UNIVERSITY OF CAPE COAST

CLIENT EXIT IN MICROFINANCE: A CASE STUDY OF CHRISTIAN

RURAL AID NETWORK (CRAN), CAPE COAST

BY

EMMANUEL ASMAH

THESIS SUBMITTED TO THE DEPARTMENT OF ECONOMICS, FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF CAPE COAST IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR AWARD OF MASTER OF PHILOSOPHY DEGREE IN ECONOMICS

SEPTEMBER 2008

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DECLARATION

CANDIDATE'S DECLARATION

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature………………………….   Date………………………

Name: Emmanuel Asmah

SUPERVISORS' DECLARATION

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature:…………………………   Date:………………

Name: Dr.Isaac K. Acheampong

Co-Supervisor's Signature:………………………   Date:………………

Name: Mr. James Attah Peprah

ABSTRACT

Repeat borrowing is essential for long term financial sustainability of Microfinance Institutions (MFIs). This long term financial sustainability is threatened by high client exit, that is, premature termination of the borrowing relationship. In view of the above, the purpose of this study is to investigate the reasons for clients exit and to determine the factors that influence the length of the MFI-client borrowing relationship.

A duration model (semiparametric model) is used to empirically examine the factors that affect the borrowing relationship length. To obtain data for this study, structured questionnaires were prepared and administered on 103 exit clients selected from Christian Rural Aid Network (CRAN) microfinance data base.

The results of the study reveal that first; the reasons for client exit are frequency of repayment schedules, high cost of borrowing, obligatory inaccessible savings, dissatisfaction with group leadership, seasonality of business activity, threat of prosecution on default among other things. Second, loan size, age of client, dependency ratio, group repayment problem, household income shock and competition from informal financial service significantly affect the length of the borrowing relationship.

It is recommended that CRAN should conduct loan needs assessment and come out with loan sizes that meet the business needs of their clients. It is also recommended that CRAN should design repayment schedule that takes into account the cash flow pattern of its clients.

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DEDICATION

To my sweet heart Hanny Ama Bainson

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LIST OF ACRONYMS

AfDB	African Development Bank
ARB	Association of Rural Banks
ASCA	Accumulating Savings and Credit Associations
ASSFIN	Association of Financial Non-governmental Organizations
BoG	Bank of Ghana
CGAP	Cousurtative Group to Assist the Poor
CRAN	Christian Rural Aid
CUA	Credit Union Association
DANIDA	Danish International Development Agency
GCCUA	Ghana Co operative Credit Union Association
GCSCA	Ghana Cooperative Susu Collectors' Association
GHANMFIN	Ghana Microfinance Network
GPRS	Growth and Poverty Reduction Strategy
GT Z	Deutsche gesellschaft fur technische Zusaunmenarbeit
MDG	Millennium Development Goals
MFIs	Micro Finance Institutions
MiDA	Millennium Development Authority
MSME	Micro Small and Medium Enterprises
NBFI	Non-Bank Financial Institutions
RCB	Rural and Community Banks
RFSP	Rural Financial Services Project
ROSCA	Rotating Savings and Credit Association
SIF	Social Investment Fund
S & L	Savings and Loans
SPEED	Support Programme for Enterprise empowerment and development
SSRLS	Small Scale Rural Lending Scheme
UN	United Nations
UNDP	United Nations Development Programme

FDG   Focus Group Discussions

OLS   Ordinary Least Square

CHAPTER ONE

INTRODUCTION

Background of the study

Microfinance intervention exhibits an inherent ability of redistribution of resources in most developing countries where the poor are sidelined from having access to credit from banking and formal financial institutions. Over the past decade, providers of microfinance services have developed an array of models for delivering financial services to the poor probably to fill this gap. During 1995 and 1996 the Sustainable Banking with the poor project under Consultative Group to Assist the Poor (CGAP) compiled a worldwide inventory of Microfinance Institutions (MFIs). The list included nearly 1,000 institutions that provided microfinance services, reached at least 1,000 clients each, and had operated for a minimum of three years. According to the survey result, by September 1995 about US $7 billion in outstanding loan had been provided to more than 13 million individuals and groups. In addition, more than US $19 billion had been mobilized in 45 million active deposit accounts (Ledgerwood, 1999).

The bottom line of Microfinance intervention is the promotion of large scale poverty reduction. According to the United Nations Development Programme (UNDP) using microfinance for creating wealth and reducing poverty

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in developing countries has been recognized as one of the strategies for achieving the first objective of the Millennium Development Goals (UNDP Human Development Report, 2003). Over the past years, the question of the link between microfinance intervention and poverty reduction has aroused much passion among providers, promoters, end users (beneficiaries) and others involved in the microfinance field. While some believe that microfinance must reach the poor through open competition, others believe that those in the poorer state must be targeted to ensure that they have access to microfinance services. Microfinance therefore has the highest reputation of being a single dose that can get many people out of poverty**.**

Unfortunately, most of the MFIs that must champion poverty reduction on a large scale are by themselves not financially sustainable and rather rely heavily on the direct or indirect subsidies from donors (Morduch, 1999). One of the reasons why such MFIs do not achieve financial sustainability in Africa is that most of them experience relatively higher rates of clients exit as compared to similar institutions in Asia and Latin America (Pagura, 2003). Client exit (drop out) undermines MFIs effort to maintain long term banking relationship necessary for its successful performance (Pawlak and Matul, 2004). Clients exit increases the MFIs cost structure, discourages other clients and reduces prospect for sustainability. A rising exit rate may be indicative of major problems for an MFI and even threaten its survival. Users may be unhappy with the terms and conditions, or may have poor relations with staff. They may be switching to competitors, or overall demand may be falling due to a change in the economic

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climate. According to Copestake (2002), a key determinant of commercial viability is staff productivity and high exit rates are likely to reduce this because of fixed costs associated with induction and screening of new members.

In the longer-term, increase in exit rates also affects reputation and goodwill. Leavers may spread stories that deter others. High exit rates associated with adverse welfare effects on users may also scare away potential investors (from the private sector as well as donors) who are mindful of their reputations. This may raise the cost of capital and possibly also costs of compliance with regulation. An increase in exit rates may also be a lead indicator of a more widespread loss of goodwill among users, which may subsequently lead to contract enforcement problems.

Client exit does not only affect the individual MFIs but also the entire industry. It is believed that there is now more MFI dropout in East Africa than there are active MFI clients (Hulme, 1999). The danger posed by exit clients in the microfinance industry is that it leads to a growing cohort of people who discourage friends and relatives from joining MFIs.

Microfinance practitioners are concerned about higher client exit in microfinance for several reasons. First, MFIs and clients have much to gain from a quality, long-term banking relationship. As the relationship matures, the lender benefits from lower screening and monitoring costs, increased revenue, assuming loan balances grow overtime and improved lending decisions given that risk decreases as more information about the borrower is revealed. Benefits to the clients include a continued and often expanded access to credit, cost reduction in

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capital as terms and conditions improve over the long-run and an opportunity to establish a valuable reputation as a trustworthy borrower. Second, if clients leave after using microfinance services for a short time, fulfilment of social goals is jeopardised (Copestake et al, 2005). For the impact to be felt, this needs time, and by leaving the programme, the exiting clients are moving beyond the MFI's development reach.

Providers of Microfinance services have one core objective, thus, the well-being of users of their products. Copestake (2002) argues that, "of course for MFIs the well-being of their users is also a goal in itself - often the prime goal". Therefore high or rising exit rates should then be a cause for additional concern, because they are likely to indicate that users are dissatisfied with the quality of the services they are receiving.

Client exit is more problematic for MFIs using the joint liability (group lending technology) compared to those offering individual loan contracts (Pagura, 2003). This is because in the joint liability contract, a default by one or more of the members will result in the group bearing the burden of the defaulting member(s) by paying the debt due him/her. This may create incentive for the relatively better-off clients to stay out of such programmes because the cost of doing otherwise is high.

We conclude this section by considering the liberalist position on financial sustainability, welfare improvement and client exit. Their argument was that, if an MFI is itself financially self-sustainable then it is also likely to improve the welfare of clients, regardless of turnover of its users. Hence there is no need to

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worry about exit on welfare grounds at all. The argument relies heavily on the principle of "buyer beware" that users should be responsible for the consequences of their own actions: benefits outweigh costs if their judgement is good, and if it is bad then they must learn the hard way. Few would dispute that individuals should have the freedom to join new initiatives, such as a local village bank, group lending scheme if they so desire. If joining turns out to have been a foolish act of bravado, or if they joined with inadequate understanding of the risks, then they should generally also bear some responsibility for the consequences of their decision. And as the provision of microfinance services become more competitive, so rising exit rates may reflect a welcome widening of consumer choice.

This assertion by the liberalist has been challenged on several grounds. The prominent among them is the existence of monopoly in a highly illiterate community or a slum area etc. Markets for financial services are rarely perfectly competitive. Providers are particularly likely to enjoy some monopoly power in highly illiterate community, slums and remote areas - indeed it may be a necessary inducement for them to work there. Users may also have little prior information and experience of the details and long-term implications of the contracts they enter into, and they may do so in desperation. They may then not be in a position to enforce MFIs to comply with terms of their contracts; a particularly important consideration when it is the user who makes initial payments. In sum, there are good grounds for believing that in rapidly changing markets many vulnerable users are likely to assume debts that ultimately do them

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more harm than good. And while they may be free in theory to exit, the financial and social costs of doing so may be high for the MFIs.

Statement of the problem

Microfinance has an important role to play in the development agenda of many developing countries including Ghana. According to a UNDP report, using microfinance for creating wealth and reducing poverty in developing countries has been recognized as one of the strategies for achieving the first Millennium Development Goal (MDG) (UNDP, 2003). This is because microfinance services can assist the poor to accumulate assets, reduce risk and vulnerabilities, facilitate activities to earn livelihood, protect against income shocks, build social capital and improve quality of life.

To accomplish this role successfully, the MFIs are expected to be financially sustainable to perpetuate a banking relationship with clients. But in reality, several of the microfinance institutions (MFIs) are not financially sustainable and rely heavily on direct or indirect subsidies from donors (Morduch, 1999). Experts in the field estimate that less than one percent of all MFIs have achieved financial sustainability and only five percent will do so in the future (Morduch, 1999). Several reasons could be attributed to why most MFIs are not sustainable. These are: interest rates set below cost recovery levels; inefficient allocation of resources; high delinquency ratios; inflexible and narrowly defined financial products; and high client exit rates, among others. Each of these issues is

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of utmost importance; however, this research is focused on the client exit issues for two reasons.

First, studies in Africa have shown that annual exit rates are high in this part of the world ranging from 14% to 60% (Hulme, 1999) and if this trend continues the future of Microfinance as a poverty intervention tool looks very bleak. The first question is, what are the causes of high clients exit and how do we address them?

Second, MFIs and clients have much to gain from a quality, long-term banking relationship. As the relationship matures, the lender benefits from lower screening and monitoring costs, increased revenue, assuming loan balances grow over time, and improved lending decisions given that risk decreases as more information about the borrower is revealed. Benefits to the client include a continued and often expanded access to credit, a cost reduction in capital as terms and conditions improve over the long run, and an opportunity to establish a valuable reputation as a trustworthy borrower (Ongena and Smith, 2001). Given that banking relationship is valuable to both MFIs and clients; our concern is what factors are likely to affect the length of the banking relationship between MFIs and clients. In other words, what factors may lead to termination of banking relationship between MFI and clients.

A thorough review of MFI client exit studies indicates that in-depth understanding of exit reasons is a missing piece in Ghana. The biggest challenge now is to identify and decide the most important factors that influence each individual client of MFI to terminate/exit his/her banking relationship. This

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research, therefore, seeks to determine and analyse the factors that influence borrowers/clients exit decision in Microfinance.

Objectives of the study

The overall objective of this research is to define and determine the factors that affect client exit decision in microfinance. The specific objectives are to:

1. identify the reasons why clients exit MFIs in Christian Rural Aid Network (CRAN);

2. examine econometrically the factors that influence the length of time in the borrowing relationship;

3. Explore the policy implications of the study in order to address the problem of clients' exit in the CRAN.

Hypothesis

In view of the objectives of the study the following hypothesis is tested:

H_0 : Loan sizes, borrowers return on the loan, competition, household income shock, group dynamics and individual characteristics such as age and level of education do not significantly influence the length of borrowing relationship.

Scope of the study

For convenience and theoretical conformity the researcher selected a period of time (duration) within which to study the banking relationship length, the hazard of ending the relationship and the reasons for client exit. The study

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covers a period of time between January, 2002 and December 2006. This period was selected because it was a period that records on clients exit had been kept. Within the same period client exit was high because client had little experience about what group loan scheme was all about and so after experiencing it the first time many clients realized the true cost and decided to exit. Also this study was conducted using one institution (CRAN) in Cape Coast as a case study. The reason is that each institution is different in terms of its products, policies and institutional design (Pawlak and Matul, 2004). In addition, different institutions work with different clientele and in various contexts. It is therefore not meaningful to lump exit client from different institutions to assess client exit reasons and banking relationship length. Moreover, the study explored only quantitative methods of data collection. Qualitative methods such as focus group discussion, individual in-depth discussions etc were not considered in this study.

Significance of the study

The main contribution of this study will be to microfinance field. The findings of this study will no doubt have major policy implications for many MFIs. First, by better understanding the factors that affect client exit decision, practitioners will be able to adjust their policies to improve retention rates. This in the short run will dramatically reduce their costs and increase revenue. In the long run this will have a beneficial impact on overall sustainability of MFIs.

Also by knowing who is exiting can be an indication of whether MFIs are meeting their social mission goals. For instance, if the institution aim to target and

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retain poor client but those poor clients tend to leave, this may be an indication that product need to be tailored to suit this group or that institutional changes need to take place.

Finally by knowing who ex-clients are and why they leave is an important part of market research; it helps MFIs to monitor clients' satisfaction. If clients are leaving because they are unhappy with some aspect of their programme, managers can use this knowledge to make changes and improve the programme.

Organization of the study

This work is organized into six chapters. Chapter one covers the background, problem statement, objectives of the study, hypothesis to be tested, organization of the work, significance of the study and the scope of the study. Chapter two deals with the background of microfinance in Ghana and the profile of CRAN (study institution). Chapter three reviews both theoretical and empirical literature. Chapter four throws light on the methodology used for this study. Chapter five discusses the data analysis and the results of the study. Finally, chapter six presents the summary, conclusions, policy implications and limitations of the study and future research direction.

CHAPTER TWO

MICROFINANCE IN GHANA

Introduction

To study the factors that affect the length of time a client remains in the borrowing relationship and the factors that cause client exit, one must have a solid insight into the concept of microfinance in Ghana. Particularly, it is important to investigate whether microfinance has been properly defined and focused within the mainstream of the financial sector in the economy. It is equally important to understand the structure of microfinance in Ghana so that any institutional defect could be assessed and addressed properly.

In addition, the promotion of microfinance in Ghana, like any other country, is a strategy to promote large scale poverty reduction; therefore, any discussion on microfinance in Ghana should address the link between poverty reduction and microfinance interventions.

In the following section the general overview of microfinance in Ghana is presented. This is followed by profile of CRAN which happens to be the study institution. The first part, which is the general overview of microfinance in Ghana, examines issues such as the structure of microfinance in Ghana, the need for microfinance in Ghana, profile of microfinance apex bodies in Ghana, donor

supported microfinance projects and programmes and finally legal and regulatory framework for microfinance in Ghana.

In the second part of the chapter, a detailed explanation of CRAN's objectives and fundamental strategies are provided, savings and loan products as well as solidarity group dynamics are also reviewed.

Background of microfinance in Ghana

The concept of microfinance is not new in Ghana. Traditionally, people have saved with and taken small loans from individuals and groups within the context of self-help to start businesses or farming ventures. History has it that the first credit union in Africa was established in Northern Ghana in 1955 by Canadian catholic missionaries. Susu, which is one of the current microfinance methodologies, is thought to have originated in Nigeria and spread to Ghana. Microfinance has gone through four (4) distinct phases worldwide of which Ghana is no exception. These stages are described below:

Phase one: The provision of subsidized credit by governments starting in the 1950's when it was assumed that the lack of money was the ultimate hindrance to poverty reduction.

Phase two: Involved the provision of micro credit, mainly through NGOs to the poor in the 1960's and 1970's. During this period sustainability and financial self –sufficiency were still not considered important.

Phase three: In the 1990's the formalization of MFIs began.

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Phase four: Since the mid 1990's the commercialization of MFIs has gained importance with the mainstreaming of microfinance and its institutions into the financial sector.

In Ghana, microfinance is regarded as a sub-sector of the financial sector, comprising most different financial institutions which use a particular financial method to reach the poor.

Structure of the microfinance sector in Ghana

Ghana has a tiered range of formal, semi-formal and informal institutions providing microfinance services to the urban and rural poor and underserved sectors of the economy. Financial intermediation and credit activities are under the regulatory jurisdiction of the Bank of Ghana (BoG). The regulatory framework under the banking law (2004), Act 673 and the non-bank financial institutions (NBFI) law (1993) accommodates a tiered structure of licensed financial intermediaries and of financial regulation.

The formal sector institutions providing microfinance services consist of rural banks, Savings and Loans (S&L) companies and credit unions. Rural banks are public companies owned by communities (with capitalization assistance from the BoG), registered and licensed as unit banks (no branching privileges) under the provision of the banking law. Initially, the operations of rural banks were limited to a clearly defined geographical (rural) area, and were permitted to offer banking services limited to loans and to current, savings and time deposits. With time, a number of more progressive rural banks drew on emerging microfinance

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techniques to introduce new programmes for savings and credit, often in association with NGOs. Moreover, the ownership and voting control structures of rural banks resemble credit unions because of their one share-one vote structure.

In contrast, private individual parties own the S&L companies, which are registered and licensed under the NBFI law and are permitted to offer banking services limited to loans and to savings and times deposits. Unlike the rural banks, ownership and control structures of S&L companies (which, like commercial banks, have branching privileges) follow cumulative shareholding positions. The minimum capitalization requirements at entry for both rural banks (Gh¢150,000) and S&L companies (GH¢7m) are significantly lower than the minimum capitalization requirements for commercial banks and development banks.

The credit unions which are mutually-owned cooperative associations of individual members are registered under the law on cooperatives and subject to regulation by the credit union supervisory board (CUSB), a government agency. They are also required, under the NBFI law, to be registered by the department of cooperatives but not to be licensed by the bank of Ghana.

A number of NGOs, organized by private parties as trust entities or charitable institutions under the provision of the law on trusts and charitable institutions, provide both microloans and non-financial services to their client-base, without being subject to regulation or supervision by external government agencies. The majority of microcredit NGOs belongs to an umbrella organization-Ghana Micro Finance Network (GHAMFIN) - which provides staff training and

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organisational capacity-building assistance and disseminates best practice guidelines and standards for governance, operations and performance efficiency.

There are a large number of susu collectors in the informal sector, who provide collection and safekeeping services for the savings of mostly women, market-vendors and operators of micro enterprises. Technically, susu collectors are not involved in intermediating the aggregate savings which they collect and manage into loans. However, the women market vendors and micro enterprise operators have been able to access loans from their own susu collectors in the form of "advance draw-downs" against the total amount of savings they have contracted to deposit weekly for a set period. In most cases, these advances have been made possible by commercial and development banks, rural banks and S&L companies with which the susu collectors deposit the savings funds they collect and manage. There were indications that the "advance draw-down" feature had been introduced as a response to increasing competition among susu collectors for the savings of the market vendors and microenterprise operators.

A variation on the susu collection system is the susu club, wherein the members-the women market vendors and microenterprise operators go to a designated place on a scheduled day of the week to make their savings deposits with the susu collector who runs the susu club. The set-up allows a susu collector to service the savings deposit safekeeping needs of a much larger number of clients.

Individual susu collectors and susu clubs are neither registered nor licensed by any government agency, although there is a rapidly growing number

of individual susu collectors who belong to cooperative associations of collectors (example, the national association of susu collectors or the greater Accra association of susu collectors), which have taken steps to establish accreditation and identification procedures for their members as well as a form of deposit protection for the clients. Susu collectors would have an average of 150-200 women market vendors and microenterprise operators as clients, while susu clubs may have as many as 400-500 women market vendors and microenterprise operators as clients.

Traders, input-suppliers, money-lenders, rotating savings and credit associations (ROSCAs), and accumulating savings and credit associations (ASCAs) constitute the informal segment of the market for microfinance in Ghana.

The need for microfinance in Ghana

The overall policy framework for microfinance is informed by the poverty reduction strategy, which seeks to balance growth and macroeconomic stability with human development and empowerment in such a way as to positively impact the reduction of the country's poverty levels in the medium term. The main objective of growth and poverty reduction strategy (GPRS II) is to ensure sustainable equitable growth, accelerated poverty reduction and the protection of the vulnerable and excluded within a decentralized, democratic environment. The intention is to eliminate widespread poverty and growing income inequality, especially among the productive poor who constitute the majority of the working

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population. According to the 2000 population and housing census, 80% of the working population is found in the private informal sector. This group is characterized by lack of access to credit, which constrains the development and growth of that sector of the economy. The observation was stressed in the international monetary fund country report on Ghana on May 2003 that weaknesses in the financial sector that restrict financing opportunities for productive private investment are a particular impediment to business expansion in Ghana. Microfinance which is perceived as a financial sustainability instrument is meant to reach a significant number of poor people who are unable to access financial services. Access to financial services is imperative for the development of the informal sector and also helps to mop up excess liquidity through savings that can be made available as investment capital for national development (World bank, 1999). Microfinance as a sub-sector has the potential to reduce poverty by bringing a significant improvement in the lives of the active poor who are largely women.

Brief profile of microfinance apex bodies in Ghana

Ghana cooperative credit unions association

The Ghana co-operative credit unions association (GCCUA) limited was established in 1968 as the apex body of the credit union movement in Ghana. It does not represent the interest of only the movement at the local level but International levels too. The aim of its establishment was to develop itself into a

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sustainable financial institution and to create an enabling environment for credit unions operations. As a credit union leader, credit union association (CUA) has a responsibility of promoting, educating and training at all levels of the movement.

In order to ensure the viability and sustainability of credit unions, CUA offers both technical and financial services to its members including education and training, auditing, bookkeeping, computer services, general supervision and risk management insurance service. As at 2008, there were two hundred and sixty two(262) active credit unions in Ghana, with a total membership of over one hundred and sixty thousand (160,000) even though it is believed that its total membership is about two hundred and seven thousand, four hundred and two (207,402). CUA has taken some initiatives such as training center for credit unions, home banking scheme (new product) and microfinance for the active poor.

Ghana co-operative susu collectors' association

The Ghana co-operative susu collectors' association, (GCSCA) was established in 1994 as an umbrella organization for all regional susu collectors societies in Ghana. The association was formed to self-regulate the activities of susu collectors and instill practices, which would build clients confidence in their deposits mobilisation. The GCSCA is one of the indigenous microfinance institutions with a broad clientele base and a wider environment for funds mobilization. The few years of microfinance transformation has also led to a massive evolution in the operations of susu collection in the microfinance sector.

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The main services provided by susu collectors are savings mobilization and sometimes the provision of mobile services for individuals and groups in rural and urban areas. As at 2008, GCSCA has regional offices in all the regions and some districts in the country with a total membership of one thousand three hundred and thirty-five (1,335). Over the fourteen year- period, GCSCA has achieved the following:

a.   The Association mobilized a deposit of GH ¢ 38.5m as at December 2007.

b.   GCSCA has widened its network by extending its on-lending program to include formal banks such as the women's world banking and the intercontinental bank.

c.   Training programme in the areas of risk and delinquency management has been organized for its members in Upper East and Upper West.

d.   Developed inadequate but manageable system to help collect data from its members for data reporting.

e.   Train members of the association in topics such as financial management, report writing, book keeping and policy formulation.

f.   The association increased its membership base by 45%.

g.   Help for the setting-up some regional offices through the provision of office equipments.

h.   Disbursed over Gh¢1.02m to it members with financial support from barclays bank and microfinance and small loans centre (MASLOC)

Association of financial NGOs

The association of financial NGOs (ASSFIN) was inaugurated in 2005 as an apex organization of all financial organizations in Ghana with the aim of regulating the activities of member institutions as well as advocating for the development of financial NGOs. ASSFIN is accredited as a private voluntary organization in development. It has been registered as an organisation under limited guarantee under Act 179 of the Companies Code of 1963. Currently, the operations of ASSFIN are run by a seven-member executive council at the national level supported by three-member executive committee at the three zonal levels. The current membership of ASSFIN is 96 institutions spread across the length and breadth of the country.

Ghana microfinance institution network

Ghana microfinance institution network (GHAMFIN) is a network with a diverse range of microfinance practitioners comprising: savings & loans companies, rural and community banks, credit unions, financial NGOs, susu (savings) collectors, and business development service providers as well as apex bodies such as the ARB apex bank limited, Ghana credit union association.

The GHAMFIN seeks to promote the growth and development of the microfinance industry in Ghana. The focus has been on building the capacity of microfinance institutions to improve upon their performances, thus, enabling them to provide long-term sustainable and affordable access to financial services to

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meet the needs of their clients, majority of whom are women living in rural communities.

GHAMFIN has made a substantial gain for microfinance in Ghana. Few of these are:

GHAMFIN has established resource centres stocked with documents and publications on microfinance in Ghana and other parts of the world.

GHAMFIN has carried out a series of sensitization workshops for the financial NGOs on the community based rural development project in the Northern and Southern Ghana.

GHAMFIN has assisted Barclays Bank Ghana to develop a micro banking product.

GHAMFIN as a key stakeholder in the microfinance industry initiated the celebrations of the international year of micro credit in Ghana.

ARB apex bank

The ARB apex bank limited is a mini "central bank" for the rural/ community banks (RCBs). The idea of rural banking date back to about three (3) decades in the form of a dialogue between bank of Ghana and ministry of finance about what was called "junior league" of banking institutions to serve the special needs of the rural population. The traditional licensed banking institutions were concentrated at the urban centers hence it became necessary to bring the rural population into the banking system under rules designed to suit their socio-economic circumstances and the peculiarities of their occupation in farming and

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craft making. The ARB apex bank limited is mainly financed through the rural financial services project (RFSP). The RFSP is a government of Ghana project designed to holistically address the operational bottlenecks of the rural financial sector with the aim of broadening and deepening financial intermediation in the rural areas. To date, there are one hundred and twenty five (125) rural/community banks with over five hundred (500) branches/agencies in the country. The rural/ community banks under apex bank undertake a mix of microfinance and commercial banking activities structured to satisfy the needs of the rural areas. Some of the activities are:

• Provision of banking services by way of funds mobilization and credit to

cottage industry operators, farmers, fishermen and regular salary employees.

• Devote part of their profits to meet social responsibilities such as donations to support education, health, traditional administration and the needy in their respective communities.

• Specific gender programmes focusing on women-in-development and credit-with-education activities for rural women.

• Grant credits to customers for the payment of school fees, acquisition/rehabilitation of houses and to meet medical expenses.

• Devote part of their profits to meet social responsibilities such as donations to support education, health, traditional administration and the needy in their respective communities.

• Specific gender programmes focusing on women-in-development and credit-with-education activities for rural women.

Donor supported microfinance projects

Millennium development authority

The millennium development authority is the body set up by the millennium development authority act, 2006. MiDA is to oversee and manage the implementation of the Ghana programme under the millennium challenge account for sustainable reduction of poverty through growth. The goal is contained in the agreement between the government of Ghana and the millennium challenge corporation acting for and on behalf of the government of the United States of America. The objectives of MiDA are:

• To oversee and to manage the implementation of the Ghana programme under the millennium challenge account of the United States government for sustainable reduction of poverty through growth as contained in the compact;

• To secure the proper and effective utilization of the millennium development fund granted to Ghana under the compact; and

• To oversee and manage other national development programmes of similar nature funded by the government of Ghana, development partners or by both.

Support programme for enterprise empowerment and development

The support programme for enterprise empowerment and development (SPEED) is the continuation of the program for the promotion of small and micro enterprises that started in 1999 with the signing of the first financing agreement between the government of Ghana and the Deutsche gesellschaft für technische

zusammenarbeit (GTZ) from Germany. In 2004, Danish international development agency (DANIDA) collaborated with government of Ghana and GTZ to support the development of micro small and medium enterprises (MSMEs). The technical assistance to the microfinance sector provides results/services to support the framework conditions of MSME financing. It will further provide sector support and involve in direct technical assistance support to 20 to 30 financial intermediaries. SPEED will support the credit reference service, set up of a rating service and contribute to quality standards for Service Providers. As part of the sector support and development, it will also carry out or subcontract studies to better understand the demand side of the microfinance market and launch a consumer education and protection initiative. All these results will be provided in close collaboration with other institutions or are results of already ongoing initiatives. At the end of 2006, the funding facility had €2.5 million of funds placed on a revolving basis. This will be augmented by additional funds of €2.7 million from DANIDA to expand the funding facility and to finance new product support to MSME. During the first quarter of 2007 the financial custodial responsibility and management accountability for the fund was passed from the bank of Ghana to SPEED company limited. It is expected that SPEED will expand its services to the central and northern regions of Ghana and concentrate more on the rural areas. Improved outreach assumes that there is a real demand and absorption capacity for development support in these areas. The demand and capacities will be different between the components and much depends on the institutional landscape in the northern and rural areas.

Social investment fund

The social investment fund (SIF) was established in 1998 through the concerted effort of the government of Ghana, the African development bank (AfDB) and United Nations development programme (UNDP). The primary objective of SIF is to alleviate poverty in Ghana through institutional and capacity building; human development; and targeted pro-poor socio-economic investment in selected areas. It supports small scale enterprises and uses microfinance as a poverty alleviation tool to achieve accelerated growth in the rural areas. The SIF also aims to increase access to basic social services such as education, health care and to bring governance to the doorsteps of Ghanaians.

From 2003 to 2007, SIF under poverty reduction project I disbursed $2.2m to 32 microfinance institutions for onward lending to about 14,000 clients of which 80% were women who were engaged in income generating activities. SIF had four year (2004-2008) project to implement small-scale demand-driven sub-project with the view to improving infrastructure, boost income and raise living standards among rural poor. Currently the SIF is implementing the government of Ghana urban poverty reduction program with the aim of halving poverty by 2015. By this; the SIF is seeking to create an enabling environment for wealth creation for all Ghanaians which will facilitate economic development. By this objective the SIF is involved in building the capacity of microfinance institutions to enable them reach out to the rural poor.

United Nations development programme

The United Nations development programme (UNDP) is a United Nations (UN) agency with a mandate to assist developing nations such as Ghana, in their effort towards socio-economic growth and poverty reduction. Over the years the UNDP has partnered with the government of Ghana on many development projects including "promoting private sector development programme" which was a two-year microfinance capacity building intervention aimed at improving the economic and social status of micro entrepreneurs, particularly, women through their enhanced access to requisite financial and non-financial services resulting from effective and sustainable capacity building of selected microfinance institutions. UNDP Ghana supports national efforts and capacity building for sustainable human development in line with Ghana's own development strategies.

Legal and regulatory framework for microfinance in Ghana

Except for susu collectors, susu clubs, ROSCAs and ASCAs, MFIs in Ghana are required to establish legal entity. Banks and NBFIs (which include rural banks and savings and loans companies) are required to be incorporated entities under the companies act. Credit unions have legal status and identity through registration under the cooperative societies act as well as the requirements of the NBFI Law. NGOs, including those with microcredit orientation, have legal status through establishment under the provisions of the law on trusts and charitable institutions and the required registration with the ministry of employment and social welfare.

In Ghana, a tiered structure of institutions and graduated regulation for microfinance existed even before the government gave formal recognition to microfinance in 1999 and through new bank of Ghana regulations pertaining specifically to microfinance. The newly-adopted formal policies on microfinance and the adoption of a regulatory framework specific to microfinance activities had parallel co-existence with an existing credit-quota system for agricultural credit and SME finance. The regulatory (and tax) preferences enjoyed by rural banks and credit unions in combination with the operation of a graduated/tiered system have made it possible for NGO MFIs to transform into licensed institutions. This has been an indispensable element for substantially expanding the ability of MFIs to mobilize financial resources beyond traditional grants and donations.

However, the remaining tradition of the former credit quota system can be detrimental to microfinance, and further policy clarification on this aspect is indispensable. The bank of Ghana continues to coordinate closely with GHAMFIN and with the Ghana credit union association (CUA) to develop regulatory standards that can help promote institutional growth of the microfinance industry, and is seriously considering ways to simplify prudential standards/guidelines. A further development that bears watching is establishment of a government-sponsored and supported apex institution for rural banks. The experience elsewhere has shown that government-promoted apex organizations pose a significant risk of distorting the allocation of scarce financial resources and competing unfairly against private MFIs because of access to subsidized resources, thereby retarding the development of truly sustainable microfinance.

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The rural banks, Savings and Loan companies, credit unions which are registered with and licensed by the bank of Ghana are not directly included in the central clearing and payments system. They participate in the central systems for clearing and payments through the larger commercial banks. Bank of Ghana cancelled check clearing services for all rural banks in 1992, which has made it extremely difficult for even the better rural banks to effectively compete in the marketplace, retain their clientele, and lower their operating costs, neither do rural banks have access to bank of Ghana discount window and all of them are subject to identical loan-to-deposit ratio requirements.

Credit unions are currently regulated under a self-regulatory mode, in the interim that a separate set of prudential norms and guidelines specific to credit unions is being put together by the NBFI and bank of Ghana. In addition, credit unions approved for licensing by bank of Ghana have to comply with and meet the prudential standards set by the CUA, whose vetting is pre-requisite to bank of Ghana licensing. The prudential norms followed by the CUA, which is supported by the Canadian cooperative association are similar to operating and financial standards promoted by the world council of credit union.

Capital adequacy. The minimum capitalization requirements for licensed MFIs– savings and loans companies and rural banks- are significantly lower than those for commercial banks and long term development banks. Savings and loans companies are required to have a paid-up capital of US$2M while rural banks are required to have GH¢1,500,000 in paid-up capital. The solvency standard established by bank of Ghana for these licensed financial institutions is

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unimpaired capital equivalent to at least 6% of risk assets for rural banks and 10% of risk assets for savings and loans companies. There are indications that a significant number of rural banks, and savings and loans companies have capital adequacy deficiencies-largely because of unfavorable operating guidelines (example, on secondary reserves) that had to be adhered to, rapid growth in loan portfolios even as this growth was being seems clear that capital adequacy levels need to be reviewed periodically for appropriate adjustments.

Mandatory liquidity reserves. Bank of Ghana prescribes the primary and secondary reserve assets that licensed deposit-taking institutions are required to hold, relative to an institution's total deposit liabilities. Currently, bank of Ghana requires all rural banks to maintain a prohibitory high secondary reserve of 62% of deposit liabilities (but savings and loans companies are required to maintain a comparatively lower secondary reserve of 15% of deposit liabilities) to be held in government debt instruments, treasury bills. While the high secondary reserve requirement might have been intended to strengthen these smaller financial institutions, the regulations do not distinguish between stronger vis-à-vis weaker MFIs and thereby penalizes the more efficient and stronger institutions. Bank of Ghana classified rural banks into a number of categories – example satisfactory, mediocre and distressed – which could easily form a basis for a more fair and effective system of rewards and penalties for acceptable financial performance. The high level of mandatory secondary reserves significantly increases the funding costs for microfinance loans.

Security of loans. Current prudential guidelines require licensed banks to obtain physical assets to secure loans. While formal sector banks and financial institutions have begun to accept treasury bills and deposit balance as acceptable collateral, these options are clearly beyond the reach of poor households in the rural and urban areas. Close coordination between the ministry of finance, bank of Ghana and GHAMFIN have led to a better understanding of the characteristics of microfinance loans and, possibly, formalizing the status of group guarantees as acceptable collateral in microfinance loans.

Profile of Christian Rural Aid Network

Christian Rural Aid Network (CRAN) was initiated in 1993 to provide credit facilities to targeted rural women in fishing related enterprise. The facility was fashioned in a scheme known as small scale rural lending scheme (SSRLS). The provision of the financial service was an attempt to provide rural credit for the enhancement of income generating activities and the economic empowerment of the target groups. The SSRLS suffered some setbacks due to poor credit recovery and inadequate capitalization.

Between 1996 and 1997, the management of CRAN made conscious effort to investigate the factors that accounted for the low success of SSRLS as well as similar schemes initiated by other NGOs and government. In an effort to find alternative to SSRLS, management of CRAN also studied other schemes being implemented elsewhere in the world which have been regarded as success stories, especially, Grameen bank model of Bangladesh and other Latin American

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countries. In addition, CRAN became a member of the world microcredits movement and this afforded the institution the opportunity of gaining valuable technical information including credit schemes which have been successful in the other parts of the developing world.

As a result of the effort made by the management, CRAN came out with credit delivery programme based on "Grameen bank" approach of group savings mobilization and loan provision. In a like manner, CRAN's solidarity group strategy is based on the peer pressure to enforce loan repayment. In the event of non-payment by a member, the rest of the group members are responsible for repaying in full the delinquent member's portion of the loan before receiving a subsequent group loan.

Objectives of CRAN's microfinance programme

The following are the main objectives which CRAN is pursuing.

1. To reach 30,000 households with microcredits by the year 2010 and 50,000 households by the year 2015.

2. To ensure that at least 70% of the rural and peri-urban poor who receive microcredits under the programme by 2015 within the various target areas are and remain women

3. Ensure that CRAN's Microfinance covers at least five districts each within each of the three target regions of Ghana - Central, Western and Volta regions where CRAN is currently operating by 2015.

4. CRAN's microfinance programme becomes fully self sustainable by 2010 and

largely independent of foreign donor funding.

5. Attain a microfinance institutional status that promotes at least 2.5% of clients from subsistence to income generating to micro-enterprise and to small-scale industry yearly staring from 2006.

6. CRAN's Microfinance programme graduates into a fully-fledged microfinance institution and thereupon becoming a key player in Ghana's microfinance industry by 2010.

7. Increase and achieve rural and informal sector savings mobilisation rate of 25% per annum starting from 2006.

8. Provide entrepreneurial capacity building training and business advisory programme to at least 25% of total registered clients in a year.

Group solidarity

CRAN's lending technology is based on group solidarity, that is, joint liability, in which each member pledges to pay the group loan in full in the event of nonpayment by any member. In addition, each member attests to all other members' trustworthiness and ability to respect group by-laws. In this section group eligibility and their characteristics are discussed.

An entrepreneur has to meet certain criteria in order to be eligible for group loans. These include:

1. Being at least 18 years old;

2. Running a viable business activity for a minimum of two years;

3. Respecting all CRAN's conditions, such as, making regular savings   and

participating in weekly meetings;

4. Belong to a group that is properly constituted – group must have a

constitution or bye-laws.

Group formation and management

The first step in forming groups is the educational phase in which promotion agents go out and inform the public about CRAN. During this stage the institutional objectives, the solidarity group methodology and eligibility criteria are explained. Once the preliminary conditions are met, entrepreneurs start forming groups, minimum of 5 and maximum of 40 and average of 23.

Although promotion agents help the entrepreneurs to form their groups, it is the members themselves that have the final decision in group formation. When forming these groups CRAN strongly encourages members to have some sort of relationship to one another, either through their business activities or through the community. However, it is recommended that not all members come from the same family. Although the solidarity may be strong in a family, group pressure for repayment will most likely be difficult to maintain and the eldest family member may exercise undue influence over the others.

After a group is formed members set up their by-laws with the assistance of the promotion agent. CRAN provides each group with a template to help the members determine the group by-laws. Specific topics in the by-laws include: group objectives, membership procedures, group management, and dissolution of the group. Once all members have adopted the by-laws, an internal election is

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held to designate the management committee that consists of a chairman, treasurer, secretary two other non-office holders. The group also put in place a "Loan Approval Committee". This committee is responsible for reviewing all individual loan requests and determining whether the group member is capable of repaying the amount solicited. In addition, the group must name at least two members as cosigners for all financial operations with CRAN. The treasurer must be one of the two cosigners.

CRAN makes it compulsory for its groups to meet on regular basis to collect saving, to make loan payment and deliberate on issues concerning the groups. The meeting frequency is at most two weeks. CRAN requires its groups to hold group meeting at a specific location, on a specific day of the week and at a specific place and time. It is not a requirement that credit agent (field officers) sit in every group meeting. Credit agent help group set up their by-laws, understand loan application procedures and discuss loan repayment problem. It is the responsibility of the group's treasurer to make all deposits and payment at CRAN agency office where the group is registered. Each group is required to keep all minutes at meeting, thus the need for minute book. Minutes at meeting are one of the requirements for accessing loan.

Group loan

In CRAN, loan amount for each member in the group need not be the same. Each member's loan depends on her business needs and amount of saving mobilized. CRAN offers groups two different loan products, there are:

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i.   Ordinary group loan. The loan amount ranges from Gh¢ 50 to gh¢200 for first loan cycle and between Gh¢800 Gh¢1000 upon reaching the 6th loan cycle.

j.   Prestige Group loan- the loan amount ranges between GH¢1100 and GH¢3000 as minimum and maximum respectively.

The treasurer and a second designated person in the group must go to their CRAN agency office to sign the loan contract and to obtain the loan amount. It is entirely the treasurer's responsibility to deliver the loan to each designee. CRAN'S field officers are responsible for verifying that each individual receives the amount approved by the institution. The treasurer is responsible for collecting and depositing group loan repayments. It is the field officer's responsibility to follow up on group's repayment performance. In the event that a group is unable to repay their group loan, then all their group loan requests are automatically suspended.

Savings products

CRAN offers its clients two different savings products, a group compulsory susu savings account and a voluntary susu savings.

The group compulsory susu savings account is the principal savings product which CRAN offers to its clients. Opening and maintaining this type of account is one criterion that members most meet in order to receive a group loan. It works in the following manner: once a group has been formed and officers elected, the group has to open a savings account. Each member is required to pay a registration fee of Gh¢2 on admission and this amount form the nucleus of the

group's susu savings accounts. In addition, each member is required to pay an amount of Gh¢ 0.50 every month into the group account. The signatories to this account are the treasurer of the group and CRAN's credit officer in charge of the group. This group account is used as collateral security for loan to be granted to the group.

To be eligible to receive a loan, the group is required to save between 20% and 50% of the requested loan within a minimum period of three months. This minimum savings balance serves as part of the loan guarantee and must remain in the account until all members have paid off their loans. For example, if a member pays off her loan in advance, she must wait until all other members have fully paid before she can access her savings.

To maintain active status, the group must always keep the minimum deposit amount that was made to open the savings account. If it is withdrawn, then the group's savings account is closed, and the group is considered to have exited the programme.

The advantage with group savings account is that it gives a person access to group loan. However, this type of savings account is blocked, meaning a member cannot withdraw her savings until the group loan is paid off and she can only do this with approval from all other group members. In addition, no interest is paid on the group savings. This means that a client forgo the interest income that she could have earned on individual savings.

In addition to the compulsory savings account, CRAN offers its clients an individual savings account known as "voluntary susu savings (VSS). The

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advantage of this type of account over the group savings account is that clients receive interest on account balance. In addition, client can use this account to save according to her need and not the need of the group. The only drawback is that, this account does not grant the client access to individual or group loan.

To open and operate this account, the individual is required to complete a membership application which must be approved by the institution. Upon approval of the membership application, the client is charged Gh¢ 1.50. She is required to deposit a minimum and maximum amount of Gh ¢ 1.00 and Gh ¢ 5.00 per pay consistently throughout the period. The client is issued a passbook within which all deposits are entered.

Loan products

There are two types of group loans, two types of individual loans and one SME loan products that CRAN offers her clients. The loan products differ in terms of being ordinary or prestige.

The first two types of loan products are the ordinary individual loan and prestige individual loan. The ordinary individual loan is the one in which the client can receive a minimum loan of Gh¢ 50.00 and maximum loan of Gh¢ 1000.00. The interest on this type of loan is 19% flat and maximum duration for payment is six months. The prestige individual loan is the one in which the client can access loan to the tune of Gh¢1000.00 as minimum and Gh¢ 2000.00 as maximum. The interest there off is 19% flat spanning through six months.

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The second two types of loan products are short term business group loan – ordinary and short term business group loan – prestige.

With the short term business group loan- ordinary, a client can receive up to a maximum loan of Gh¢200.00 per individual for the first loan cycle loan and up to a maximum of GH¢1000.00 per individual upon reaching the 6th cycle loan. The interest rate on each is 19% flat for six months.

The third and the last type of loan known as the short term small and medium enterprise loan is the one which the client can access loan to the tune of GH ¢ 2000.00 as minimum and Gh¢10,000.00 as the maximum. The interest is also 19% flat for six months.

The credit agent, field officer determines the loan amount to be granted to the group. In principle, the agent (field officer) is responsible for conducting an assessment of the individual's business to determine her ability to repay the loan amount requested.

Group solidarity is the principal requirement of all group loans. CRAN requires each member to be guaranteed by all other members both morally and physically. By guaranteeing a member morally, the other members in the group testify that all the information on the group solidarity worksheet is corrected and pledges that he/she respects the group by-laws all of the time. By guaranteeing a member physically, each member agrees that the group savings can be used in the event of non- payment.

In the case of the individual loan, the terms and conditions are that 3.7% of the individual savings is retained. In addition, insurance coverage for loan

protection is also established to be determined by the insurance company.

The interest rate on all loans is 19% flat per six months. Although, this rate can be revised at any time, the interest rate given at the moment of loan disbursement remains valid until the end of the contract.

The length of all loan products that CRAN offers is six months. The repayment is scheduled on weekly basis. Often, a grace period for loan repayment is granted to all groups according to the types of loan they possess. The motive is to grant the entrepreneur enough time to generate revenue from the business he/she invested the loan in. Usually, a grace period of one month is given to clients before repayment begins.

Loans granted are expected to be used for business purposes only. Field officers attempts to monitor loan use during periodic visit to the entrepreneur's places of business. This is a difficult task due to the fungibility of money. In effect, loan earmarked for business investment can easily be used to pay for children's school fees or medical bills.

Conclusion

In view of the discussions above, it is concluded that microfinance in Ghana has assumed a challenging role of accelerating large scale poverty reduction and protection of vulnerable in the society. It is therefore imperative that microfinance institutions are strengthened to deepen the depth of outreach in the most efficient and sustainable manner. After all, quality banking relationship reduces the risk of client dropout from microcredit programmes.

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CHAPTER THREE

LITERATURE REVIEW

Introduction

Client exit is problematic for microfinance industry. David Hulme puts it this way, "client exit is a significant problem for MFIs. It increases the MFIs cost structure, discourage other clients and reduces the prospect for sustainability" (Hulme, 1999). Client exit is costly to the individual organizations in terms of investments in training and social preparation and the opportunity cost of losing the older and more experienced members most likely to take larger loans. To date, no concrete theory has been developed to explain clients exit in the microfinance studies. It is therefore important to explore other fields like labour economics and firm theory on technology adoption to help in offering theoretical explanation for client exit decision. The purpose of this chapter is to offer theoretical and empirical review of client exit in microfinance. The knowledge gained would be used to shape the methodology as well as findings of the study. This chapter has four sections: the theoretical literature, the theoretical model, the empirical literature and the summary and conclusions.

Theoretical literature review

Since client exit has rarely been analysed in the context of banking and finance, this literature offers no obvious formal economic theory in finance that could be adapted for this microfinance study. It is therefore logical to explore exit issues in other fields, such as labour economics in order to build client exit theory. In the field of labour economics, economists have examined and modeled worker and career exit rates based on search, human capital, and turnover theory (Narendranathan and Nickell, 1984; Meitzen, 1986; Murnane and Olsen, 1989; Preston, 1994 and Dolton and von der Klaauw, 1995). These authors compare current and opportunity wages as a basis for decision making on job and/or career exit. Particularly interesting is Murnane and Olsen (1989) theory in which they implicitly focus on the cumulative effect of the agent's knowledge gained over time on her decision to exit the teaching profession.

Firm theory, in particular the branch dealing with technology adoption, is also useful in building a theoretical backing for exit decisions (Reinganum, 1983; Saloner and Shepard, 1995; Stoneman and Kwon, 1996). In these applications, a representative firm makes a decision on technology adoption based on its net maximum benefits, or conversely, its minimum costs of adopting. These models employ net present value techniques to examine the flow of benefits and costs over time, therefore focusing on the trade-off between the time in which one adopts a technology and its effects on overall firm profit.

Until quite recently the literature on group lending dealing with adverse selection focused solely on the full information case in which borrowers are

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perfectly informed about each other's type (Armendariz de Aghion and Gollier, 1996; Ghatak and Guinnane, 1999; Ghatak, 2000). Given full information, borrowing groups are formed based on an assortative matching process, example, safe with safe types and risky with risky types, thereby reducing the effective cost of borrowing to safer borrowers. This result is shown to improve repayment rates and overall welfare (Ghatak, 1999). Armendariz de Aghion and Gollier (2000) and Laffont and N'Guessan (2000) however, show that this matching process is not necessary for group lending to be welfare improving. In fact, they demonstrate that group lending with imperfect information, in which random matching occurs is also welfare enhancing. Although the framework proposed here focuses primarily on the exit decision of the borrower, the imperfect information assumption is a central feature of this discussion.

When actions of and private information held by economic agents are unobservable, markets can be profoundly distorted. This is true in financial markets where information asymmetries are especially pronounced (Leland and Pyle, 1977). Information asymmetries are problematic for lenders because they do not know the true types and behaviours of their borrowers. Likewise, borrowers are disadvantaged because they do not know the true qualities and costs of the lenders' products and services. Given that asymmetric information problem tend to be much more acute in small firms than in large firms it is not surprising that the ways in which these respective groups obtain credit financing differ significantly (Berger and Udell, 1995). To make better lending and borrowing decisions banks and clients strive to reduce these asymmetries by producing

information about one another. Lenders do this by using a variety of screening and monitoring devices, such as interest rates, collateral, successive loan contracts, and/or joint liability (Stiglitz and Weiss, 1981; Besley and Coate, 1995; Madajewicz, 1997; Rodriguez-Meza, 2000). Borrowers, on the other hand, can collect information about the lender's products and services either by search or experience mechanisms. These information-generating processes reduce uncertainty, permitting lenders and borrowers to establish better bank relationships of long lasting quality.

Drawing upon these two areas (labour economics and firm theory on technology adoption) and using group lending technology, attempts have been made to offer theoretical explanations to the client exit decisions. The combination of labour economics theory on job matching, the firm theory on technology adoption and the group lending technology was aimed at developing a theoretical framework that explicitly focuses on the termination of banking relationship. The theoretical framework used to analyse this problem focuses solely on the borrower's optimal decision to exit the bank relationship, that is, group lending program, given the belief about the partner's type and his/her own outside financing option. This theory does not examine the lender's decision to terminate the relationship instead it is assumed that the lender's purpose is to maximise borrower's welfare.

The theoretical exposition of the MFI borrower's decision to exit or stay his group lending programme was led by Pagura (2003). Therefore the theoretical

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discussion of this work uses the main ideas from the work of Pagura, (2003) and Chen et al (2007)

According to pagura (2003), when a borrower engages in a sub-optimal strategy of group lending, client is jointly liable for his/her own repayment as well as the co-member's repayment in an event they are unable to repay their loan shares. However, if the group demonstrates good repayment behaviour, that is, never default in specified number of loan cycles, then the members are rewarded with an admission into individual loan programme.

It is assumed that once an individual (borrower) has selected a partner to the borrowing contract, they are together until the end of the relationship, that is, both borrowers graduate into individual lending or the other exit the group lending programme. The pool of potential borrowers from which the individual borrower chooses his/her group members are made up of two types of borrowers: high ability type (one with high business success outcome) and low ability type (one with low business success outcome). The borrower's objective is to maximize his/her utility over the life cycle. The borrower's utility is derived from his/her income, y, plus the return on the loan, r*, minus the borrowing cost, rl, as well as the cost due to the partners' nonpayment. The borrower pays an additional, $(1 + r)l$, when the partner has low outcome and nothing otherwise. The partners business outcome and repayment behaviour are as follows: if the partner has a higher outcome he/she repays the loan share, however, in the event the outcome is low he/she earns nothing and is unable to repay. In the latter scenarios, other members are forced to repay the partner's share.

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In addition, the borrower does not know the ability type of his/her partner before choosing him/her. Given this, the borrower is faced with uncertain costs as long as they remain partners due to joint liability of the loan contracts. If the borrower picks a low ability type he/she will have to pay for the partner more often than if he/she picks a high ability type, since low types experience low outcomes more often than high types. Even though the borrower does not know his/her partner's type with certainty, he/she learns about the partner's by observing the partners productive outcomes as they are revealed over time. The borrower knows the distribution of borrowers in the population is as follows: Borrowers are of high ability with probability, *p,* and low ability with probability, 1-*p*. She also knows the conditional probabilities of outcomes given firm type are as follows:

$$\Pr(\text{high}|\text{high}) = q_{11}$$

$$\Pr(\text{high}|\text{low}) = q_{10}$$

$$\Pr(\text{low}|\text{high}) = q_{01}$$

$$\Pr(\text{low}|\text{low}) = q_{00.}$$

With this information the borrower calculates a subjective probability about the partners' type, *p*, and uses it to estimate an expected cost that he/she will have to bear due to the partner's probable non-payment in the future. At the end of each loan cycle, that is, after full repayment of the group loan, he/she updates his/her prior belief about the partner's type using Bayes' Rule and recalculates her cost of remaining in the borrowing relationship. At that point, the

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borrower decides whether to remain in the borrowing group and take another loan or exit and use self-financing. To make this decision he/she compares his/her subjective belief about the partner being a high type, *p*, to a critical probability value *k*. The critical probability is the value at which the borrower is indifferent about staying in or exiting the group loan contract. If *p* is greater (less) than *k* he/she stays (exits). The critical value, *k*, is an increasing function of time which reflects the diminishing returns to learning. The longer the borrower remains in the contract the less impact new information has on his/her belief about the partner's type and the less willing he/she is to remain with a low ability type partner. In contrast, in the beginning of the relationship (more periods to go) the borrower is more tolerant of low outcomes of partner and is more willing to remain in the relationship to see if he/she is really a low ability type partner. Over time, the belief about the partner's type becomes closer to the partners' true type since high ability types succeed more often than low ability types. To maximize profits over the life cycle the borrower needs to choose an optimal stay-exit policy. To fully capture the nature of this problem, it is setup in a dynamic setting, permitting the optimising agent (borrower) to evaluate his/her current and future rewards given the state contingent actions.

The dynamic economic model was developed by Miranda and Fackler (2002) and is specified as follows. In every period, t, an agent observes the state of an economic system, s_t, takes an action, x_t, and earns a reward, $f(s_t, x_t)$. The reward depends on both the state (s_t) of the process and the action taken

(x_t). The state of the process follows a controlled Markov Probability Law, which asserts that the probability distribution of next period's state, conditional on all currently available information, depends only on today's state and actions of the agent. This is presented in (3.1) as follows:

$$P\big(s_{t+1} = s'\big) \mid x_t = x, s_t = s\big) = P\big(s' \mid s, x\big) \qquad (3.1)$$

The agent seeks a policy of state contingent actions $x_t*(s)$ that maximizes the present value of current and expected future rewards over time.

Dynamic programming methods, based on the principle of optimality, are used to analyse discrete Markov decision models. Bellman (1956) developed these methods and formally expressed the principle of optimality in the form of the Bellman equation which implies that the value functions $Vt : S \rightarrow \Re$ must satisfy the following optimization problem:

$$V_t(S_t) = \max_{x \in X(s)} \Big[f(s_t, x_t) + \delta \sum_{s' \in S} P(S' \mid s, x) V_{t+1}(S') \Big] \qquad \textbf{(3.2)}$$

where,

t = 1, 2,….., T;

V_t = value function in period t;

s_t = state of the process in period t;

x_t = action of agent in period t;

$f(s_t, x_t)$ = reward function;

$P(s' \mid s, x)$ = Markov Probability Law;

δ = discount factor.

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Equation (3.2) describes the problem faced by the optimising agent, the need to balance current rewards with expected future rewards.

The idea about Miranda and Fackler (2002) dynamic economic model was employed to advance the dynamic setting of the theoretical review we have been discussing. Dynamic models could be of finite or infinite horizon. This particular setting is of finite horizon because in a finite horizon model an optimising agent is faced with decisions in each period.

In this particular situation, the action variable $x \in \{stay, exit\}$ is the stay-exit decision. The state transition function is

$$g(p,x) = \begin{cases} p', x = stay \\ p', x = exit \end{cases},$$ (3.3)

where,

$$p' = pq_{11} / \left[pq_{11} + (1-p)q_{10} \right] \text{ for high outcome, and}$$

$$p' = pq_{01} / \left[pq_{01} + (1-p)q_{00} \right] \text{ for low outcome.}$$

The borrower's subjective probability about the partner's type is updated at the beginning of each period using Bayes' Rule. If the borrower exits in the current period, his/her belief about the partner's type is no longer updated so it remains at the current belief of p. The reward functions for staying and exiting are

$$f(p|\text{stay}) = (pq_{11} + (1-p)q_{10}) \ U(\tilde{Y}+r^*-rl) + (pq_{01} + (1-p)q_{00})U(\tilde{Y}+r^*-rl-$$
$$(1+r)l);$$ (3.4)

$$f(p|\text{exit}) = U(\tilde{Y}).$$

where,

$\tilde{Y}$ is borrower$_i$'s income;

r^* is the return on the loan net of principal;

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rl is the interest cost associated with the loan;

$(1+r)l$ is the borrower's additional loan costs (principal and interest) in the event the partner is not able to repay. The borrower pays $(1+r)l$ when partner has a low outcome and nothing otherwise.

It is assumed that the borrower makes his/her decision at the beginning of each period, t. The borrower's reward function when he/she stays is an expected utility given that there are two possible outcomes at each point in time, high or low. Therefore, the reward function when he/she stays is the expected utility he/she gains from staying. This is the conditional probability of a high outcome times the utility given he/she stays when outcome is high plus the conditional probability of a low outcome times the utility given he/she stays when outcome is low.

The borrower's subjective probability about the partner's type, p, satisfies the following equation, Bellman (1956):

$$V_t(p) = \text{Max } \{U(\text{stay}|p), U(\text{exit}|p)\} \qquad (3.5)$$

where,

$$U(\text{stay}|p) = [pq_{11} + (1-p)q_{10}] \times \left[U(\tilde{Y}+r^*-rl+\delta V_{t+1}\left(\frac{pq_{11}}{pq_{11} + (1-p)q_{10}} \right)) \right]$$

$$+ [pq_{01} + (1-p)q_{00}] \times \left[U(\tilde{Y}+r^*-rl-(1+r)l+ \delta V_t \left(\frac{pq_{10}}{pq_{10} + (1-p)q_{00}} \right)) \right]$$

$$U(\text{exit}|p) = \sum_{r=t}^{T} \delta^{r-t}\, \tilde{Y}.$$

The value function, $V_t(p)$, describes the maximum stream of discounted returns of the borrower's two options: staying or exiting. For the stay option borrower

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calculates his/her present and discounted future returns given his/her belief about the partner's type in each time period. This calculation is based on current rewards plus a stream of discounted future rewards. He/she chooses the maximum value between staying and exiting in each period. The borrower exits the borrowing relationship as long as his/her staying value is less than his/her exiting value.

Review of theoretical models

Drawing on the literature above, time affects a borrower's exit decision. In the group lending model with imperfect information, a representative borrower updates his/her expectations about costs given the belief about the partner's type, that is, high ability or low ability. Over time, partner type is revealed. In the literature therefore, the representative borrower makes an optimal exit decision in each period based on the outcome and his/her belief about the partner's type. Over time, the probability of remaining in the borrowing group decreases due to diminishing returns of new information. However, the probability of survival is higher if he/she chooses a high ability partner than if he/she chooses a low ability partner. In this theory, the factors to consider in the calculations before making the optimum decision are: level of income, loan return, loan repayment and the cost to bear if the fellow group member fails to pay. Parameter values of the model influence (positively and negatively) the borrower's survival probabilities.

Duration analysis is the most appropriate statistical method to analyse the survival probabilities, in this case the survival of banking relationships.

Economists have used these statistical methods to analyse economic problems due to duration data (Kiefer, 1988). The central feature of these techniques is the use of a conditional probability on an event taking place, for instance, client exits this period given that he/she was in last period. In the section that follows a brief description of duration methods is provided.

Theoretical model of the duration analysis

Probability theory

This discussion closely follows Greene (1993) discussion on the theoretical background of duration analysis. Assume a cumulative distribution function, F, of a random variable T is a function defined for each real number t as follows:

$$F(t) = \Pr(T \leq t) \tag{3.6}$$

Equation (3.6) specifies the probability that T is less than or equal to t. In the client exit case, the random variable is the length of the borrowing relationship T and t is a point in time. The length of T is often referred to as a spell and the termination of the spell is known as the event. Therefore, equation (3.6) is the probability that the borrowing relationship stops before or at time t. Another way to look at this is to examine the probability that a spell is of at least length t, which is given by the survival function:

$$S(t) = 1 - F(t) = \Pr(T \geq t) \tag{3.7}$$

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Equation (3.7) is the probability that the length of the borrowing relationship is at least as long as t.

In economics it is particularly interesting to examine the probability that a spell will end in the next short interval, $t + \Delta$, given it has lasted t. The following hazard function is used to express this probability:

$$\lambda(t) = \lim_{\Delta \to 0} \frac{\Pr(t \leq T \prec t + \Delta \mid T \succ t)}{\Delta}$$

$$\lambda(t) = \lim_{\Delta \to 0} \frac{F(t + \Delta) - F(t)}{\Delta S(t)}$$

$$\lambda(t) = \frac{f(t)}{S(t)} \qquad\qquad (3.8)$$

Where: $f(t)$ is the density function

The cumulative distribution function, survival, hazard, and density functions are all related; however, for the purpose of determining the probability of a spell ending in the next short interval given that it has lasted up until time t, then one should model the hazard function. The hazard function also conveniently defines duration dependence (Kiefer, 1988). When $\lambda(t)$ is increasing in t, that is, $\frac{d\lambda(t)}{dt} \succ 0$, the hazard function is said to exhibit positive duration dependence, since the probability of ending the spell is increasing in the spell length. Similarly, negative duration dependence occurs when $\lambda(t)$ is decreasing in t, that is $\frac{d\lambda(t)}{dt} \prec 0$. It follows that the case of constant duration dependence occurs

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when $\dfrac{d\lambda(t)}{dt} = 0$. Under constant duration dependence, no relationship exists between spell length and the likelihood of switching.

Several specific distributions are available to characterise the error term in duration models. The distribution of the error term chosen is based upon the distribution of the random variable, *T,* the length of the borrowing relationship. Kiefer (1988), Greene (1993), and Allison (1995) review distributions most frequently used in economics. These include the exponential, Weibull, lognormal, gamma, and log-logistic distributions. These are distributions of a nonnegative random variable and each one displays very different behavior. One should be careful to choose a distribution so that it adequately captures the nature of the data. A good rule of thumb is to choose a distribution based on a particular economic theory, preliminary plotting of data, and its technical convenience for statistical inference (Cox and Oakes, 1984; Kiefer, 1988). In addition, one should use specification analysis after the model has been fitted to ensure that it adequately describes the data at hand (Allison, 1995).

Types of duration analysis

In a duration analysis there are basically three types that are often employed, sometimes in combination of all the three or two depending on what the researcher wants to investigate. These are: nonparametric, fully parametric and semiparametric techniques.

Nonparametric

Typical descriptive methods used in linear regression analysis, such as difference of means and frequency tests, cannot be carried out when censoring is present in the data. Instead, estimation and graphical representation of the survival and hazard functions are used to preliminarily analyse the data. These nonparametric methods dominated the survival research in the biomedical and engineering fields up to 1970 when parametric and semiparametric approaches began to take hold (Allison, 1995). Today, nonparametric methods are still useful for preliminary analyses of duration data. It is also useful for computation of descriptive statistics such as the median survival time or probabilities of survival limits (Allison, 1995), specification analysis for regression model building (Kiefer, 1988) and comparison of estimated survival functions across groups.

To calculate the survival function the Kaplan-Meier (K-M) or product limit estimator is used. The K-M estimator considers information from all observations available, both uncensored and censored. To obtain a K-M estimator you need to multiply a sequence of conditional survival probability estimators (Hosmer and Lemeshow, 1999). Each survival probability estimator is calculated using the number of individuals at risk of exiting and the number that actually did exit in a particular time interval. Specifically, the K-M estimator is defined as

$$\hat{S}(t) = \prod_{j:t_j \leq t} \left[1 - \frac{d_j}{n_j} \right] \qquad (3.9)$$

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where, t_j is the specific point in time, n_j is the number of individuals at risk for the event, and d_j is the number of individuals who die, that is, exit the borrowing relationship, at time t_j. The Kaplain-Meier estimator is used to calculate the cumulative survival function of the borrower population in the sample.

Parametric estimation

In a fully parametric model, one has to determine a particular parametric distribution for the error term of the regression. For example in ordinary linear regression, the assumption of a normal distribution is typically used to characterise the disturbance term. In survival analysis, many different distributions are invoked, depending on the nature of the distribution of duration time, *T*.

In modeling duration data, researchers are trying to accomplish two things at once. The model must describe the basic distribution of the survival time and characterise how that distribution changes as a function of covariates (in a duration analysis the term covariates is used to mean independent variables) (Hosmer and Lemeshow, 1999). If the researcher is concerned with the shape of the hazard function and would like to know if it is increasing, decreasing, or remaining constant over time in addition to the effect of the covariates on the distribution, he/she should use a fully parametric model. In some cases it is not necessary to describe the basic distribution of the survival times, especially if you have to make several strong assumptions about it, not to mention the effect

unobserved heterogeneity has on the shape of the hazard function. This effect often leads to erroneous interpretations about the data (Allison, 1995). If the focus of the research is examining the effect of the covariates on the hazard rate, then semiparametric methods are sufficient since no assumption needs to be made about the survival distribution. In the next section, we present a brief explanation of fully parametric and semiparametric.

In duration analysis maximum likelihood is used to estimate a fully parametric model. This methodology is explained here, using client exit as an example. To estimate the probability that a client will end the borrowing relationship in the next short interval given that she has not in the current period, the density function *f(t, z)* is used, where *t* is the duration of length *t,* that is, the length of time the client has remained in the borrowing relationship, and *z* is a vector of parameters that also affect *t.* This density function is maximized using the following likelihood function:

$$\hat{L}(t_i z) = \prod_{i=1}^{n} f(t_i z) = \lambda(t_i z) S(t_i z) \qquad (3.10)$$

From Equation (3.10), one knows that the density function, *f(t)*, is equal to the product of the hazard function, *λ(t)*, and the survival function, *S(t)*.

Taking the log of the likelihood function and accounting for right-censored observations, the likelihood function from Equation (3.10) now becomes:

$$InL = \sum_{i=1}^{n} \left[d_i In\lambda(t_i z) + (1 - d_i) InS(t_i z) \right] \qquad (3.11)$$

where, d_i is defined as 1 if a client has exited and 0 otherwise. Parameter estimates are calculated by maximum likelihood estimation. The log likelihood function is defined using the appropriate distributions for the hazard, $\lambda(t)$ depending on the structure imposed on the data. Three commonly used specifications are the Weibull, exponential and log-logistic (Kiefer, 1988).

The hazard function for the weibull distribution is given as:

$$\lambda_0(t) = \lambda \alpha t^{\alpha-1} \qquad\qquad (3.12)$$

The Weibull distribution allows for duration dependence. When $\alpha > 1$, distribution exhibits positive duration dependence, while $\alpha < 1$ implies negative duration dependence. The exponential is nested in the Weibull as the case $\alpha = 1$ and represents the testable restriction that the likelihood of switching is independent of the duration of the spell. The Weibull model restricts duration dependence to be monotonic over spell lengths.

The log-logistic distribution, which allows for non-monotonic duration dependence, has the following hazard function:

$$\lambda_0(t) = \frac{\lambda \alpha t^{\alpha-1}}{\left(1 + t^\alpha \lambda\right)} \qquad\qquad (3.13)$$

When $\alpha > 1$ in the log-logistic specification, the likelihood of ending a spell first increases, then decreases with duration. When $0 < \alpha \leq 1$ the hazard function decreases monotonically with duration. A drawback to the log-logistic distribution is that constant duration dependence is not included as a special case.

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When a duration model does not require specification of a specific baseline hazard and if the focus of the research is examining the effect of the covariates on the hazard rate, then semi-parametric methods are sufficient since no assumption needs to be made about the survival distribution.

In duration analysis partial likelihood is used to estimate semiparametric model. Semiparametric estimation methods are widely used today (Allison, 1995). In particular, the Cox Proportional Hazard Model (Cox, 1970) is the most popular semiparametric model and it is employed for the following reasons. First, it is more robust than fully parametric methods in that it can closely approximate the results for the correct parametric model without specifying a particular probability distribution to represent survival times (Allison, 1995). Second, Cox regression makes it relatively easy to incorporate time-dependent variables in the model (Allison, 1995). Third, even though the baseline hazard function is unspecified, one can still estimate the coefficients in the model that are used to calculate, the hazard ratio, the measure of effect (Kleinbaum, 1996). Fourth, when duration data is available and censoring is present, the Cox model provides more information than the logistical model in which survival is a dichotomous (0,1) variable (Kleinbaum, 1996).

An assumption of the Cox Proportional Hazard Model is that the ratio of the hazard functions is constant over time. The hazard function is the product of two functions. One function characterises how the hazard function changes as a function of survival time. The other function describes how the hazard function changes as a function of covariates (Hosmer and Lemeshow, 1999). In

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proportional hazard models, the first function is of little importance. In essence, the covariates have a proportional effect on the overall hazard ratio, shifting it up or down, but do not change the actual shape of the hazard function.

This discussion on the Cox Model specification follows closely Allison (1995). In this model the parameterization of the hazard function is as follows:

$$H_i(t, x, \beta) = H_0(t)e^{\{\beta_1 x_{i1} + ... + \beta_k x_{ik}\}} \qquad (3.14)$$

Where: H_i = hazard function for ith observation

$H_0(t)$ = unspecified baseline hazard function

β_i = coefficients of the covariates (risk factors)

x_{ik} = kth number of covariates

This means that the hazard for individual i is the product of two functions: the unspecified baseline hazard function, $H_0(t)$ and an exponential function of k covariates, $e^{\{\beta_1 x_{i1} + ... + \beta_k x_{ik}\}}$. It is important to note that the baseline hazard controls the hazard rate's time behavior since it depends on time only through the baseline hazard. The second factor introduces the effect of explanatory variables in a multiplicative way. Therefore, the coefficients in this representation can be interpreted as semielasticities of the hazard rates with respect to marginal changes in the explanatory variables. Dividing both sides by $H_0(t)$ and taking the logarithm, the model is rewritten as:

$$\ln[\frac{H_1(t,x,\beta)}{H_0(t)}] = \{\beta_1 x_{1i} + ... + \beta_k x_{ik}\} \tag{3.15}$$

From equation (3.15), $\frac{H_1(t,x,\beta)}{H_0(t)}$ is called the hazard ratio from which hazard rate is calculated.

The parameters of this model (the β_i coefficients) are estimated using Cox's partial likelihood technique (Cox, 1970). The proportional hazard assumption implies that the effect of explanatory variables on the hazard function is constant over time, and works by moving the baseline hazard rate up or down in a proportional way.

Empirical literature review

Clients exit reasons

Some empirical studies have been conducted around the world with the view to finding out why client exit microcredit schemes. Most of these studies are biased towards regions where microfinance activities flourish, particularly Asia, Latin America and Africa. This section of the study attempts to review some of these studies to provide first hand information about reasons that have already been discovered as causes of client attrition in the microfinance studies.

Musona and Coetzee (2001) investigated the causes and potential impact of client drop-out in microfinance on product design in Zambia. The main purpose of their study was to improve understanding of why MFIs in Zambia suffer high level of drop out among their client and thus to facilitate MFIs effort

to address the problem. The study used qualitative research methods of Focus Group Discussion (FDG) and Participatory Rapid Appraisal (PRA) techniques to gather data on management, credit officers, clients and ex-client from three MFI institutions. The study found among other things that young people are particularly prone to exit than their older counterparts. It was also found that men are more likely to exit because they do not like to work in groups. The study further identified the following factors as common reasons for client exit: delay in loan disbursement, reallocation of loan funds, overburdened by debt as a result of group liability, repayment schedules that mismatch client business cash flow and the size of loan per cycle.

Hulme (1999) also investigated client exit from East Africa microfinance institutions with the view to determining who dropout from MFIs and why; who does not join MFIs and why. The main objective of the study was to improve the understanding of the extent to which and why client dropout in East African MFIs. This study also employed qualitative research methods, in particular, in-depth interview with client of various MFIs and people who are no longer members of these MFIs. He found that MFIs clients in East Africa exit for many reasons. The MFIs reported that clients exit increase when there is adverse climatic condition for agriculture. The field staff also identified seasonality as the main reason for client exit. Particularly, they cited predictable period such as before and after christmas, the eid period, the period before harvest in the rural areas and the time for payment of school fees. The study further revealed that client exit in East Africa is partly due to the organizational policy, such as

changes in agency policy or concern about sustainability which led to a rapid forced exit of large number of clients. Clients also drop out due to management problems and staff involvement in fraud and MFIs inability to disburse approved loans to client on time.

In a similar study, Maximambali (1999) looked at clients exit among Tanzanian microfinance institutions. The main purpose of the study was to ascertain the main reasons for client exit in Tanzania. The methodology employed was qualitative methods, particularly, in-depth interview of exit clients and Focus Group Discussion. The study reveals several reasons for client exit. The major reasons that led to client dropping out include: rigidity of products, the narrow range of product and services, group dynamics, time consuming group meeting. Other reasons identified include natural calamities, competition, seasonality factors, overall poor economic conditions, frequency of repayment schedules, lack of access to savings. Repayment problems due to client as a result of diversification of loan fund, lack of business skills, lack of financial discipline and extravagance and seasonal business were also found to be the main immediate cause of forced drop out in Tanzania.

In a related study, Garuba (2004) designed a client exit study for Lapo, a microfinance institution in Nigeria. The prime objective for designing the study was for it to serve as a learning process towards the development of impact assessment system for AIMS project. However, Lapo had interest in the study because of the fact that it was experiencing increasing exit rate. The study adopted quantitative method to gather data for analysis. The design of the survey

instrument was based on the SEEP/AIMS client exit survey tool. The major findings revealed by the study were that in Lapo client exit mainly because they feel the loan amount is too small and the interval between payments is too short. Other reasons such as inefficient disbursement of loan and the burden of paying for others who had defaulted also accounted for client exit. Some of client exited because they were either expelled from their union or had poor business performance. Some exit clients also complained of unfriendly attitude of some staff members of Lapo.

In a case study of client exit in Piyeli, a Malian MFI, Pagura (2003) used quantitative method design to establish the reasons for client exit in group loan schemes. She found that repayment frequency too rapid was the most important reason for client exit in Piyeli. Other factors such as loan length too short, repayment amount high, fees and interest rate too high and group problems contributed to the client exit in Piyeli.

In a study to explore in more detail how useful impact information can be gained from client exit interview and to present some ideas from the experience of the Small Enterprise Foundation (SEF) in South Africa, Simanowitz (1999) used two-stage qualitative approach, based on the understanding of the potential reasons for client drop out to achieve his aim. The main findings of the study were categorized into: personal, business failure, problems in the group and the problems with the group policy and procedure. Personal reasons that caused exit were death and illness in the family, moving away from the area and found new job. Business reasons that caused exit include too much selling on credit, money

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for business diverted into household expenditure, inappropriate loan size and money not reinvested into business. Problems in the group included paying for other members default, poor group formation and expelled from the group. Finally, the problems that caused exit as a result of the organisation's policy and procedure included repayment schedule inappropriate, high transport cost, loan too small and didn't like the loan utilization checks.

Kashangaki (1999) investigated drop out among Kenyan MFIs. This study was part of two action oriented research assignment commissioned by MicroSave in East Africa to improve understanding on (i) the use and impact of saving by the poor people and (ii) the reasons for client drop out in East Africa. The main purpose of the study was to shed light on the perceived high client exit rate in East Africa as well as to identify the reasons why clients exit in Kenya. In order to ascertain the reasons for drop out different methods were employed; detailed FGD with group leaders, detailed interviews with credit officers, individual group members and actual drop out themselves. Participatory rapid appraisal technique was also used. The study found that the reasons for client exit are varied and complex and depends on a variety of different circumstances. Many clients drop out because they were unhappy with or unable to comply with the programme requirements. Drop out also occurs due to illness and migration. Others drop out because they were forced out due to problem of repayment or disagreement with loan officers/other group members.

Painter and MkNelly (1999) found that client exit is attributed to factors internal and external to programme policy and practice. They found that early-

cycle exit is more tied to lack of compliance with group regulations, whereas late-cycle exit is linked with inconveniences of group meeting and limited savings access. Specifically, the study found that seasonality, migration or poor market or economic activity, dissatisfaction with weekly payment; illness, small loan size, inaccessible savings, repayment problems and group guarantee requirement are the major reasons for client exit.

Schreiner (2001) used scoring model to predict the risk of drop out for borrowers at a microfinance lender in Bolivia. The main purpose of the study was to investigate how certain characteristics affect drop out risk. The scoring model used in this study relates drop out risk to eight characteristics namely; loan size, gender, sector, experience of borrower, arrears, loan officers, experience of loan officer and branch. Logit model was used to derive the relationship based on the drop out behavior of loans repaid through 1996. The main finding of the study was that drop out risk is greater for women, manufacturers, new borrowers and those with more arrears.

Duration and termination of banking relationship

As earlier on indicated, in the field of finance in general, more literature exist on the length and benefit of bank-borrower relationship than they exist for the termination and the causes of the termination of the relationship's length.

In recent years, a number of empirical studies have investigated the length and benefits of bank-borrower relationships. Some of these studies have provided evidence that existence of bank-borrower relationship increases firm value. Others

also provide evidence about the value of the strength of a relationship (James, 1987; Lummer and McConnell, 1989; Hoshi, Kashyap and Scharfstein, 1990a, 1990b; James and Wier, 1990; Shockley and Thakor, 1993 and Kwan, 1994). In a series of papers, Hoshi, Kashyap, and Scharfstein (1990a, 1990b) find that firms in Japan with close ties to their banks are less likely to be liquidity constrained in their investments than firms that do not have such ties. Furthermore, firms with close ties are more able to invest when they are financially distressed, suggesting again that banking relationships help overcome frictions impeding the flow of credit. For the United States, James (1987), Lummer and McConnell (1989), and James and Wier (1990) find that the existence or renewal of a banking relationship is a positive signal to the stock market. Shockley and Thakor (1993) find a similar effect for loan commitments.

Petersen and Rajan (1994) also estimated the effect and the strength of bank-borrower relationship on both the availability and the price of credit to provide evidence on the precise channel(s) through which relationships benefit firms. This study used a continuous measure of the length of bank-borrower relationship – its duration. Their findings were that, first; there is a small effect of relationship on the price charged by the lender .That is, the length of an institutions relationship with a firm seem to have a little impact on the rates the institution charges. Secondly, they found that firms that borrow from multiple banks are charged a significantly higher rate. Thirdly, availability of finance from institutions increase as the firm spends more time in a relationship as it increases ties to a

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lender by expanding the number of financial services it buys from it as it concentrates its borrowing with the lender.

Greenbaum, Kanatas and Venezia (1989), Sharpe (1990) and Boot and Thakor (1994) examined the association between the temporal nature of a firm-bank relationship and the dynamic nature of loan pricing, the availability of credit and the influence of competition.

In Greenbaum, Kanatas and Venezia (1989) one firm can choose in each period to continue its existing lending relationship or pay a fixed cost to search for a competing bank. In equilibrium, the value of the profit function is increasing in the uncertainty about the firm's future ability to pay. A continuing relationship implies a reduction in uncertainty about the payment ability of the firm, making the firm less valuable to the bank and more likely to switch banks.

Sharpe (1990) studies an economy where banks compete for firms of varying unobservable quality requiring financing of two-period projects. Within this environment, a bank has an incentive to lure firms in the first period with below cost loan rates. A privately successful firm with a noisy, but low public signal of success is captured by the bank and must pay a high loan rate because the cost of switching banks is too high. The strength of the monopoly power is mitigated by a more accurate public signal of the firm's ability to pay or through the loss of reputation with new customers.

Boot and Thakor (1994) consider an infinite-period contracting framework in which banks require pledged collateral in addition to per-period interest payments. Banks choose the interest rate-collateral combination that dynamically

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induces the borrower to expend maximal effort towards completing a project, while attempting not to lose the borrower to another bank. Banks offer high interest rate-high collateral contracts in the early part of a relationship to induce optimal effort. Once a firm establishes a successful project, the bank reduces both the interest charges and required collateral on the project.

Berger and Udell (1995) used empirical data on loan rate and collateral requirement on line of credit issued to small business to examine the role of relationship lending in small firm finance.

. Theoretical literature on relationship lending has appeared that provides prediction about how interest rates evolve over the course of the bank-borrower relationships. Some models have predicted loan interest rates should decline as a relationship matures (Petersen and Rajan, 1993, Boot and Thakor, 1994), while others predict increases in rate over time (Greenbaum,Kanatas and Venezia, 1989, Sharpe, 1990, Wilson, 1993).

This study's focus was on duration of the bank-borrower relationship as a measure of its strength and to test directly the prediction about the path of loan interest rate over the course of the relationship. The study was also meant to analyse the association between relationship lending and the collateral decision as a way of providing first test of (Boot and Thakor, 1994) theoretical prediction about the pattern of collateral requirement overtime.

. Using data from US National Survey of Small Business which contains extensive information on both borrower and loan contracts as well as information on the relationship between the bank and the borrower, the study's finding was

that borrowers with longer banking relationship pay lower interest rates and are less likely to pledge collateral. The result was consistent with the theoretical predictions of Petersen and Rajan, 1993 and Boot and Thakor, 1994 and supported a more general theoretical literature on the role of the bank as information producers. The finding however conflict with the loan price result of the empirical bank-borrower relationship literature of Petersen and Rajan (1994) which drew its data from the same source.

Ongena and Smith are acknowledged for the empirical study of duration of banking relationship and the causes of the termination of the relationship. Ongena and Smith (2001) used a unique panel data set of connections between Oslo Stock Exchange-listed firms and their bank relationship for the period 1979 – 1994 to estimate duration of firm-bank relationship. Their focus was in the determinants of duration of a relationship and causes of ending an existing bank relationship.

This study was meant to empirically examine the theoretical suggestion that the duration of a bank relationship itself may influence the decisions to end the relationship. Moreover, the value of a firm of an existing bank relationship may also vary as a function of the degree of asymmetric information between the firm and the public, the availability of the alternative monitoring mechanisms and the need of availability of alternative financing sources.

The variables used in the study were motivated by the theoretical literature on bank relations. They were meant to elicit data that may influence the duration of and likelihood of ending a bank relationship. They included (1) single and

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multiple bank relations, (2) ownership concentration (3) size of the firm as a proxy for the degree of uncertainty about the value of the firm (4) market-to-book ratio (Tobin's Q) as a proxy for future growths opportunities and (5) proportion of debt.

These variables were regressed on the duration of bank relationship to establish some kind of relationships between the dependent and the independent variables. The analysis of the data revealed several results.

First, when the hazard function was estimated using non-parametric techniques of duration model, the researchers were able to detect a dependency between the durations of a bank relationship and the likelihood that the relationship will end. Better still, they found out that short-lived bank relationships are as likely to be terminated as long lived relations. This was inconsistent with the idea that firms become locked in to bank relationships as the relationship lengthens.

Second, the parametric estimations of the hazard functions yielded mixed results on duration dependence. One of the hypotheses tested on Weibull distribution unable to reject a null hypothesis of no duration in favour of monotonically increasing or decreasing dependence. However, estimation using distribution dependence provided some evidence that firms are increasingly more likely to end a bank relation at a short duration and increasingly less likely to end bank relationship at longer durations.

Both the parametric and semi-parametric estimators were used to estimate the influence of firms' characteristics on the duration of bank relationships. The

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results obtained from both techniques were fairly stable. It was observed that firms are likely to end a bank relationship when they maintain more than one bank relationship, when they are relatively small and when their market-to-book value are high. Firms with relatively high debt level also appear to be more likely to switch bank. However, the study found no statistically significant relationship between the level of ownership concentration in the firm and the decision to switch.

Taken together, the latter results suggested that it is the firms most in need of bank services and financing (small, high-leverage, high growth) that maintain the shortest bank relationship and switch most often.

Dabos and Escudero (2004) used non-parametric and semi-parametric methods to measure the effect of relevant variables (bank specific financial explanatory variables) that determine bank failures together with duration dependence in Argentina. The study was aimed at comparing the survival time of private national banks and the mutual bank in the mist of bank crisis in Argentina between 1994 and 1996 and to find out whether the dynamics of bank failures could be fairly attributed by observable factors.

The data base for this study was the monthly information of the individual bank balances released by the Argentinean central bank. The explanatory variables used in the model were indicators that follow the traditional school of analyzing financial institutions default risk. They included Equity/Asset ratio, Liability/Equity ratio, immediate liquidity, structural liquidity, operating expenses/liquidity ratio, arrears/portfolio ratio and Return on equity.

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Using non-parametric estimates, the result indicated that first; the survival function for private national banks is significantly higher than that of the mutual bank. That is, at every moment of the crisis it is more probable to have a mutual bank failure than a private national bank. Second, the survival function for private national bank decreases slower than that of mutual banks.

Using the semi-parametric estimation technique, specifically, Cox proportional Hazard function where the effects of bank specific financial explanatory variables were used to determine the dynamics of bank failure, the result indicated that the coefficient of many variables were significantly different from zero. This result suggested that it was not correct to say that the bank failure process was caused by random non-systematic factors and that, on the contrary, it was significantly influenced and explained by financial banks specific observable factors.

In another related study in labour economics Dolton and Van Der Klaauw (1995) investigated the new perspective on teacher exit in the United Kingdom by using large cross section data set of 1980 graduates. The focus of this study was to analyse the decision by teachers to exit the profession.

To characterise the exit process, a proportional hazard model was specified that relates the intensity of leaving teaching to a number of individual and job specific characteristics, such as the individuals (potential) relative wage earnings in the teaching sector, regional labour market conditions, education and family background.

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Their result affirmed the importance of relative earning in the turnover decisions of teachers in the UK. These results suggested that the higher the relative earnings of teachers the less likely they are to leave teaching. Perhaps what is of utmost importance for this study is the recommendation suggested by the authors. The methodology they adopted yielded important insight into the appropriateness of adopting a flexible, semi-parametric specification of duration dependence structure.

Summary

The review of empirical studies on client exit (dropout) reasons have demonstrated that client exit reasons are complicated, diverse and above all peculiar to circumstances, institutions and countries.

Most of the studies on client exit are concentrated in the East Africa probably because that region experienced high client exit compared to Asia, Latin America, and even other parts of Africa. Client exit within this region ranges between 20% and 60% (Hulme, 1999; Maximambali, 1999; Kashangaki, 1999).

Overall, almost all the studies reviewed identified MFI's organistional policy and procedure, group dynamic problems, personal reasons, environmental and economic reasons as well as business reasons as major causes of client exit.

Organisatioal policy and procedure such as delay in loan disbursement, frequency of repayment schedules, rigidity of products, narrow range of products and services, loan amount too small, loan length too short, fees and interest too high, loan utilization check (Musona and Coetzee, 2001; Pagura, 2003,

Maximambali, 1999; Kashangaki ,1999; Garuba,2003; and Simanowitz, 1999) are major causes of client exit.

In addition, the group dynamic problems such as group liability, group meeting, expelled from the group, poor group formation (Garuba, 2003; Musona and Coetzee, 2001; and Maximambali, 1999) also cause client exit.

The review also identified personal reasons such as relocation, migration and illness as client exit reasons (Painter and MkNelly, 1999; Kashangaki, 1999 and Simanowitz 1999).

Environmental factors and economic factors mainly adverse climatic condition for agriculture, poor economic conditions and poor market are key factor for client exit (Hulme, 1999; Maximambali, 1999; Painter and Mknelly, 1999).

Some client exit also occurred because client were forced out mainly due to disagreement with loan officers, money for business diverted into household expenditure, lack of financial discipline and extravagance, change in agency policy (Kashangaki,1999; Hulme 1999, Maximambali, 1999).

The review of the empirical literature on the banking relationship has demonstrated that in the field of finance; much more attention has been devoted to studying the benefit of bank-borrower relationship than the termination of these relationships, causes of the termination and the effect of the termination. Some of these studies on the banking relationship have shown that firms with closer tiers to their banks are less likely to be liquidity constraint in their investment than firms that do not have such tiers. (Hoshi, Kahyap and Scharfstein, 1990a, 1990b).

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Others have also demonstrated that the length of bank relationship with a firm has little impact on the rate the institution charges and also, availability of finance increases from the institution as the firm spends more time in a relationship (Petersen and Rajan, 1994). In sum, these studies reveal two main ideas: first, banking relationship increases borrower (firm) value. Second, it demonstrates the benefit of long –term bank relationship.

Some of these studies in relationship banking also provided a pathway for the investigation into the firm-bank relationship through time and the possibility of a firm switching bank. Greenbaum et al (1989) predict that the likelihood of observing a bank switch is increasing in the duration of the firm-bank relationship, while the models of Sharpe (1990) and Boot and Thakor (1994) imply that the incentive for a firm to switch relationships is decreasing in the duration of the relationship. Sharpe (1990) suggests that the likelihood of a firm switching banks increases as public signals of the firm's ability to pay increases. Competition, in the form of multiple bank relationships (Sharpe, 1990 and Rajan, 1992) or arm's-length debt (Rajan, 1992) can, by making the costs of switching lower, increase the likelihood of observing a switch.

Finally, implicit in the moral hazard models of Boot and Thakor (1994) and Rajan (1992) is the idea that a bank's ability to induce value-maximizing effort may be unnecessary if the firm has internal monitoring mechanisms to effectively steer manager's effort. Although the banking relationship literature is rich in the way it models the benefits of the banking relationship, none of the work explicitly examines the termination decision. In fact, Ongena and Smith

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(2001) only implicitly used the existing theoretical literature on banking relationship as a broad background for developing their empirical framework. They also failed to examine the reasons for termination of firm–bank relationship.

The uniqueness of this study lies in its deviation from the traditional model of benefit of banking relationship and explicitly focusing on the termination decision of banking relationship. Particularly, this study focuses on whether certain identifiable factors increase or decrease the chance of client exit in microfinance. In addition, I move a step further to examine the reasons for client exit; an aspect which Ongena and smith (2001) failed to consider.

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CHAPTER FOUR

METHODOLOGY

Introduction

From the theoretical model in the literature it was indicated that duration analysis is the most appropriate statistical method to analyze the survival of banking relationships. It was also disclosed that in a duration analysis there are three models that are often employed; namely, non-parametric, fully parametric and semi-parametric estimation of hazard and survival functions. Depending on the objective of a study, one can model all the three or two for a particular study. The objective of this study required the use of two (Non-parametric and Semi-parametric) of the three models.

Model specification

Non-parametric estimation of the survival function

In this section, a methodology for summarizing and graphically viewing the distribution of the cumulative survival of the banking relationship is introduced. Typical descriptive methods used in linear regression analysis, such as difference of means and frequency tests, cannot be carried out when censoring is

present in the data. Instead, estimation and graphical representation of the survival and hazard functions are used to preliminarily analyse the data.

Kaplan-Meier (K-M) or product limit estimator

To calculate the survival and hazard function, the Kaplan-Meier (K-M) or product limit estimator is used. The K-M estimator considers information from all observations available, both uncensored and censored. The estimator is obtained by multiplying a sequence of conditional survival probability estimators (Hosmer and Lemeshow, 1999). Each survival probability estimator is calculated using the number of individuals at risk of exiting and the number that actually did exit in a particular time interval. Specifically, the K-M estimator is defined as

$$\hat{S}(t) = \prod_{j:t_j \leq t} \left[1 - \frac{d_j}{n_j} \right] \qquad \textbf{(4.1)}$$

where, t_j is the specific point in time, n_j is the number of individuals at risk for the event, and d_j is the number of individuals who die, that is, exit the borrowing relationship, at time t_j. The Kaplain-Meier estimator is used to calculate the cumulative survival and hazard function of the borrower population in the sample.

Semiparametric model

The Cox proportional hazard model also known as Cox partial likelihood regression (Cox, 1970) is the most popular semiparametric model for analysing the effect of covariates (independent variables) on the hazard rate. It is a

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multivariate analysis to investigate relationship of the rate of failure to possible explanatory variables (covariate). This model is employed in this study for various reasons. The reasons are outlined in the theoretical model in the literature. Cox proportional hazard model estimates the parameters of certain covariates without requiring specification of baseline hazard. It is important to note that the baseline hazard controls the hazard rate's time behaviour since it depends on time only through the baseline hazard.

Specification of theoretical model

It is important to note the following about the Cox proportional hazard model before the model's specification

i.   It predicts the hazard function or hazard rate h(t) ,that is, the probability that a case will terminate at a time (t).

ii. It makes no assumption about the nature and shape of the hazard function or hazard rate.

iii. It assumes that changes in level of the independent variables will produce proportionate change in the hazard function, independent of time.

iv. It also assumes a log- linear relationship between a hazard function and the independent variables.

The Cox proportional hazard model is systematically explained below.

$$H_i(t,x,\beta) = H_0(t)e^{\{\beta_1 x_{i1}+.....+\beta_k x_{ik}\}} \tag{4.2}$$

Where: H_i = hazard function for ith observation

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$H_0(\text{t}) =$ unspecified baseline hazard function

β_i = coefficients of the covariates (risk factors)

X_{ik} = k_{th} number of covariates

The specification above is known as Cox regression model and it means that the hazard for individual i is the product of two functions: the unspecified baseline hazard function, $H_0(t)$ and an exponential function of k covariates, $e^{\{\beta_1 x_{i1} + ... + \beta_k x_{ik}\}}$.

Dividing both sides of equation by $H_0(t)$ the Cox regression model is rewritten as:

$$\frac{H_1(t,x,\beta)}{H_0(t)} = e^{\beta_1 x_{1i} + ... + \beta_k x_{ik}} \qquad\qquad \textbf{(4.3)}$$

When the model is specified this way it is referred to as hazard ratio or relative hazard model.

From equation (4.3), $\dfrac{H_1(t,x,\beta)}{H_0(t)}$ is called the hazard ratio or relative hazard. It indicates the expected change in the risk of the banking relationship when the covariate (X) changes. If the log of the hazard ratio model is taken, the model becomes known as Log-hazard Ratio.

$$In\left[\frac{H_1(t,x.\beta)}{H_0(t)}\right] = In\left[e^{(\beta_1 x_1 + ... + \beta_k x_{ik})}\right]$$

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$$In\left[\frac{H_1(t,x,\beta)}{H_0(t)}\right] = \beta_1 X_1 + ... + \beta_k X_{ik} \qquad \textbf{(4.4)}$$

$\ln\left[\dfrac{H_1(t,x,\beta)}{H_0(t)}\right]$ is called log-relative hazard. The coefficients $(\beta_1, \beta_2, ..., \beta_k)$

are estimated by means of procedure called Cox partial likelihood estimation.

Unlike OLS regression or any other regression, the coefficient (β) of Cox regression does not have relative change or marginal effects (Green, 1993). The hazard ratio or the relative hazard or the risk ratio is calculated as

$$\frac{H_1(t,x,\beta)}{H_0(t)} = Exp(\beta_i) \qquad \textbf{(4.5)}$$

Where i = 1......k

Specification of the empirical model

The empirical model of this study was specified as follows:

$$NLC = \alpha Exp\{\beta_1 AMP + \beta_2 ALS + \beta_3 GRP + \beta_4 GM + \beta_5 NFFS + \beta_6 NIFS +$$
$$\beta_7 IS + \beta_8 DR + \beta_9 AG + \beta_{10} ED\}$$

$$\textbf{(4.6)}$$

Where :

α =   Unspecified baseline hazard

NLC =   Number of loan Cycles

AMP =   Average Monthly Profit

ALS =   Average Loan Size

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GRP = Group Repayment Problems

GM = Group Meeting

NFFS = Number of Formal Financial Services

NIFS = Number of Informal Financial Services

IS = Idiosyncratic Shock or household shock

DR = Dependency Ratio

AG = Age

ED = Education

Dividing both sides of the equation and taking the logarithms, log-relative hazard model is obtained as follows:

$$\ln\left[\frac{NLC}{\alpha}\right] = \beta_1 AMP + \beta_2 ALS + \beta_3 GRP + \beta_4 GM + \beta_5 NFFS + \beta_6 NIFS +$$
$$\beta_7 IS + \beta_8 DR + \beta_9 AG + \beta_{10} ED$$

(**4.7**)

The $\dfrac{NLC}{\alpha}$ is the hazard ratio and the coefficients β_i on the right side of the

equation are estimated by means of a Cox partial likelihood estimation.

A Priori expected signs

The coefficients of the hazard function are expected to have the following a priori signs.

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Table 1: A Priori expected signs

Variable	Sign	variable	Sign
AMP	-	NIFS	-
ALS	+	IS	-
GRP	+	HC (DR)	-
GM	-	AG	-
NFFS	+	ED	+

Source: Clients exit survey, 2008

Description of the variables in the model

The duration model developed in this study relates the hazard of ending the banking relationship to ten independent variables (covariates). Here is the description of the variables in the models.

1. Number of Loan Cycles (NLC)

The number of loan cycles that a group has completed is the dependent variable used in this model. The number of loan cycle is used as proxy for the length of the banking relationship. From the literature, the optimizing agent makes exit decision at the end of each period, that is, loan cycle. These models use the conditional probability of having been alive the previous period to calculate hazard rate. In this case, it is the entrepreneuer's probability of survival, that is, stay for the next loan iteration, given he/she has received one loan in the

current period. In this model, interested is the time it takes a system to change from one state to another. Such time is associated with an event; in this case, the event is the number of loan cycles.

2. Average Monthly Profit (AMP)

In this model, average monthly profit was used to capture the return on investment made with the loan. In this setting, it is assumed that profitable firms have less difficulty repaying their loans than less profitable firms. In a sense, one could think of profitable (unprofitable) firms as high (low) ability firms. Therefore, it is hypothesized that profitable firms remain in the borrowing relationship longer than less profitable firms. Given this covariate changes over time, average monthly profits would be used.

3. Average Loan Size (ALS)

The loan size and interest rate affect the survival probability of the maximizing agent (the borrower). Lower interest rates have a positive impact on survival, whereas larger loan sizes diminish it. Here, only loan size is examined since all entrepreneurs are likely to experience the same interest rate per annum. Average loan size for the group is used here. It is hypothesized that at a larger loan amounts the optimizing agent (borrower) is less tolerant of staying in a group loan, particularly if his/her partner is low ability type. Although he/she benefit from large loan amount this benefit is tempered by the fact that he/she will incur a large cost if his/her partner is unable to pay.

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4. Group Repayment Problems (GRP)

To capture the effect of other group members' nonpayment a proxy covariate, group repayment problems, is used. This covariate is a dichotomous variable, 1 for if individual's group did experience repayment problems over the course of the relationship and 0 if otherwise. The rationale behind choosing this proxy variable is that it indicates the borrower's group type, that is, high or low. It is assumed that groups with more high ability types will have less repayment problems than low groups, and thus a borrower in a high ability group will incur less cost due to default of other members as compared to a borrower in a low ability group. From the literature it is maintained that borrowers with low type partners have a small probability of survival. Therefore, it is hypothesized that the hazard of exit for borrowers in groups that experienced repayment problems over the length of the relationship is greater than for borrowers in groups without problems. The limitation of this proxy covariate is that it does not explicitly quantify the default costs incurred to the individual due to others non-repayment. Instead, it implicitly captures the negative consequences, that is, extra financial burden, of being in a group that experienced repayment problems relative to those in groups that did not.

5. Group Meeting (GM)

Another proxy for how well group members know each other is the variable on group meetings (regularly held group meeting). The hypothesis is that borrowers in groups that hold meetings on a regular basis remain longer, that is, their hazard of exiting is lower, relative to those borrowers in groups that do not.

6. Number of other Financial Services (NFS)

In this study, it is important to examine the impact competition from other MFI has on client exit. Recall from the studies on reasons for client dropout reviewed, it appears competition from other financial institutions does in fact play a key role in a client's exit decision. This is especially true in mature microfinance markets, like Bolivia and Bangladesh. For example, Schreiner (2001) found that competition from Chilean financing companies caused the client dropout rate in one Bolivian MFI to double in 1997. In addition, Ongena and Smith (2001) found in their study on banking relationships of firms in Norway that multiple bank firms terminated banking relationships earlier than single bank firms.

In the econometric model, the number of other financial services used is used to measure the degree to which clients are affected by competition. Data could be collected on formal financial services, example, banks, MFI, cooperatives, etc or informal financial services such as family, friends, traditional lenders, ROSCAs, etc. In this research, we have separated the two to determine their separate influence on the client exit.

It is hypothesized that the number of other formal financial services used will directly impact the hazard rate of client exit. That is, as the number of formal financial services increase, the higher the likelihood that client – bank borrowing relationship will increase. On the other hand, it is hypothesized that informal services used will negatively impact the hazard of leaving, namely, as the number of informal financial services used increases the likelihood of MFI departure

decreases. An increase in informal financial services used may indicate a larger pool of financial resources to draw upon in times of repayment trouble. In essence, one can think of other formal financial services used as a substitute and other informal financial services used as a complement.

7. Idiosyncratic Shock or Household level Shocks (IS)

Of the 21 desk studies on client exit reviewed by Pagura (2003), 57 percent of the reporting agencies stated that idiosyncratic (individual or household level) shocks, such as births, deaths, chronic illness, ceremonies (weddings/baptisms), fire, theft, etc., played a significant role in the termination of the banking relationship. They found that increases in idiosyncratic shocks positively affected the hazard rate, that is, as value of the idiosyncratic shocks increase the likelihood of exit hazard increases.

It is also important to consider the interdependence between firm and the household in developing countries with regard to the simultaneous consumption and production decisions (Bardhan and Udry, 1999). Given this interdependence, individuals in households that experience more income shocks may actually borrow more to smooth consumption and production activities. If this is true, then individuals in households that experience larger income shocks may remain longer in the borrowing relationships due to a greater liquidity need at both the household and firm level. In this case, the impact of idiosyncratic shocks on the hazard of exit would be negative. To measure this effect, the value of household income shocks (the sum of shock from birth, death, chronic illness, wedding, fire, theft, accident, etc.) is used.

8. Household Characteristics (HC)

The number of people in the borrower's household may affect the length of time that client remains in the borrowing relationship. There is an inverse relationship between the household's dependency ratio of the individual and his/her hazard rate of exiting the borrowing relationship. Dependency ratio is defined as the number of people that are dependent, that is, those less than 18, those above 18 years not working and those older than 60 years old, on the number of active members of the household, that is, those between 18 and 60 years old who are working. It is hypothesized that individuals in households with higher dependency ratios will exit less rapidly than individuals in households with lower ones. The individual with high dependency ratio may use her loan to address the needs of her children or other family members. If indeed this is true, her need for credit is high, thus prompting her to stay in the borrowing relationship.

9. Individual Characteristics

a. Age (AG)

It is expected that age will have an inverse relationship on the individual's hazard rate. Given the Ghanaian society in which older people are much less mobile, more established, and wield much more power in the community than younger ones; it is hypothesized that the hazard of older people exiting will be less than their younger counterparts who are more mobile.

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b. Education (ED)

On the other hand, it is expected that education will have a positive effect on the borrower's hazard rate of exiting. Those with education have more outside opportunities than those without education. For example, an individual that can read and write is able to access other (semiformal and formal) financial sources more than someone who is illiterate. First, if other banks advertise through print, newspaper, magazine, billboards, a literate person will have the knowledge advantage over someone that is not literate. In addition, if other banks implicitly require their customers to read and write, then a literate person will more easily be able to access their services than an illiterate individual will. Therefore, it is hypothesized that the hazard of exit of individuals with more education is higher than the hazard of those with less education.

In addition to being able to access other financial services, a more educated person has ability to access business training courses, example, bookkeeping/accounting, marketing, feasibility studies, cash flow management, technical trainings, etc., more than her less educated counterpart.

Estimation techniques

One of the main objectives of this study is to use econometric methods to estimate the relationship between the length of borrowing relationship and the factors that predict the hazard of terminating the relationship. Duration analysis methods (Non-parametric and Semi-parametric methods) are chosen to accomplish this goal because they permit us to estimate the relationship between

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the length of time until failure or event, that is, end of borrowing relationship, and the factors that predict the length of the relationship. Duration models are preferred to logistic models because they incorporate more information by using length of time as the dependent variable instead of a dichotomous variable on status, example, in or out of the borrowing relationship (Kleinbaum, 1996). Given this, a conditional probability is used to estimate the likelihood that one will terminate the borrowing relationship in the next short interval given that the relationship has lasted till time instead of just a straight probability on his/her status today.

First, Kaplan-Meier or Product Limit model is used to estimate the cumulative survival period (measured in months) of the exit clients. This estimation gives us a vivid diagrammatic visualization of percentage of client who terminated the banking relationship after each loan cycle within the period of study.

Since none of the data is censored, tables of frequencies are used to analyse the client exit reasons as a means of pursuing the first objective of the study that is, determining the major reasons that cause the client exit. These reasons are grouped into five categories: problems with the institution's policies and procedures, problems with the group lending, client business reasons, personal reasons and community and economic reasons.

In a multivariate analysis, using partial likelihood estimation model of Cox proportional hazard model, the relationship between the length of borrowing

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relationship and the factors that predict the hazard of failure of the relationship is estimated.

In pursuing this, the parameters for all the predictor variables (covariates) using partial likelihood estimation technique is estimated. These estimated parameters do not have real interpretative quality on their own they only tell whether the hazard of failure increases or decreases when the sign is positive or negative respectively.

The partial likelihood estimation of the parameters begin with the determination of likelihood of the baseline hazard function $H_0(t)$ when parameters $B_i = 0, where$

$i = 1...k$. This is the hazard of a chance or null model. The likelihood (L) is determined by taking the risk of failure at each point (t) and multiplying them together. In addition, chi-square test are also conducted to determine whether the addition of variables result in a significant decrease in the log likelihood.

The next important step in this process is to calculate the hazard ratio or the relative hazard or the risk ratio for each variable in the model. The hazard ratio is calculated for each covariate as the exponent of the parameters. Recall from the model that $\dfrac{H_1(t,x,\beta)}{H_0(t)} = e^{\beta_i} where i = 1...k$.

The hazard ratio indicates the expected change in the hazard rate for a unit change in the predictor variables (covariate). The hazard rate also called the

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hazard function tells us how likely an even (borrowing relationship) is to be terminated given that the relationship has been successful up to a time (t).

It must be noted that the hazard rate is not the probability of terminal event, but the rate of failure at a time.

Interpretation of result

When the covariate is quantitative or continuous the hazard rates is obtained by subtracting 1 from the hazard ratio and multiply by 100. It is interpreted as the change in the rate of failure (termination of borrowing relation) per unit change in the covariate. On the other hand, if the covariate is dichotomous, it is interpreted as the ratio of estimated hazard for those individuals with the value of 1 to those with a value of 0.

Data

Cross sectional data on individual exit clients comprised the primary data set used to examine the factors that influence the length of the borrowing relationship. Using the Cox PH model explained above, the hazard of client exit was modeled. In particular, the borrower's individual, household, firm, and borrowing characteristics were regressed onto the length of the borrower's relationship with the MFI, measured in the number of loan cycles. In addition, data on client exit reasons categorized as: problems of programme policies and procedures, problems of group lending, client business reasons, personal reasons,

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and economic and community reasons were also analysed to determine the most influential factors that engineered client exit.

Data for this research was collected at one stage over a period of three months (January 2008 – March 2008) in Cape Coast, Elmina, Amosima, Mankesim, Saltpond and their surrounding villages where CRAN's exit clients are located. This was done using structured questionnaires prepared for 196 exit clients in the sample. In the end, we obtained extremely rich data set consisting of information on individual and household characteristics, income shocks, business characteristics, borrowing and savings behaviour needed to pursue the objectives of this study.

In addition to the information gathered during field interviews, data were collected on the individual's borrowing relationship length, namely the number of months from the first day of her first loan to the maturity date of her last loan. This information was used to determine the distribution of the borrowing length over the length of the period for the study.

The target population and the sample size selection

The population for this study was made up of exit clients who joined CRAN's group loan scheme between the period January 2002 and December 2006. The information about the target population obtained from CRAN's data base is presented in table 2 below.

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Table 2: Total number of collapsed groups

Agency	Collapsed groups
Abura	24
Elmina	31
Castle	9
Siwdu	26
Total	90

Source: CRAN Data Base, 2007

It was gathered from table 2 that there are 90 collapsed groups from which exit clients could be identified. The total number of exit clients identified with the collapsed groups was 635. Twenty seven (27) collapsed groups (30%) from the population were selected for this study using proportional method of stratified random sampling technique. Twenty seven collapsed groups were selected because of the limited time, financial resources and the dispersed nature of the exit client. Stratified random sampling technique was employed because it was possible to form strata for the collapsed groups using the four agencies. The total number of collapsed groups selected as sample size from each stratum is shown in table 3 below.

The total number of exit clients in the twenty seven (27) collapsed groups that formed the sample was one hundred and ninety-six (196).

Table 3: Number of collapsed groups selected as sample

Strata	Total Number	Percentage	Sample selected
Abura	24	27	7
Elmina	31	34	9
Castle	9	10	3
Siwdu	26	29	8
Total	90	100	27

Source: CRAN data base, 2007

Pre-testing of survey instruments

In order to fine-tune the research instrument for the study, a pilot test of the survey instruments was conducted. The pre-testing was conducted on 9 exit clients from the study institution selected from outside the sample and interviewed. The pre-testing was done by the researcher himself because he wanted to ensure that the questions were clear enough to generate the needed responses. It was also to find out whether it would be possible to translate the questions into local language (Fante) since the greater percentage of the expected respondents were illiterate or had lower level of education. It was also to find out whether the data which could be generated from the instrument would be adequate to pursue the objectives of the study or there is some data redundancy.

After the pre-testing, the questions that were not clear and difficult to translate were reworded. The questions that were found to be irrelevant to the objectives of the study were also removed. The fine-tuning of the survey instrument made the researcher came out with an instrument which was more reliable and could elicit data to achieve the objectives of the study.

The pre-testing was conducted at Siwdu and Abura all in Cape Coast. Out of the 9 respondents, 4 were handpicked at Siwdu and the remaining five at Abura.

CHAPTER FIVE

CLIENT EXIT REASONS AND HAZARD OF TERMINATING THE

BORROWING RELATIONSHIP

Introduction

This chapter presents the analysis and discussion and finding obtained from the data gathered on the exit clients of CRAN. The analyses begin with the profile of clients' personal, household, financial services, business and loan characteristics. This is followed by the presentation of the result on clients exit reasons and end with the discussion on the result on the main model which was estimated.

For ease of reading, all tables that are showing the result of the analysis are included in the write-up.

Profile of exit clients

Personal characteristics

Under the personal characteristics, the study attempts to analyse the age distribution of exit clients and to ascertain their marital status as well the education level. First of all, the results on the personal characteristics reveal that

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majority of the exit clients are relatively older people with the mean age of 41 years. The greater percentage of them is found within the age bracket of 31 – 50 years (69.7 percent). Table 4 below summarises the age distribution.

Table 4: Age distribution of exit clients

Age	Frequency	Percentage
20 – 30	15	14.7
31 – 40	38	37.3
41 – 50	33	32.4
51 – 60	14	13.7
61 – 70	2	2.0
Total	102	100

Source: Survey data, 2008

Also, the exit clients possess relatively low level of formal education as shown in table 5 below with 6.8 and 8.0 mean and median years of schooling respectively. The disparity in the mean and median years of schooling is due to some relatively well-educated outliers, possessing GCE O Level, vocational school, secretarial school or higher; however majority of the exit client have received little to no formal education.

Table 5   Level of education

Characteristics	Mean	Median
Number of years of schooling	6.8	8.0

Source: Survey data, 2008

In addition, Majority of the exit client are married (63.7 percent). Table 6 provides details of the marital status.

Table 5:   Marital status of exit clients

Marital Status	Frequency	Percentage
Married	65	63.7
Single	9	8.8
Divorced	17	16.7
Widowed	8	7.8
Separated	3	2.9
Total	102	100

Source: Survey data, 2008

Household characteristics

Selected household characteristics are presented in Table 7 below. On average exit clients are part of a relatively small household (5 members). These households are also characterized by high dependency ratio of 1.07 (mean) and

larger negative income shock value of 110.43 Ghana cedis (mean).

Table 7:   Household characteristics

Characteristics	Mean	Median
Number of persons in household	5	2
Dependency ratio	1.07	1.81
Negative income shock (Ghana cedis)	110.43	158.26

Source: Survey data, 2008

Formal and informal financial services used

In order to assess whether competition has any effect on client exit, two variables on banking competition were captured in the questionnaire: formal and informal financial services used. Table 8 below demonstrates informal and formal financial services used by exit client.

Preliminarily analysis indicates that exit clients use of informal financial service is minimal. Out of 103 exit client interviewed, 54.9 % do not have access to any form of informal financial services, for instance, borrowing from friends, family members, ROSCA, etc.; 41.2 % have access to only one form of informal financial services and only 3.9% have two or more avenues for informal financial services. Majority of the exit clients use one or two formal financial services (92.1%), particularly, other MFIs or rural banks.

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Table 8:   Formal and informal financial services

Number of financial service used	Informal (%)	Formal (%)
0	54.9	6.9
1	41.2	63.7
2	3.9	28.4
Total	100	100

Source: Survey data, 2008

Business characteristics

Analysis of business characteristics indicates that exit clients are mostly found in urban centres (39.2%) and semi-urban centres (36.3%), while less percentage is located in the rural areas (23.5%). Table 9 summarises business locations.

Table 9: Business location

Location	Frequency	Percentage
Urban	40	39.2
Semi-urban	37	36.3
Rural	24	23.5
Total	102	100

Source: Survey data, 2008

The implication is that if CRAN's operation focuses on both rural and urban centres, then exit rate among the urban clients is greater than among the rural clients.

Many of the exit clients are engaged in trading activities in one way or the other. This could be seen in the area of petty trading (21.6 %) shop keeping (17.5%) foodstuff/vegetable (18.6%). All together, trading activity constituted 57.7 percent. The above information is summarised in table 10 below.

Table 10: Business activities engage by exit clients

Business activity	Frequency	Percentage
Petty trading and commerce	21	21.6
Shopkeeping	17	17.5
Restaurant services	5	5.2
Farming	2	2.1
Fishing and fishmongering	17	17.5
Batik tie and dye	2	2.1
Dress making	9	9.2
Hairdressing	5	5.2
Foodstuff/vegetable	18	18.6
Total	102	100

Source: Survey data, 2008

Loan characteristics

The analysis of loan characteristics indicates that most of the clients exit after their second loan experience (47.10 percent), while a substantial number exit after their first loan experience (40.2 percent). Cumulatively, clients who exit after the second loan cycles constitute as high as 87.3 percent. Essentially, first and second loan cycles constitute critical stages for decisive decision-making for clients in the group loan programme. Given the newness of the group lending technology in this setting, clients probably did not know the true price and qualities of the group-lending product. With time, however, price and quality information is revealed to the person, who then decides if he/she will repurchase, that is, borrow again, or exit and look for other debt financing options elsewhere. In this respect, a group loan is an experience good, one that requires purchase and consumption in order to evaluate its utility (Nelson, 1970).

Table 11: Number of loan cycles before exit

| Number of loans received	Frequency	Percentages
1	41	40.2
2	48	47.5
3	7	6.7
4 +	6	5.6
Total	102	100

Source: Survey data, 2008

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After the first and the second loan cycles credit officers have enough evidence to close some of the groups and render others dormant by denying them the successive loan cycles. Credit officers do this for delinquency reasons, multiple loan collections using family members to form groups and default reasons (Garuba, 2004). Table 11 above depicts the number of loan cycles before exit.

Survival analysis

Generally, the cumulative survival period of client until exit is low. Figure 1 below is the cumulative survival function of the 103 observations in the data set. Each observation represents the length of the individual's borrowing relationship. This is measured in months, meaning the number of months between the first day of the individual's first loan until maturity date of the individual's last loan. In figure 1 the cumulative survival function (measured in percentages) is plotted on the vertical axis and the number of months a borrower survived is plotted on the horizontal axis (measured as time). This allows one to observe the overall survival at any point in time over the observation period. On a whole, the longest survival period (borrowing relationship length) of the exit clients is 28 months (4 loan cycles). Only one percent of the sample survives through the 28th month.

Approximately 60 percent of the sample survives through the sixth month of their borrowing relationship. Again, roughly 14 percent of the exit clients survive through the 12th month (second loan cycle). Stated differently, approximately 46 percent of the borrowers exited after the second loan cycle (12 months).

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From figure 1, the second level drop is the sharpest decline over the 30 months period. Cumulatively, approximately 86 percent of the sample exits after the second loan cycles. Overall, the median survival time for the exit client is 12 months. The median value of the borrowing relationship is used here as a measure of central tendency and it provides more intuitive meaning than using the mean, especially when data is censored (Kiefer, 1988).
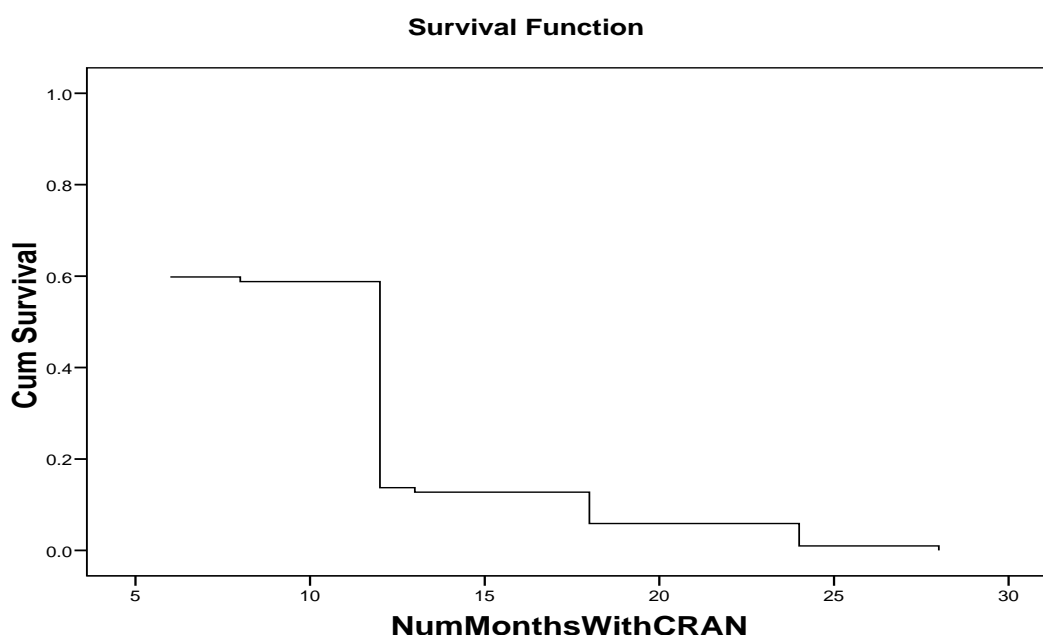
Survival Function

Figure 1 Cumulative survival function of the borrowing relationship

Clients exit reasons

One of the main objectives of this study is to investigate the reasons why clients exit CRAN's microfinance Scheme. To pursue this objective, several possible factors that could cause client exit were considered. In examining the possible reasons for exit effort was made to group the reasons into (1) problems with the programme policies and procedure, (2) Problems with group lending (3)

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problem in the clients business operations (4) personal reasons and (5) community and economic reasons. Questions in each segment provided opportunity for multiple responses and they were 31 in number. In addition, a section was provided to elicit data on the other reasons which cause exit which would otherwise not be captured by any of the categories above. This section presents the reasons for client exit as were found from the study.

Problem with the programme policies and procedure

Eight reasons were included in this category namely: (i) loan too small/too large, (ii) loan length too short (iii) frequency of the loan repayment schedule (iv) loan became too expensive (such as interest, fees, etc.) (v) Inefficient disbursement of loan (iv) wrong timing of loan (viii) personal conflict with staff. Two of these reasons have considerable influence on client exit: frequency of the repayment schedule (33.3%) and loan became too expensive (25.3%). Other drop out occurred due to conditions such as obligatory savings and training (17.3%) and the attitude of staff (12%). Table 12 below summarises these reasons.

From the information gathered above, it appears the problem of loan repayment schedule is the major push factor of clients exit in CRAN considering the problem with the programme policies and procedure.

Other reasons such as loan became expensive, obligatory savings and training and attitude of staff are institutional policies that contribute to client exit. Reasons such as loan amount too small, loan length too short and inefficient disbursement of loan contribute abysmally to client exit. Similar studies in different parts of

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Africa have demonstrated that clients desert microfinance loan schemes due to MFIs programme policies. Painter and MkNelly,(1999) found that client exit mainly due to the problem of repayment schedules and inappropriate loan size.

Table 12: CRAN's Programme policies and procedure

Reasons	count	Percentage of Responses
Loan amount too small	5	6.9
Loan length too short	3	4.0
Frequency of repayment schedule	25	33.3
Loan became too expensive	19	25.3
Disbursement of loan not efficient	1	1.3
Other conditions (obligatory savings and training)	13	17.3
Attitude of stuff	9	12.0
Total	75	100

Source: Survey Data, 2008

Problem with group lending

This segment is composed of six reasons: (i) expelled by the group (ii) the group disbanded (iii) personal conflict with other members (iv) unhappy about the group leadership (iv) unable/unwilling to attend all group meeting (v) dislike rule

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and/or pressure exerted by the group. One reason is influential in propelling client exit; namely the group disbanded (84.2%). Others also left because they were unhappy about their group leadership (10%). Reasons such as personal conflict with other members and pressure from the group played a lesser role in bringing about client exit. Table 13 demonstrates the client exit reasons emanating from the group dynamics.

Table 13: Group lending problem

Exit Reason	counts	Percentage of Responses
Group disbanded	48	84.2
Personal conflict with other members	2	3.5
Unhappy about the group leadership	6	10.5
Pressure from the group	1	1.8
Total	57	100

Source: Survey data, 2008

From table 13 it is obvious that the most important reason among this category is group disbanded. Exit client complained that some of the group members had repayment problem and as a result, the institution decided to deny them the subsequent loan cycles and so group members went their separate ways. In a strict solidarity group, the whole group is denied a loan in one loan cycle if the group is unable to pay fully the previous loan receipt. In a study of client exit

in Tanzania, Maximambali, (1999) finds repayment problem to be the main immediate cause of client exit. They observed that while some of the factors contributing to repayment problem emanate from rigid structure of the loan product, the client themselves are responsible for many of the repayment problems. In a situation where the group enforcement of regulations is not strong, the frequent indebtedness of the group members may compel the institution to brand the group as risky group and deny it subsequent loans on that basis. Although other group members would be ready for subsequent loan cycles the institution would continue to deny them. The frustrated clients have no option than to abandon the group to collapse. This is the problem which accounted for 'group disbanded' being a major reason for client exit among the problem of group lending.

Problem in the clients' Business operations

Six reasons were included in this component: (i) I have enough working capital now (ii) seasonality in business activity, (iii) graduating to loan programms that offer larger loans, (iv) weak condition of business (v) closed business to do something else (vi) sold business.

Among these six problems in clients' business operations, four of them namely: seasonality of business activity, weak condition of business (low demand), graduating to higher loan from other institution and gained employment are the reasons that account for client exit in this category. Among the business

reasons, weak condition of business accounted for 60.9 percent followed by seasonality of business, 26 percent. Smanowitz (1999) finds similar reasons (seasonality and weak business conditions) as key factors that cause clients to exit. Table 14 demonstrates the business reasons that called for exit.

Table 14: Problems in clients' Business operations

Reason	counts	Percentage of Response
Seasonality of business activity	6	26.1
Graduating to programme that offer higher loan	2	8.7
Low demand	14	60.9
Closed business to do something else	1	4.3
Total	23	100

Source: Survey data, 2008

Personal reasons

Personal reasons composed of six items: (i) I spent my money on crisis (ii) income supporter left me, (ii) no time or ability to continue business (iv) I am relocating/relocated to another place (v) a family member oppose to my borrowing and (vi) religion/cultural reasons.

Personal reasons in general contributed less to client exit in CRAN. In particular, money spent on crisis (sickness, death, etc) and no time to continue business contributed to client exit.

Community and economic reasons

This section was made up of three items, namely; (i) business ruin by disaster (ii) lost my customers to a new major competitor and (iii) poor economic conditions affected my business.

Like the personal reasons, community and economic reasons also contributed less to client exit in CRAN. Only one item received 2 counts, that is, business ruined by disaster.

Other reasons

In addition to the above, the respondent also identified other reasons that caused client exit. These are summarized as: threat of prosecution, Business couldn't start after the first loan, dishonesty on the part of other group members and group members were too many.

The institution's threat to prosecute defaulted client sent a shiver down the spine of other clients who also left for fear of similar default in the future which might result in prosecution.

The empirical result of the duration of borrowing relationship

The result of the general model on the hazard of terminating the banking relationship is presented on the table 15 below.

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The hazard of ending the banking relationship is significantly affected by age, dependency ratio, average loan size, number of informal financial services used, and household negative income shock (idiosyncratic shock) and group repayment problems.

Table 15: Empirical result of the Cox proportional hazard model
Estimation

Covariate	B	SE	Sig. (P-value)	Exp(B) (Hazard Ratio)
AG	0.428	0.114	0.077*	1.534
ED	-0.631	0.268	0.814	0.532
HC(DR)	0.123	0.927	0.019**	1.131
ALS	-0.314	0.118	0.007***	0.731
AMP	0.104	0.264	0.692	1.100
GM	0.611	0.100	0.760	1.843
NFFS	-0.777	0.198	0.695	0.460
NIFS	-0.992	0.170	0.059*	0.371
GRP	0.101	0.205	0.061*	1.106
IS	-0.529	0.703	0.045**	0.589

***,**,* Significant at 0.01, 0.05, 0.10 levels respectively.

Source: Model estimation using the survey data, 2008

Although the sign on age is not expected, it significantly impacts the hazard rate of terminating the borrowing relationship. In fact, contrary to the

proposition that age has an inverse relationship with an individual borrower's hazard rate, this study reveals that age has positive impact on the hazard rate of ending the banking relationship.

When the client is older, that is 30 years and above, the hazard of ending the banking relationship in the next period increases by 53 percent. This is significant at 0.10 level. The result does not conform to the hypothesis on age that says older people are more stable and less mobile than their younger counterpart in the group lending and will therefore stay longer in the borrowing relationship than their younger counterparts.

The two household characteristics (dependency ratio and household total shock level) significantly influence the hazard of ending the banking relationship. The increase in the household total income shock by 100,000 cedis reduces the individual's hazard rate of ending the banking relationship by 41 percent. This is significant at 0.05. Although the sign of the dependency ratio is not expected, it significantly affects the hazard of ending the banking relationship. A full one point increase on a scale from 0 to 1 in the household dependency ratio increases the hazard of terminating the borrowing relationship by 13 percent. This is significant at 0.05 level.

The result of the total household income shock indicates that financial burden of the household impacts the borrower's exit decision. This is consistent with the finding by Pagura (2003) that if the individual does not have other financial options, then the cost of exiting microfinance group loan scheme increase as other needs increases. It is also a clear confirmation of

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interdependence between firms and household in developing countries with regard to production and consumption decisions, (Bardhan and Udry, 1999). Given this interdependence, individual in household that experience more income shock may borrow more to smooth consumption and production. Individuals in the household that experience larger income shock may exit less due to greater liquidity need at both household and business level.

Competition from the informal financial services available to clients also has significant impact on the hazard of clients exit. The analysis reveals that one additional informal financial service used by client reduces the hazard of terminating the banking relationship by 63 percent. This is significant at 0.10 level. It was observed from the survey that in addition to the loan from CRAN, client also borrowed/received money from other informal sources such as family members, friends, susu collectors, etc. The result indicates that these sources do not pull clients outs of borrowing but rather serves as complement to the loans they receive.

Average loan size highly significantly affects the hazard of client exit though the sign was unexpected. It is reported from the analysis that increases in loan amount by 500,000 cedis (one cycle loan) decreases the hazard of ending the banking relationship by 27 percent. This is significant at 0.01 level. The result on average monthly loan is consistent with the findings by Pagura (2003). In her study of client exit, she modeled average loan size with the expected positive sign, indicating that hazard of client exit increases as the loan size increases. Just like this study, the sign of the coefficient was negative indicating rather that as the

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loan amount increases, the hazard of ending the banking relationship decreases. This finding rejects the hypothesis that as the loan amount increases the borrower is less tolerant of staying in the group loan for fear of other group members' nonpayment, rather it appears clients are motivated by the benefit of enjoying larger loan and are less likely to exit.

It was hypothesized that individuals who are members of a group that have repayment problems are more likely to exit than those in a group with otherwise. This study confirms the hypothesis that individuals in the risky group (have repayment problem) are 1.11 more times likely to terminate their banking relationship than individuals in groups without repayment problems. This is significant at 0.10 level. In a study of client exit in Tanzania, Maximambali, (1999), finds that repayment problem is the main immediate cause of force dropout in Tanzania.

Discussion of result

As observed from the profile, the percentage of respondents living in the urban centre (39.2%) is more than those in the semi-urban (36.3%) and rural areas (23.5%). Although it is not a deliberate policy of CRAN to recruit more clients from the urban centre, this definitely has implication for CRAN in view of its mission of providing innovative microfinance services at affordable price to the productive rural and peri-urban poor in the Ghanaian society.

The survival analysis reveals that majority of clients survive the banking relationship up to the second loan cycle. This situation has far reaching

implication for sustainability because investment in training clients increases unduly; there is also the opportunity cost of losing older client with experience and more likely to take larger loans. In Hulme's own words, "client exit is a significant problem for MFIs. It increases the MFIs cost structure, discourages other clients and reduces prospects for sustainability" (Hume, 1999).

The major reasons for client exit in CRAN emanating from the problem of the institution's policy and procedure are loan repayment schedule, high cost of borrowing, obligatory saving which is inaccessible and attitude of some staff. Similar reasons have been identified by other researchers, in particular, Musona and Coetzee (2001), Maximambali (1999) and Simanowitz (1999) found in separate studies that frequency of repayment schedule, fee and interest too high and inaccessible savings are the major cause of client exit. MFIs in general and CRAN in particular has a huge responsibility of solving the problem of client exit resulting from product design and institutional policy and procedure. For instance, it is better to design products with better payment system that match individual client cash flow than following the tradition of weekly payment plan which sometimes become a burden on the client.

Another major complaint which the study identified as causes of exit came from the dynamics of group lending itself. It was found that group disbanded and unhappy about the group leadership were the leading cause of client exit in this category. In particular, client cited a number of reasons that resulted in the collapse of their group. They said that some members inability to repay their loan compel the institution to deny the group subsequent loan since they were branded

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risky groups. Others also complained that the loan officers brought in other members they were not familiar with and so the existing group members lost interest in the group. There was also a complaint that it became difficult to manage the group because the size of the group became too large.

Business reasons such as seasonality of business activity, weak condition of business (low demand), stop business to do something else (gain employment) are the causes of client exit. Similar study, Maximambali (1999) found seasonality of business activity as a contributing cause to client exit.

In the second part of the study some relationship between the hazard of ending the banking relationship and ten explanatory variables were observed. The study found the hazard of ending the relationship to be increasing (duration of the relationship decreasing) in the age of the client and the dependency ratio. The study also found the hazard of ending the banking relationship to be decreasing (duration of the relationship increasing) in the household income shock, increased use of informal financial services, and increase in the average loan size.

The observation that the hazard of older clients ending the banking relationship increase is inconsistent with the information-based argument that older clients become less mobile and more focus on what he/she has set himself or herself to do, reducing the hazard of terminating the banking relationship. Moreover, the finding that increase in average loan size decreases the hazard of terminating the banking relationship (prolong the relationship's length) is also inconsistent with the assumption that at a larger loan amount the optimizing agent (borrower) is less tolerant of staying in a group loan, particularly if he/she

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perceives the partner to be a low ability type (a partner who has frequent low business outcome).

The finding that indicates an inverse relationship between the hazard of ending the banking relationship and increase in the household income shock affirms the notion of interdependence between a firm and a household in the developing countries with regard to the simultaneous consumption and production decisions (Bardhan and Udry, 1999). Given this interdependence, an individual in a household that experiences more income shock may remain longer in the borrowing relationship due to greater liquidity need at both household and firm levels.

Summary and conclusions

In this chapter, client exit data of microentrepreneurs of CRAN in Cape Coast, Ghana, were analysed with the use of nonparametric and semiparametric duration models. Overall, clients exhibited negative duration dependence, that is the longer they stayed in the relationship the more likely they are to leave the borrowing relationship.

A nonparametric model, specifically Kaplan-Meier survival analysis was conducted to graphically examine the survival distribution of exit client. Cumulative survival function was displayed which indicated cumulatively the percentage of clients that survive after each loan cycle.

The study also analysed client exit reasons in order to ascertain which of the reasons were influential in causing client exit. This was done by breaking the

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reasons into five: problems with the institutional policies and procedures, problems of dynamics group lending, business reasons, personal reasons and environment or economic reasons. It was found that problem of institution's policy and procedure, group dynamic problems and business reasons are the main areas where client exit reasons emanate from.

A semiparametric model, Cox proportional hazard model, estimated the effect of different covariates on the hazard rate of ending the borrowing relationship. It was revealed that loan size and household income shock affect the hazard of client exit. Other factors such as age, dependency ratio, if the client was in a group with a repayment problem and number of informal financial services used also impact the hazard of client terminating his/her borrowing relationship. Age and dependency ratio have positive relationship with the hazard of ending the relationship whereas household income shock, number of informal financial services and the average loan size have inverse relationship with the hazard of client exit.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

Summary

Although repeat borrowing is essential for viability and sustainability of MFIs because of the mutual benefit of long term banking relationship, many MFIs still experience high client exit, that is, premature termination of banking relationship. The study seeks to investigate client exit in Christian Rural Aid Network (CRAN), a microfinance institution in Cape Coast. The main goal of the study is to define and determine the factors that affect client exit decision in microfinance. The following objectives were pursued: first, to identify the reasons why clients of CRAN exit the microfinance loan scheme and secondly, to econometrically examine the factors that influence the length of the borrowing relationship. The null hypothesis to be tested was that the length of the borrowing relationship is not influenced by loan size, competition, household characteristics, group dynamics and individual characteristics such as age and level of education.

Cross sectional data on individuals, households, businesses and borrowing group characteristics among others on the exit clients comprise the data set used to pursue the objectives of the study.

After reviewing all the duration models it was realized that nonparametric and semiparametric models were the most appropriate econometric tools to model

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the duration of the banking relationship. It was observed, for instance, that the semiparametric character of Cox model allows one to estimate the relevant parameters without relying on restrictive or unreal structures about the failure dynamics, as it happens with parametric models which are based on specific functional structures.

The analysis of the data reveals several results. First, that analysis of the client exit reasons show that institutional policies and procedures such as frequency of repayment schedules, high cost of borrowing, obligatory inaccessible savings and attitude of some staff; group dynamic problems such as group disbanded and dissatisfaction with group leadership; business reasons such as seasonality of business activities and weak condition of business (low demand) are the major causes of client exit. Second, the result of the nonparametric estimation of survival function using Kaplan-Meier estimation technique indicated that the longest survival period in the borrowing relationship is twenty-eight (28) months (four loan cycles) with the mean survival period of twelve months. Finally, the Cox model estimation of the relationship between the length of time in the borrowing relationship and the explanatory variables reveals the significant influence of loan size, age, dependency ratio, group repayment problem household income shock and competition from informal financial service on the length of the borrowing relationship.

Conclusions

Several conclusions are drawn from the findings of the study. First, the study shows that borrowers are induced to stay longer in the borrowing relationship when the loan size increases or when they expect to access larger loans. In effect, larger loan size is a motivating factor for client to stay longer in the borrowing relationship. Second, the survival period of the borrowing relationship is too short and as a result both the MFI and clients lose the opportunity of deriving the maximum benefits from long term banking relationship. Third, when clients experience household income shock they tend to remain longer in the borrowing relationship due to their greater liquidity need for both household and business levels. Moreover, competition from informal financial services increases the length of the borrowing relationship because such competition from the informal financial services complements the credit facilities from the MFIs instead of substituting it. The study further reveals that group members that frequently experience repayment problems are more prone to end the borrowing relationship earlier than group members who do not experience repayment problem. Once again, the hazard of older client terminating the borrowing relationship increases. This result contrast sharply with the proposition that older clients are more stable and focus and so there is a high chance of maintaining a longer borrowing relationship than their younger counterpart.

It is also maintained that unfavourable MFI policies and procedure such as weekly repayment schedules, high cost of borrowing and obligatory inaccessible savings cause client exit. Finally, group dynamic problems such as dissatisfaction

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with the group leaders' performance and members' nonpayment of loans weaken group cohesiveness, causes the group to disband and members of the group to terminate the borrowing relationship.

Policy Implications

One of the major contentions in the group lending contract is that access to large loans induces group instability. That is, the borrower in group lending contract may exit early when he/she is confronted with large amount of loan size because of increase in expected cost due to his/her partners default. Contrary to this contention, this study finds that borrowers are induced to stay longer in the borrowing relationship when the loan sizes increase or when they expect to access larger loans. In effect, larger loan size is a motivation factor for client to stay longer in the borrowing relationship. This study recommends that MFIs in general and CRAN in particular should adopt the policy of conducting loan needs assessment and come out with loan sizes that meet the business needs of their clients rather than giving fixed cycle loan to every member in a group.

Analogous to a bank not having full information about its clients, group members in a group lending contract face uncertainty about fellow group member. Choosing good partners is imperative to the success of the group as a whole. Sometimes people, who seem to be obvious partners, for instance, friends, family members, etc, are not always the most appropriate one to engage in joint liability contract. Now if the success of group depends on choosing right type of members,

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then CRAN should include screening and monitoring skills training in their modules that they administer to their clients.

The study reveals that the survival of client in the group loan contract is generally low. The implication is that CRAN has to continuously explore new markets to form new groups, train new group members etc., but seeking new client all the time and administering training to them increase MFIs operational cost and threatens sustainability. In addition, the clients who exit early do not have the opportunity to build reputation as trustworthy borrowers which will increase their chance to access individual loan which is much convenient and less risky. It is therefore recommend that CRAN should constantly interact with its client to find out the basic problems which confront them and threaten their survival. Such information should guide the revision of their institutional policies.

To be able to make informed decision and develop appropriate policies to deal with exodus of client exit, it is recommended that CRAN should implement a policy of regularly collecting data from exit clients. This could be carried out in a relatively efficient and low cost manner. For instance, a policy requiring a short exit interview for client that leave would be a good start. With time valuable information could be garnered from exit client to be used to develop and shape future products and services.

One of the major reasons that resulted in the client exit was the weekly repayment schedule. The weekly repayment schedule fails to take into account the cash flow limitation of most micro businesses. For instance, most traders (fishmongers, 'Techiman market women', etc) sell their goods on credit for two

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weeks or more; it is not practical to expect such clients to service loans on weekly bases. It is recommended that CRAN should design repayment schedule that takes into account the cash flow pattern of its clients.

In the cause of this study a substantial number of clients said they were not happy with customer services they were receiving. CRAN should not take for granted that clients can and do generalize about the entire organization base on one bad interaction. Field officers and staff of various agencies should see clients as customers who are paying for the services and give due respect. Staff training in this respect is desirable and highly recommended.

CRAN should move away from the rigid, credit-driven, group based products that dominate its services. The institution should bear in mind that its clients have many different needs and these vary with season, stage of life, means of gaining a livelihood and a host of other contingencies. For instance, clients need loans for emergency medical and health bills, savings to pay school fees in future, insurance in case of death of an adult income earner, a mortgage to build a house, a savings plan so they have a small retirement income and many other needs.

Limitations

The following limitations should be taken into consideration when interpreting the result of this study. To begin with, the focus of this study implicitly assumes that any termination decision of banking relationship is

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initiated by the clients in the group lending scheme. It is most likely that the MFI could initiate the termination of the relationship. In this study, the termination decision initiated by the MFI itself is not considered. Again, to gain in-depth knowledge about client exit reasons require the use of both quantitative and qualitative methods such as Focus Group Discussions, Rapid Appraisal Technique and so on. However, these qualitative techniques fall outside the scope of this study. Finally, this is a case study involving only one MFI institution. The analysis, discussions and conclusions of this study cannot be generalized.

Future research direction

In view of the limitation that this study ignored the termination decision initiated by the MFI itself, any future research could investigate the relationship between the length of banking relationship and the MFI's characteristics instead of the client characteristics. Also, since this is a case study the findings cannot be generalized. Any future research should take a representative sample in order to generalize the result.

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APPENDIX 1

QUESTIONNAIRE FOR EXIT CLIENTS

Questionnaire serial number

Data entered on computer by _____(name) on

_____(date)

Data entered on computer by _____(name) on

_____(date)

Interviewer number	
Interview date	

SECTION A: PERSONAL DATA

A1. Please tick if you are   male [   ]   female [   ]

A2. Your age, please_____

A3. Marital status
    [1] married [2] single [3] divorced [4] widowed [5] separated [6] other,
specify

    _____

A4. What level of education did you attain? (Convert into number of years of
    schooling)_____

A5. What is your occupation? _____

A8. Name of your Microfinance group (if
any)_____

SECTION B: LOAN CHARACTERISTICS

B1. How many years did you stay with
CRAN_____ (convert into months).

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B2.

Date of first loan		Date of last loan maturity	

B3. How many programme loans did you take from CRAN?

_____

B4. What was the size of each loan?

No.	Amount(cedis)	Duration of cycle (months)	Interest rate on loan

B5. Did the loan help your family? [1] Yes [   ]   [2] No [   ]

B6. If yes, how did it help your family? (Multiple responses possible)

[1] More and better food   [5] Clothing

[2] Educate children/self   [6] furniture, utensils, goods for your household

[3] Improve my housing   [7] Recreation; leisure activities

[4]. Medical costs/improved health   [8] Other, specify _____

[9] don't know

SECTION C: BUSINESS CHARACTERISTICS

C1. Location of Business [1] Urban [2] Semi-Urban [3] Rural

C2. How many years of business experience did you have before you joined

CRAN's Microfinance Scheme?_____

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C3. How many years were you in business before you exited?

  _____

C4. What type of business activity do you undertake? *Tick as appropriate*

   [1] wood carving   [2] petty trade and commerce

   [3] shop keeper   [4] restaurant services

   [5] farming   [6] fishing/fish mongering

   [7] batik, tye and die   [8] dressmaker/ tailoring

   [9] hairdresser   [10] mechanic

   [11]no business   [12] foodstuff/ vegetable

   [13] any other , specify_____

C5. How many employees did your business have before you exited?

  _____

C6. How many years of managerial experience did the manager of this

   Business had before exit ?_____

C7. On average how much profit were you able to make in a mouth when you

   were taking loan?_____

SECTION D: GROUP LENDING CHARACTERISTICS

D1. Did your group members know each other very well? Please tick?

       1. Yes [   ]   0. No [   ]

D2. How well did the group members know each other? (Multiple responses

accepted)

   [1] They are from the same neigbourhood

   [2] They engage the same business activity

   [3] They are from the same family

   [4] They participate in the same tontine

   [5] Any other, specify_____

D3. Did your group hold meeting regularly and strictly as mandated by

CRAN?

      1. Yes [   ]   0. No [   ]

D4. How many other banks did you transact business with when you were

with CRAN? _____

D5, Was it possible for you to obtain loan from any of the following

mentioned below when you were still doing business with CRAN?

No.		Multiple ans. allowed tick (√)
1	Family member	
2	friend	
3	Traditional money lender	
4	Susu collector	
5	Other(specify)_____	

D6. Did any member from your group have any problem with the repayment

of his/her loan?   1. Yes [   ]   0. No [   ]

D7. Were there any instances that you had to pay a group member's loan

because he/she had defaulted?

      1. Yes [   ]   0. No [   ]

D8. How many times? _____

D9. How much did you pay in each case?

Case 1	Case 2	Case 3	Any other

SECTION E: HOUSEHOLD CHARACTERISTICS

E1. How many people in your household are:

Item	Year group	Number
1,	Less than18years and above 18 not working	
2.	From 18years to 59years working	
3.	60 years and above	

E2. Did any of the following event/incidence ever happened in your household

in the past twelve months and how much did you spend when they occured.

Shock	Please tick as appropriate	Amount spent	Source of finance
Death			
illness			
Marriage ceremony			
Theft			
Fire outbreak			
Birth			
Other, specify …………………………			

Note: The source of finance is coded as *1-money for my business 2-remittance 3- Savings 4- loan 5- other*

SECTION F: EXIT REASONS

F1. Can you tell me the main reason(s) that made you leave the programme. (*Do not read answers. Multiple answers accepted*)

A. Problems with program policies or procedures:	D. Personal reasons:
[__] 1. The loan amount is too small.	[__] 22. I cannot continue because I spent the money on a crisis (such as illness, death) or a celebration (such as marriage) in my family.
[__] 2. The loan length is too short.	
[__] 3. I do not like the repayment schedule.	
[__] 4. The loan became too expensive (such as interest, fees).	
[__] 5. The disbursement of the loans	

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is not efficient.

[__] 6. The timing of the loan was wrong

[__] 7. I was unwilling to borrow because of other conditions, (such as obligatory savings, obligatory training).

[__] 8. I did not like the treatment by the staff or had personal conflicts with staff.
Who?_____

[__] 9. I found a program with better terms.
Which one?_____
Why is it better?_____
_____
___
Other, specify
_____

B. Problems with group lending:

[__] 10. The group told me to leave.

[__] 11. The group disbanded.

[__] 12. I had personal conflicts with other members of the group.
Explain_____
_____
_____

[__] 13. I was unhappy about group leadership.

[__] 14. I was unable or unwilling to attend all the group meetings (such as take too much time; have schedule conflicts)

[__] 15. I did not like the rules and/or the pressure established by group.
Other ,
specify_____

C. Client's business reasons:

[__] 23. My spouse (or other adult income earner) left me so I do not have the ability to continue the business.

[__] 24. I am pregnant or now have another person to care for (lack of time or ability to continue the business at the same level).

[__] 25. I am moving out of the area.

[__] 26. A family member told me to stop borrowing from the program.

[__] 27. My religion/culture forbids me
        from taking loan any longer
Other,
specify_____

E. **Community and economic reasons:**

[__] 28. My business was ruined by a disaster (such as robbery; fire; flood; hurricane).
[__] 29. A major new competitor moved into the area and many of my customers now buy from the competition.

[__] 30. Poor economic conditions have left my customers with less money with which to buy my goods or services.
Other,
        specify_____
        _____

F. **Other reasons:**

[__] 16. I have enough working capital now for my business.	[__] 31. Other (specify):_____ _____
[__] 17. My business is seasonal; I will borrow again when I need it.	_____ _____
[__] 18. I am graduating to a loan program that makes larger loans. Which one? _____	[__] 99. Don't know
[__] 19. I am unable to repay the loans because of the weak condition of my business (for example, poor profits, low sales, etc).	
[__] 20. I decided to close the business and do something else (for example, get a job, start a new business). Why? _____ [__] 21. I sold the business. Other, specify_____	

F2. For each of the reasons identified above, rank them in the order of importance they played in provoking exit: [1. for not important, 2. for somewhat important, 3. for important, 4. for extremely important.

F2.a) **Problems with program policies or procedures:**

	Rank
1. The loan amount is too small.	
2. The loan length is too short.	
3. I do not like the repayment schedule.	
4. The loan became too expensive (such as interest, fees).	
5. The disbursement of the loans is not efficient.	
6. The timing of the loan is wrong	
7. I was unwilling to borrow because of other conditions, (such as obligatory savings, obligatory training).	
8. I did not like the treatment by the staff or had personal	

conflicts with staff. Who?_____	
9. I found a program with better terms. Which one?_____ Why is it better?_____ _____	

F2.b)

Problems with group lending:	Rank
9. The group told me to leave.	
10. The group disbanded.	
11. I had personal conflicts with other members of the group. Explain_____ _____	
12. I was unhappy about group leadership.	

13. I was unable or unwilling to attend all the
     group meetings (such as take too much
     time; have schedule conflicts)	

14. I did not like the rules and/or the pressure established by group.	

F2.c)

Client's business reasons:	Rank
15. I have enough working capital now for my business.	
16. My business is seasonal; I will borrow again when I need it.	

17. I am graduating to a loan program
     that makes larger loans.
Which one?
 	
     _____	

18. I am unable to repay the loans
     because of the weak condition
     of my business (for example,
     poor profits, low sales).	

19. I decided to close the business and
     do something else (for example,
     get a job, start a new business).
Why? _____	

20. I sold the business	

F2.d)

Personal reasons:	Rank
21. I cannot continue because I spent the money on a crisis (such as illness, death) or a celebration (such as marriage) in my family.	
22. My spouse (or other adult income earner) left me so I do not have the ability to continue the business.	
23. I am pregnant or now have another person to care for (lack of time or ability to continue the business at the same level).	
24. I am moving out of the area.	
25. A family member told me to stop borrowing from the program.	
26. My religion/culture forbids me from taking loans any longer	

F2.e)
Community and economic reasons:

	Rank
27. My business was ruined by a disaster (such as robbery; fire; flood; hurricane).	
28. A major new competitor moved into the area and many of my customers now buy from the competition	
29. Poor economic conditions have left my customers with less money with which to buy my goods or services.	

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F2.f)

Other reasons	Rank
30. Other *(specify)*:_____ _____	
99. Don't know	

Thank you so much for your time. Your answers would be used to help

improve the programme for other borrowers. Good luck.