understanding of the Quality of Clientele Base

1) Theme-4: Social capital. Informants perceived quality of clientele base as social capital Participants specified that although microfinance institutions cannot change the format of the market they operate in, they must learn to adapt to survive. The interviews suggested that social capital is one thing to leverage upon and take advantage of the client's social set up. One respondent asserted that the most significant asset that the loan officer has is his or her ability to assess microfinance clients' social capital. It is essential to look at each client uniquely and work closely with him/her while understanding his or her unique circumstances. Two subthemes emerged; peer pressure and society's perceptions.

a) ***Peer pressure*****;** Respondents noted that 95% of MFI borrowers do not have conventional security, such as land titles. As a proxy for security, MFIs require borrowers to present influential guarantors who are trustable and who can pay without a problem in case the borrower defaults. Also, guarantors should be able to take on the responsibility of checking on the borrower to ensure that loan funds are not diverted or misused. When there is a problem, guarantors are expected to inform MFIs to work out a solution. According to findings, peer lending works very well, especially for small loans. Respondent 8 put it this way "*In peer lending, clients have relationships in villages; they treasure these relationships, and they would rather be in bad books with the bank than be in bad books with their neighbors.*" However, peer pressure only works well if clients have common interests.

b) ***Society's perceptions*****;** Findings acknowledged that in case a client qualifies for a loan facility, loan officers make arrangements to go to that person's place to assess what he/she is going to do with the loan. Interviewees said that they usually talk to neighbors to get to know the general conduct of this person, as shown in **Figure 4**. They noted that it is essential for the questions not to be direct and called for the loan officer's tactful skills. Respondents pointed out that some neighbors tend to give correct information about a client while others cover up for the client in case there is a problem. Informants noted that MFIs

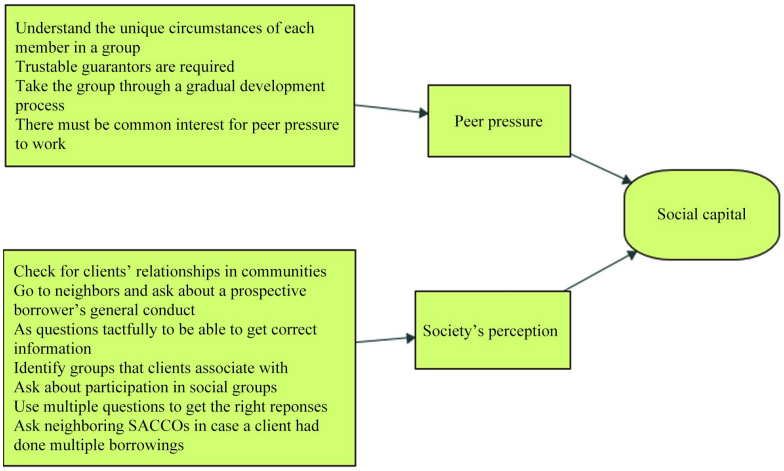

Figure 4. Reality radial diagram for social capital.

advise their loan officers to ask multiple questions to get the right responses. On this point, respondents also agreed that it is crucial for loan officers to establish a relationship with members of the community to be able to extract the right information about a prospective client. Also, respondents said that they identify potential borrowers by asking neighboring SACCOs where the person might have borrowed in the past. If the applicant had defaulted in other SACCOS, the members of the community would inform loan officers that there are other SACCOs or MFIs which have been around "*hunting*" down the said person. This information helps MFIs to assess whether the loan applicant was truthful during the desk appraisal process. See **Figure 4**.

4.1.5. Perceived Understanding of Loan Portfolio Quality

1) Repayment; Key informants described loan portfolio quality as repayment. In line with this theme, the study identified two sub-themes, determining the appropriate provisions and restructuring/refinancing loans.

a) ***Restructuring/refinancing***; The findings indicated that many MFIs restructure their loans usually towards the end of the year or any reporting period. Refinancing loans is done to reduce the effect of non-performing loans. Interviewees noted that when a loan is restructured, it is given a new period, and it is as if it becomes new again, but in reality, it is not paid. Therefore, the ratios generated at the end of the month or any reporting period show a better picture than the actual problem. Respondents agreed that two or three months later, the problem resurfaces. The extent of that might be more in microfinance institutions than in the regulated institutions.

b) ***Determining appropriate provisions***; **Figure 5** below shows that key informants agreed that financial institutions regulated by the central bank of Uganda have a higher capacity to detect the extent to which loans have been refinanced or restructured. They added that for refinanced or renegotiated loans, there are explicit provisioning rates in place. However, since microfinance institutions are not regulated, there are no adhered to provisions for restructuring. It was noted that there are proper systems for making provisions in most MFIs.

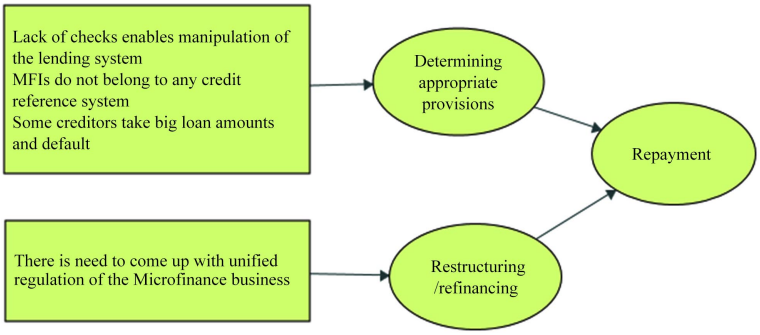

Figure 5. A reality radial diagram for repayment.

The findings made it clear that MFIs are not on any credit reference system, so they cannot detect who is defaulting. These views are summarized in the reality radial diagram below in **Figure 5**.

4.2. A Summary of All the Themes and Sub-Themes

Figure 6 below covered the concept repayment (loan portfolio quality) focusing on registered Microfinance Institutions in Uganda. Data was obtained from senior managers and credit managers because they knew the current state of non-performing loans, loan loss provisions, and portfolio are risk levels in MFIs. Loan portfolio quality was explained by capital structure, cost of capital, credit risk management, and quality of clientele base. The emergent themes from the qualitative phase, as well as the subthemes there were translated into a narrative account using NVivo version 12. The chart below (**Figure 6**) shows the main themes of this study to be; funding, pricing, social capital, and client/borrower management. A range of subthemes were identified under each of these themes. From the primary data, the funding theme was described as; asset-liability management, liquidity management, and having competent skills to analyze both internal and external funding. The subthemes under client/borrower management included; exercising due diligence, detecting fraudulent behaviors, detecting client stage management, ensuring financial education, verifying client information, ensuring client sensitization, and analyzing inherent risks. The theme of pricing took into consideration subthemes such as; legal fees, loan processing fees, analyzing an institution's risk profile, insurance fees, availability of reliable lines of credit, and foreign currency translation fees. Social capital was perceived to mean; getting information about clients from neighbors, neighboring SACCOs, understanding each client's unique circumstances, understanding the role of peer pressure, and social groups in enforcing repayments and trustable guarantors.

5. Discussion

5.1. Rq_1: What Is the Impact of Capital Structure on the Loan Portfolio Quality of Uganda's Microfinance Institutions?

The results revealed that capital structure influences the loan portfolio quality in Microfinance institutions in Uganda. For instance, according to **respondent 1**;

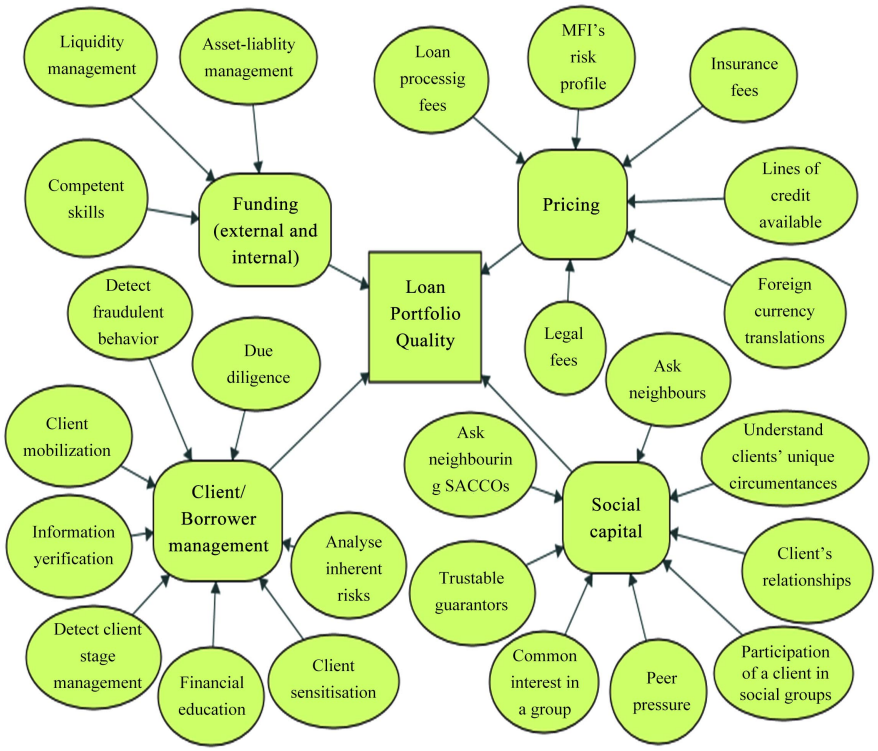

Figure 6. Reality Hierarchical Model for repayment. Source: Primary data.

"*In terms of the length of the loan, we get loans for longer periods … a certain Microfinance institution got into trouble and eventually collapsed because it had a massive loan.*"

This finding is in line with past empirical work (Lislevan, 2012; Daher & Saout, 2015; Kyereboah-Coleman, 2007). Lislevan (2012) analyzed the effect of capital structure on loan performance of 403 Microfinance Institutions from 73 countries. He found that an increase in equity capital attracts higher taxes on the earning of the firm and, as such, reduces the value of the firm and the amount left in the MFIs loan book. In line with this, Daher & Le Saout (2015) advised that an MFI should prevent itself from excessively leveraging on its funds to finance its portfolio since excessive leverage would increase its risk profile. Kyereboah-Coleman (2007) studies a data-set of 290 MFIs from 61 countries. He affirmed that debt-financing enables MFIs to reach many customers better and experience more significant economies of scales, allowing MFIs to better cope with moral hazards and low repayment periods.

5.2. Rq_2: Does the Cost of Capital Influence the Loan Portfolio Quality of Uganda's Microfinance Institutions?

Regarding this finding, key informants pointed out that debt serving fees, that is, legal fees, loan processing fees, insurance charges, foreign currency translation fees for dollar-denominated debt, increase the cost of debt. These costs are directly passed on the MFI borrowers. In turn, it increases the client loan burden and threatens early repayment. There is evidence in the literature that concurs

with this insight. For instance, according to Ahmad & Jamal (2012), the cost of capital increases the administrative costs of a Microfinance institution. The authors explained that administrative costs represent an element that is important in determining loan repayment levels. They argued that controlling for administrative costs is closely related to the concept of loan management efficiency. Other studies including; Tehulu (2013), Kiiru (2007), Siddik, Kabiraj, & Joghee (2017), Fersi & Boujelbene (2017), El-Masry, Elbahar, & AbdelFattah (2016) and Bayai & Ikhide (2016) hold the same line of argument. All these studies agree that a lower cost of capital is associated with lower loan loss provisions. Although debt raises the cost efficiency of Microfinance institutions, care must be taken not to overuse it. This is because debt invites high servicing fees, which in turn spark bankruptcy and reduce the quality of the loan portfolio. Also, administrative costs and fees incurred in maintaining an optimal capital structure might lead to mission drift under debt financing as MFIs struggle to achieve better financial performance.

5.3. Rq_3: How Does the Credit Risk Management Process Impact the Loan Portfolio Quality of Microfinance Institutions in Uganda?

From the qualitative data excerpts, key informants emphasized that to achieve high loan recovery rates, Microfinance institutions must have a process in place to determine a client's ability to pay. This process should be based on the satisfactory information that clients provide, the ability of loan officers to educate prospective clients about the importance of providing truthful information, and the willingness of loan officers to help clients understand why an MFI is interested in client information. Respondents also pointed out the importance of continuous client monitoring in achieving a quality loan book. The excerpts showed that monitoring the client's repayment status is not only vital in achieving low levels of non-performing loans but also in reducing the institution's portfolio at risk. Respondents advised that for MFIs to achieve high loan repayments, clients must present their passbooks at different intervals. From the passbooks, if clients are continuously paying monthly penalties to arise, it is an indicator that such a client might either fail to repay all or part of the loan on time. Such a scenario might require an MFI to make a provision for non-performing loans.

In line with the above findings, Balogun & Alimi (1988) identified that one of the significant causes of loan default was inadequate supervision. In the same line, Kohansal & Mansoori (2009) elaborated that most of the defaults arose from inadequate management procedures, loan diversion, and blatant unwillingness to pay by a client. Indeed, the authors were of the view that Microfinance institutions devise various institutional mechanisms aimed at reducing the risk of loan defaults. These mechanisms suggested include; pledging of collateral and third-party credit guarantees. As a result, it was emphasized that credit analysis of potential borrowers should be carried out to judge the credit risk with

the borrower and to reach a lending decision.

On credit risk monitoring, past literature has emphasized that loan repayment should be monitored and whenever a customer defaults, action should be taken (Ahmed & Malik, 2015; Mileris, 2012; Ghani & Mahmood, 2015; Ibtissem & Bouri, 2013). The authors agree that credit risk management offers a structured approach to compounding a loan portfolio of the acceptable risk. This can be done through; 1) providing effective assessment models, 2) putting in place a credit policy that addresses all terms and conditions of a loan, 3) synchronizing dates of loan disbursement, 4) emphasizing that borrowers' credit history as reflected in their loan files, 5) performing a cost-benefit analysis, 6) classification of borrowers according to a risk factor, 7) performing regular forecasts, and 8) benchmarking with other risk monitoring functions.

5.4. Rq_4: How Does the Quality of a Microfinance Institution's Clientele Base Influence Its Loan Portfolio Quality?

The failure of the MFI-client relationship in the loan recovery process is mostly dependent on failure to assess clients' networks and reputation. Respondents of this study agreed that since close to 95% of MFI clients rely on social capital as a proxy for "conventional" collateral, it is imperative to interact with the clients' social groups and their neighbors. This argument is made clear by **respondent 5**, who explained the importance of getting information about clients from their surrounding environment as follows.

"*By the time we go to a place, we know that these clients have social groups like* ***tweziikye*** *…, we ask about how cooperative a particular individual is in participating in such groups.*"

This study is further supported by previous literature, particularly, studies by Ahlin & Townsend (2007) and Postelnicu et al. (2015). Ahlin & Townsend, (2007) who found a positive association between clients' social networks and repayment levels. Indeed, a more trustable, more dependable, more admirable, and socially active clientele base may seed up the loan repayment process. Social networks and reputation in society are critical for low-income credit borrowers since it substitutes for the lack of physical collateral (Postelnicu et al., 2015).

6. Conclusion

We conclude that capital structure has an impact on loan portfolio quality. Capital structure strategies that incorporate leverage positively affect loan portfolio quality. Therefore, for MFIs to reduce default rates, a financing structure that reduces a tax burden, with a manageable gearing ratio and whose proportions of equity and debt in the financing mix are adjustable, is preferred. We conclude that the cost of capital affects loan portfolio quality. Therefore, the researchers recommend that institutions use capital that; attracts lower interest rates, a manageable insurance cover, a flexible dividend policy, and adjustable loan terms, less administrative costs, and less servicing costs.

We also conclude that credit risk management has an impact on loan portfolio quality. Credit risk management strategies that incorporate a systematic process for credit risk identification, risk assessment, and risk monitoring are fundamental in reducing the level of non-performing loans. For sufficient risk identification, emphasis should be on; performing regular risk mapping, aligning credit policies to address all credit terms and loan conditions, using objective-based risk identification techniques, and ensuring that persons approving loans are authorized to do so. To perform operational risk assessment, MFIs should focus on performing a cost/benefit analysis, classification of borrowers according to a risk factor. While, in executing the risk monitoring task, Microfinance institutions should consider; performing regular forecasts to observe whether the delinquent loan list is up to date, use a risk matrix to analyze loan repayment trends, and follow up on adherence to the collection period.

This study also concludes that the quality of the clientele influences loan portfolio quality. In identifying a borrower, MFIs should look into the social networks and reputation of prospective clients. Effort should be in observing whether clients are dependable, the level of trust they command in their circles, whether they are reliable members of society, have a record of profitability in their small businesses, leadership positions, and they have a high level of accountability.

7. Implications and Main Contribution of This Paper

7.1. Theoretically

The study confirmed that the modern portfolio theory provides supporting ground to explain the concept of loan portfolio quality in the Microfinance sector. In agreement with the theory proponents, it was confirmed that indeed for microfinance institutions to achieve the highest returns in the form of a quality loan portfolio, care must be taken to minimize portfolio risk.

7.2. At the Managerial Level

The results in this study proposed several issues that need serious attention from managers and researchers in the Microfinance space.

The study has introduced a more detailed understanding of loan portfolio quality in Microfinance institutions in Uganda. Specifically, the study elaborated on the extent to which loan portfolio quality in Microfinance institutions is influenced by capital structure, cost of capital, credit risk management, and the quality of clientele base. Microfinance staff, especially top management, can base on these insights to improve MFIs' loan book. This can be facilitated through management appropriately focusing on improving debt and capital components in capital structure and re-thinking credit identification, credit analysis, and credit monitoring strategies in their credit risk management systems.

Microfinance institutions need to appreciate the essential role of credit risk management as well as the intricacies of Microfinance funding. This should be

given priority for two significant reasons; 1) the main business of any financial institution (in this case, Microfinance) is to give out credit in the form of loans. Close to 85% of Microfinance business is related to credit. 2) For Microfinance institutions to stay in business and become self-sustaining, they must have a sustainable and cheap source of funding. Appropriate funding enables Microfinance institutions to expand their economies of scale. Therefore, for Microfinance institutions to become fully operational and grow into self-sustaining businesses, they must continue not only to seek the right financing sources (debt and equity) but also internally manage their credit management systems (risk identification, risk assessment, and risk monitoring).

Also, skilled loan officers should be employed to assess the conditions (unforeseen circumstances) beyond the control of the borrower. That is, whether market and competition affect the payment capacity of the borrower. MFIs should be in place to assess how a drop or an increase in agricultural production would affect the client's repayment capacity.

The cost of debt greatly determines how MFIs loan portfolios perform. Thus, this should be a point of reflection for current and future managers of these institutions. Efforts should be in place to source for cheaper capital while at the same time not risking the values of a Microfinance Institution. For instance, many of the MFIs who are engaged in agricultural Finance should take the opportunities available. The government of Uganda has an agricultural insurance scheme where different insurance companies are participating, and the government is subsidizing that program. MFIs should take advantage of that opportunity to reduce the seasonality risk associated with agricultural Finance. Also, the government, through PROFILLA, has pledged to give MFIs support of up to 70% of the cost to enable them to develop working management systems.

8. Limitations of This Study and Areas for Further Research

1) This studygeneralized clients of Microfinance institutions. A study that compares borrowers on a group lending vis-a-vis individual basis could further highlight the borrowing behaviors and repayment patterns.

2) The outcomes of our study categorized capital structure as debt and equity only. Future studies could look at the financial structure basing on the level of growth of a Microfinance institution. This could explain variations in the cost of capital and loan portfolio quality of Microfinance institutions across the country.

3) This study concentrated on studying the impact of capital structure, cost of capital, credit risk management, quality of clientele base on loan portfolio quality in registered Microfinance Institutions in Uganda. Another study should be carried out comprising of other factors that were not part of the model.

4) The current study focused on registered Microfinance institutions in Uganda. A comparative study on the loan portfolio quality in Sub-Saharan Africa could paint a bigger picture of the current state on Microfinance Institutions in Africa.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Appendix A: Interview Guide

We are researching **the impact of Capital Structure, cost of capital, Credit Risk Management, and quality of clientele base on Loan Portfolio Quality of Registered Microfinance Institutions in Uganda.** We request that you kindly spare some time to complete this interview guide, which will take 45 to 1 minutes of your time. Your response will be used for academic purposes only and treated with the utmost confidentiality. Kindly note that your tireless support and effort in making this study success is very much appreciated, and in case you are interested in the outcome of the study, please kindly provide your contact address below.

	General Questions	Probes
1	How would you describe the loan portfolio quality of your firm in the last five years?	- What is your comment on: Portfolio at risk? Loan loss provisions? Non-performing loans?
2	In your opinion, how do you perceive the role of capital structure in influencing loan portfolio quality?	- Explain how the capital structure could have affected loan portfolio quality. - Do you believe that the financial structure of an MFI affects loan portfolio quality?
3	How do you value the contribution of the cost of capital to this firm loan book performance?	- How do you perceive the cost of capital? - How far do these costs go, in your opinion? - Are they mainly financial or administrational costs? - Do you think these costs are a threat to loan portfolio quality?
4	Take me through the procedures this firm's credit system goes through to ensure loan repayments?	- How do you identify potential credit risk? - Do you have credit assessment tools? - What credit assessment tools do you use? - Do you have any credit monitoring tools? - Does your credit policy influence loan repayments?
5	How does your firm get to know the different circumstances that surround each customer?	- Do you have connections in communities? - Do you have a relationship with your clients beyond giving them loans? - How often do you visit client premises? - Do you know the kind of activities that take place in communities where your clients live?
Respondent's signature		**Tel**