Financial Analysis of Microfinance Institutions in Rwanda, a Framework for Performance Evaluation, 2006-2010

By

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Rwanda

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DEDICATION

This piece of work is dedicated most especially to my parents for their inspiration and unconditional love.

To my wife, sisters, brothers, in laws and friends who offered encouragement and motivation throughout the course of my MBA studies.

I share this tremendous achievement with you all, God Bless You.

DECLARATION

I, Innocent MUNYAKAZI, declare that the present research work, presented in this dissertation is my own contribution. It has never been submitted anywhere for a similar award at any institution of higher learning or university and no part of work has been referred to without acknowledgement.

Signature

Innocent MUNYAKAZI

CERTIFICATE

I, Dr Shaik Nagoor MEERA, certify that Mr Innocent MUNYAKAZI, did the present work entitled Financial Analysis of Microfinance Institutions in Rwanda, a Framework for Performance Evaluation, 2006-2010 under my supervision and therefore his work deserves consideration for the award of a Master's Degree in Business Administration.

Signature

Dr Shaik Nagoor MEERA

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Preparation of a study like this is only possible with the assistance, cooperation and participation of many individuals and institutions. I may, therefore, not be able to mention all of them but let them be assured that I have really appreciated their contributions, which shaped this research study into this form.

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ABSTRACT

The study deals with financial analysis of microfinance institutions in Rwanda as a framework for Performance Evaluation. The study reveals that there has been anarchical creation of microfinance institutions between 2003 and 2005 in Rwanda. This generated worries at all levels because of the non-compliance with regulations into force by MFIs, given that they started to operate without prior authorization by the monetary authority; Central Bank of Rwanda. At the beginning of the year 2006, a number of MFIs collapsed due to poor corporate governance, unprofessional hostile competition and poor internal organization that led to undiscovered mismanagement and loss of confidence.

In a quest to regulate the industry and also to react to the crisis, the Central Bank and the Ministry of Finance and Economic Planning concerned to open up a planned frame of national policy and strategy as regard to microfinance. The national microfinance policy was adopted by the Government in 2006 and the strategy of its implementation, and thereafter, the National Bank of Rwanda drafted a specific Law establishing the organization of microfinance activities and its implementing regulation.

The study goes on analysing the financial statements of microfinance institutions, over five years from 2006 to 2010, using various techniques and tries to establish the relationship between financial management systems and performance. The characteristics examined include the following; vertical and horizontal analysis, key ratios mainly loan portfolio quality ratios, solvency and liquidity ratios, efficiency and productivity ratios, sustainability ratios, and scale and depth of outreach.

The study consisted in an analysis, over five years from 2006 to 2010, of financial data from COOPEDU in parallel with MFIs members of Association of Microfinance Institutions of Rwanda (AMIR). The results put forward that the industry is slowly by slowly recovering after the 2006 crisis. Financial performance indicators show that the MFI sector has achieved tremendous growth towards sustainability.

Efficient legal framework including close, thorough and regular review of MFIs systems by regulators and monitoring skills of those MFIs could enable the sector to find sustainable solutions to the problems it faces.

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List of Acronyms and Abbreviations

AMIR: Association of Microfinance Institutions of Rwanda

AQUADEV: International Belgian Non-Government Organisation promoting Microfinance for Rural Poor

BNR: Banque National du Rwanda (National Bank of Rwanda)

CAS: Capital Adequacy Standard

CGAP: Consultative Group to Assist the Poor

COOPEDU: Coopérative d'Epargne et de Crédit Duterimbere

DRC: Democratic Republic of Congo

FMS: Financial Management Systems

GDP: Gross Domestic Product

IMF: Institution de Micro Finance

IT: Information Technology

MBA: Masters of Business Administration

MFI: Micro Finance Institution

MINECOFIN: Ministry of Economy and Finance

MSM: Maastricht School of Management

NGO: Non-Government Organisation

RCA: Rwanda Cooperative Agency

ROA: Return on Assets

ROE: Return on Equity

SACCO: Savings and Credit Cooperative

SFB: School of Finance and Banking

SMGF: Société Mutuelle de Garantie et de Financement des IMFs

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CHAPTER 1: INTRODUCTION

1.1. Background

Rwanda is a small developing country, land locked in Central Africa situated between the Democratic Republic of Congo (DRC) to the West, Uganda to the North, Tanzania to the East and Burundi to the South. The important resource available for the country is the labour occupied mainly in traditional agriculture for home subsistence.

The Rwandan financial sector is composed of banking institutions including mainly commercial banks and microfinance institutions (MFIs), which are in general providing rudimentary traditional services namely taking deposits and lending to local business. Besides banking institutions, non–banking organisations such as insurance companies also perform a variety of activities regarding financial services.

Irrespective of the World economic slowdown, the Rwandan Gross Domestic Product (GDP) increased from 7.2% in 2010 to 8.6% in 2011. Throughout the year, the financial sector was well capitalized and profitable, thus maintaining adequate levels of liquidity to finance the economy. The banking sector realised a remarkable annual total assets growth of 24.5% and capitalisation increased by 27% irrespective of the general World financial sector shortfall throughout 2011. The microfinance sector continued expansion of its balance sheet, realizing 12.1% annual growth resulting notably to the introduction of UMURENGE SACCOs contributing to 37.6 % of the sector's total assets (National Bank of Rwanda Annual Report 2011).

In Rwanda, the idea and implementation of micro finance has become a hot topic and is currently at the central stage in wide range of researches and reports. Microfinance institutions are generally believed to be one of the most efficient tools to alleviate poverty and play an important role in development policy.

The biggest trend sweeping microfinance industry today is commercialization. Simply put, commercialization means a more business-like approach to microfinance, implying principles of

sustainability, professionalism and efficiency in the management of microfinance institutions and provision of microfinance services (Drake and Rhyne 2002). The main driver of this commercialization is the need to improve access to funding by microfinance services providers to serve greater number of people who have not traditionally had access to financial services. Access to funding is considered by many to be the largest obstacle to the expansion of microfinance services.

The microfinance industry in Rwanda is still at the infant stage. By March 2012, there was about 66 microfinance institutions licensed by the Central Bank of Rwanda, excluding UMURENGE SACCOs. The integration of microfinance with the commercial banking sector is considered necessary in the transformation and regulating of microfinance institutions. It also constitutes the opportunity to the existing commercial banks to adventure into a long considered unprofitable market.

With the intense competition, microfinance institutions must perform their activities professionally in order to win the market and avoid financial distress. The most critical activity is to ensure an efficient and effective financial management system to allow them run their day to day activities as well as assures the on-going business in the long term perspective.

This study presents, over a five years period from 2006 to 2010, an analysis of the financial statements of COOPEDU and other MFIs as aggregated by AMIR with the purpose of providing an indication of the overall MFI industry position in regards with the financial performance and the status of the accounting and management information systems in Rwanda MFIs in general.

1.2. Problem Statement

After the disastrous events of 1994, Rwanda lost greatly in all sectors. The genocide and massacres have caused death of over a million of human lives but also had left a devastated country, at damaged socio-economic infrastructures and a production system completely destroyed. The financial system was not saved from those events.

To rehabilitate the financial system, the government has been promoting the microfinance industry in line with its strategy of mobilizing domestic savings and build an inclusive financial system. The

FinScope Rwanda 2008 survey revealed that only 21% of adults have access to formal financial services and that 52% of Rwandans are financially excluded (FinMark Trust 2008).

Some microfinance institutions have recorded tremendous success in Rwanda. Nevertheless, a question has risen recently in 2006, some MFIs collapsed after an operational life below 3 or 5 years and the Central bank was obliged to close them down. Instances of closed down microfinance institutions include among others GWIZA Microfinance SA, INTAMBWE Microfinance SA, URUMULI Microfinance SA, ONGERA Microfinance SA, Compagnie de Micro finance URUGERO SA, GISUBIZO SACCO etc.

Following the failure, the questions arise: Why did these microfinance institutions fail? May the viability of the sector being held responsible of the financial distress occurred in those MFIs or does the failure being explained by other factors of performance which were in lack in these MFIs? The issues of lack of professionalism in terms of accounting and management information systems or simply poor financial management is listed alongside with other limitations and obstacles that continue to haunt the potential outcomes of microfinance institutions, such as selection bias and lack of entrepreneurial knowledge amongst lenders in microcredit. This pushed us to explore this other limitation; lack of professionalism in financial management of microfinance institution in Rwanda.

These obstacles have to be addressed in order for microfinance institutions to continue growing in the future. In order to reach prosperity and increased financial income, there is a need to improve the governance of MFIs and to take care of their compliance with regulations, especially with prudential standards through a sound accounting and management information system.

1.3. Objectives of the study

1.3.1 General Objective

This research study targets to conduct an analysis of the performance of Rwandan MFIs using financial statements analysis techniques namely the horizontal and vertical analysis as well as performance

indicators commonly accepted for an MFI usually known as prudential ratios and be able to draw a conclusion as to whether or not the sector is viable.

1.3.2 Specific objectives

- To review the strategies, policies and regulations which are governing MFIs in Rwanda,
- To examine MFIs' accounting and management information systems which can determine the level of compliance with established laws, regulations, directives including other best practice guidelines,
- To analyse and evaluate, over the period under study, the financial performance of Rwandan MFIs by using horizontal, vertical, trend and ratio analysis techniques namely the loan portfolio quality ratio, the solvency and liquidity ratios, the profitability and sustainability ratios, the productivity and efficiency ratios, as well as the scale of outreach position, and
- To propose suggestions for improvement of MFIs financial performance.

1.4. Research Questions

- What are the existing strategies, policies and regulations in place to govern and safeguard the microfinance activity in Rwanda?
- Why did some MFIs fail their existence in a short span of time between 3 and 5 years?
- Where does the MFI industry stand as far as BNR prudential ratios are concerned?
- Is the MFI industry viability really threatened?

1.5. Hypothesis

The researcher assumes that the sound accounting and management information systems of an MFI helps to achieve better performance and sustainability, while poor systems lead to inefficiencies.

The independent variables include the accounting and management information systems in place composed of MFI's accounting systems, cash and bank management systems, corporate governance,

staffing, internal control policies and procedures, internal and external audit functions as well as various laws and regulations put in place by various regulators.

On the other hand, the dependent variables are the key performance indicators as analysed by Horizontal / trend, vertical and ratio analysis techniques.

1.6. Description of Research Methodology

The research study implicates both primary and secondary data. In analysing the data, both qualitative and quantitative approaches were used. The total 66 MFIs licensed by the central bank as at March 2012 constitutes the total population of the study. Convenience sampling technique was used to select 4 microfinance institutions in which the unstructured interview was conducted to collect qualitative data about MFIs' accounting and management information systems.

Theoretical review of microfinance historical background and financial performance analysis tools applicable to microfinance was done through reading books, periodical publications, reports and journals on the subject.

Facts and figures regarding the evolvement of the Rwandan micro finance industry were taken from the key MFIs' stakeholders reports namely National Bank of Rwanda, MINECOFIN, AMIR, AQUADEV to name but a few. The historical balance sheet and income statement data were taken from COOPEDU and MFIs members of AMIR in a consolidated form.

The horizontal, vertical and ratio analysis techniques are used to analyse the financial statement data. Guided by the financial management systems assessment questionnaire, interviews to get a feeling of the current status of accounting and management information systems also referred here as financial management systems in Rwanda MFIs were conducted in four MFIs namely COOPEDU, INKINGI, AGASEKE (currently reporting as a bank) and Vision Finance Company. In other words, the aim of this interview was to acquire some qualitative information on the status of compliance to policies and procedures as well as best practices in place and determine its influence on overall performance.

In this research, there are a number of concepts subject to both quantitative and qualitative analysis and therefore qualitative and quantitative approaches have been used.

Several methods to collect primary data as well as secondary data were used. For primary data, observation, direct unstructured interviews through a semi structured questionnaire to get a feeling of the accounting and management information systems of Rwanda MFIs have been used.

For secondary data, reports from COOPEDU, the central bank as well as the Association of Microfinance Institution of Rwanda (AMIR), topic's related researches publications, magazine, journals, text books and internet sources were considered.

1.7. Choice and Significance of the study

The choice of the research topic was motivated in the first instance by the researcher's long association with the Rwandan microfinance industry.

Moreover, completing the program of MBA in Finance, it is expected that the contribution of this research in that particular sector is very important and beneficial to the Central Bank and MFIs, by helping to take some corrective actions aimed at enhancing the professionalism in the Rwandan MFI's financial management.

To the researcher, the study is expected to add gradually to the existing knowledge about professional financial management in practice, especially in MFIs as well as other financial institutions.

To the School of Finance and Banking (**SFB)** and MSM because the final serves as a tool of reference to the future researches and advanced studies and to the community by taking into account the research findings, results and recommendations that contribute to the thinking of the community.

1.8. Scope and Limitations of the study

The main focus is to examine MFI's accounting and management information systems; conducts an analysis of the financial statements of COOPEDU in parallel with industry's and draw a comparison between the two analyses. The financial statements analysed in this study cover a five year period (2006 – 2010). The period chosen gives the most latest accurate available information for both COOPEDU and the industry's as consolidated by AMIR. Furthermore, a period of five years is normally enough to assess potential major changes, trends and performance.

The accounting and management information systems were assessed in only 4 MFIs namely COOPEDU, INKINGI, AGASEKE and Vision Finance Company out of 66 MFIs licensed by the National Bank of Rwanda by March 2012. The financial data for comparison purpose from the financial statements were obtained from COOPEDU while the consolidated version came from AMIR.

The researcher had to analyse the performance indicators namely loan portfolio quality, productivity and efficiency, financial structure, solvency and liquidity, sustainability and profitability, scale of growth and outreach, from 2006-2010. Due to a number of constraints; unavailability or inaccessibility of individual MFIs information, among others, consolidated data from other MFIs, i.e. industry average data compiled from some MFIs member of AMIR are used for comparison. Although these data are from a big number of MFIs operating in Rwanda, there is likely chance to be deviation from the actual situation than if all the MFIs were to be taken into account.

Another weakness is that it was not possible to identify the individual MFIs that contributed data for aggregated MFIs, their joining date to AMIR, the respective experience behind them as well as other differences among those MFIs. The researcher could neither establish whether or not these financial statements are audited. The analysis was also conducted on subsets of performance indicators but these were carefully chosen across a range of areas in order to reasonably gauge the overall health of MFIs.

The above mentioned limitations are not exhaustive but do represent a core group of challenges, which should be kept in mind when applying the results to another situation. The results are only intended to

provide directional information about the requirement for good financial management framework in Rwanda MFIs to be able to reach desired performance.

1.9. Organization of the study

The research study is structured as follows:

Chapter one introduces the work by briefly talking about the framework and context under which the research was undertaken. Chapter two provides a survey of the literature relating to microfinance as well as techniques for financial analysis applicable to MFIs.

Chapter three describes the methodology used to conduct the research presented herewith including the data sources, the weakness of the methodology, the data analysis process and presentation.

The next chapter four presents findings from the outline of MFI strategies, policies and regulations, major causes of 2006 crisis, an analysis of key performance indicators of COOPEDU and MFIs members of AMIR; i.e. horizontal, vertical and ratio analysis of COOPEDU's financial statements in parallel with the consolidated financial statements of MFIs members of AMIR, and ends with a short summary of key findings about the status of the accounting and management information systems in Rwandan MFIs.

The last chapter, five, provides concluding remarks, and recommendations and suggestions for further researches.

CHAPTER 2: LITERATURE REVIEW

The literature elaborates on theoretical framework of the present study with various definitions of key concepts necessary for the well understanding of the subject being studied. In this chapter, the researcher is taking into account views and ideas from other researchers about microfinance concept, accounting and management information systems or simply financial management systems and business financial analysis with the emphasis on Microfinance type of business. In others words, the chapter attempts make a review of what other authors and thinkers wrote about financial analysis and performance evaluation criteria for the MFIs.

In general, the chapter focuses on financial analysis of the Microfinance Institutions from a theoretical point of view. It gives some basic hints about the microfinance as well as financial analysis tools applicable to micro finance.

2.1. The Concept of Microfinance

Platteau and Hedwig (2009) define Microfinance as the practice of providing small scale financial services to the world's poor, mainly loans and savings and increasingly other products like insurance and money transfer.

According to www.investopedia.com; microfinance is a type of banking service that is provided to unemployed or low-income individuals or groups who would otherwise have no other means of gaining financial services. Ultimately, the goal of microfinance is to give low income people an opportunity to become self-sufficient by providing a means of saving money, borrowing money and insurance.

The instruction no 02/2009 of the Central Bank of Rwanda defines microfinance as the act of an individual or legal entity to:

- either grant credit to a clientele which is not normally covered by classic banking and financial systems and/or which has no sufficient collateral as security to ensure full reimbursement of the granted loans;
- or collect savings from a clientele which is not normally serviced by the classic banking and

financial system and / or which has no sufficient collateral as security to ensure full reimbursement of granted loans, if such a loan was granted to it;

- Or grant credit to a clientele which is not usually covered by the classic banking and financial system and/or which has no sufficient collateral as security to ensure full reimbursement of granted loan and collect savings from it.

Briefly taking into account the above definitions, microfinance may be defined as the process of facilitating poor people to have access to financial service mainly, loans and savings which they cannot get from the classical banking financial system.

2.2. The Background of Microfinance

There is a long history behind micro finance and it comprises various institutional formats, ranging from mutual individual money lenders to more modern formal institutions, such as village banks, credit unions, credit and saving cooperatives, government-owned banks for SMEs (Small and Medium-sized Enterprises), social venture capital funds, and specialised SME funds. The recent increased attention in microfinance is something quite new, however, it mostly represents the new idea of microfinance institutions (referred here as MFI) discovered in early 1980s, one that seemingly emerged as a tool that can help to address poverty through the development of supposedly insignificant informal sector income-generating activities, whilst apparently also able to demonstrate its power on the market (Bateman and Chang 2009).

Harper (1998) put forward that traditional savings and credit mechanism have existed all over the world for hundreds of years and have been the foundation of important financial institutions of many different forms. Microfinance is therefore a very traditional and familiar form of business which has turned out to be a useful development assistance product.

Microfinance is said to have started in 1980 as a reaction to worries and research findings about the government capacity to subsidized credit to poor citizens. Findings began to show that people in the low income category could be credit-worthy and save money, if enabled to access financial services through specialised funds. This new way of understanding things presented people with low income

capacity not as a target for receiving support without working but rather as individuals who are able to contribute to the development of a nation.

In the 1970, government owned institutions were considered as the only means to provide support to those who were regarded as with no previous record to be able to have access to credit facilities.

This category of people was considered by government and international donors as poor and therefore needed cheap credit. This was used as a way of promoting agricultural production by small landholder farmers. The government and donors did not only limit their intervention to providing subsidized agricultural credit, but also the donors, inspired by the Raiffeisen model in Germany in 1864, started teaching poor farmers about saving culture. This was done through the creation of small cooperative financial institutions which mostly focussed on saving mobilization in rural areas.

In early 1980s, the donors introduced the subsidized, targeted credit model supported, which was subject of a number of sound criticism, due to the fact that most programs ended in accumulating important loan losses and required many recapitalization to sustain operations. This proved that more professional market-based solutions needed to be put in place. This brought about a new school of thoughts that microfinance should be an integral part of the overall financial system. Weight changed from the rapid disbursement of subsidized loans to target populations toward the introduction of owned local, professional and sustainable institutions targeted for the poor.

Inspired by the above, local NGOs started to look for more long term alternatives other than the unsustainable income-generation approaches for developing the communities they support.

Dr Mohammed Yunus of Bangladesh (Nobel Price: 2006) took a lead to pilot lending schemes in a group of people with small land. This is currently known as the Grameen Bank which serves more than 2.5 million clients including women at a percentage of 94 and it also serves as a role model for many countries.

There has been significant growth of the field of microfinance since the 1980s. Donors actively support and encourage microfinance activities, with a focus on MFIs that demonstrate the desire to grow and

achieve substantial outreach and financial sustainability. Today the focus is on providing financial services only and in a sustainable manner, whereas the 1970s and much of the 1980s were composed of an integrated programme of credit and training which was not generating income for self-running but rather depended on subsidies to be implemented.

Now days, even NGOs intervening in the field of microfinance, have recognised the need to transform into formal professional financial institutions that provide saving services to their clients and need to work hard to access market funding sources, rather than rely on donor's funds. The recognition of the need to become financially sustainable has led to the current financial systems approach adopted by current microfinance institutions.

2.3. MFI Accounting and Management Information Systems

The accounting system has almost the same basic components in all organisations (Dueck 2008). The basis of all transaction is the source document. To be able to classify and organise transactions by accounts, a numbered system called a Chart of Accounts is needed. The journals namely cash journals, general journals, or bank journals help to record each and every day transactions or adjustment. During the month end process, journals are summarised, totalled and then posted to the general ledger. The general ledger holds a summary of records for each single account from the Chart of Accounts. It provides the cumulative totals as posted from the journals to allow the production of monthly and annual revenue and expenses reports. It also permits knowing the final balances on the balance sheet accounts.

The basis of all accounting systems and processes is derived from the accounting records. There are computerised accounting packages that perform most of these accounting functions automatically, and make it easy to MFIs to post to various accounts in general ledger and facilitate producing the financial statements in a lapse of time. The accounting system or cycle follows the usual chain from initiating a transaction, recording it, all the way to the preparation of the final reports in the form of financial statements.

Alternatively, the financial management system can be any organized combination of people, hardware, software, communications networks, policies and procedures that stores, retrieves, transforms, and disseminates information aimed at achieving organizational goal (James and Marakas 2004).

In simple and summarised words, the business dictionary.com defines financial management systems as a set of all the processes and procedures used by an organisation's management to exercise financial control and accountability.

2.3.1. The Chart of Accounts

Dueck (2008) suggests that the structure of the chart of accounts determines the accounting system. The design of the chart of accounts is very crucial to every institution. It reflects the type of reports desired from the system and helps to design a structure to do it. It is the basis for recording transactions and for presenting the account structure in the final reports.

2.3.2. Policies and Procedures

As any other organisation, a microfinance institution needs understandable and comprehensive accounting policies and procedures for its accounting and financial management systems and these need to be approved by the board (Dueck 2008). Well documented manuals of policies and procedures provide direction and structure to staff, form the basis for consistent treatment of financial information, and provide the framework for internal control towards accountability. When designing the accounting policies the local accounting standards need to be taken into accounts, and every MFI should try to apply best practices to the greatest extent possible.

Instances include policies about depreciation methods, loan loss write-offs approaches, loan loss provisions methods, deferred revenues or expenses, human resource and assets management as well as the reporting formats to name but a few.

2.3.3. Management or Staffing

Any accounting system depends on the competency of the accounting and other staff used to manage and maintain it (Dueck 2008). A team of qualified and motivated staff is imperative for any MFI to be able to function and achieve desired results. Accuracy should be maintained when recording financial transactions and data on various activities carried out by MFI. Schedules must be put in place to accompany reconciliations and financial statements; hence the accounting staff must know how to do that correctly. MFI senior staff including Managers and Board Directors needs to master financial information and be able to interpret it, by verifying reports, analysing performance, and making the necessary decisions to help the institution reach the desired goal.

2.3.4. Audit Function

Donors and local regulating bodies generally oblige MFIs to conduct external audits (Dueck 2008). External audits help in verifying the transactions and activities and ascertain the fairness of financial statements. They increase the MFI's transparency and credibility. Nevertheless, external auditors are not responsible for maintaining an organized set of financial records or strong systems to prevent fraud on behalf of the MFI.

Internal audit function is also very important to help an MFI improve its operating and financial systems; it serves to determine whether the stated policies and procedures are being adhered to, report any deviations, identify risky areas, and make recommendations to the decision making authority to minimize them. The strengths of the internal control rely greatly on the internal audit function in an MFI and also should be the starting point to the external auditors' job.

2.3.5. Benefits of Sound Financial Management Systems

Many institutions struggle with the 'right' approach to reform organisational financial management systems. The necessary adjustment processes are complex and deal with interrelated issues, such as institutional reforms, procedural and institutional arrangements, training, and capacity building. The

use of information technology (IT) is also considered as a key element of a reform agenda though it poses additional challenges (The Louis Berger Group, Inc. and Development Alternatives 2008).

The integration of different functions and entities within a shared database provide managers with tools to plan, manage, and control organisation resources and operations. The benefits of good FMS include:

- Improved transparency of organisation's operations;
- Rapid expedition of many transactions at once (contrary to manual systems which are cumbersome and slow);
- Improved efficiency of financial controls and other expenditure management procedures;
- Rapid compilation of data from many sources for improved financial analysis and decision making; and
- Improved consistency of information and improved checks and balances.

A strong Financial Management System seeks to achieve the following objectives:

- Make effective and efficient use of resources in order to achieve objectives and fulfil commitments to stakeholders, beneficiaries and donors.
- Maintain financial records and documentation to internationally accepted accounting standards in order to provide relevant, accurate and reliable financial information which complies with all applicable regulations.
- Establish and maintain an effective internal control environment to minimise the risks to the organisation arising from fraud, misappropriation and error.

2.4. The Notion of Performance and Financial Analysis

2.4.1. Performance

According to Copeland et al. (2004), performance means a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Investopedia.com explains financial performance as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

There are many different ways to measure financial performance, but all measures should be taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt.

2.4.2. Financial analysis Tools and Techniques

Quiry et al. (2009) say that the financial statements describe how the company's economic and financial situation is translated by means of a code (i.e. accounting) into tables of figures (Accounts). Since the aim of financial analysis is to portray a company's economic reality by going beyond just the figures, it is vital to think about what this reality is and how well it is reflected by the figures before embarking on an analysis of the accounts. Otherwise, the resulting analysis may be sterile, highly descriptive and contain very little insight.

The purpose of financial analysis, which primarily involves with dealing with economic and accounting data, is to provide insight into the reality of a company's situation on the basis of figures. Hence financial analysis should be regarded as a rigorous approach to the issues facing a business that helps rationalise the study of economic and accounting data. Financial analysis is intended to provide a global assessment of the company's current and future position.

While carrying out a financial analysis, an analyst should make an effort to achieve a comprehensive assessment of abstract data such as the company's policies and earnings. Fundamentally, financial analysis is a method that helps to describe the company in broad terms on the basis of a few key points.

Although a number of techniques are available to analyse financial statements data; all are valuable because each offers a different perspective, a different insight into the business being examined. In real

life, different pieces of information about a business resulting from different forms of analysis may contradict each other; accordingly, financial statement analysis is most effective when all facts are studied in conjunction with one another (Pollard et. al 2007).

2.4.2.1. Horizontal Analysis

Many decisions hinge on whether financial statements amounts are increasing or decreasing (Pollard et al. 2007). Users want to know: have the amounts raised or fallen compared to last year? By how much? Considered alone, the dollar amount of change is not especially helpful. It is more useful to know that an amount has increased or decreased by a given percentage. The percentage change over time aids understanding of company's performance because it puts the dollar amount of change in perspective. The study of percentage changes in comparative statements is called horizontal analysis.

Computing a percentage change in comparative statements requires two steps:

Step 1: Compute the dollar amount of change from the earlier base period to the later period.

Step 2: Divide the dollar amount of change by the earlier, base-period amount; it is against this base that the comparison is being made.

Trends percentages are a form of horizontal analysis because they are computed by comparing financial statement amounts over time, perhaps the most recent three to five years. Trend percentages indicate the direction a business is taking. They are computed by first selecting a base year and setting its amount equal to 100%; the earliest year studied is the base year. The amounts for each following year are expressed as a percentage of this base year amount.

2.4.2.2 Vertical Analysis

Horizontal analysis highlights changes over time. In contrast, vertical analysis of financial statements shows the relationship of each item to a common base amount; every item on the statement is reported as a percentage of that base (Pollard et al. 2007). For an income statement, net sales or net revenues in the case of MFI is the base. For a balance sheet, total assets are the base. By expressing all financial statements amounts as a percentage of the base, these amounts are presented in proportion to it.

2.4.3. Key Ratios Applicable to MFIs

Dueck (2008) says that there is a worldwide accepted standard set of ratios and indicators applicable to microfinance institutions. In recent years, donors, raters, investors and practitioners have reached a consensus around common financial definitions, major indicators used for microfinance institutions reporting, measuring performance, and financial analysis around the globe. The most recent publication about these guidelines came from CGAP in September 2003 and its result were released in 2005. This is available online at www.seepnetwork.org/frame.

Based on such financial ratios, many studies, researches and reports mentioned about the main dimensions for evaluating the performance of MFIs. The overall performance is linked to the efficiency of operations which leads to attaining the highest possible ratio of output for input and achieving outreach and human development with strong sustainability.

Periodic analysis of financial performance is a prerequisite for effective financial management. Performance indicators summarise huge financial data to provide short but useful information about performance of an MFI. Donors, practitioners and consultants often determine the efficiency, viability and outreach of micro finance operations by calculating performance indicators (Barres et al. 2005)

Performance indicators are expressed in the form of ratios which represent a comparison of two or more pieces of financial data. Comparing ratios for a given period of time is called trend analysis which shows whether financial performance is getting better or weakening over time. In addition to trend analysis, ratios should be compared among themselves to gauge the overall financial performance of a microfinance institution. Calculating ratios itself does not serves any purpose in improving financial performance. The most important thing is the analysis of the performance indicators and looking at changes to inform the identification of areas of potential risks which can further inform changes in policies or operations which in turn enhance the performance (Pederson and Glenn 1997).

The performance indicators presented here are organized into six areas:

- Loan portfolio quality
- Productivity and efficiency

- Financial viability
- Profitability / Sustainability
- Leverage and capital adequacy and
- Scale, outreach and growth.

Each of these performance indicators was chosen because it is useful in managing MFIs. External stakeholders including donors and investors also rely on them. Useful indicators can be very many but the ones presented here are regarded as the minimum set of performance indicators that can be used by an MFI to guide its financial management.

2.4.3.1. Loan Portfolio Quality

Loan Portfolio quality provides information on the percentage of non-earning assets which in turn decrease the revenue and liquidity position of an MFI (Ledgerwood 1999). Various ratios are used to measure loan portfolio quality and to provide information about the portfolio, even though all are referred to as portfolio quality ratios. The ratios are divided in 3 areas

- Repayment rates
- Portfolio quality ratios
- Loan loss ratios

For the purpose of this study, the portfolio at risk included in portfolio quality ratios is used.

Loan Portfolio Quality ratios

There are three types of ratios suggested to measure the loan portfolio quality namely the portfolio at risk; the arrears rate and the ratio of delinquent borrowers. Again, for the purpose of this study, the portfolio at risk is considered.

Loan portfolio at risk: The loan portfolio at risk is equal to the outstanding balance of all overdue loans amount.

The loan portfolio at risk ratio is calculated as follows:

$$\text{Portfolio at risk} = \frac{\text{Outstanding balance of loans with payments past due}}{\text{Portfolio outstanding (Including amounts past due)}}$$

The major advantage of loan portfolio at risk ratio is that it represents the true indicator of a delinquency issue as it demonstrates the full loan amount suffering to fall in risk. This is mainly possible in the case of short loan payments period and long loan terms. Loan portfolio at risk calculation can be relevant for an MFI as a whole, a region, a branch, a credit officer, or by sector of activity or even loan purpose or geographic considerations.

2.4.3.2. Productivity and Efficiency Ratios

This category of ratios helps to know the capacity of an MFI to generate revenue and be able to cover its costs. Over time, MFIs can establish whether or not they are optimising their use of resources by calculating and comparing productivity and efficiency ratios. Productivity represents the volume of output for given inputs or simply the volume of business that is generated of given resources or assets. Efficiency shows how good at managing costs is the MFI (Ledgerwood 1999).

Both Productivity and efficiency ratios serve to compare performance overtime and show improvements in micro finance institution's operations.

Productivity ratios

The productivity ratios mainly focus on the productivity of staff in credit department because credits or loans are considered to be the principal sources of revenue. Some of them are number of active borrowers per credit officer, Portfolio outstanding per credit officer, total amount disbursed in period per credit officer.

For MFIs that accept deposits, productivity ratios can be calculated for staff involved in mobilizing savings. They are similar to the ones above and can include number of active depositors per savings

officer, deposits outstanding per savings officer, total amount of savings collected in the period per savings officer.

Efficiency ratios

They help to measure the cost of providing loan services in order to generate income. These costs are also called operating costs; financing and loan loss provisions are excluded from their calculations.

Operating cost ratio

The efficiency of the lending operations (often known as the efficiency indicator) is indicated by the operating cost ratio. Increasing or decreasing operational expenses to the average portfolio affect this ratio.

$$\text{Operating cost ratio} = \frac{\text{Operating costs}}{\text{Average portfolio outstanding}}$$

The lower this ratio is, the more efficient the MFI is. MFIs should endeavour for a downward trend in this ratio even when loan portfolio growth is constant until they are persuaded that no more efficiencies can be achieved. This ratio may fluctuate from month to month, but it should decline with time (Isern et al. 2008).

2.4.3.3. Financial Viability

Financial viability refers to the ability of an MFI to cover costs with earned revenue. To be financially viable, an MFI cannot rely on donor funding to subsidize on its operations. To determine financial viability, self-sufficiency indicators are calculated (Ledgerwood 1999).

There are usually two levels of self-sufficiency against which MFIs are measured: operational self-sufficiency and financial self-sufficiency.

Revenue is earned when the assets of an institution are invested in activities that can help generate revenues. On the other hand, costs must be incurred to generate that revenue. Revenue is compared with total expenses in order to determine financial viability. If revenues are greater than expenses the institution is said to be self-sufficient. Only operating revenue from the official MFI activities, i.e. credit and savings operations together with investments should be considered in the determination of the financial viability.

$$\text{Operating self –sufficiency} = \frac{\text{Operating Income}}{\text{Operating expenses+ financial expense+ provision for loan losses}}$$

The MFI has two options to improve its self-sufficiency level namely increasing its yield (also known as return on assets) or decrease its costs.

2.4.3.4. Sustainability Ratios

The structure of an MFI's balance sheet is taken into account to be able to measure sustainability or profitability ratios. The MFI's net income is expressed in relation to the structure of its balance sheet. Sustainability ratios indicate to investors and managers that they are or they are not earning an expected return on the funds invested in the microfinance institution (Ledgerwood 1999).

Determining Sustainability is quite straightforward – does the MFI earn enough revenue excluding grants and donations to make a profit? To calculate Sustainability ratios, profit is stated as a percentage return on assets (ROA) and a return on equity (ROE).

Return on Asset Ratio (ROA)

The Return on assets (ROA) is an expression of the net income over the assets of an MFI. Average total assets are used rather than performing assets for calculating the return on assets. This is to say that the total financial performance of an organization is taken into account namely decisions made to purchase fixed assets or invest in buildings and land.

$$\text{Return on assets} = \frac{\text{Net income}}{\text{Average assets}}$$

Return on equity ratio (ROE)

The return on equity is an indicator of the rate of return earned on the invested equity. Its main difference with the ROA ratio is that it measures the return on funds belonging to the MFI rather than total assets, which by definition encompasses both equity and liabilities.

$$\text{ROE} = \frac{\text{Net income}}{\text{Average equity}}$$

2.4.3.5. Leverage and Capital Adequacy

Leverage expresses the extent to which an MFI uses borrowed money in relation to its level of equity. It shows of how many additional funds can be outsourced from money lenders sources for every amount of funds owned by an MFI. Leverage shows various sources of funds used to acquire assets mainly debt compared to equity (Ledgerwood 1999).

Capital adequacy shows the MFI amount of capital relative to its assets. Leverage shows the capital adequacy in terms of the adequacy of the MFIs funding structure.

Leverage

An MFI's leverage is calculated using the ratio of its debt to equity. The debt to equity ratio indicates the amount of debt an MFI has in relation to its amount of equity.

$$\text{Debt to equity ratio} = \frac{\text{Debt}}{\text{Equity}}$$

A proper balance between equity and debt is important for organizations to protect the equity or simply viability of the MFI.

The degree of leverage affects the ROE ratio of an MFI. An MFI that is highly leveraged than another stands more chances to have higher returns on equity all other factors considered being equal. If an MFI is regulated, capital adequacy standards determine the degree to which it is allowed to leverage its equity.

Capital adequacy standards (CAS)

Capital adequacy indicates sufficient level of capital necessary to provide cover for potential losses while assuring financial sustainability. The goal of calculating capital adequacy for an institution is to cater for the solvency of the MFI. Capital adequacy is usually measured by the following ratio of capital to total assets:

$$\text{Capital to risk- weighted assets} = \frac{\text{Invested capital + reserves +retained earnings}}{\text{Total Assets}}$$

This ratio should be calculated periodically to determine the capital adequacy of an MFI. As the MFI grows and presumably increases its leverage this ratio will decrease overtime as the organization takes advantage of increased borrowings.

2.4.3.6. Scale and Depth of Outreach Indicators

Many MFIs collect not only data related to financial performance indicators but they also collect data on their client base and the scale of their activities including the number of clients served and the types of instruments, the depth of outreach including categories of clients reached and their level of poverty (Ledgerwood 1999).

To sum up, Dueck (2008) concludes that financial analysis means simply thorough comparison. This means comparing results with forecast and targets, comparing different periods, and looking at the changes over the years. More important is also comparing results with those of other similar organisations in the same industry.

CHAPTER 3: RESEARCH METHODOLOGY

Broadly conceived, research is any process by which information is systematically and carefully gathered for the purpose of answering questions, examining ideas or testing theories, (Healey 2005). It has been observed that research is of extensive use for a manager or organization in planning, forecasting, coordinating, motivating, controlling, decision making etc.

All researches always start with a question or a problem. Its purpose is to find answers to questions through the application of the scientific method. Those methods lead to what we call research methodology. Under this, a number of interrelated activities are followed; which to any research help to overlap, and do not rigidly follow a particular sequence.

For this project, we defined the research process involving the analysis of a unit, the choice of sampling techniques, the description of types of data required for the study, methods of data collection and tools of data analysis.

3.1. Research Design

First and foremost, the research uses financial statements from COOPEDU and MFIs member of AMIR as a representative sample of the MFIs in Rwanda. The qualitative data on the status of financial management systems in Rwandan MFIs were gathered through interview with Inkingi Ltd, COOPEDU, CFE Agaseke (Now Agaseke Bank) and Vision Finance Company.

Detailed information was gathered by using semi-structured questionnaire that guided direct interviews, observation and documentation review of the MFI's books, reports from BNR and AMIR, various authors' books as well as internet sources. The phenomena in the examination were analyzed and discussed in the chapter that follows.

3.2. Data Collection Instruments

Several instruments were used to collect primary data as well as secondary data. The following methods were used.

3.2.1. Instruments to Gather Primary Data

3.2.1.1. Semi-structured Questionnaire

A questionnaire refers to a schedule containing various items on which information is sought from respondents. Based on the nature of the research topic, an interview guide including both closed-ended and open-ended questions was prepared in the form of a questionnaire; but in the course of the interview, the interviewer had room to adjust the sequence of the questions to be asked and to add questions based on the context of the participants' responses. Questions were framed so as to get the fact. The aim of this questionnaire referred here as the financial systems assessment questionnaire was to get insight about the strengths and weaknesses of the systems in place in Rwandan MFIs. The guideline questionnaire used is found in annexes.

3.2.1.2. Interviews

The first instrument in this research has been visiting various institutions, which supplied data for this study. Talks were held with Inkingi Ltd, COOPEDU, CFE Agaseke and Vision Finance Company managements, AMIR and BNR staff.

In this case, the researcher used unstructured (depth) interview whereby many points related to the relevance of financial systems in enhancing the financial performance of MFIs would be noted down. This type of interview was chosen by the researcher because it is easy to administer in relation to this topic and the researcher could get more information through probing. This was done with help of the questionnaire guide already mentioned above

3.2.1.3. Observation

Much of what is known comes from observation; this is why the researcher has used this method. It is the only method available to gather certain types of information. It offered the researcher the ability to collect the original data observable in the current and past information gathered. This was also very instrumental in verifying the answers contained in the financial management systems questionnaire.

3.2.1. Instruments to Gather Secondary Data

In order to collect secondary data, various documentations related to Rwanda MFIs have been consulted namely financial statements for the period under study, policies and procedures manual, constitution, annual reports. Other documents were also consulted such as BNR reports and regulations on micro finance, AMIR reports as well as other books from various authors as they appear in the reference section of this research study.

3.3. Population of Study

The population of interest for this study is 66 MFIs (excluding Umurenge SACCO) which were operating in Rwanda by March 2012.

3.4. Sampling Design

The MFIs that were accessible to provide the financial statement data for this study consist of COOPEDU and a group of MFIs members of AMIR since 2006 to 2010. The later are not singled out separately; their financial data are presented in a consolidated way as already mentioned in the limitations. Due to the nature of analysis required coupled with the reluctance of MFIs to disclose information; the researcher could not use the most sophisticated statistical sampling techniques. Hence, the study relies heavily on analysis of financial statements of COOPEDU and group of MFIs compiled by AMIR.

Convenient sampling was used to select 4 other MFIs, which underwent unstructured interview by using the financial management systems assessment questionnaire. These include Inkingi Ltd,

COOPEDU SACCO, CFE Agaseke (Now Agaseke Bank) and Vision Finance Company. Among many MFIs contacted these were the only ones willing to spare time and discuss with the researcher.

3.5. Data Processing, Analysis and Interpretation

As in other researches, once the data begun to flow in, attention is turned to data analysis. When data collection was terminated, the following part consisted in four different activities: editing, coding, tabulation, and presentation and interpretation. These activities are done to ensure the quality of the report after the conversion of raw data into accurate information appropriate to be presented.

Editing: this is the first step that has been done in data analysis. It consisted on editing the raw data. Editing detects errors and omissions, corrects them when possible and certifies that minimum data quality standard has been achieved.

Coding: It involved assigning numbers or other symbols to answers so that the responses can be grouped into a limited number of classes or categories. The classifying of data into limited categories is necessary for efficient analysis.

Tabulation: The use of tables is essential to any preliminary examination of data. It simplifies the raw data by sorting them into different categories and counting the number of cases that belong to each category.

Presentation and interpretation: This involved not only explanations of information from the tables but also graphics, charts, diagrams and box plots presentations and other computer–based presentations methods. These facilitated to give a good quality and well-presented project work.

The financial statement of COOPEDU and MFI industry are studied using various tools namely horizontal and vertical as well as ratio analyses; this helps to reduce the amount of information in the financial statement into summarised and manageable indicators. Then, the processed information is presented using tables and graphs. The later are interpreted using text.

CHAPTER 4: RESEARCH FINDINGS AND DISCUSSIONS

This chapter is aimed at presenting findings as they were gathered during the project period. It is generally a presentation by tabulation, graphics, and text of the information gathered through observation, documentation review and interview with various individuals from Rwanda MFIs, BNR, AMIR as well other people who have knowledge of microfinance business in Rwanda.

4.1. Review of Rwandan Microfinance Policies and Regulations

This section generally overviews the currently existing Rwandan microfinance policies and regulations in accordance with the first research question.

4.1.1. The Rwandan Microfinance Policies Implementation Strategy

The National Microfinance Policy tailored to the Rwandan needs has been designed and approved in 2006. This provides the guidelines to microfinance industry in Rwanda and allows Rwanda MFIs to accomplish the crucial goal of the microfinance sector (MINECOFIN 2006).

The major goal of the sector is to contribute to the improvement of economic and social conditions of Rwanda's vulnerable poor, considered as economically active in both rural and urban areas. On the other hand, the policy is intended to serve as a guide to Rwanda MFIs and help them to offer accessible intermediation financial services in a sustainable manner and tailored to the needs of the poor population. The successful implementation of this policy calls for the design of a national strategy.

The five years strategy provides guidance to microfinance institutions, government of Rwanda together with its development partners, the private sector and civil society to support each other in order to achieve the government dream of escalating financial services to the rural poor. It talks about suitable goals for the MFI industry, how they can be achieved, and necessary inputs. The strategy put forward the delivery of the following outputs in order to achieve the rationale and contribute to the overall objective of the strategy. These include among others:

- Output one: Support of efficient functioning of diversified financing mechanisms of Rwanda MFIs
- Output two: Development of professionally managed and financially sustainable MFIs
- Output three: Strengthen the coordination and development of MFIs at all levels
- Output four: Support the development of supportive infrastructure for Rwanda MFIs that enable them to offer diversified products and expand Outreach services
- Output five: Support the development of a policy and regulatory environment that Encourages and strengthen Growth of Microfinance Industry
- Output six: Promote gender and youth responsive approach to Microfinance (also considered as a cross cutting issue)

Key national stakeholders contributed to the design of this strategy. In order to get it to this level, consultation were held with microfinance institutions, existing and potential clients, commercial banks, the National Microfinance Consultative Committee and other national public and private bodies which are linked in one way or another with microfinance. This approach was designed to secure maximum involvement of all stakeholders, to ascertain that the result is owned by every national stakeholder.

4.1.2. Overview of the Microfinance Regulation

In line with microfinance best practices compliance and the professionalization of microfinance sector, the new microfinance Law n°40/2008 of August 26th, 2008, establishing the organization of microfinance activities adopted by the Parliament in 2008 was published in the Official Gazette No 13 of March 3rd, 2009. The implementing regulation of this Law was published in the Official Gazette of the Republic of Rwanda no 28 of July 13th, 2009. This section gives an overview of this implementing regulation as far the corporate governance and prudential norms are concerned (BNR 2009).

4.1.2.1. MFIs Corporate Governance Norms

Every micro finance institution, union or federation must file and maintain as current with the Central Bank, records on the persons who exercise functions at its main office, branch offices, agencies or

offices, related to administration, direction, management or control. The information required includes the list of the persons who will be in charge of these functions and their curriculum vitae with a copy of their police records. The administrators and directors of a micro finance institution must demonstrate that they possess the training and experience needed to identify, measure, control and oversee the risks incurred by the institution under their guidance. This required information also includes a copy of the written statement of the interests held by the directors of a micro finance institution, union or federation.

A director of a micro finance institution, union or federation must, within three months of appointment or election, and thereafter for any change of status, declare to the Central Bank in a sworn written statement all interests in any enterprise, corporation or association in accordance with the declaration attached to this Regulation.

A director of a micro finance institution, union or federation cannot exercise functions while in default of executing this obligation. However, a director is not required to declare any percentage below 10% of the shares issued by an enterprise or voting rights attached to such shares.

A director of a micro finance institution, union or federation holding an interest in an enterprise putting his or her interest in conflict with the interest of the micro finance institution, union or federation for which he or she is a director must declare such interest, abstain from voting on any issue concerning the enterprise in which the interest is held and avoid influencing decisions pertaining to it. The director must also withdraw from any meeting for the duration of the proceedings and advantageous than normal operating conditions.

A director of a microfinance institution, union or federation must, in the exercise of his or her functions, act within the legal and regulatory provisions applicable to the institution for which he or she is a director.

Directors must act with care, prudence, diligence, loyalty and honesty in the interest of the institution for which they are directors. For this purpose, directors must avoid placing themselves in a situation of conflict of interest with the institution.

A director or employee of a microfinance institution, union or federation may not, subject to penalty of removal from his or her functions, make a decision or exercise influence for personal credit or advantage or for a related person.

A director of a microfinance institution, union or federation, removed from functions for having infringed the provision of this Article, may no longer sit as a board member of any financial institution.

The directors of a micro finance institution, union or federation that allow an investment or loan to be made in contravention of the legal and regulatory provisions or the policies defined by the board of directors are jointly and severally held responsible for any resulting losses incurred by the institution.

The person accepting a deposit or granting a loan in contravention of legal and regulatory provisions or policies defined by the board of directors shall be held responsible for the sums lost by the institution due to any advantageous conditions granted.

Directors of a microfinance institution, union or federation may no longer sit as directors and are immediately dismissed from a position of director as soon as they have a loan payment that is 60 days overdue. Such dismissal is also immediate for any overdraft or credit facility not repaid at maturity. Any additional time granted by management shall not cancel the overdue status nor the prescribed penalty.

Any microfinance institution, union or federation must disclose to the Central Bank the name of any employee who has committed embezzlement, fraud or any offence within their institution. The Central Bank shall keep an up-to-date list of the persons prohibited from exercising functions within financial institutions.

4.1.2.2. MFIs Prudential Norms or Ratios

Every microfinance institution, union or federation must maintain a liquidity ratio of at least 30% at all times. This ratio is the ratio between cash and cash equivalents to sight deposits and contingent liabilities. A micro finance institution must constitute a reserve equivalent to one half of this ratio in the

form of treasury bills or term deposits with commercial banks. In such cases, the certificates of deposit must be deposited with the Central Bank. Any utilization of such certificates must have prior authorization from the Central Bank.

Every micro finance institution, union or federation must maintain a net worth corresponding to a minimum of 15% of total assets. For the purposes of application of this Article, every micro finance institution, union or federation exercising their activities on a regular basis at the date of entry into force of this Regulation must comply with the minimum ratio of 15% starting at the beginning of the second financial year following the coming into force of this Regulation.

A microfinance institution, union or federation may not grant guarantees or loans, including overdrafts or credit facilities to the same natural person or legal entity or group for an amount exceeding 5% of its total net worth as established in its most recent financial statements. The ceiling is set at a maximum of 10% for savings and credit cooperatives whose non-performing overdue loans are under 5%. In no case may a single loan exceed 2.5% of the total deposits of the micro finance institution. In addition, the Central Bank may revise downward the rate mentioned in the preceding paragraph for a microfinance institution, union or federation whose loan management endangers deposits made by the public, or require a temporary cessation in lending, where applicable.

The total amount of commitments by a microfinance institution that has adopted the legal form of a corporation or a limited liability corporation for all its directors and employees may not exceed 15% of its net worth as established in the most recent financial statements. This rate is set at 20% for unions, federations and savings and credit cooperatives. Loans and guarantees granted to enterprises in which directors exercise a function of administrator, director or manager, or in which they hold 25% of the capital, are taken into account in determining the amounts mentioned in this Article.

The microfinance institution, union or federation must have a separate account item for delinquent loans and transfer them on at least a quarterly basis, into the asset account established for this purpose in the chart of accounts. Overdue loans are loans with at least one instalment unpaid for at least 30 days. The microfinance institution, union or federation must maintain a reserve account for overdue loans and adjust it at least on a quarterly basis. The percentages indicated in the following paragraph

are minimum amounts that may be exceeded when a borrower's situation requires it. The calculation is made for overdue loans according to the arrears observed in instalment payments according to the following procedures:

a) Loans with at least one instalment in arrears for at least 30 days: 25% of the outstanding balance due;
b) Loans with at least one instalment in arrears for at least 90 days: 50% of the outstanding balance due;
c) Loans with at least one instalment in arrears for at least 180 days: 75% of the outstanding balance due;
d) Loans with at least one instalment in arrears for at least 365 days: 100% of the outstanding balance due;

Any overdraft or credit facility not reimbursed within 30 days after date of maturity is subject to provisioning equal to 75% of the balance due and, if not reimbursed within 90 days, the provision is 100% of the balance due.

A loan with at least one instalment in arrears for more than 365 days is deemed non-recoverable. This is also applicable to an overdraft or credit facility not reimbursed after 180 days. A loan considered non-recoverable shall be written off. When a microfinance institution has reached a rate of non-recoverable loans of 10%, it is no longer authorized to grant new loans and must focus its activities on recovering non-performing loans.

The total amount of commitments made by a microfinance institution, union or federation cannot exceed the minimum of 80% of the volume of its resources. Resources are deemed to include equity capital, deposits, subsidies and long and medium term borrowings. This article does not apply to fourth category of microfinance institutions.

Interest ceases to be included as income as soon as a provision is set aside for the loan. Extra accounting follow up of accrued interests shall be carried out. When adjustments are made thereafter with regard to reimbursement, interest collected is recorded as exceptional income.

Every microfinance institution, union or federation must, within 2 years after acquisition, liquidate any property received or seized in partial or total payment of an outstanding loan. Failing to do so in the period mentioned in the preceding paragraph, the micro finance institution, union or federation must make a provision corresponding to the amount that was deducted from the loan after receiving or seizing the real property in payment. This provision shall be maintained until the real property is liquidated. After liquidation of the property as indicated in the above paragraph, the micro finance institution, union or federation shall reverse a portion or the total amount of the provision recorded.

Every microfinance institution, union or federation must at all times cover the medium and long-term uses of funds with stable resources. Medium and long-term uses of funds are loans with remaining terms longer than one year and net capital assets. Stable resources are deposits, borrowings and other liabilities with remaining terms longer than one year and net worth. A microfinance institution is not authorized to utilize more than 75% of its net worth.

As long as the net worth ratio does not comply with Central Bank regulations, any surplus must, after payment of the debts of the micro finance institution, union or federation and discharge of any deficit, be applied integrally to the reserve fund. In cases of non-compliance by a micro finance institution, union or federation with the net worth ratio, a proportion of at least 20% of the surplus after payment of the debts of the institution and discharge of any deficit, be applied annually to the reserve fund. In the case of a cooperative that is not a member of a union, this proportion is at least 40% of any surpluses. This Article does not apply to fourth category of micro finance institutions.

4.2. Failure of some MFIs in 2006

The emphasis of this section is to highlight the reasons behind the 2006 crisis in accordance with the second research question. It is of greater interest to briefly explain the failure of some MFIs in 2006, based on discussions held with some individuals from the institutions interacting directly with MFIs such BNR and AMIR staff as well as some other MFI's leaders.

Before 1994, in Rwanda, a part from Popular Banks of Rwanda and some NGOs that offered financial services to the population, the microfinance did not experience a significant establishment. Big changes

had occurred after 1994, which period most of NGOs and sponsors who intervened during emergency period to help Rwandan population were converted into microfinance institutions, granting credit mainly in the form of gifts. Such a practice harmed the saving habit within the population while creating a culture of non-reimbursement of credit, which was assimilated to a gift by some people. This resulted in a phenomenon of contagion to the whole Rwandan financial sector with a rate of unpaid credits above 45% of the total granted loans (BNR Annual Report on Bank Supervision 1995 – 2007).

After this period, the microfinance sector has experienced an unbridled increase of MFI with a fabulous boom for the period between 2003 and 2005 characterised by the establishment of more than 80 institutions that joined Popular Banks of Rwanda network channelling deposits reaching about 30 billion Rwf. This anarchical improvement of microfinance sector generated worries at all levels because of the non-compliance with regulations into force by MFI, given that they started to operate without prior authorization by the monetary authority, which is National Bank of Rwanda.

For most of them, the launch of activities relied on the law n° 31/1988 of 12th October 1988 concerning cooperative companies in spite of the existence of the law n° 08/99 of 18/06/1999 regulating banks and other financial institutions and regulations n° 06/2002 and n°05/2003 respectively regulating microfinance activities and that of Saving and Credits Cooperatives. These laws prohibit the launch of these activities without prior authorisation of the Central Bank. At the beginning of these activities there was a lack of coordination of different actors, lack of governmental policy for the sector and the existence of a high risk of the financial intermediation activity which did not grant any security to public deposits.

The crisis that hurt some MFIs and led to the National Bank closing a number of them in 2006 started when some of those MFIs became unable to honour withdrawal requests from their depositors, BNR noted that several MFIs had suspended deposits payment with the risk of the crisis extending to the entire microfinance sector. In June 2006, the Central Bank decided to close 10 major MFIs, some of them have been mentioned in chapter one, after the following diagnostic:

- Management of these institutions was characterized by poor corporate governance,

- The starting capitalization was either insufficient in respect of set-up costs and raised deposits or artificial without real cash contribution. Indeed, by entry games officials manipulated figures so as to have balance their balance sheets,
- The conversion of deposits into loans exceeded, in some cases, prudential ratios in place,
- These MFIs had important losses caused by poor internal organization and a mismanagement of their loan portfolio which caused significant difficulties in loan recovery,
- The collection has been made difficult by poor internal organisation and poor credit risk analysis whereas the existing legal structure did not help quick collection of nonperforming loans,
- Unprofessional hostile competition that led to issuing unrecoverable loans,
- Loss of confidence by the population in these institutions caused massive withdrawals of deposits accompanied by a complete halt of new deposits creating severe liquidity problems,
- Some of these MFIs could not meet the licensing conditions laid down by the National Bank of Rwanda.

In a bid to remedy to the above issues, the following activities have been done in an effort to strengthen the financial management systems of MFIs:

- 2006: Adoption by the Government, in September 2006, of the national microfinance policy and its strategy of application;
- 2007: Creation of an MFIs' Association in Rwanda (AMIR) within the framework of this microfinance policy; and promulgation of the Cooperative Law n° 50/2007 dated 18/09/2007 in revision of the Cooperative Law n° 31/1988 dated 12/10/1988;
- 2008: considering the specificity and the importance of the microfinance sector, a microfinance law was adopted by the Parliament and was gazetted in the Official Journal of the Republic of Rwanda in 2009. A new microfinance regulation, severally referred to in the preceding sections, has also been published during the same period.

4.3. Financial Performance Analysis

The analysis that follows is based on COOPEDU financial statements as well as the ones of MFI Industry as aggregated by AMIR in the MFIs fact sheet. These financial statements are summarised below. Per the process outlined in chapter three, the vertical and horizontal analysis of those financial statements has been conducted. Some key performance indicators or ratios derived from those financial statements are also commented in comparison to National Bank prudential norms to answer the third research question. It is generally a presentation by tabulation and charts portraying the information gathered and the interpretation of those tables and charts using text.

4.3.1. Summarised Financial Statements for Analysis

Table 1: COOPEDU Summarised Income Statement 2006 – 2010 in Rwf

	Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010
TOTAL FINANCIAL INCOME	**302,823,803**	**323,162,204**	**324,631,976**	**316,787,095**	**404,574,577**	**481,206,625**
Interest and fee income from loan portfolio	275,976,726	298,896,095	293,575,636	296,702,602	387,754,591	466,838,308
Interest and fee income from investments	22,758,127	19,314,235	21,551,490	20,084,493	16,819,986	14,368,317
Other income from financial services	4,088,950	4,951,874	9,504,850	Nil	Nil	Nil
Financial expenses (Interest and fee)	**6,927,634**	**13,458,857**	**17,070,550**	**14,568,315**	**6,442,595**	**13,649,620**
GROSS FINANCIAL MARGIN	**295,896,169**	**309,703,347**	**307,561,426**	**302,218,780**	**398,131,982**	**467,557,005**
Net loan loss provision expenses	58,150,301	45,397,001	28,729,198	-44,573,200	2,755,613	-10,961,008
Exchange differences: gain/(loss)	Nil	464,164	772,567	Nil	Nil	Nil
NET FINANCIAL MARGIN (after provisions)	**237,745,868**	**264,770,510**	**279,604,795**	**346,791,980**	**395,376,369**	**478,518,013**
Operating expenses (personnel & admin)	**114,494,323**	**183,060,554**	**225,467,703**	**289,620,310**	**272,443,750**	**343,773,667**
NET OPERATING MARGIN	**123,251,545**	**81,709,956**	**54,137,092**	**57,171,670**	**122,932,619**	**134,744,346**
Non-operating income (non-extraordinary)	Nil	Nil	Nil	43,122,951	25,530,233	15,628,889
Non-operating expenses	Nil	Nil	Nil	10,157,203	20,750	62,500
NET INCOME (non-extraordinary)	**123,251,545**	**81,709,956**	**54,137,092**	**90,137,418**	**148,442,102**	**150,310,735**
Extraordinary income/expenses	-69,042	955,196	16,605	Nil	Nil	Nil
NET INCOME	**123,182,503**	**82,665,152**	**54,153,697**	**90,137,418**	**148,442,102**	**150,310,735**

Source: COOPEDU Financial Statements 2005 - 2010

The table above shows the absolute figures as portrayed in COOPEDU's income statement. The vertical, horizontal as well as key ratios analysis is done in the subsequent pages.

Table 2: COOPEDU Summarised Balance Sheet 2005 – 2010 in Rwf

ASSETS	Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010
CURRENT ASSETS	**369,265,734**	**603,449,532**	**981,974,202**	**593,958,341**	**444,643,517**	**570,744,056**
Cash on hand	18,429,791	72,404,866	89,249,203	81,041,077	94,530,385	110,095,797
Deposits in other Financial Institutions	341,319,624	511,421,755	878,788,110	507,284,488	332,961,897	404,689,346
Other current assets	9,516,319	19,622,911	13,936,889	5,632,776	17,151,235	55,958,913
NET LOAN PORTFOLIO	**881,452,625**	**927,214,810**	**1,089,602,296**	**1,494,182,247**	**1,698,049,673**	**2,073,083,172**
Gross Loan Portfolio (principal outstanding)	944,529,998	980,096,035	1,121,453,446	1,508,571,438	1,746,645,491	2,111,647,837
(Loan Loss reserves)	-63,077,373	-52,881,225	-31,851,150	-14,389,191	-48,595,818	-38,564,665
LONG TERM ASSETS	**16,888,346**	**27,082,309**	**40,903,991**	**83,737,916**	**236,270,964**	**436,409,853**
TOTAL ASSETS	**1,267,606,705**	**1,557,746,651**	**2,112,480,489**	**2,171,878,504**	**2,378,964,154**	**3,080,237,081**
CURRENT LIABILITIES	**926,578,717**	**1,177,476,594**	**1,646,271,992**	**1,509,376,966**	**1,546,021,334**	**2,097,032,161**
Clients deposits	**915,191,045**	**1,154,311,639**	**1,621,610,395**	**1,467,803,775**	**1,513,209,515**	**1,860,983,548**
Short term Borrowed Funds (< 1 year)	0	0	0	0	0	194,258,317
Other short term liabilities	11,387,672	23,164,955	24,661,597	41,573,191	32,811,819	41,790,296
LONG TERM LIABILITIES	**26,032,135**	**20,608,153**	**24,765,525**	**94,785,984**	**84,863,960**	**78,421,097**
TOTAL LIABILITIES	**952,610,852**	**1,198,084,747**	**1,671,037,517**	**1,604,162,950**	**1,630,885,294**	**2,175,453,258**
Paid-up share capital	23,590,000	34,390,000	62,460,000	87,420,000	104,630,000	126,560,001
Other capital accounts (donated, reserves etc)	168,223,332	242,606,752	324,829,275	390,158,136	495,006,758	627,913,087
Current year profit/loss	123,182,521	82,665,152	54,153,697	90,137,418	148,442,102	150,310,735
TOTAL EQUITY	**314,995,853**	**359,661,904**	**441,442,972**	**567,715,554**	**748,078,860**	**904,783,823**
TOTAL EQUITY AND LIABILITIES	**1,267,606,705**	**1,557,746,651**	**2,112,480,489**	**2,171,878,504**	**2,378,964,154**	**3,080,237,081**

Source: COOPEDU Financial Statements 2005 - 2010

The table above shows the absolute figures as portrayed in COOPEDU's balance sheet. The deep vertical, horizontal as well as key ratios analysis is done in the subsequent pages.

Table 3: Consolidated MFIs Summarised Income Statement 2006 – 2010 in Rwf

	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010
TOTAL FINANCIAL INCOME	**157,024,645**	**1,404,818,956**	**1,808,547,874**	**4,756,116,865**	**8,413,689,571**
Interest and fee income from loan portfolio	111,743,722	1,202,551,118	1,457,787,042	3,931,822,591	7,121,199,642
Interest and fee income from investments	10,985,855	67,857,171	70,387,614	218,737,932	319,015,164
Other income from financial services	34,295,068	134,410,667	280,424,507	605,556,342	973,474,765
TOTAL FINANCIAL EXPENSES	**17,195,249**	**78,149,328**	**82,680,251**	**439,887,170**	**659,267,510**
Interest and fee expense	16,619,331	73,260,477	79,161,983	408,540,358	623,824,921
for Client Deposits	7,849,025	47,756,077	46,218,692	202,782,123	277,187,957
for Borrowed Funds	8,770,306	25,504,400	32,943,291	205,758,235	346,636,964
Other financial expenses	575,918	4,888,851	3,518,268	31,346,812	35,442,589
GROSS FINANCIAL MARGIN	**139,829,396**	**1,326,669,628**	**1,725,867,623**	**4,316,229,695**	**7,754,422,061**
Net loan loss provision expenses	29,636,642	346,062,527	204,344,783	599,514,933	323,070,195
Exchange differences: gain/(loss)	Nil	-78,920	Nil	Nil	7,227,997
NET FINANCIAL MARGIN (after provisions)	**110,192,754**	**980,528,181**	**1,521,522,840**	**3,716,714,762**	**7,438,579,864**
Other operating income (non-extraordinary)	10,560,331	67,357,052	32,169,410	15,264,669	51,033,259
Operating expenses	**204,580,494**	**1,228,310,834**	**1,589,706,175**	**4,065,481,298**	**7,435,911,750**
Personnel expenses	105,707,659	668,077,205	783,156,089	2,081,880,974	3,931,990,972
Administrative Expenses	98,872,835	560,233,629	806,550,086	1,983,600,324	3,503,920,779
NET OPERATING MARGIN	**-83,827,409**	**-180,425,601**	**-36,013,925**	**-333,501,867**	**53,701,373**
Non-operating income (non-extraordinary)		317,316,363	111,619,103	105,870,187	341,740,652
Non-operating expenses	3,860,985	302,399,192	3,000,000	8,180,166	38,659,724
Other non-extraordinary expenses	3,860,985	302,399,192	3,000,000	8,180,166	38,659,724
NET INCOME (non-extraordinary)	**-87,688,394**	**-165,508,430**	**72,605,178**	**-235,811,846**	**356,782,301**
Extraordinary income	Nil	643,170	452,990	465,569	5,309,258
Extraordinary expenses	Nil	15,664,790	Nil	3,083,617	2,713,781
NET INCOME (before donations & income-taxes)	**-87,688,394**	**-180,530,050**	**73,058,168**	**-238,429,894**	**359,377,778**
Donations	35,980,009	185,920,947	144,070,140	719,263,424	526,034,888
NET INCOME	**-51,708,385**	**5,390,897**	**217,128,308**	**480,833,530**	**885,412,666**

Source: AMIR's MFI Fact sheet 2006 - 2010

The table above shows the absolute income statement figures from MFIs member of AMIR as consolidated using MFIs fact sheet. The vertical, horizontal as well as key ratios analysis is done in the subsequent pages.

Table 4: Consolidated MFIs Summarised Balance Sheet 2006 – 2010 in Rwf

ASSETS	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010
CURRENT ASSETS	**428,257,005**	**3,244,601,511**	**3,028,793,242**	**5,247,299,128**	**8,035,016,455**
Cash on hand	109,323,489	371,536,801	493,031,340	964,252,821	1,210,753,150
Non-interest bearing deposits and clearing accounts	239,911,678	2,255,761,278	2,268,603,393	3,096,457,495	4,699,156,570
Interest bearing deposits and investments < 1 year	11,000	168,128,142	88,181,356	466,880,039	1,157,573,773
Accounts receivable	1,188,000	172,043,984	82,216,431	306,630,416	557,812,336
Other current assets	77,822,838	277,131,306	96,760,722	413,078,357	409,720,626
NET LOAN PORTFOLIO	**747,693,320**	**4,259,185,556**	**6,682,284,126**	**15,078,458,047**	**26,313,302,436**
Gross Loan Portfolio (principal outstanding)	770,077,912	4,458,949,918	6,918,505,192	16,005,103,471	27,091,303,033
(Loan Loss reserves)	-22,384,592	-199,764,362	-236,221,066	-926,645,424	-778,000,597
LONG TERM ASSETS	**248,265,965**	**394,166,417**	**467,325,528**	**2,419,620,141**	**3,408,682,929**
Investments > 1 year		29,450,744	8,899,464	1,123,962,308	1,182,097,190
Net Property and Equipment	119,226,425	355,145,694	444,259,669	1,132,192,494	2,072,559,643
Other long term assets	129,039,540	9,569,979	14,166,395	163,465,339	154,026,096
TOTAL ASSETS	**1,424,216,290**	**7,897,953,484**	**10,178,402,896**	**22,745,377,316**	**37,757,001,820**
CURRENT LIABILITIES	**660,472,120**	**5,647,058,999**	**7,249,917,532**	**14,768,709,759**	**24,755,748,566**
Demand deposits	416,775,000	4,033,746,158	4,839,646,049	10,093,525,232	17,442,281,501
Short term Time Deposits (< 1 year)	52,435,325	944,361,124	1,369,185,348	2,198,720,779	2,212,751,478
Short term Borrowed Funds (< 1 year)	99,821,577	357,004,262	458,971,476	1,349,125,159	1,698,581,011
Interests payable		5,600,587	6,714,899	12,130,220	198,670,798
Other short term liabilities	91,440,218	306,346,868	575,399,760	1,115,208,369	3,203,463,779
LONG TERM LIABILITIES	**328,567,363**	**334,887,846**	**221,683,526**	**182,829,630**	**786,970,137**
Long term Time Deposits (> 1 year)	Nil	Nil	Nil	Nil	2,451,200
Long term Borrowed Funds (> 1 year)	288,892,099	298,087,298	177,760,329	169,166,833	137,268,980
Quasi Capital Accounts	380,000	380,000	380,000	Nil	2,100,000
Other long term liabilities	39,295,264	36,420,548	43,543,197	13,662,797	645,149,957
TOTAL LIABILITIES	**989,039,483**	**5,981,946,845**	**7,471,601,058**	**14,951,539,389**	**25,542,718,703**
Paid-up share capital	352,700,000	1,582,804,940	2,063,281,373	5,121,148,396	8,001,065,158
Donated equity	1,350,000	208,310,921	572,111,243	2,430,235,832	3,069,466,637
Current year profit/loss	-51,708,385	5,390,897	217,128,308	480,833,530	885,412,666
Reserves / retained earnings / accumulated losses	-59,340,754	-194,602,157	-147,122,433	-244,523,344	189,566,739
Other capital accounts	192,175,946	314,102,038	1,403,347	6,143,513	68,771,918
TOTAL EQUITY	**435,176,807**	**1,916,006,639**	**2,706,801,838**	**7,793,837,927**	**12,214,283,117**
TOTAL EQUITY AND LIABILITIES	**1,424,216,290**	**7,897,953,484**	**10,178,402,896**	**22,745,377,316**	**37,757,001,820**

Source: AMIR's MFI Fact sheet 2006 - 2010

The table above shows the absolute income statement figures from MFIs member of AMIR as consolidated using MFIs fact sheet. The vertical, horizontal as well as key ratios analysis is done in the subsequent pages.

4.3.2. Vertical Analysis

As explained in the literature review, a vertical analysis shows the relationships among components of one financial statement, measured as percentages.

On the balance sheet, each asset is shown as a percentage of total assets; each liability or equity item is shown as a percentage of total liabilities and equity. On the income statement, each line item is shown as a percentage of financial income in this case.

Table 5: Common Size Income Statements 2005 – 2010

	COOPEDU						Consolidated MFIs				
	Year **2005**	Year **2006**	Year **2007**	Year **2008**	Year **2009**	Year **2010**	Year **2006**	Year **2007**	Year **2008**	Year **2009**	Year **2010**
TOTAL FINANCIAL INCOME	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Interest and fee income from loan portfolio	**91%**	**92%**	**90%**	**94%**	**96%**	**97%**	**71%**	**86%**	**81%**	**83%**	**85%**
Interest and fee income from investments	8%	6%	7%	6%	4%	3%	7%	5%	4%	5%	4%
Other income from financial services	1%	2%	3%	0%	0%	0%	22%	10%	16%	13%	12%
Financial expenses (Interest and fee)	2%	4%	5%	5%	2%	3%	11%	6%	5%	9%	8%
GROSS FINANCIAL MARGIN	**98%**	**96%**	**95%**	**95%**	**98%**	**97%**	**89%**	**94%**	**95%**	**91%**	**92%**
Net loan loss provision expenses	19%	14%	9%	-14%	1%	-2%	19%	25%	11%	13%	4%
Exchange differences: gain/(loss)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
NET FINANCIAL MARGIN (after provisions)	**79%**	**82%**	**86%**	**109%**	**98%**	**99%**	**70%**	**70%**	**84%**	**78%**	**88%**
Other operating income (non-extraordinary)	0%	0%	0%	0%	0%	0%	7%	5%	2%	0%	1%
Operating expenses (personnel & admin)	38%	57%	69%	91%	67%	71%	130%	87%	88%	85%	88%
NET OPERATING MARGIN	**41%**	**25%**	**17%**	**18%**	**30%**	**28%**	**-53%**	**-13%**	**-2%**	**-7%**	**1%**
Non-operating income (non-extraordinary)	0%	0%	0%	14%	6%	3%	0%	23%	6%	2%	4%
Non-operating expenses	0%	0%	0%	3%	0%	0%	2%	22%	0%	0%	0%
NET INCOME (non-extraordinary)							-56%	-12%	4%	-5%	4%
Extraordinary income	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Extraordinary expenses	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
NET INCOME (before donations and taxes)	41%	26%	17%	28%	37%	31%	-56%	-13%	4%	-5%	4%
Donations	0%	0%	0%	0%	0%	0%	23%	13%	8%	15%	6%
NET INCOME	**41%**	**26%**	**17%**	**28%**	**37%**	**31%**	**-33%**	**0%**	**12%**	**10%**	**11%**

Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

The table above shows that COOPEDU is better than the MFIs members of AMIR at generating and using the income. Over the six years, the highest net operating margin realised was 41% in 2005 while the lowest was 17% in 2007. On the other hand, it is the opposite for the other MFIs. The year 2006,

year of crisis was a nightmare; the net operating margin was minus 53% and continued to be negative until 2010 when it was only 1%. Further, the analysis shows that most of the income is used to pay the operating expenses mostly personnel and administration expenses. In 2005, COOPEDU oriented a small percentage to pay the operating expenses, but they gradually increased throughout the subsequent years to reach the pick of 91% in 2008. During the other years, the operating margin was kept at 70%. On the side of consolidated MFIs; between 85% and 88% of financial income is used to pay the personnel and administration expenses. Over all, the above table shows that, over the five years under study, the majority of MFIs have been struggling to exercise their principal activity and be able to generate enough margins, they rather rely on extra ordinary income including donations.

Table 6: Common Size Balance sheet 2005 – 2010

	COOPEDU						Consolidated MFIs				
	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year
ASSETS	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2006**	**2007**	**2008**	**2009**	**2010**
CURRENT ASSETS	**29%**	**39%**	**46%**	**27%**	**19%**	**19%**	**30%**	**41%**	**30%**	**23%**	**21%**
Cash on hand	1%	5%	4%	4%	4%	4%	8%	5%	5%	4%	3%
Deposits in other Financial Institutions	27%	33%	42%	23%	14%	13%	17%	31%	23%	16%	16%
Other current assets	1%	1%	1%	0%	1%	2%	6%	6%	2%	3%	3%
NET LOAN PORTFOLIO	**70%**	**60%**	**52%**	**69%**	**71%**	**67%**	**52%**	**54%**	**66%**	**66%**	**70%**
LONG TERM ASSETS	**1%**	**2%**	**2%**	**4%**	**10%**	**14%**	**17%**	**5%**	**5%**	**11%**	**9%**
TOTAL ASSETS	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
CURRENT LIABILITIES	**73%**	**76%**	**78%**	**69%**	**65%**	**68%**	**46%**	**72%**	**71%**	**65%**	**66%**
Clients deposits	72%	74%	77%	68%	64%	60%	33%	63%	61%	54%	52%
Short term Borrowed Funds (< 1 year)	0%	0%	0%	0%	0%	6%	7%	5%	5%	6%	4%
Other short term liabilities	1%	1%	1%	2%	1%	1%	6%	4%	6%	5%	9%
LONG TERM LIABILITIES	**2%**	**1%**	**1%**	**4%**	**4%**	**3%**	23%	4%	2%	1%	2%
TOTAL LIABILITIES	**75%**	**77%**	**79%**	**74%**	**69%**	**71%**	**69%**	**76%**	**73%**	**66%**	**68%**
Paid-up share capital	2%	2%	3%	4%	4%	4%	25%	20%	20%	23%	21%
Other capital accounts (donated equity, reserves etc)	13%	16%	15%	18%	21%	20%	9%	4%	4%	10%	9%
Current year profit/loss	10%	5%	3%	4%	6%	5%	-4%	0%	2%	2%	2%
TOTAL EQUITY	**25%**	**23%**	**21%**	**26%**	**31%**	**29%**	**31%**	**24%**	**27%**	**34%**	**32%**
TOTAL EQUITY AND LIABILITIES	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

It is understandable that the main component of any financial institutions assets is the amount of loan portfolio. This has covered between 52% and 71% in Rwandan MFIs over the period under study. The years of crisis and post crisis, 2006 and 2007, have registered the lowest levels for both COOPEDU and the overall industry, while from 2008 the loan portfolio in relation to total assets started increasing financed mainly by the increasing clients deposits on liability side as well as paid up capital on equity side.

On the side of COOPEDU, the clients' deposits which are the major liabilities, occupied 72%, 74% and 77% of total equity and liabilities, between 2005 and 2007, and after, the ratio started declining, while the total equity started increasing although the later were being financed by non owners' equity, which are not sustainable. On the other side of overall MFIs, the clients' deposits fell considerably in 2006 at 33% of total equity and liabilities. In subsequent years, they started growing to reach around 60% in 2007 – 2008 and around 50% in the last two years, the difference being compensated by the non-owners' equity as in the case of COOPEDU.

4.3.3. Horizontal Analysis

A horizontal or trend analysis provides with a way to compare the numbers from one period to the next ones, using financial statements from different periods. Each line item has an entry in a current period column and a basic prior period column. The two entries are compared to show percentage change between the two periods.

Table 7: Income Statement Trend 2005 – 2010

	COOPEDU						Consolidated MFIs			
	Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2007	Year 2008	Year 2009	Year 2010
TOTAL FINANCIAL INCOME	100%	107%	107%	105%	134%	159%	100%	129%	339%	599%
Interest and fee income from loan portfolio	100%	108%	106%	108%	141%	169%	100%	121%	327%	592%
Interest and fee income from investments	100%	85%	95%	88%	74%	63%	100%	104%	322%	470%
Other income from financial services	100%	121%	232%	0%	0%	0%	100%	209%	451%	724%
Financial expenses (Interest and fee)	100%	194%	246%	210%	93%	197%	100%	106%	563%	844%
GROSS FINANCIAL MARGIN	100%	105%	104%	102%	135%	158%	100%	130%	325%	585%
Net loan loss provision expenses	100%	78%	49%	-77%	5%	-19%	100%	59%	173%	93%
NET FINANCIAL MARGIN (after provisions)	100%	111%	118%	146%	166%	201%	100%	155%	379%	759%
Other operating income (non-extraordinary)	-	-	-	-	-	-	100%	48%	23%	76%
Operating expenses (personnel & admin)	100%	160%	197%	253%	238%	300%	100%	129%	331%	605%
NET OPERATING MARGIN	100%	66%	44%	46%	100%	109%	100%	20%	185%	-30%
Non-operating income (non-extraordinary)	-	-	-	-	-	-	100%	35%	33%	108%
Non-operating expenses	-	-	-	-	-	-	100%	1%	3%	13%
NET INCOME (non-extraordinary)	100%	66%	44%	73%	120%	122%	100%	-44%	142%	-216%
Donations	0%	0%	0%	0%	0%	0%	100%	77%	387%	283%
NET INCOME	100%	67%	44%	73%	121%	122%	100%	4028%	8919%	16424%

Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

The year 2005 is set as base year for COOPEDU and this is informed by the consistency in COOPEDU data. On the other hand the year 2007 is set as base year for overall MFIs in bid to turn around the distortion brought about by 2006 crisis in their data.

Table 7 shows that COOPEDU has registered a growth of 59% in gross financial income between 2005 and 2006. On the other hand, the overall MFIs' financial income has grown up to 499%. This is influenced by different joining dates for various MFIs, but it is also a good indication of acceptance of being regulated by a bigger number of MFIs.

The provision for loan loss which is one of the major areas of concern in a financial institution was declining in COOPEDU and in 2008 and 2010 recoveries made were bigger than the actual provision

made. On the other hand, the provision for loan loss did not grow for the overall industry at the exception of 2009 where it crossed over to 73% in relation to the base year 2007.

Table 8: Balance Sheet Trend 2005 – 2010

	COOPEDU						Consolidated MFIs			
	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year
ASSETS	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2007**	**2008**	**2009**	**2010**
CURRENT ASSETS	100%	163%	266%	161%	120%	155%	100%	93%	162%	248%
Cash on hand	100%	393%	484%	440%	513%	597%	100%	133%	260%	326%
Deposits in other Financial Institutions	100%	150%	257%	149%	98%	119%	100%	97%	147%	242%
Other current assets	100%	206%	146%	59%	180%	588%	100%	40%	160%	215%
NET LOAN PORTFOLIO	100%	105%	124%	170%	193%	235%	100%	157%	354%	618%
LONG TERM ASSETS	100%	160%	242%	496%	1399%	2584%	100%	119%	614%	865%
TOTAL ASSETS	100%	123%	167%	171%	188%	243%	100%	129%	288%	478%
CURRENT LIABILITIES	100%	127%	178%	163%	167%	226%	100%	128%	262%	438%
Clients deposits	100%	126%	177%	160%	165%	203%	100%	125%	247%	395%
Short term Borrowed Funds (< 1 year)							100%	129%	378%	476%
Other short term liabilities	100%	203%	217%	365%	288%	367%	100%	187%	361%	1091%
LONG TERM LIABILITIES	100%	79%	95%	364%	326%	301%	100%	66%	55%	235%
TOTAL LIABILITIES	100%	126%	175%	168%	171%	228%	100%	125%	250%	427%
Paid-up share capital	100%	146%	265%	371%	444%	536%	100%	130%	324%	505%
Other capital accounts (donated, reserves etc)	100%	144%	193%	232%	294%	373%	100%	130%	669%	1015%
Current year profit/loss	100%	67%	44%	73%	121%	122%	100%	4028%	8919%	16424%
TOTAL EQUITY	100%	114%	140%	180%	237%	287%	100%	141%	407%	637%
TOTAL EQUITY AND LIABILITIES	100%	123%	167%	171%	188%	243%	100%	129%	288%	478%

Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

The table 8 showing the balance sheet items trend reveals that the major component of current assets which is net loan portfolio has more than doubled for COOPEDU (235%), while it has gone over 6 times for the average MFIs (618%). The other growing item is the long term assets in a bid for MFIs to achieve sustainable assets base.

The other important growing areas include clients' deposits and paid up share capital. The first has more than doubled and tripled for COOPEDU and average MFIs respectively, while the paid up capital has gone up more than five times, which is an indication of a quest for self-sustainability.

4.3.4. Loan Portfolio Quality

According to the National Bank of Rwanda, the loan portfolio quality of MFIs is assessed by looking at the loan portfolio at risk. The loan portfolio at risk refers to the outstanding balance of all loans that have an amount overdue; it is obtained by dividing the outstanding balance of loans overdue with the gross outstanding loan portfolio. The loan portfolio at risk is the most widely accepted measure of quality showing the portion of the loan portfolio which is infected by debts and therefore at risk of not being repaid. This risk will increase the level of delinquency.

In general, a gross (overall) loan portfolio at risk exceeding 10% should be cause for alarm as most micro credit loans are not backed by bankable collateral. This ratio is free from subjective interpretations that plague other portfolio measures and is a more conservative measure of institutional risk due to inclusion of outstanding balance in both numerator and denominator. The loan portfolio at risk is further subdivided into 4 brackets according to the number of days for which a given portion is overdue. The four brackets are as follows: between 30 and 89 days, 90 to 179 days, 180 to 365 days and more than a year or 365 days.

Table 9: Loan Portfolio Quality

	Loan portfolio at risk	2006	2007	2008	2009	2010
COOPEDU	30-89 days	3.0%	3.0%	0.8%	1.1%	0.7%
	90-179 days	2.6%	2.1%	0.9%	0.8%	1.3%
	180 - 365 days	4.6%	1.4%	0.4%	0.2%	0.2%
	More than a year	5.7%	4.4%	0.0%	2.1%	0.9%
	Total loan portfolio at risk ratio	**15.9%**	**10.9%**	**2.1%**	**4.2%**	**3.0%**
AVERAGE INDUSTRY	30-89 days	7.9%	3.2%	2.2%	14.2%	9.3%
	90-179 days	3.7%	2.8%	1.9%	2.0%	2.0%
	180 - 365 days	1.6%	2.7%	2.0%	2.2%	1.4%
	More than a year	0.7%	2.6%	1.8%	2.4%	2.0%
	Total loan portfolio at risk ratio	**13.9%**	**11.3%**	**7.9%**	**20.9%**	**14.6%**

Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

From the above table, the overall total loan portfolio quality of COOPEDU and the average industry was not satisfactory in 2006, 15.9% and 13.9% respectively. One of the reasons behind this could be the crisis that shaken the Rwandan micro finance industry in 2006. From 2007 onwards, the situation started normalising for COOPEDU but the majority of other MFIs are still struggling to bring down their portfolio at risk.

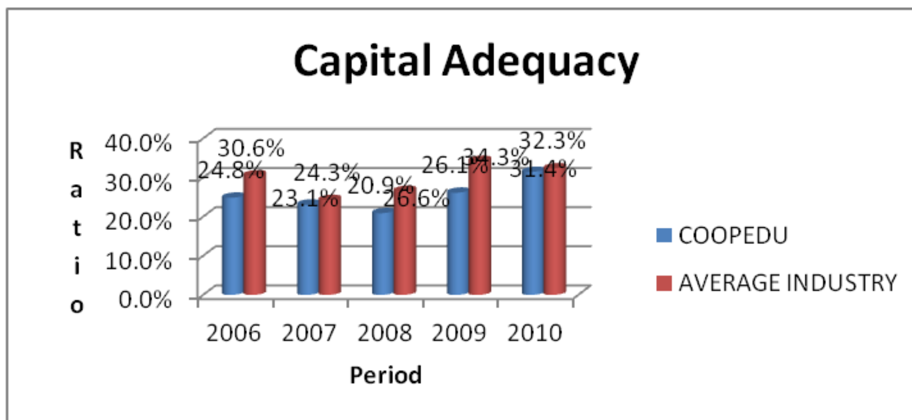
4.3.5. Solvency and liquidity

The solvency and liquidity measures represent sufficiency of capital and the ability of the MFIs to meet financial obligations on time. While solvency means MFI's capacity to cover its obligations in the long run, liquidity represents the MFI's ability to meet its short term obligations composed mainly by client deposits on current accounts.

4.3.5.1. Capital Adequacy

Measuring capital adequacy is possible by dividing total equity composed of invested capital, reserves and retained earnings by total assets. For the purpose of compliance to the Article 55 of the micro finance regulation, every micro finance institution exercising activities on a regular basis at the date of entry into force of this Regulation must comply with the minimum ratio of 15%.

Figure 1: Capital Adequacy



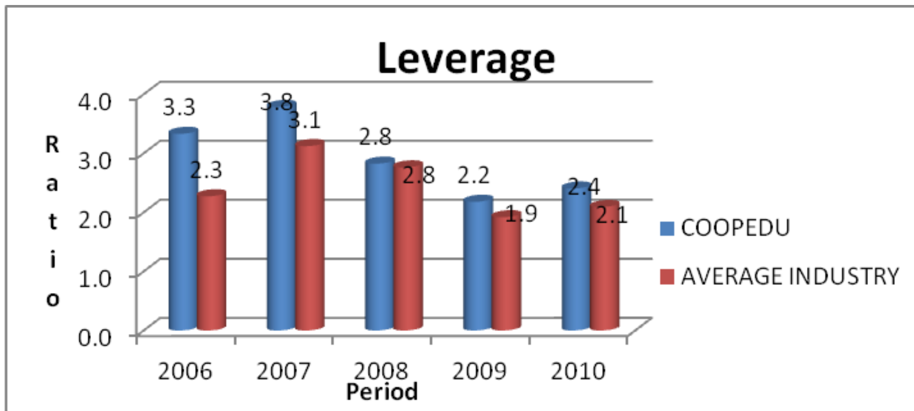
Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

The minimum recommended by BNR for this ratio is 15%. The observation from the above chart is that, during the period under study, the industry has been doing well on this, always above 20%, hence there is still a room to increase the assets base of MFIs.

4.3.5.2. Leverage

This is calculated by dividing total liabilities by total equity. This ratio is the simplest and best known measure of capital sufficiency measuring the total leverage of the institution. In other words, it indicates how much equity which acts as safety cushion to cover for losses.

Figure 2: Leverage



Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

While on capital adequacy the industry is slightly above COOPEDU, the above chart shows a reverse position. It shows that COOPEDU has higher liabilities compared to the average industry. Recall that a bigger proportion of liabilities here is made of loan portfolio and as financial institutions, the loan portfolio will always be higher, since the quest here is to increase equity to improve this ratio. However COOPEDU as well as other MFIs will also be always interested to have this ratio above the current position, i.e. seek external debts from commercial banks and other financial institutions at a small rate to be able to fund their loan portfolio, to leverage the deposits and equity.

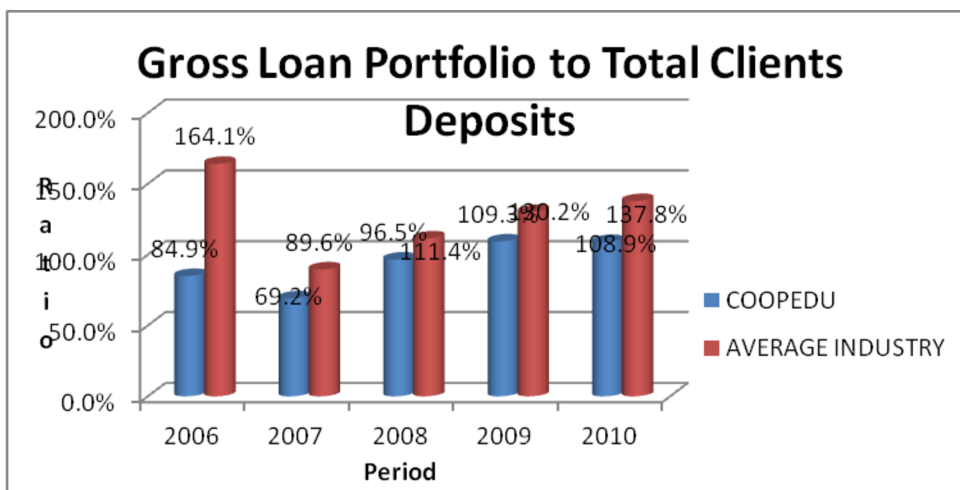
Therefore, not surprisingly, COOPEDU and other MFIs in general are still low leveraged as the opportunities to borrow from other institutions are limited. As can be observed from the above chart, a general decreasing trend is noticeable for both COOPEDU and average MFIs confirming the above mentioned challenge that it is still hard for Rwandan MFIs to increase borrowing. However the amount of debt that can be carried for a given level of equity will depend on risk and volatility of the MFI. An MFI displaying a rapid increase in its leverage may be nearing its borrowing limits limiting its future

growth. Similarly, profit margin might be put under pressure as a result of rapid increases in debt funding.

4.3.5.3. Gross Loan Portfolio to Total Clients Deposits

Here the loan portfolio is expressed as a percentage of total deposits. Bearing in mind that deposits comprise the major part of an MFI's obligations, this ratio is an indication of the amount of deposits invested in loans. This ratio was one of the symptoms of the 2006 crisis already mentioned above.

Figure 3: Gross Loan Portfolio to Total Deposits



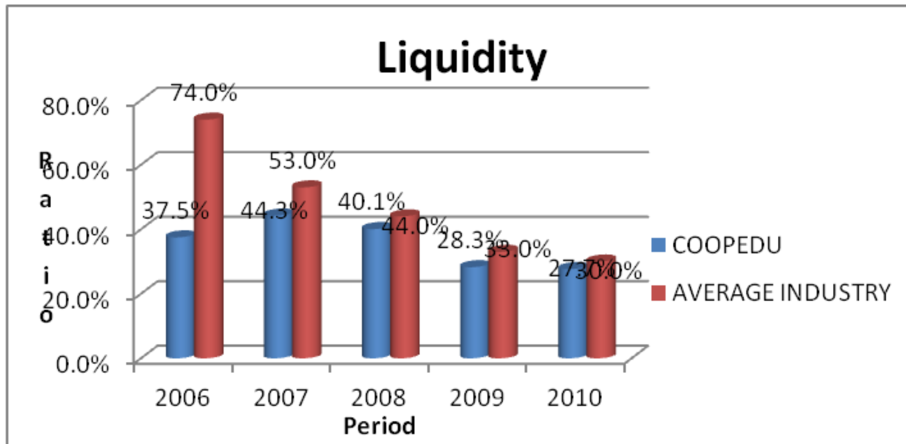
Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

From the above chart, the ratio of loan portfolio to total deposits has always been better for COOPEDU compared to the average industry. From BNR benchmark, this ratio is strong when it is around 80% for MFI cooperatives. As far as COOPEDU is concerned, the years 2006 and 2007 seem to be better, but it started getting off slightly since 2008. To improve this ratio, efforts should be made to raise more deposits; this is applicable to both COOPEDU and other MFIs as well. The industry loan portfolio to deposits ratio in 2006 is very higher and the reason is found in the 2006 crisis, where the MFIs had issued a lot of loans that were not backed up by the deposits. Starting from 2008, the average industry ratio is not necessarily bad because it might be influenced by the composition of the categories of MFIs since most ordinarily savings and credit cooperatives had started becoming limited companies, making this benchmark irrelevant for them.

4.3.5.4. Liquidity

In the case of SACCO, this ratio is generated by dividing the ratio of cash and cash equivalent by the amount of total deposits. It is an indication of the MFI's ability to be able to honour short term obligations, which are mostly composed of deposits.

Figure 4: Liquidity



Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

The benchmark for this ratio as per Microfinance regulation is 30%. The above chart is showing that COOPEDU has tried to keep its position around the benchmark. It was slightly above in the first three years and slightly below in the last two years. On the other hand, the average MFI industry was over liquid in the year of crisis and this could be explained by the difficulties of mobilising deposits that MFIs were experiencing as the information of closure of non performing MFIs was spreading all over the country. In subsequent years, the MFIs have tried to improve this ratio.

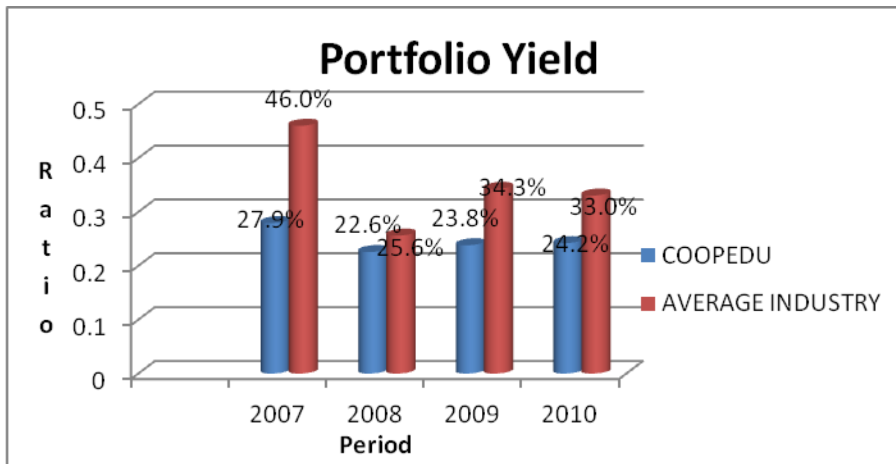
4.3.6. Efficiency and productivity

Efficiency and productivity ratios inform the MFI about the speed at which MFI is able to generate revenue to cover their costs.

4.3.6.1. Loan Portfolio Yield

As a measure of efficiency and productivity, the loan portfolio yield ratio is obtained by dividing total interests and fee income from loan portfolio by the average loan portfolio of the period. It shows how good the MFI is at generating interest income from the loan portfolio.

Figure 5: Portfolio Yield



Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

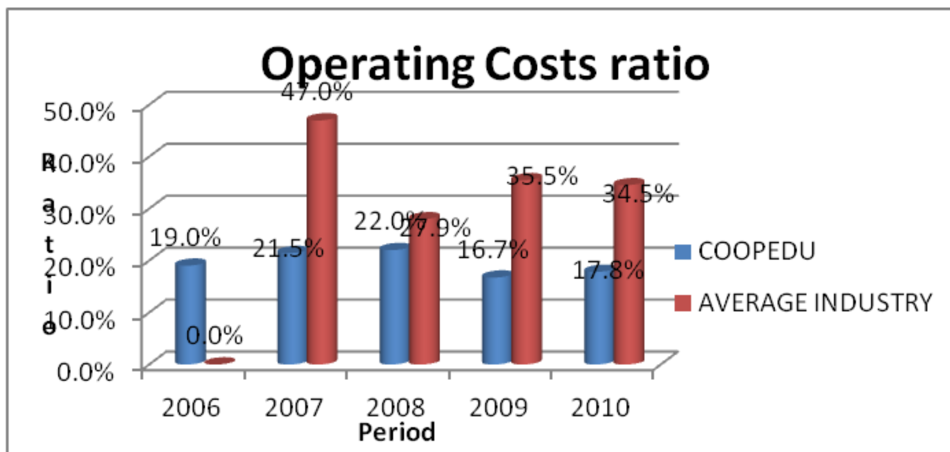
As it can be seen from the graph above, COOPEDU capacity to generate interests and fee income from the loan portfolio has always been below average industry, though it is not bad. If this ratio is linked to the portfolio at risk already shown above, the conclusion is that this situation is explained by other factors other than portfolio quality. This could be among others, the low interest rate charged by COOPEDU due to intense competition from commercial banks which are abundant in the environment in which it operates compared to most of other MFIs, which are based in rural areas.

4.3.6.2. Operating costs ratio

This ratio is generated by dividing operating expenses by average gross loan portfolio. This ratio measures how much is spent (input) to deliver loan services (output). The definition of operating expenses includes all staff costs and administrative expenses but excludes financial costs, loan loss provision expenses and extra ordinary expenses. The operating costs ratio is seen as the best indicator of the overall efficiency of a lending institution, measuring the institutional costs of delivering loan

services. The lower the ratio, the more efficient the MFI is. MFIs should strive for a downward trend in this ratio.

Figure 6: Operating Costs Ratio



Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

The data for the average industry for the year 2006 was not available. The chart above shows that COOPEDU has been consistently managing this ratio around 20%. Over the five years under study, the ratio varies between 17% and 22%. The consistency seems to be a good sign on the side of COOPEDU. However, the average industry figures reveal that most MFIs are experiencing difficulties managing their operating expenses, with the post crisis year being the highest at 47%.

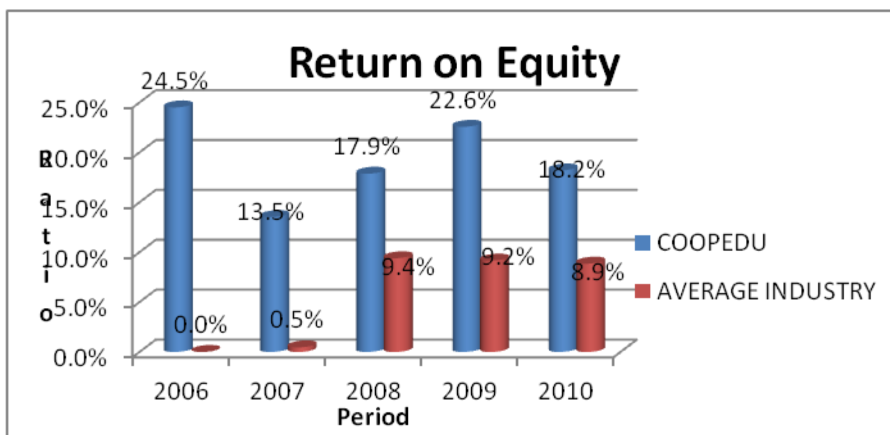
4.3.7. Sustainability

Sustainability ratios measure an MFI's net revenues in relation to the major components of its balance sheet namely the equity and assets. Sustainability helps investors and managers determine whether the invested funds are generating adequate returns. Due to low leverage or debt to equity ratio, most MFIs typically rely on retained earnings to fund growth. Consequently, MFIs should aim at achieving higher return on assets or equity.

4.3.7.1. Return on Equity (ROE)

The ROE is a measure of overall health and sustainability of an MFI, and essentially measures the return on investment in an institution. It is obtained by dividing the net income by the average equity. It expresses the rate of return on average equity for the period. In the case at hand, ROE is used as a proxy for commercial viability. A positive and upwards number is considered generally better, though results can vary widely depending on a number of factors such as the level of competition in a market and how hard it is driving efficiencies.

Figure 7: Return on Equity



Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

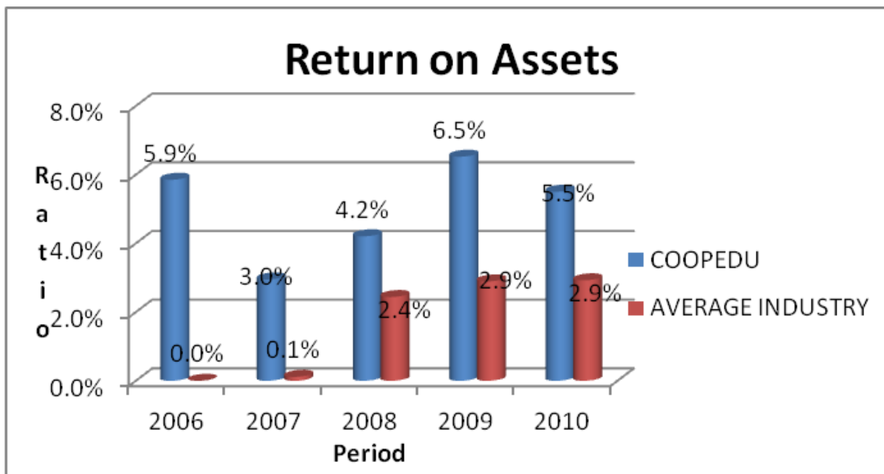
The average industry data for 2006 were not available to be able to calculate this indicator. The post crisis year was also characterized by a very low ROE for the overall industry, while it started recovering in subsequent years. From the look of things, COOPEDU has been stable regardless of the crisis; in other words, it has been always able to make good use of its equity with 2006 and 2009 being the best; 24.5% and 22.6% respectively. As seen in vertical analysis, most of MFIs rely on extraordinary types of income, which are not operational and therefore making this ratio meaningless for decision makers.

4.3.7.2. Return on Assets (ROA)

The ROA is also a measure of overall health and sustainability of an MFI and it essentially assesses how well an institution uses its assets. It is generated by dividing net income by average assets for the

period and expresses the rate of return on average assets for the period. A positive and higher number that trends upwards is generally considered better though it can also be within a few percentage points. Also, note that this ratio can be inconsistent and vary widely on onetime adjustments, i.e. extra ordinary gains or losses have a significant influence on it.

Figure 8: Return on Assets



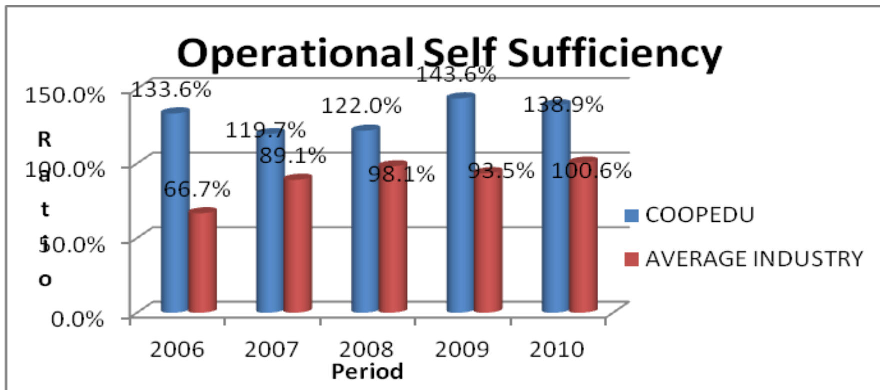
Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

The same as in the case of ROE, the above figure also shows that COOPEDU is better at making its assets productive than the combined overall industry. The chart shows that COOPEDU's return on assets has always been higher than that of the overall industry. The chart also reveals that the ROA of the overall industry was very minimal in 2007, but it has been slowly by slowly improving in subsequent years, although the numerator is mostly composed of non-operational items, which are not stable.

4.3.7.3. Operational Self Sufficiency

The operational self-sufficiency measures how well an MFI can cover its ordinary costs and maintain its services through operating income. It is generated by dividing total operating income by operating expenses plus financial expenses plus net loan provision expenses.

Figure 9: Operational Self Sufficiency



Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

The benchmark being at 100%, the preceding chart shows that COOPEDU is better off than the rest of the industry over the five years under study. It has been always able to manage its costs and remain with a margin, while the combined industry has been always below. The chart reveals that a great number of MFIs has been struggling to manage its ordinary costs, but the situation has been improving with time and at the end of 2010, all the ordinary costs could be covered using the operating income.

4.3.8. Scale and Depth of Outreach

The last section of this study dealing with the performance of MFIs puts emphasis on the growth and outreach indicators.

Table 10: Growth and outreach indicators

	Period	**2006**	**2007**	**2008**	**2009**	**2010**
COOPEDU	Number of branches	4	6	6	6	6
	Number of staff	-	48	42	45	45
	Number of loans disbursed during period	3,091	2,299	2,025	2,901	3,561
	Number of active clients	-	6,246	8,742	10,643	15,205
	Deposits	1,154,311,639	1,621,610,395	1,467,803,775	1,513,209,515	1,860,983,548
	Value of loans disbursed during period	1,287,569,525	1,284,224,273	1,817,374,300	1,916,419,300	2,270,009,800
AVERAGE INDUSTRY	Number of branches	8	58	83	145	148
	Number of staff	54	274	374	733	1,051
	Number of loans disbursed during period	12,350	22,815	6,706	42,428	82,054
	Number of active clients	16,179	142,937	162,452	229,494	334,512
	Deposits	469,210,325	4,978,107,282	6,208,831,397	12,292,246,011	19,655,032,979
	Value of loans disbursed during period	1,188,483,368	5,157,748,455	8,421,205,768	18,455,134,348	30,968,347,381

Source: Compiled from COOPEDU 2006 to 2010 Financial Statements and 2010 MFI Fact sheet (AMIR)

The scale of outreach is measured by the increase in number of active borrowers, number of clients, changes in loan and deposits portfolio. These are important indicators to monitor not only as social objectives, but also on a financial point of view. In facts, new clients bring new revenues and additional asset growth by facilitating to reach new borrowers with loans.

The preceding table shows in details the impact brought by the MFIs in the commerce of money. The number of staff and branches of COOPEDU seem constant over the five years because it was already well established. On the other hand, the industry as a whole has achieved a tremendous growth on these variables. The 148 branches of MFIs registered with AMIR at the end of 2010 had been able to create jobs for 1,051 individuals.

From 2007 to 2010, the number of depositors mobilized by COOPEDU had more than doubled from 6,246 clients to 15,205 clients, and the amount of deposits was also nearly to double. At the end of 2010, the industry had managed to disburse more than 30 billion in loan portfolio and 7% of it was disbursed by COOPEDU. As far as deposits portfolio is concerned, COOPEDU's was also nearly the double at the end of 2010 and counted 9.5% of all deposits raised by MFIs under study.

4.4. Hypothesis Justification: Financial Management Systems and Performance

The purpose of the hypothesis was to test whether there is any connection between the financial management systems set up in MFIs and the performance. The independent variables include the accounting and management information systems in place composed of MFI's accounting systems, cash and bank management systems, corporate governance, internal controls, external audit function as well as various laws and regulations put in place by various regulators. On the other hand, the dependent variables are the key performance indicators as analysed by Horizontal, vertical / trend and ratio analysis techniques.

The important part of the hypothesis has already been tested right in the above sections. As seen above, the lessons learnt from the 2006 crisis have brought about many changes that improved the financial

management systems of MFIs and impacted positively on their performance, while poor financial management systems were at the origin of 2006 crisis. On the side of COOPEDU, most of its performance indicators have been better than the combined industry's and it appears as like it has suffered a little from the crisis. Being one of the institutions which underwent the unstructured interview, COOPEDU owes this from the strengths of its financial management systems. From 2007 to 2010, the number of depositors mobilized by COOPEDU had more than doubled from 6,246 to 15,205, and the amount of deposits was also nearly to double. At the end of 2010, the industry had managed to disburse more than Rwf 30 billion in loan portfolio. Again, the number of loans disbursed during a period by the average industry increased more than 6 times from 2006 to 2010; i.e. from 12,350 to 82,054 loans respectively. This is owed from the improvement in financial management systems of Rwanda MFIs. The recorded performance cannot be attributed to a single area of the financial management systems, but rather to the entire system as whole. The following section highlights some of the positive changes recorded in accounting and management information systems also referred to as financial management systems of Rwanda MFIs over the period under study.

4.4.1. Corporate Governance and Staffing

The embezzlement due to poor internal controls, lack of integrity, incompetence and vested interests of staff and leadership of some of the collapsed MFIs, insufficient oversight by the regulators; are among many cited aspects of financial management systems which were in lack in most of MFIs before 2006. With the increased supervision from the central bank; the researcher learnt from the BNR officials that there was no case of embezzlement reported in the last three years. With the experience, most of the staff in the MFI sector has benefited of many capacity building programmes coupled with close coaching by BNR - MFI inspectors available in each district, the current level of skills is at the satisfactory level though there is still a room for improvement. The central bank also confirms that the quality of reporting has improved.

The information gathered through the financial management systems assessment questionnaire, has revealed that the key to COOPEDU success is the active bodies, that meet regularly and whenever needed to discuss important matters regarding their business and also good at taking appropriate decisions at the right time. Allowing a third eye in the form of independent external audit has also a

non-negligible part in COOPEDU's success. The researcher was also informed that Inkingi is good at taking the right decisions. Inkingi, Agaseke and Vision Finance companies survived the crisis because they were able to operate for a relatively long time despite the spread of the information of the crisis. This means that they had enough operating funds. The crisis has taught a lot to Inkingi; the researcher learnt that currently, an assessment is being done to inform the closure of inefficient sub-branches especially where there is intense competition, this is expected to be done in a manner that will not affect the customers of the sub-branches which will be affected. Apart from providing close oversight, the central bank has also issued out the guideline for external audit of MFIs which greatly improved the quality of external audit of MFIs.

4.4.2. Cash and Bank Management

The information gathered from interviewed people, has revealed that before the crisis, some of the MFIs could not accurately ascertain the inventory of the loans disbursed making it difficulty the repayment. This was partly due to laxity in the way those loans were issued. The non-recovery of the loans issued could easily bring cash flow problems. With the current close monitoring on the side of the central bank, this does no longer exist.

The loopholes in the old system could easily lead to embezzlement by staff and many instances were noted before. With frequent and regular cash controls including cash count and reconciliations, it is not easy for anybody to misuse cash in Rwanda MFIs now days.

4.4.3. Accounting Records

The information learnt from the interviewed individuals revealed that in the years before crisis, most of MFIs were only doing single entry accounting. Due to limited skills or deliberately, forged reports submitted to regulators without third eye verification were the common characteristic to most MFIs. The increased supervision of central bank has also brought improvement in the area of maintaining books of accounts in a professional manner thereby improving the reporting.

In the years prior to the crisis, the majority of MFIs were only relaying on excel for reporting. Currently, most of MFIs have acquired accounting packages. For instance, the visited four MFIs, COOPEDU, Inkingi, Agaseke and Vision finance are using Adbanking, Loan Performer, SAF and Orbit packages respectively.

4.4.4. Internal Controls

Non-compliance with even their weak internal policies designed for the sake of requesting the licence was another common denominator in the period before crisis. In 2011, the central bank reinforced further the controls, allowing many of the MFIs to grow and change the status after a careful review of internal organisation. In fact, the Central bank has recruited an MFI inspector for each district; the later is based in the district and provide oversight review of operations and coaching to all of the MFIs in the district.

The inspectors' close and regular oversight has put more pressure and increased the commitment of the MFIs leadership, which has further influenced positively most of the aspects of the financial management systems of the Rwandan MFIs. Off-site and on-site examinations are performed to improve the efficiency of MFI's operations and assess their level of compliance with the microfinance law and regulations.

However, despite tangible result achieved so far in upgrading the accounting and management information systems of Rwandan MFIs, some areas still need improvement. These include among others; enhancing the capacity of the human resource base and ensure its continuous development including retention plan, because a competent and motivated team of staff is considered as a major component and key to success of implementation of financial management systems and thereby contributing to all areas of the MFI such as improving the level of assets, of deposits portfolio and increased partnership with other institutions.

The maintenance of a database of momentous information on all areas including loan demands by categories and deposits is also still missing in most of MFIs, though is very crucial for future decision making reference.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

Based on the results and findings of preceding parts, this chapter draws the conclusions and point out the recommendations for improvement and future researches. The conclusion is generally aimed at summarising the important steps and related activities that characterized this research in such a way that readers are offered a well-structured outcome of the study. On the other hand, recommendations are articulated in order to give the researcher's contribution to the professionalism in management of MFIs in Rwanda and also point out some other areas related to this work that might attract the interest of future researchers on micro finance. This research's recommendations are formulated bearing in mind the context of the research topic.

5.1. Conclusion

Straight from the beginning of the study, a fundamental point was raised regarding the viability of MFIs; in reference to the financial distress that occurred in the sector in 2006. In the researcher's opinion as shown by the study, a number of issues related to the loopholes in financial management system were behind the financial distress. The microfinance sector has experienced an unbridled increase of MFI with a fabulous boom for the period between 2003 and 2005. This anarchical improvement of microfinance sector generated worries at all levels because of the non-compliance with regulations into force by MFIs, given that they started to operate without prior authorization by the monetary authority, which is National Bank of Rwanda.

At the beginning of these activities there was a lack of coordination of different actors, lack of governmental policy for the sector and the existence a high risk of the financial intermediation activity which did not grant any security to public deposits. It is in is regard that the Central Bank and the Ministry of Finance and Economic Planning, concerned to open up a planned frame of national policy and strategy as regard to microfinance,

This campaign enabled to start a discussion of major problems threatening the microfinance sector and to draw a broad guidance of national policy for implementation that will accompany and stimulate the development of microfinance industry in Rwanda. Instead of implementing amendment recommended

by National Bank of Rwanda, some MFIs have experienced, at the end of 2005 and the beginning of 2006, a state of insolvency and closure of some of their counters. The major reasons of this situation merely concerning poor governance have been the following the starting capitalization which was either insufficient in respect of set-up costs and raised deposits or artificial without real cash contribution. Indeed, by entry games officials manipulated figures so as to have balance their balance sheets, the conversion of deposits into loans exceeded, in some cases, prudential ratios in place. The collection has been made difficult by poor internal organisation and poor credit risk analysis whereas the existing legal structure did not help quick collection of nonperforming loans.

To remedy to the situation, the national microfinance policy has been devised and adopted specifically for Rwanda's needs. This defines the orientations of microfinance and allows MFIs to achieve the ultimate objective of this sector. The objective of the sector is to contribute to economic and social development of Rwanda's vulnerable poor, who are economically active either in rural or in urban areas. Whilst, the objective of the policy is to allow MFIs to offer accessible intermediation financial services on a sustainable basis and adapted to the need of the population.

Within the scope of the above policy and the strategy of its implementation, the National Bank of Rwanda drafted a specific Law establishing the organization of microfinance activities and its implementing regulation. In 2008, the Law no 40/2008 dated 26/09/2008 establishing the organization of microfinance activities was voted by the parliament and the regulation to implement it was drafted by BNR in the same year.

Apart from the analysis of MFI policies, strategies and regulations, another major objective of this study was to conduct an analysis of MFIs financial statements using the performance indicators commonly accepted for an MFI and be able to establish whether the viability of the sector is threatened. This was done using COOPEDU and consolidated MFI's financial statements as gathered by AMIR.

As demonstrated in the analysis, COOPEDU measures beat the industry's in almost all the areas namely portfolio quality, capital adequacy and liquidity, sustainability and profitability and growth and outreach. COOPEDU has demonstrated ability to manage loan portfolio and at the end of 2010, their portfolio at risk was kept at the minimum level that is 3% while the industry was at 14.6%, its

sustainability as measured by ROE, ROA and operational self-sufficiency was better, although the entire MFI industry, in general, still depends on extra ordinary items which are not sustainable.

Despite the financial distress that occurred in some MFIs in 2006 and which was likely to affect the industry as a whole, in subsequent years, the performance indicators show that the industry has been recovering slowly by slowly. The performance indicators show that, for the period under study, the total assets of COOPEDU had gone up to 243% while the industry's had gone up to 438%. The net operating margin of COOPEDU was 28% while the industry was 1%, very small but which is good sign because it was -53% in 2006. This together with other achievements are the fruits of tough measures taken by all regulators to strengthen the financial management systems of the players, these include among others new regulations and close follow up by regulators to monitor compliance.

5.2. Suggested Recommendations

Nowadays, microfinance is considered as an inevitable tool for alleviating poverty in Rwanda. This calls for the appropriate instruments to be used well in a suitable legal framework, for microfinance to be able to help in reinforcing the poor's capacities, to act as a tool for jobs creation and to help generate revenues on a sustainable manner. However, without strong financial management systems in place, the above objective will only be a dream. In order to develop successful MFIs in line with national policies and international best practices, the following actions should be top priorities:

The first priority is to increase the capacity to professionally and sustainably manage MFIs. These include staff capacity and improvement in the systems. Everybody can confirm with that qualified and competent staff members as well as other members of the governance are fundamental to success of the entire financial management system. Many MFIs do not currently possess the required capacity to operate in a sustainable manner and there few opportunities for capacity building. Limited capacity contributes to an overall lack of professionalism, which further manifest in internal conflict of interest and failure to implement other aspects of financial management system; hence the improvement in this regard is very crucial for the triumph of the industry.

Sensitize the population on advantages of owned MFIs, both in terms of savings, accessing credits and monitoring repayment. Recall that a great number of MFIs in Rwanda has the form of cooperative. The cooperative status gives all the members the responsibility to insure close monitoring of its activities and therefore becoming part of the framework within which the Cooperative operates or simply put part of its system. Hence, the members understanding their ownership responsibility helps to strengthen the financial management system. This recommendation applies to COOPEDU and to the rest of MFIs as well, and regulators have responsibility to facilitate this process.

Recall that regulators form the major part of the financial management framework of MFIs, hence they must rigorously assume their supervisory role. This is, among the closed MFIs, many of them had submitted the requirements to exercise the micro finance activity and these had been approved by the regulators such as the Central Bank and the Ministry having cooperatives in its attributions by the time, and yet these requirements had inbuilt weaknesses straight from the beginning, which also manifested with time and led to their closure. Here the responsibility comes to the regulators to perform serious analysis of these requirements, including reports for the existing MFIs, so that their approval is backed by convincing evidences.

MFIs must strengthen strategic alliances among themselves. The strategic alliances also form the financial management framework within which MFIs operate. The study has already pointed out unhealthy competition that was one of the reasons at the origin of failure of some MFIs in 2006. Lack of cooperation and collaboration in a bid of competition affected MFIs and brought about losses in loans. The recommendation here is to advise all MFIs to strengthen the collaboration and information sharing, because transparency is vital to success as advices are also limited without key information.

The MFI sector in general receives limited support from local authorities in terms of follow up of defaulters, and there is a lack of close collaboration. Despite strong commitment to address issues hindering the development of MFIs, an emphasis should be given to overcoming ‘overlap’, a certain level of framework of link across different levels of MFI sector, local authority and the national police is required.

Also imperative to MFIs success in regard to financial management system is strengthening the capacity of MFIs in the management and use of modern information technologies. The coaching services could be considered for MFIs in need.

This research concluded that COOPEDU was successful mainly due good financial management systems and best practices. Then the organization of the best practice events and dissemination of the lessons learnt would also be vital to recovery and sustainability of the industry.

5.3. Directions for future research

This research has established that good financial management systems contribute a lot to the performance of MFIs. The research has therefore contributed towards the realization that MFIs should not just put blame on borrowers for poor servicing of loans and clients for low level of saving culture. The research has further contributed towards the understanding of organization's aspects that relate to financial management systems.

However, a couple of issues remain unsolved. Firstly, there could be additional characteristics than what has been captured and examined in this study or even some others that have been partially addressed, which merit further research to refine and test relationship between financial management systems and performance.

Further research is also needed to find other micro and macro-economic factors in the environment that affect the performance of MFIs. The MFI sector in the country appears to be a more interesting sector for future research as there is inadequate research conducted so far. These research areas will be useful for the development of the sector in the country.

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