

**FACTORS INFLUENCING LOAN REPAYMENT AMONG SMALL SCALE
WOMEN FISH PROCESSORS IN THE TEMA METROPOLIS**

BY

MATILDA AMAKUOR ODONKOR

**THIS THESIS IS SUBMITTED TO UNIVERSITY OF GHANA, LEGON IN PARTIAL
FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF
PHILOSOPHY (M. PHIL.) DEGREE IN AGRICULTURAL EXTENSION**



**DEPARTMENT OF AGRICULTURAL EXTENSION COLLEGE OF
AGRICULTURE AND CONSUMER SCIENCES UNIVERSITY OF
GHANA, LEGON**

JULY, 2013

DECLARATION

I, MATILDA AMAKUOR ODONKOR, do hereby declare that except for the references which have been duly cited, this thesis, titled “**FACTORS INFLUENCING LOAN REPAYMENT AMONG SMALL SCALE WOMEN FISH PROCESSORS IN THE TEMA METROPOLIS**” is my own original work and that it has not been presented in whole or in part for any degree at this University or elsewhere.

.....
Matilda Amakuor Odonkor (Student)

.....
Date



.....
Dr. Owuraku Sakyi-Dawson (Principal Supervisor)

.....
Date

DEDICATION

Dedicated to my husband William, and children Bernice, Amanda and Sedem.



ACKNOWLEDGEMENT

May I begin by expressing my indebtedness to my supervisor, Dr. O, Sakyi- Dawson, with whom it has been a pleasure to work, both for his thorough reading of the entire work and also for his invaluable comments, criticism and suggestions. His tolerance, encouragement and contribution of useful ideas did not only help to improve the standard and quality of this work, but also added to my self- confidence which contributed to the success of this work.

My appreciation goes to my colleague, Mr. Dersiderious Wekem of Department of Agricultural Extension of the University of Ghana, Legon, who assisted me during the analyses of my data. My sincere thanks go to Esther of Christian Community Microfinance Limited and loan officials of Opportunity International and the Dangbe Rural Bank. My appreciation goes to Mr. Charles Dawutey and the staff of the Ministry of Food and Agriculture (MoFA), who assisted me in various ways.

I wish to state that, all the contributions to this study do not in any way, rule out any possible shortcomings. Where any such shortcomings exist, the responsibility is solely mine.

ABSTRACT

The focus of many microfinance institutions (MFIs) as well as African governments and other development partners now is to increase the productivity of the agricultural sector by improving the condition of women. One way of doing this has been provision of microfinance services. Evidence suggests that the credit given to women have achieved high loan repayment rates and high yield value in terms of welfare benefits. Despite these potential, women fish processors within the Tema Metropolis have high loan default rates. The high default by these women fish processors is, thus, in contradiction with the dominant evidence in the literature which argues that targeting women usually ensure better loan repayment rates and efficiency in implementation of microfinance services. Fish processing is a livelihood activity for women in the Tema Metropolis. A gap in knowledge exists in explaining whether the characteristics of MFIs and the suitability of their product are related to loan repayment, or whether it is socio-economic characteristics of the women borrowers, and their enterprises which affect loan repayment. The study was set out to determine the extent to which these different factors are related to poor loan repayment by women fish processors in the Tema Metropolis, of Ghana. The method used involved collection of cross sectional survey data from three MFIs and one hundred and fifty two women fish processors who operate within the Metropolis. The data collected were analyzed using various statistical tools such as frequencies, percentages, chi square, student t-test and regression analysis. The results of the study show that loan repayment rates are higher amongst clients of formal MFIs than for clients of semi-formal MFIs and could be related to product attributes. The study results also show that some socio-economic characteristics of the processors such as level of education, attributes of the fish processing enterprise such as size, number of people engaged and the enterprises' performance affect loan repayment significantly. It is concluded that interventions aimed at improving the characteristics of MFI products and the performance

of the enterprises will improve loan repayment amongst women fish processing entrepreneurs in the Tema Metropolis.

TABLE OF CONTENT

Title	Page
DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT.....	iv
TABLE OF CONTENT	vi
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF APPENDICES.....	xiii
LIST OF ABBREVIATIONS.....	xiv
CHAPTER ONE	1
INTRODUCTION	1
1.0 Background of the Study.....	1
1.1 Problem Statement	3
1.2 Research Question.....	6
1.3 Research Objectives	7
1.4 Hypotheses	7
1.5 Justification	7
1.6 Definition of Key Terms	8
1.7 The study area	9

1.8	Organization of the Study.....	10
CHAPTER TWO		11
LITERATURE REVIEW		11
2.0	Introduction	11
2.1	Formal, Semi –Formal and Informal Financial Institutions	11
2.2	Overview of the Small and Medium Scale Enterprise Sector.....	13
2.3	The Role of Credit in Success or Failure of Small to Medium Scale Businesses...	18
2.4	The Role of Credit in Women’s Empowerment	22
2.5	The Importance of Credit in Affirmative Actions	25
2.6	Causes of Credit Failures in Small Scale Agro Processing Businesses.....	28
2.7	The Causes of Credit Defaults amongst Women Groups	29
2.8	Institutional Factors Responsible For Credit Failures	31
2.9	Attributes of Credit Products Responsible For Defaults	32
2.10	The Challenges Faced by Women in Agro-processing Businesses	33
2.11	The Challenges Faced By Women Fish Processors.....	35
2.12	Fish Processing Methods Available to Women Groups	37
2.13	Personal characteristics of fish processors	38
2.14	Nature of Fish Processing Enterprises.....	39
2.15	Microfinance institutions characteristics and loan repayment	40
2.16	Summary.....	42
CHAPTER THREE		43

RESEARCH METHODOLOGY	43
3.0 Introduction	43
3.2 Sample Selection	45
3.3 Types of Data and Methods of Data Collection	46
3.4 Analytical methods	46
CHAPTER FOUR.....	49
RESULTS AND DISCUSSION	49
4.0 Introduction	49
4.1 Characteristics of the financial Service providers	49
4.1.1 The MFI Products and Service Characteristics	51
4.1.2. Education Level	56
4.1.3 Number of Children of MFI Clients.....	56
4.1.4 Number of Adults in a Family of MFI Clients.....	57
4.1.5 Marital Status	58
4.1.6 Household Size of MFI Clients	60
4.1.7 Gender of Household Heads of MFI Clients.....	60
4.2 Characteristics of Clients and their Enterprises	62
4.2.1 The Attributes of the Fish Processing Enterprise	62
4.2.2 Mean Expenditure on Fish Processing Before and After Loan Compared.....	64
4.2.3 Changes in Enterprise Expansion.....	68
4.2.4 Participation in capacity building of clients	68

4.3	Fish Processing Clients Perception of Attributes of Products and Services Provided by MFIs.....	71
4.3.1	Frequency of Loans Taken.....	71
4.3.2	Requirements for Loan Application Approvals	72
4.3.3	Frequency of loan application before loan is granted.....	73
4.3.4	Challenges Faced by Respondents in Accessing Loans	75
4.3.5	Challenge to Loan amount Granted	76
4.3.6	Follow-up Services after Loan Disbursement.....	77
4.4	Loan Repayment.....	78
4.4.1	Reasons for Difficulty in Loan Repayment.....	79
4.5	Factors Influencing Loan Repayment.....	81
4.5.1	Age.....	81
4.5.2	Educational Level	81
4.5.3	Gender of Household Head.....	82
4.5.4	Household Size.....	82
4.5.5	Marital Status	83
4.5.6	Number of People Engaged	83
4.5.7	State of the Fish Processing Enterprises.....	84
4.5.8	Size of the Fish Selling of the Enterprise	84
4.5.9	Selling Price	84
CHAPTER FIVE		86

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	86
5.0 Introduction	86
5.1 Summary of the Findings	86
5.2 Conclusions	88
5.3 Recommendations	89
5.4 Limitations of the Study	90
REFERENCES	92
APPENDICES	100

LIST OF TABLES

Table 1: Types of Financial Institutions	13
Table 2: Distribution of sampled respondents by location	46
Table 3: Summary of Comparative MFI Characteristics	51
Table 4: Summary of comparative MFI product and services characteristics	54
Table 5: Summary of socio-economic characteristics of the women fish processors	59
Table 6: Household Size of MFI Clients	60
Table 7: Gender of household heads of clients	62
Table 8: Attribute of fish smoking enterprises of clients	64
Table 9: Mean expenditure on fish processing before and after the loan	67
Table 10: Changes in enterprise expansion	68
Table 11: Participation in capacity building activities	69
Table 12: Frequency of loans taken	72
Table 13: Requirement for loan approval	73
Table 14: Frequency of loan application before loan was granted	75
Table 15: Perception of respondents on challenges of accessing loans	76
Table 16: Challenge to loan amount granted	77
Table 17: Follow-up visits after Loan Disbursement	78
Table 18: Loan Repayment (Recall)	79
Table 19: Ranking of reason for difficulties in loan repayment	80
Table 20: Regression results of factors influencing loan repayment	85

LIST OF FIGURES

Figure 1: Conceptual Framework	44
--------------------------------------	----

LIST OF APPENDICES

Appendix 1: Questionnaire for Fish Processors.....	100
Appendix 2: Checklist for individual interviews with the MFI personnel	106
Appendix 3: Map of the study area.....	109

LIST OF ABBREVIATIONS

CCML	Christian Community Microfinance Limited
EDAIF	Export Development and Agricultural Investment Fund
FAO	Food and Agricultural Organization
FNGO	Financial Non-governmental Institution
GEBSS	Graduate Employment Business Support Scheme
GRATIS	Ghana Regional Appropriate Technology and Industrial Service
GYEEDA	Ghana Youth Employment and Entrepreneurial Development Agency
GTZ	Gesellschaft fur Technische Zusammenarbeit.
MDG	Millennium Development Goal
MFI	Micro Finance Institution
MMDA	Metropolitan, Municipal and District Assemblies
MOTI	Ministry of Trade and Industry
MSE	Micro and Small Enterprise
NBSSI	National Board for Small Scale Industries
NYEP	National Youth Employment Programme
OI	Opportunity International
RB	Rural Bank
SME	Small and Medium Scale Enterprise
SSNIT	Social Security and National Insurance Trust
SPSS	Statistical Package for Social Sciences
UNIDO	United Nations Industrial Development Organization
YESDEC	Youth Enterprise and Skills Development Center

CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

Agriculture is central to food security and economic growth in developing countries and provides the main source of livelihood for three out of four of the world's poor (Wheeler and Kay, 2010). In most developing countries, agricultural credit is considered an important factor for increased agricultural production and rural development because it enhances productivity and promotes standard of living by breaking the vicious cycle of poverty of small scale farmers and fishers (Adebayo and Adeola, 2008). Credit or loanable fund is regarded as more than just another resource such as land, labour and equipment, because it determines access to most of the resources required by farmers. The explanation is that the adoption of new technologies necessarily requires the use of some improved inputs which may be purchased. Credit also acts as a catalyst for rural development by motivating latent potential or making under used capacities functional (Oladeebo and Oladeebo, 2008).

In fact, low productivity in agriculture, livestock and fishing is generally attributed to the use of poor technology resulting from limited access to credit. Moreover, it is perceived that this inadequate credit facility has to a large extent discouraged the entry of women and the youth to the farming and fishing sectors, and left majority of them unemployed because of lack of investment capital and incentive. The Food and Agriculture Organization (FAO) argues that studies in Africa show that the poor achievement of the agricultural goals on the continent in terms of efficiency, sustainability and equity is due to the predominant practice of directing resources to men only (FAO, 1993). The provision of agricultural finance has therefore been regarded as an important tool for raising the incomes of women, mainly by mobilizing resources to more productive uses. The focus of many microfinance institutions as well as

African governments and other development partners now is to increase the productivity of the agricultural sector by improving the condition of women, especially those in the rural and semi-urban areas. This they do by making available to them credit facilities with education. Pitt et al. (2003) reiterated that these programmes specifically target women because they are more credit constraint than men as such they are most at times unable to invest in profitable alternative businesses particularly in agriculture and fish related activities. Evidence also suggests that the credit given to these women have high yield value in terms of welfare benefits. Cheston and Kuhn (2002:9) summarized the rationale for targeting women for financial support as ensuring efficiency and sustainability of microfinance institutions: microfinance schemes run efficiently due to women's cooperation and good repayment records. Their lower arrears and loan loss rates have an important effect on the efficiency and sustainability of the institution. Johnson and Rogaly (1997) also confirm the forgoing argument that women are usually targeted to ensure better loan repayment rates and efficiency in implementation of microfinance services rather than for any other concerns.

Fatchamps (1997) noted that, with adequate funds, farmers and fishers can invest in new equipment and machinery, and reach out to new markets and products. He further contends that without financial assistance, small farmers and artisanal fishermen as well as fish processors cannot cope with temporary cash flow problems, and are thus slowed down in their desire to innovate and expand. The general perception is that access to external finance is critical for poor entrepreneurs, especially women, who may never have funds proportional to their ambitions. Access to capital is thus said to be critical for the entrepreneurs and essential for the development of small-scale enterprises/businesses (Leaman, Cook and Stewart, 1992).

In Ghana for instance, agriculture contributes an average of 29.9% to Ghana's GDP and employs about 60% of the work force (ISSER, 2011). The sector is therefore considered as the foundation of industrial development, and consequently of Ghana's overall economic

development. Growth in the sector is therefore expected to have a greater impact on a larger section of the population than any other sector. The development of the sector is therefore important for the development of the economy as a whole.

The fisheries subsector in Ghana accounts for 5 percent of the country's agricultural GDP and it is the most common livelihood activities for women in the coastal areas as they are engaged in the processing and marketing of fish (DoF, 2006). The role of these women in food production, processing and marketing has thus become more relevant as a way of fighting poverty and ensuring food security in the country. However, one of the major problems confronting these women fish processors is poor access to adequate capital. They are generally undercapitalized due to operational difficulties in accessing finance. Lack of working capital and low liquidity limit their ability to purchase productivity enhancing inputs and adequate stock for their processing activities. In response to this need, some MFIs and Non-Governmental Organizations have resorted to provide credit to these women in the Tema Metropolis to cater for the credit needs of their activities. However, in spite of the efforts made by these financial institutions and the importance of these loans in carrying out their processing activities, its repayment has been fraught with a number of problems among the women fish processors (Awoke, 2004). The high default by these women fish processors is however in contradiction with available literature which argues that targeting women usually ensure better loan repayment rates and efficiency in implementation of microfinance services rather than for any other concerns.

1.1 Problem Statement

Fish processing is an important livelihood activity for women in the Tema Metropolis. In order to expand their businesses, the women access loans from Micro Finance Institutions (MFIs). However, repayment of these loans has been problematic.

The poor or low repayment of the borrowed funds in accordance with the loan terms constitutes a major concern to the Micro Finance Institutions (MFIs). This involves non-repayment of both principal and interest by these fish processors. Losses in both principal and interest to these institutions can result in loan shrinkage, liquidation and ineffectiveness (Arene, 1993). It is therefore envisaged that these financial institutions which are providing services to these women fish processors and the country at large might not be sustainable in the future as the money is not recovered for it to be recycled for the benefits of other processors.

The high default rates in small-scale credit have been attributed to several factors. In fact, conventional economic theories on credit default have been sparse and have shown mixed and contracting views among different schools of thoughts as to why people might default especially in most developing countries. On the one hand, there are those who argue that the characteristic of the borrower greatly affects the repayment performance. According to Gebeyeu (2002), factors such as age, education, sex, experience, marital status and household size, can influence the repayment performance of clients. He for instance noted that borrowers, who are more educated, could acquire more knowledge so that his / her efficiency in allocation of resources increase and so does the proper utilization of the loan. His ability to adapt to changing situation would be better than illiterate ones, hence would have positive relation with loan repayment. Gebeyeu (2002) further argued that, if a borrower has large household size, a considerable amount of income from the project could be diverted away from loan repayment to household consumption. Vigano (1993), in employing a credit scoring model for the development banks, taking the case of Development Bank in Burkina Faso identified borrower characteristics as influencing credit default. The study revealed that being woman, married, aged and educated were negatively related to loan default.

Some schools of thought have, however, linked repayment performance to economic shock (Tedeschi, 2006). This school of thought argues that borrowers may be willing to pay their loan obligation but their cash flow may not be high enough to repay the loan obligation. Many entrepreneurs, while borrowing on the basis of anticipated production, are exposed to natural disasters, a decline in market prices, lack of buyers of produce or loss due to poor storage conditions. These factors can result in lower than expected revenues. Such falls in revenues can often lead to high default rates on loans.

Another school of thought has argued that it is the characteristics of the lending institution and the suitability of the product that makes it unlikely that loan will be repaid (Roslan, Mohd and Zaini, 2009; Njoku, 1997; Ugbomeh et al, 2008). Stearns (1995) argues that it is the lender not the borrower, who causes or prevents high levels of delinquency in credit programs. Copisarow (2000) found that defaults generally arise from poor program design or implementation, not from any essential problems. As such, failure of lending agencies in playing their roles in loan disbursement and recovery process is a major contribution to loan default (Okorie and Iheanacho, 1992; Vigano, 1993; Fry, 1995). These researchers contend that determining credit worthiness requires investment of time and resources to evaluate firm specific and industry wide variable, structural or cyclical, by analysts with specific professional skills. A mistake on the evaluation of the borrowers' characteristics or the introduction of inappropriate loan conditions may increase the total risk of the transaction (Vigano, 1993).

The characteristics of small-scale enterprises have been found to be major factors especially in developing countries that influence loan default. Small scale enterprises often have little management expertise, often with little experience and training. They are usually undiversified; one product firms, and is sometimes new businesses, with little track record, and poor financial recording. They may have a new unproven product, little to offer by

way of security to a lender and may be reluctant to raise outside equity capital for reasons of expense, loss of control and increased disclosure requirements. These characteristics of small-scale enterprises provide little incentive for any aggressive loan recovery mechanisms (Pischke, 1980; Beker and Dia, 1987; Kitchen, 1989; Okorie and Iheanacho, 1992; Chirwa, 1997).

In Ghana, studies have been done on micro credit in general, but there is paucity of information on the causes of loan default amongst women fish processors. Many MFIs have also recorded high defaults among their women clients. It is to fill this gap in research knowledge that this study is proposed on the analysis of factors influencing loan repayment among women fish processors in the Tema Metropolis. This study, therefore, seeks to determine the extent to which the different factors contribute to the poor loan repayment amongst fish processors in the Tema Metropolis.

1.2 Research Question

The general research question raised is what is the level of the loan default by fish processors in the Tema Metropolis and what are the factors that explain loan default?

The specific research questions are:

- 1) What are the characteristics of MFI products and their suitability to the MFI client?
- 2) How do socio-economic characteristics of borrowers influence fish processors loan repayment?
- 3) How does the nature of fish processing enterprises affect loan repayment?
- 4) How does performance of enterprise affect fish processors loan repayment?

1.3 Research Objectives

The main objective of this study is to examine the various factors that contribute to poor loan repayment by women fish processors in the Tema Metropolis.

The specific objectives of the study are:

- 1) To identify MFI product characteristics and their suitability to MFI clients.
- 2) To determine whether socio-economic characteristics of women fish processors influence loan repayment in the study area.
- 3) To examine whether the nature of fish processing enterprises has an influence on loan repayment.
- 4) To determine the performance of women fish processors enterprise on loan repayment

1.4 Hypotheses

The study seeks to collect data to test the following hypotheses that:

- 1) MFI characteristics and products suitability have influence on loan repayment.
- 2) Socio-economic characteristics of women fish processors in the study area influence loan repayment.
- 3) The nature of fish processing enterprise of women fish processors influence loan repayment.
- 4) The performance of fish processors enterprises affects loan repayment

1.5 Justification

The study will contribute to the stock of knowledge on the factors that influence loan repayment among women fish processors in the study area. The findings of this research will enable fish processors to look at factors that would work to their advantage to maximize profit

and expand their business and be able to repay their loans. It will enable MFIs identify and design products to solve these difficulties. It will also reduce the operational difficulties encountered in accessing credit by these fish processors.

Secondly, it is hopeful that the findings of this research will enhance civil society's role of building farmers' capacity to organize, generate and utilize resources effectively. Results will also assist the civil societies carry out roles of advocacy which will ensure that barriers to credit are addressed.

The study will also provide useful information that will enable policy makers to formulate constructive and effective policies towards ensuring comprehensive and sustainable financial packages and programs for the development of agriculture, especially in rural settings.

1.6 Definition of Key Terms

The following terms have been defined to facilitate understanding of this work:

MFI characteristics: Refers to attributes of the MFI such as the mission statements, objectives and scales of businesses the MFI intend to support. These attributes influence product design of the MFI.

Product suitability: Refers to a measure of how convenient the usage of the product to the MFI client and his intended purpose.

Socio-economic characteristics: These are features that relate to the social standing and the economic strength of the MFI individual client. These tend to affect the economic performance of the individual MFI clients. The socio-economic characteristics that were considered in this study included age, marital status, family size, educational level and experience.

Nature of enterprise: Refers to the type of business the enterprise is involved in, the size of the enterprise, the source of labour, number of people engaged /employed and other unique

features of the enterprise. These features seek to affect the performance of the enterprise, economically.

Performance of enterprise: The performance of the enterprise involved the cost of operation, revenue, cost of living, income from other sources and profitability. The performance of the enterprise was measured using the mean expenditure of the enterprise before and after collecting the loan and profitability before and after accessing the loan.

Loan repayment: The act of making payments towards a loan or the payments themselves within a specified period.

1.7 The study area

The study focused on women fish processors in the Tema Metropolitan Assembly (TMA) in the Greater Accra Region. Tema Metropolitan Assembly is a coastal district situated about 30 kilometers east of Accra, the capital city of Ghana. It lies on latitude 05 37' North of the Equator and longitude 0 01' West of the Greenwich Meridian. The metropolis shares boundaries on the North East with the Dangme West District Assembly (DWDA), Southwest by Ledzokuku Krowor Municipal Assembly, Northwest by Adentan Municipal Assembly and the Ga East Municipal Assembly (GEMA), North by the Akuapim South District Assembly and the South by the Gulf of Guinea. The Metropolis covers an area of about 396km and lies within the coastal savannah zone. It is this ocean to the south of TMA that creates the source of livelihood for fishermen and their dependants. Tema is also a port city with a large artificial harbour known as the Tema harbour. The harbour has a fish landing harbor known as the Tema Fishing Harbour. Most fishing trawlers and vessels dock and discharge their fish catch into cold stores in Tema. Many fish importers and foreign fishing vessels also store their imported fish or catch in cold stores around Tema and Kpone. Most women in Tema trade either in fresh fish or processed fish. Most women fish processors are located along the coastal settlements

and build fish smoking ovens of various types to smoke fish for sale. Kpone is also a major settlement. Tema is also a major industrial city in Ghana. The worker population in Tema is very high and this serves as a market for the women fish processors.

The main occupation of the indigenous people of Tema is fishing and the women contribute to the success of the chain by processing the catch for re-sale. The industrial nature and the harbour city status of Tema, attracts many microfinance institutions to the area. The CCML which has its national Head office in Accra also has a branch in Tema Community two. The Opportunity International (OI) also has its branch in Tema Community one while the Dangbe Rural Bank has branches both in the Kpone town and Tema Newtown. These different microfinance institutions have many clients amongst women groups in Tema. These groups include the fish processors within the TMA.

The total population of Tema is 402,637, with 193,334 being males and 209,303 being females (Ghana Statistical Service, 2010). The structure of the population includes low income, middle and higher income groups. The area depicts a typical Ghanaian metropolis and is very cosmopolitan in nature. The three micro finance institutions sampled by this study, all operate within the Tema metropolitan area. Their microfinance products finance most of the women fish processors in the metropolis. See appendix 3 for the map of the study area.

1.8 Organization of the Study

The study is organized into five chapters. The first chapter looks at the background of the study, problem statement, objectives and relevance of the study. The chapter two is the review of literature relevant to the study. Chapter three covers the methodology used to achieve the set objectives. Chapter four presents the results and discussions of the study. Finally, chapter five presents the summary, conclusion and recommendations based on the results.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature underpinning the study. Literature on various aspects of women's involvement in agricultural processing activities and the linkages between microcredit and such activities was reviewed. Some general literature was reviewed on overview of the small and medium scale enterprise sector. Literature was also reviewed on the role of credit in the success or failure of small to medium scale businesses. Further literature was also reviewed on causes of credit failures in small scale agro-processing businesses and on some methodology for the study. The role of credit in women's empowerment, the causes of credit defaults amongst women groups and the importance of credit in affirmative actions were other topics on which literature was reviewed.

2.1 Formal, Semi –Formal and Informal Financial Institutions

The rural financial market in developing countries is composed of formal, semi-formal and informal financial institution. Ghate (1992) defined formal financial services providers as registered companies that are licensed to offer financial services by Central Monetary Authority. He asserted that these institutions are largely urban-based in terms of distribution of branches and the concentration of deposit and lending activities. According to Kashuliza *et al* (1998) informal financial services refers to all transaction, loans and deposits that take place outside the regulated monetary system this include activities of intermediaries such as relatives and friends, traders, money lenders. Semi-formal institutors are described by Steel and Andah (2005) as institutions which are registered to provide financial services and are not controlled by central monetary authority. Financial services are therefore provided by a variety of financial intermediaries that are part of the financial system. Germidis, Kessler, and Meghir

(1991) also categorized the financial sector into three levels: the formal, semi-formal and informal financial sectors. The formal financial sector included the central bank, banking and non-banking financial intermediaries (commercial banks, merchant banks, development banks, savings banks, building societies, postal savings networks, specialized financial institutions, social security schemes, provident funds, and insurance companies), and capital markets. The semi-formal entities included savings and credit co-operatives and credit unions. “Semi-formal” was defined as having no registration or regular supervision although the rules of functioning may have been laid down by law. The co-operative movement was significant because it provided an alternative form of financial intermediation for small-scale savers and borrowers. It was based on the concept of self-help through mutual solidarity. The three basic types of informal financial sector were individual moneylenders, groups of mutually organized individuals, and partnership firms. The individual moneylenders included friends, neighbors, relatives, landlords, professional moneylenders, input dealers, output processors, produce and itinerant traders, market vendors, storeowners, and more. Group of individuals consisted of savings arrangements like fixed-fund associations, savings clubs, and combined savings and credit arrangements. Partnership firms included indigenous bankers and pawnbrokers in India and other non-bank financial intermediaries such as finance, investment, leasing and hire-purchase, and chit fund companies. According to Legerwood (1998), the major distinction between formal, semi-formal and informal providers of financial services, is based primarily on whether there is a legal infrastructure that provides recourse to lenders and protection to depositors. Table 1 gives an overview of this distinction by showing the segments of financial systems by degree of formality (Steel, 2006).

Table 1: Types of Financial Institutions

Tier	Definition	Institutions	Principal clients
Formal banks	Licensed by central bank	Commercial & development banks	Large businesses Government
Specialized non-bank financial institutions (NBFIs)		Rural banks Post Banks Savings & Loans companies Deposit-taking Micro banks	Large rural enterprises Salaried workers Small & medium enterprises
Semi-formal	Legally registered, but not licensed as financial institution by central bank	Credit unions Microfinance NGOs	Microenterprises Entrepreneurial poor
Informal	Not legally registered at national level (though may belong to a registered association)	Savings (susu) collectors Savings & credit associations, susu groups Moneylenders	Self-employed poor

Source: Author

A more detailed approach to distinguishing formal and informal financial services adds semi-formal services as a third segment to the above. While formal financial services are provided by financial institutions chartered by the government and subject to banking regulations and supervision, semi-formal financial services are not regulated by banking authorities but are usually licensed and supervised by other government agencies (Legerwood, 1998). Informal financial services are provided outside the structure of government regulation and supervision.

2.2 Overview of the Small and Medium Scale Enterprise Sector

In Ghana, available data from the Registrar General indicates that 90% of companies registered are micro, small and medium enterprises in 2004 (UNIDO, 2004). This target group has been

identified as the catalyst for the economic growth of the country as they are a major source of income and employment. Data on this group is however not readily available. The Ministry of Trade and Industry (MOTI), in 1998 estimated that the Ghanaian private sector consists of approximately 80,000 registered limited liability companies and 220,000 registered partnerships.

According to UNIDO, 2004 these target groups are generally, defined in Ghana on both the basis of number of employees and on the basis of amount of capital invested in fixed assets. On this basis, a micro enterprise is a business that employs up to 5 employees with fixed assets (excluding realty) not exceeding the value of \$10,000. A small enterprise is a business that employs between 6 and 29 employees with fixed assets of \$100,000 and a medium enterprise is a business that employs between 30 and 99 employees with fixed assets of up to \$1 million. On the basis of this, most women fish processing businesses within the Tema Metropolis will generally fall within the micro enterprise to small enterprise.

Data from the Social Security and National Insurance Trust (SSNIT), used by UNIDO, reflects that, by size classifications, the Ghanaian private sector is highly skewed, with 90% of companies employing less than 20 persons, and a small number of large-scale enterprises (UNIDO, 2004). On this basis, therefore, a typical profile of this target group shows clearly that they are, dominated by one person, with the owner/manager taking all major decisions. The entrepreneur in many cases possesses limited formal education, access to and use of new technologies, market information, and access to credit from the banking sector is severely limited. It is generally believed that management skills of the micro to and small scale businesses are weak, thus inhibiting the development of a strategic plan for sustainable growth. The group also experiences extreme working capital volatility, the group's lack of technical know-how and inability to acquire skills and modern technology impede growth opportunities.

Many non-financial constraints inhibit the success of such enterprises (UNIDO, 2004). Small medium enterprises (SME) owners are generally known to be reluctant to be transparent or open up their businesses to outsiders. They seem to be unaware of or oblivious to the obligations and responsibilities they have toward capital providers. This group is also known to be reluctant to the need to acquire or seek support for technical services like accounting, management, marketing, strategy development and establishment of business linkages. Management and support services are perceived by this group to be cost prohibitive and non-value adding. Many SMEs have not taken full advantage of Government-sponsored business support services such as the National Board for Small Scale Industries (NBSSI), which operates in the 10 regional capitals under the Ministry of Trade and Industries and the Ghana Regional Appropriate Technology and Industrial Service (GRATIS), a foundation that provides skill training and basic working capital tools for start-ups.

Some researchers believe that the single most important factor constraining the growth of the SME sector is the lack of finance. There are many factors that can be adduced for this lack of finance. These include relatively undeveloped financial sector with low levels of intermediation, lack of institutional and legal structures that facilitate the management of SME lending risk and high cost of borrowing and rigidities in interest rates.

Because of the persistent financing gap, many interventions have been launched by governments and development partners to stimulate the flow of financing to SMEs over and above what is available from exiting private sector financial institutions.

In addition to donor-supported schemes for direct lending, government has attempted at various times to operate lending schemes for SMEs. The schemes have included Business Assistance Fund which was operated in the 1990s to provide direct government lending to the SME sector. The program was widely seen to have been abused politically, with most of the loans going to perceived government supporters. The Ghana Investment Fund which

was set up in 2002. The Ghana Investment Fund Act (Act 616) was passed to establish a fund to provide for the grant of credit facilities by designated financial institutions to companies. The scheme, however, was never implemented. The Export Development and Investment Fund (EDIF) which now includes agriculture and so renamed Export Development and Agriculture Investment Fund (EDAIF) was set up to provide funds for companies with export programmes and these companies can borrow up to \$500,000 over a five-year period at a subsidized cedi interest rate of 15%. While the scheme is administered through banks, the EDAIF board maintains tight control, approving all the credit recommendations of the participating banks. Another source of funding is Graduate Business Support Scheme (GEBSS). This is also a partnership between government of Ghana and the private institution to support the SME in the country. This is geared towards employment creation among graduate in the country to resolve high unemployment rate in the country. Graduate who wish to enter into entrepreneurship submit their business plans and when it is approved, funds are released for such purposes. Government and international donors provide funds for this scheme.

Another funding and employment scheme is the National Youth Employment Programme (NYEP) which now is Ghana Youth Employment and Entrepreneurial Development Agency (GYEEDA). This programme has a number of modules that includes but not limited to Youth in Agriculture, YESDEC, Youth in Road Maintenance, etc.

In general, all these efforts have so far been targeted at growth oriented large enterprises. Although there appears to be a good number of potentially viable investments in the Small and Medium Scale Enterprises finance continue to be the most setback in its operations.

Small and medium sized segment, the risks and costs involved in managing shareholding in SMEs have so far rendered those investments not interesting. Usually, lack of management skills and inappropriate management systems causes much higher business failure risks for SMEs than for large companies. To counterbalance these risks through increased involvement into the day-to-day management of the firms results in high costs for the venture fund that can hardly be recovered through the return of the comparatively small investments.

The formal financial sector in Ghana comprises commercial banks (including Merchant Banks and Development Banks), 17 of which operate a network of 303 branches in the country; 115 rural and community banks, savings and loan companies and non-bank financial institutions. Recently, as banks and other financial institutions have sought to broaden their loan portfolio, SMEs have become an increasingly attractive customer group (UNIDO, 2004). Traditionally, however, financial institutions in Ghana have been cautious with lending to SME groups because of high default rates and risks associated with the sector. Few banks have therefore developed an explicit policy for SME target groups taking the particular requirements and needs into consideration, e.g. developing earmarked financial products and appropriate credit management systems.

Only few banks have SME specific loan products, and many of these are donor funded. Few banking institutions have SME desks or departments. For the others, lending to micro and small businesses is simply transacted by credit officers from corporate finance departments of the bank who generally apply the same appraisal and lending principles to SMEs. None of the commercial banks have any specialized training for credit officers in proven SME lending techniques, and most credit officers do not have any prior SME specified experience.

Recently, banks and other financial institutions have traditionally looked at the MSE sector with caution. In this regard, there are usually no separate MSE lending policies, and loan requests are handled quite stringent. Some institutions only give cash-secured overdrafts to

enterprises for a maximum of a six-month period after which the transaction can be renewed, pending revision. This type of overdraft can be secured by the borrower upon presentation of fixed deposit or treasury bills. A maximum of 95% of their value is granted, with a lien placed on them, to minimize the risk of default.

2.3 The Role of Credit in Success or Failure of Small to Medium Scale Businesses

Poverty and the lack of financial support to expand or sustain their sources of livelihood made the majority of poor women, especially those in rural areas, socially and economically disempowered. It is important to note that when women are economically disempowered, children are the worst affected.

When women have access to credit, they develop financially with many who depend on them, empowering them significantly. The provision of micro-credit could empower women economically and socially to contribute effectively towards the development of themselves, their children and the society at large. This role, according to Yunus (2000) is also essential to global economic and social development in the coming decades. Micro-credit programs are believed to engender self-confidence, self-reliance and a culture of independence such that women are able to believe in their own agency to significantly improve upon their lives through access to small loans. The microcredit availability empowers women and this helps retrieve poor families from depths of deprivation and despair into hope, self-esteem and a sense of dignity. Many believe women groups are able to repay such micro-credit extended to them. Yunus (2000) reported that the high records of repayment and growth trajectory seem to suggest that micro-credit has potential for the empowerment of the poor and thus gaining increased popularity and support through micro-credit summit campaigns. The government support programmes on the other hand are designed either to increase the potential profit to the investors, or to reduce their risk of loss. For many SMEs, equity is only available from friends and family and from foreign investors. Domestic private equity is scarce. It is generally

accepted that the broad goal of SME policy is to accelerate economic growth and in so doing alleviate poverty. Government supports to SME provides immediate jobs or revenues but are not sustainable in the longer run. Such state support schemes provide opportunities for SMEs to meet their financing needs

Despite the increased support for micro-credit, there seem to be an ongoing debate in literature as to the effectiveness of micro-credit in the empowerment of women. The dilemma is whether access to micro-credit per se has an explicit ability to empower women considering its size and procedures. If they do, it is not clear in which ways women get empowered. It is also not clear what sorts of women get empowered. There is also no clear cut measures of the perspectives of women participants themselves about the micro-credit schemes, and finally, it is also not clear whether given the many social and economic factors that affect Ghanaian women, especially, those living in the rural areas, if mere access to micro-credit offer potential for their empowerment. According to Yunus (2000), the question about the relationship between micro-credit and women's empowerment has been debated by two different schools of thoughts.

Over the years the debate as to the actual effectiveness of micro-credit alleviating poverty has continued essentially focusing on two issues namely: whether micro-credits really reach the 'hard core poor' and whether they are able effect the intended changes for national development.

Two major schools of thought debate over the years whether provision of micro-credit is actually effective in alleviating poverty or not. This debate has continued essentially focusing on two issues, namely, whether micro-credits really reach the 'hard core poor' and whether they are able to successfully integrate financial sustainability with outreach. More recently, however, the focus of the debate has been extended to the possible potential of micro-credit for women's empowerment given that the amounts of loans are usually very small with

high interest rates and high illiteracy level among rural women. Both positive and negative are held about the relationship.

Holders of positive views on micro-credit believe micro-credit has implications for women's economic and social empowerment, which in turn, has implications for their overall empowerment and improvement in their children's well-being that leads to increased investment in children's education (Chowdhury and Bhuiya, 2001). According to Chen (1992) women participants in credit programmes were more conscious of their rights, better able to resolve conflicts, and have more control over decision making at the household and community levels. Credit to women has positive effects on increases in women's asset holdings and is a significant determinant of total household expenditure that could lead to increased physical mobility, ownership and control of productive assets, decision-making and self-worth (Kabeer, 1998). Changes in gender power relations in favour of women, enhances women's control over their basic welfare needs such as health, nutrition and education that women could make major decisions at home. According to Cheston and Kuhn (2002) women's right to family planning, buying, selling property and negotiating children's marriages which traditionally were men's duty are possible when women are adequately empowered through provision of micro-credit. Micro-credits increases household income and leads to women's autonomy, enhanced self-worth and self-confidence. Significant reductions in domestic violence against women have been observed by Schuler et al (1997) and this they believe could lead to reduction in domestic violence against women. These researchers also reported that micro-credit availability can lead to increased want of better life for children and encouragement for girl-child education due to increased income. Other reported benefits include discouragement of early marriage, changed or improved diet patterns, improved status and participation in public life and in decision-making (UNFPA, 1992).

The school of thought that holds negative views about women's empowerment through availability of micro-credit gave many reasons to support their observation. Goetz and Gupta (1994) used managerial control over loans as an indicator of empowerment and concluded that majority of the women lacked control of the loans, but, had responsibility of repayments. This interpretation means a wide spread loss of control hence disempowering women and its consequent failure of repayment or refund. According to Ackerley (1995) it is also true that modernization of the microfinance could not alter patriarchal structures and gender relations, thus, women had no /little control over the usage of loan and its benefits. Kerr (2002) argued that micro-finance can also increase women's disempowerment through higher debt burden and unnecessary hardship. Kerr (1994) believes micro-credit is no better than 'nothing'. The tasks required from women were often difficult to perform, their products have little market potential and the implementing agencies have no technical competence to support which then makes their effort to succeed to very difficult (Buvinic, 1989, Kerr 2002, Navajas et al 2000). This school of thought believe that in so far as socio-cultural factors militating against women; such as women seeking the consent of husbands before taking loan and patriarchy, still persist and are perpetuated by society, women do not benefit from such schemes as expected. In support of this, Kerr (2002) has argued that on its own, micro-credit can sometimes increase women's disempowerment through higher debt and work burden since credit by definition is a liability. Furthermore, the pessimists believe that the optimists fail to control for what would have happened in the absence of such micro-credit schemes and also fail to measure the opportunity costs of women clients' time is one of the major setbacks that need recognition in this regard (Buvinic 1989, Navajas et al 2000).

A review of the literature, however, suggests that there is still little primary data to support the view that micro-credit leads to women's empowerment especially at the grassroots level in the Ghanaian context. This is because most of the organizations dealing with micro-credit

have not developed a method for tracking changes in levels of women's empowerment as a result of their access to micro-credit. It can be noted they just assume that women's empowerment is an implicit outcome (Malhotra et al, 2002). This gap research knowledge, this study seeks to abridge.

2.4 The Role of Credit in Women's Empowerment

From the desk review, consensus was hard to find. It appears that the concept of women's empowerment has changed over time from economic and financial empowerment to a broader concept including psychological, socio-cultural, relational, legal and political factors. Most writers agree that freedom of action and choice is essential and that empowerment is a process. According to Majoor and Manders (2009), there is even less agreement on the measuring of empowerment and the proper indicators to be used. Most writers agree that women's empowerment has many aspects. This is further complicated by the difficulty of ranking the importance of these aspects and the realization that gender equality does not necessarily equal optimal empowerment.

Women's empowerment through credit finance is an important consideration in activities targeted at world-wide development. In microfinance, gender equality and women's empowerment are also seen as a priority nowadays. However, the concept is a difficult one that can vary geographically, amongst stakeholders and in time (Majoor and Manders, 2009).

An organization that offers financial services to the working poor through its project partners must take women as the center of their activities. As such, they must be interested in the different concepts of women's empowerment and the related consequences for clients at the grassroots level. Since the conception of women empowerment some organizations have placed high value on "people", and gender which has always been an important

element within their operations. Microfinance contributes to women's empowerment, especially in economic terms, by offering women the opportunity to use their skills and talents to earn a living. Microfinance for women also correlates with better health and nutrition for women and their households. However, women sometimes face constraints, like the double burden of running a business while bearing responsibility for the majority of caring tasks. It is also believed that husbands use their wives' microfinance money that women are not free to spend the money they earn, or that women are not involved in decision-making at various levels.

Most women have the opinion that there is nothing they could not do for being a woman but with support in the form of credit, the sky would be their limit. As a result of their business activities, most women reported positive changes in many aspects of their lives, except, notably, on decision-making in the household (Majoor and Manders, 2009). In certain households where the family head takes almost all the decisions female clients require the consent of their husbands before going for loans to support their businesses.

Most of the clients have become happier, more self-confident and more respected in the community. Some have even been able to create employment in their communities. For clients, the financial aspect and growth of their business is the most important consequence of their involvement in microfinance and has led to their empowerment. Economic benefits were major factors that have seen the most improvement; like self-reliance, financial autonomy, ability to support the family and psychological factors which also includes self-esteem, self-confidence, perceived esteem from others and fulfillment of dreams were deemed most important by all women interviewees. Capacity building on financial, legal and gender issues, technical, entrepreneurship, personal development and health issues is other services that could increase women empowerment

The characteristics of an empowered woman mentioned were inspiring, confident, courageous, and charismatic and many other positive adjectives. Apparently, the empowered woman is seen as someone to be envied. Progress of women in their ability to make choices and become self-reliant, facilitated by the availability of microfinance cannot be underestimated. It gives them automatic energy and psychological edge to perform better to support the household. It also keeps them away from homes as housewives to become business women in their own abilities and efficiencies. Microfinance has been used in development for many decades. Interest in women's empowerment as well as women's access to microcredit has increased since the International Women's Conference in Mexico in 1975 (Majoor and Manders, 2009). There was rapid growth in microfinance that supports women. Despite interest in women's empowerment, microcredit was initially mostly aimed at poverty alleviation. Only in the last 15 years has women's empowerment come to play a major role in microfinance. Today, microfinance is now seen as one of the strategies to help reduce the stigmatization and social beliefs that undermine the competence and abilities of a woman to achieve in life. The contribution of the microfinance towards women empowerment has gone a long way to achieving Millennium Development Goal 3 (MDG3) on gender equality (Majoor and Manders, 2009).

Microfinance may contribute to equality and equity by offering everyone the chance to deploy his/her talents, even those with no access to regular financial services. Microfinance offers "hope to many poor people of improving their own situations through their own efforts". This allows people to actively improve their own lives, in contrast to some development activities that use a more top-down approach.

Women are specifically targeted by microfinance strategies because they are, in general, poorer than men. Access to microfinance will automatically increase women's control over the household, thereby enhancing wellbeing and improving empowerment.

The financial-sustainability paradigm concept keeps our women to be financially dependent. Large self-supporting financial systems need to be created targeting small entrepreneurs. Women are specifically targeted as their repayment rate is higher. Apparently, microfinance often leads to poverty alleviation, economic emancipation and, hopefully, better well-being for all. But, income improvements are small and the assumed correlation between income and empowerment does not always materialize, even though it does often increase self-esteem, respect, status and networking.

This may mean that the level of women's empowerment does not change at all. Political empowerment, in particular, is hardly ever the direct outcome of microfinance. Even if the household situation has improved, gender inequality may be left untouched. To assure gender equality improves with increased income, personal supplemental effort may be war-ranted.

2.5 The Importance of Credit in Affirmative Actions

Microfinance has a very important role to play in development according to proponents of microfinance. UNCDF (2004) states that studies have shown that microfinance lays three key roles in development. These roles, the study identified as it offers help to the poor households and it enables these households to meet basic needs and protects them against risks. Micro-credit, the study also identified as associated with improvements in household economic welfare, helps to empower women by supporting women's economic participation and so promotes gender equity.

Otero (1999) illustrates the various ways in which "microfinance, at its core combats poverty". His study states that microfinance creates access to productive capital for the poor, which together with human capital, addressed through education and training, and social capital, achieved through local organizational building, enables people to move out of poverty. By

providing material capital to a poor person, their sense of dignity is strengthened and this can help to empower the person to participate in the economy and society. According to Otero (1999) the aim of microfinance is not just about providing capital to the poor to combat poverty on an individual level, it also has a role at an institutional level. It seeks to create institutions that deliver financial services to the poor, who are continuously ignored by the formal banking sector.

Littlefield and Rosenberg (2004) state that, the poor are generally excluded from the financial services sector of the economy so MFIs have emerged to address this market failures. By addressing this gap in the market in a financially sustainable manner, an MFI can become part of the formal financial system of a country and so can access capital markets to fund their lending portfolios, allowing them to dramatically increase the number of poor people they can reach. More recently, commentators such as Littlefield, Murdudh and Hashemi (2003), Simanowitz and Brody (2004) and the IMF (2005) have commented on the critical role of microfinance in achieving the Millennium Development Goals (MDGs). Simanowitz and Brody (2004,) state, “Microfinance is a key concept of poverty reduction.

The MDGs are to eradicate extreme poverty and hunger, to achieve universal primary education to promote gender equality and empower women and to reduce child mortality to improve maternal health. The strategy in reaching the MDGs and in building global financial systems is to meet the needs of the most poor. Littlefield, Murdudh and Hashemi (2003) state microfinance is a critical contextual factor with strong impact on the achievements of the MDGs. Microfinance is unique among development interventions as it can deliver social benefits on an ongoing, permanent basis and on a large scale. Referring to various case studies, these researchers show how microfinance has played a role in eradicating poverty, promoting education, improving health and empowering women.

However, not all commentators are as enthusiastic about the role of microfinance in development and it is important to realize that microfinance is not a silver bullet when it comes to fighting poverty. Hulme and Mosley (1996), while acknowledging the role microfinance can play to reduce poverty, concluded from their research on microfinance that most contemporary schemes are less effective than they might be. They state that microfinance is not a panacea for poverty-alleviation and that in some cases the poorest people have been made worse-off by microfinance. These researchers argue for the encouragement of a single-sector approach to the allocation of resources to fight poverty. They argue that with a single-sector approach, microcredit is irrelevant to the poorest people, and that those who advocate for the use of micro-credit to eradicate poverty use an oversimplistic notion of poverty and over-emphasis on scale. Over-reliance on micro-credit, this school of thought, believes leads to inadequate learning and change taking place to effect the necessary changes for development.

Much of the skepticism of MFIs stems from the argument that microfinance projects fail to reach the poorest, generally have a limited effect on income, drives women into greater dependence on their husbands and fail to provide services desperately needed by the poor. In addition, many development practitioners not only find microfinance inadequate, but that it actually diverts funding from more pressing or important interventions such as health and education. There is a danger that microfinance may siphon funds from other projects that might help the poor more. This school of thought states that governments and donors should know whether the poor gain more from microfinance, than from more health care or food aid for example. Therefore, there is a need for all involved in microfinance and development to ascertain what exactly has been the impact of microfinance in combating poverty.

Considerable debate remains about the effectiveness of microfinance as a tool for directly reducing poverty, and about the characteristics of the people it benefits (Chowdhury, Mosley and Simanowitz, 2004). Sinha (1998) argues that it is notoriously difficult to measure the impact of microfinance programmes on poverty. This is so, she argues, because money is fungible and therefore it is difficult to isolate credit impact, but also because the definition of 'poverty', how it is measured and who constitute the poor are fiercely contested issues".

Poverty is a complex issue and is difficult to define, as there are various dimensions to poverty. For some, such as World Bank, poverty relates to income, and poverty measures are based on the percentage of people living below a fixed amount of money, such as US\$1 dollar a day (World Bank, 2003).

2.6 Causes of Credit Failures in Small Scale Agro Processing Businesses

One of the major challenges facing microfinance credit facilities is the fear that clients may not honour their indebtedness. While some people find it difficult to access loans, others who have the opportunity to access the loans fail to pay back the loans on time making it difficult for others to also enjoy the same facility. Many rural banks, credit unions, loans and savings organizations, and financial NGOs have expressed their disappointment of clients' inability to pay back loans on time. This unfortunate revelation undermines the very purpose of the credit and loan schemes and contributes to the decline of national industrial development and poverty alleviation. This has prevented the small scale agro processing businesses to be a lucrative venture for financial institutions to give credit.

It is also beyond debate that the agro processing businesses in the country heavily depends on rainfall where the risks involved are very real. And since financial institutions wish to deal with businesses that have low risk and good return on their businesses so as to have the easiness to

retrieve their credits without stress. Particularly, women in tomato business do not know their fate until the farming season is at its peak before they can be sure good business or not.

2.7 The Causes of Credit Defaults amongst Women Groups

Credit default is a major problem that confronts all the financial institutions in the country. All financial houses have similar situations to contend with in terms of credit default. This problem is also real among the rural banks and the micro-finance institutions in the country. Several reasons were seen to be accountable for credit default particularly among our women groups in the country.

It was observed that some of the beneficiaries of credit do not use the funds for their intended purposes and that is why it is always difficult for them to repay the loan. Some use the loans to settle an old debt of the business while some use the credit obtained to do unprofitable expenditures which in turn makes it very difficult to pay back the loan. In another instance, some women groups apply for loans to buy and sell agriculture produce during the bumper harvest season where agriculture produce are cheap and profitable. But due to bureaucratic principles, it takes a very long time for the loan to be approved. The loans are sometimes approved, after the bumper harvest season was over. In view of this, women who obtain the loans cannot make enough profit to pay back the loan. Most of these women groups involve in businesses that are seasonal. If the loans applied are not given on time; the intended purpose cannot be met hence repayment becomes a difficulty.

Micro-credits are short term facilities. The short term period where credits given are to be repaid is one of the major causes of credit default in the country especially amongst women groups. Most rural banks and other micro-finance institutions give loans for a repayment period between six months and one year. Since most businesses are unable to start to make

profit after the first month of operation, beneficiaries of these credits use part of the credit obtained for their businesses to make initial repayment. This makes the capital remaining not enough to carry out needed expenses. Furthermore, most of these women are single parents. The effect is that, the family daily expenses are also taken from the credit obtained from the bank or the financial institutions. In Africa, particularly, because of poverty, families tend to give birth to more children. Payment of these children's school fees, shelter, clothing and food takes a greater portion of family income making it difficult for loan clients to repay the loans.

Business leaders who do not make good decisions to grow their businesses cannot make enough revenue to cover cost of operation let alone repaying their loans or credits. Education is therefore one of the main setbacks that confront the women groups in business management and repayment of their credits. This lack or low level of education most often results in credit default.

Most women enter into businesses because their colleagues are also engaged in such businesses and are seen to be making profits. They therefore do not take due diligence to assess the viability and sustainability of such businesses but would access credit from friends, relatives and financial institutions to enter these businesses. It is possible the colleagues are successful because of their personal attributes that keep them doing well in the businesses and not just availability of funds or credit. Therefore, lack of education even on how to run small and medium scale enterprises can cause women groups to default in their credit repayment.

Lack of storage facilities in the country causes some of their produce to go bad before the produce get to the market. If smoked fish meant for the market today does not sell within the day due to low demand, that fish could go bad by the next day without good storage. Tomato sellers who travel long distance to buy the goods from

remote production points cannot guarantee the shelf life of the commodity because of lack of storage facility. Therefore, if such business women do not meet high demand for their produce to finish on time, they lose part of their capital and so run into loan repayment difficulties.

2.8 Institutional Factors Responsible For Credit Failures

The formal financial sector in Ghana comprises commercial banks including Merchant Banks and Development Banks, 17 of which operate a network of 303 branches in the country; 115 rural and community banks, savings and loan companies and non-bank financial institutions (Osei, 2007). Recently, as banks and other financial institutions have sought to broaden their loan portfolio, SMEs have become an increasingly attractive customer group. Traditionally, however, financial institutions in Ghana have been cautious with lending to SME groups because of high default rates and risks associated with the sector.

Few banks have therefore developed an explicit policy for SME target groups taking the particular requirements and needs into consideration. For instance, a developing bank earmarked financial products and appropriate credit management systems. Only few banks have SME specific loan products, and many of these are donor funded. Few banking institutions have SME desks or departments. For the others, lending to micro and small businesses is simply transacted by credit officers from corporate finance departments of the bank who generally apply the same appraisal and lending principles to SMEs. None of the commercial banks have any specialized training for credit officers in proven SME lending techniques, and most credit officers do not have any prior SME specific experience.

Banks and other financial institutions have traditionally looked at the SME sector with caution. As a result, there are usually no separate SME lending policies, and loan requests are handled quite stringent. Some institutions only give cash-secured overdrafts to enterprises for a maximum of a six-month period after which the transaction can be renewed, pending revision. This type of overdraft can be secured by the borrower upon presentation of fixed deposit or treasury bills. A maximum of 95% of their value is granted, with a lien placed on them, to minimize the risk of default (Mensah, 2004).

According to Mensah (2004), terms and conditions for Micro and Small Enterprise (MSE) loans financed out of the normal business portfolio of a commercial bank are granted for 12 months or considerably less, secured by deposits or other sources with a view to categorize it as a secured loan under Bank of Ghana (BoG) conditions, and carries the upper band of interest rates. MSE Lending within the organizational structure of the financial institutions: Commercial banks find it difficult to integrate MSE finance effectively into their existing organizational structure. Four (4) out of the seven (7) surveyed banks or Savings and Loans institutions, according to (Mensah, 2004), have a separate MSE desk. Solutions are different and sometimes unique to a single institution. The following more unusual organizational set ups were found when conducting a sample survey of eight (8) banks and non-bank financial institutions. MSE lending below a certain threshold are initiated and processed by the bank's marketing department since MSEs are targeted primarily with a view to attracting their deposits with small loans granted only to establish initial client contact. MSE lending is transacted by credit officers from corporate finance departments of a bank.

2.9 Attributes of Credit Products Responsible For Defaults

Credit products in the financial institutions also contribute to loan default in the country. This is due to the way such products are designed and implemented that particularly affect the

SMEs. This is true because even if a creditor is in a position to repay the credit, how it has been structured including obtaining the credit and repayment contributes immensely to credit default in the country.

An important factor that is worth mentioning in the cause of credit default is that, SMEs credits are aimed at the poor clients who do not have access to formal financial sources. In most cases such individuals are not credit worthy to attract credit but due to the intention for which these micro-financial institutions are formed they ignore all odds but give credit to most people that qualify to their guidelines for credits. Some financial institutions do not even follow the laid down principles in finances before giving credits. It is therefore very difficult for such individuals especially those who are not credit worthy to pay back their credit.

Micro-finance institutions normally provide small size of credit facilities that do not support SMEs 100% to develop to a level where it can compete favourably well with its competitors. In this case, fierce competition in the business has crippled many SMEs who do not start with enough capital. According to Mensah (2004), high interest rate associated with micro-finance credit is a major cause of high credit default among SMEs in Ghana. In most cases since they are not strong enough to compete, returns on their investment seems to be smaller which does not put them in a good position to repay the credit.

Furthermore, free usage of loans for any purpose is another major factor that causes high credit defaults. This is true because credit intended for investments may be used to settle an old debt, pay school fees, rent a house or even for marriage purposes which do not have direct return on the credit for repayment. In this case, if the client does not have other sources of income to aid the repayment of the credit, then such individual cannot settle the credit at all.

2.10 The Challenges Faced by Women in Agro-processing Businesses

Despite some progress and the continuing efforts of line ministries, district authorities, and NGOs, serious gender inequities persist in Ghana. Gender concerns cut across sectors in a

complex network of cause and effect. Disparities in opportunity, access, and performance contribute negatively to national development. Easterling et al (2008) observed that women still face many barriers to benefiting from, and contributing fully to, economic development. Persistent gender disparities hold society to a lower level of productivity and hence a lower rate of economic growth. Including women more equally in development can improve the quality not only of women's lives but of the lives of generations to come.

This is because the contributions of women in agro businesses towards national development cannot be underestimated. Efforts to improve women's role in the economy have been hampered by lack of data on the businesses they do, gender disparities and entrenched bureaucracies. Despite compelling arguments for gender equality, national actions still lag. The following are a summary of specific problems confronted by women in agro processing businesses that need attention for national development.

Farming is the major occupation of people in Ghana with the active involvement of women. Agro-processing business in the country is one business that relates to agriculture directly and therefore most women in small towns and villages take active part in it. They meet their daily expenses from the agro processing business they involve themselves in but not without challenges that need to be looked at. To begin with, efforts are needed to reduce the time constraints that hamper most women's ability to manage farms or other enterprises. Efforts to improve women's ability to participate in agric-related work or business should be geared towards reducing or eliminating the challenges faced by women in agro processing business. These challenges are many and are not limited to any particular geographical locations.

2.11 The Challenges Faced By Women Fish Processors

There are uncountable challenges that are faced by women who process fish in the country. Women have always predominated in the fish processing sector on small-scale private, cooperative, or industrial levels. Small-scale enterprises can be characterized by a high degree of flexibility, and are capable of responding to the supply of fresh products and consumer preferences. Although most processing enterprises are run on a small-scale basis, their importance to the economy needs to be stressed. Large numbers of women can find employment and income in this type of industry.

Okorley et al (1998) observed that the processing methods used in fish processing can vary greatly and are dependent on consumer taste, availability and costs of the processing material, technical knowledge, time needed for processing, price of the final product, storage facilities, and marketability and seasonal fluctuations. In extensive and semi-intensive production systems, fish are processed when the product cannot be sold fresh, when cold storage plants are not present, or when the product is destined for remote markets. Small-scale salting, smoking, drying, and fermenting are performed by women near or inside the house, and are considered domestic activities. The introduction of special processing facilities off-farm or near the market is often not acceptable to women. Processing at home is preferred because women are able to combine processing activities with other domestic duties. Young girls often help their mothers with different methods of processing. The final product is stored in or near the house for fear of theft. The processed fish is either sold to wholesale traders in large quantities, or brought to the markets for retail selling.

Throughout these processes, women have challenges. One of the basic problems is the low capital that is involved in almost all women in the fish process business (Okorley et al, 1998). Most of these women do not have large capital to start the business. In that case, it affects their

income and the number of customers she can serve at a time. This is one of the reasons why most of these businesses are not growing as expected. Another peculiar challenge is the unavailability of credit for these women due to high level of risk associated with such business. Due to high risk associated with fish processing business, most financial institutions including the micro-finance do not want give credit or loans to such individuals involved in the business. Besides, since this business depends heavily on fuel wood in Africa and in Ghana specifically, when the resource become expensive or scarce particularly in the rainy season these women are affected seriously. These women now have to transport the fuel from far distance in the villages to the towns and cities and this increases their cost of production.

It is also an undeniable fact that, with women involved in this business, about 80% do not have any formal education (Okorley et al, 1998). This does not only affect their ability to write and calculate their business cash flow but cannot also take specific decisions on the business to grow. This problem is real in the villages and towns where greater percentage of the girls are not educated either due to lack of resources or beliefs and values that, boys must rather be educated.

Another challenge is the unavailability of storage facilities which prevent them from using large capital to buy the fish in bulk to enjoy marketing economies of scale and can also help them to plan effectively. It is therefore found from the market that, these women reduce the price of fish sent to the market if it is realized that it cannot finish before the day ends. Since there are no storage facilities at home, they would rather reduce the price to sell everything for low revenue. If unfortunately the fish do not finish, on the same day for low patronage which could be attributed to rainfall that prevent people from going to the market or other factors not mentioned, there is possibility that the fish may go bad the next day.

It also came out clear that, since these women cannot withstand competition, they share the marketing days among the available women who sell fish in the market so that if a group comes today, another group would come the next day. This process does not promote creativity and innovative marketing for business growth. This is normally found in the small towns and villages. If one is not lucky for your appointed day to meet good demand for your commodity, then it becomes difficult to break even.

2.12 Fish Processing Methods Available to Women Groups

The principal fish processing methods in Africa are smoking, salting, sun-drying, fermentation, grilling and frying (Okorley et al, 1998). The predominant type of fishery product in any particular country is, however, closely related to the food habits and purchasing power of the population. Specific types of fishery products are best suited as the local staple food. Furthermore, due to the lack of a good transport infrastructure for the transporting fresh fish to remote towns and villages, cured fish is the most convenient form in which fish can be sent to such areas. Cold stores that freeze the fish in large quantity are found in the cities and towns where electricity is found. It is through this means where people in small villages get fresh fish for businesses and household food preparation.

Fish can also be processed through drying so that it can be kept for some period of time. This is a process where the fish is spread on a mat in the sun for easy storage and market. This helps to reduce moisture content in the fish so that it can be transported to small towns and villages. Fish can also be processed through smoking. Fire or heat is applied to the fish so that moisture content in the fish would reduce to ease storage of the fish. This is the type of processing method most fish smokers in the Tema Metropolis use in fish processing. Fish is also processed in Africa and in Ghana by salting. In this process as well, a sizeable quantity of salt is added to the fish in a container or a solution of water so that the

fish becomes salted for easy storage and transportation. Frying is another important method of fish processing. Fish is put in a hot oil to fry.

2.13 Personal characteristics of fish processors

Fish processing business in the Tema metropolis is generally, women's business. The women, however, engage some men in their households to assist them carry out the businesses. The women involved in the fish processing business have similar personal characteristics. Most of the women are either without formal education or had low levels of formal education. Okorley and Kwarteng (2001) found out 8.7% of women engaged in fish processing in the central region had primary level of education, while 10% had elementary level of education and only 0.7% had gone beyond the elementary level to a vocational school. The study found 80.7% of the fish processors in the Central region of Ghana were illiterates. Formal education is expected to broaden people's knowledge base and enhance their management capabilities but most women fish processors do not have higher formal education and yet are able to sustain their businesses.

Many of the women engaged in fish processing businesses are of middle age and beyond. The study by Okorley and Kwarteng (2001) showed that two-thirds (74%) of the fish processors sampled were more than 40 years of age and the rest were between the ages of 20 and 40. The average age was 49.7 years. The younger women who assist their older relatives appear to understudy the older women and only own their own businesses when they are close to the ripe middle age.

Most women fish processors also have dependents. The dependants sometimes are members of the households who also assist in running the fish processing businesses. Okorley and Kwarteng (2001) observed that 56.7% of women fish processors in the Central region of Ghana had four to seven dependants living with them and the maximum number of dependants recorded was eleven while the average number of dependants recorded was six..

Women of various marital status are engaged in fish processing business. They are either married, divorced, widows or singles who had never married. The marital status of the fish processors may have some effect on the performance of the business. Women may also keep fish processing business as a full time business or a part time business. In most coastal towns in Ghana most women fish processors take up fish processing as full time business.

2.14 Nature of Fish Processing Enterprises

Fish processing enterprises are small to medium scale businesses in nature. Each such enterprise engages not more than 30 workers. The larger the size of the enterprise, the more workers that are likely to be engaged by the firm and the more complex the management of the operation. Most of the fish processing businesses own by women engage only family labour or dependants. Fish processing is a practical manual job devoid of bureaucracy or long administrative procedures. The entrepreneur and manager is often directly involved in the trade. Every worker engaged in the businesses is often seen directly handling the fish or providing some assistance to those who handle the fish. The business requires product production and selling. Little or no investment is made by the fish processors in marketing the product but aggressive verbal communication can be used to attract buyers.

Like most small to medium scale businesses, funds for running fish processing businesses are either from the entrepreneurs savings, from money lenders, family members and friends or from other microfinance institutions. Generally, the larger finance houses will hardly lend to women engaged in small to medium scale fish processing businesses. This is because many of these enterprises cannot raise the needed collaterals and the documentations required to acquire such facilities from the formal sector large financing houses. The lack of capital is the greatest constraint to the development of micro enterprises (Kurwijila and Due, 1991), and its high cost is cited as a primary constraint to the expansion of enterprises engaged in non-formal activities.

Lack of finance is the primary constraint to enterprise expansion as evidenced in the leather industry in Sri Lanka or furniture industry in Tanzania (Levy, 1993). Zellar and Sharma (2000) found evidence that suggests that in spite of the vibrant informal financial markets in many developing countries, financial services to the poor still remain inadequate. According to Sethuraman, (1977), informal sector enterprises find the banks unhelpful and unsympathetic to their needs, since unlike their formal sector counterparts, they cannot provide the necessary collateral.

2.15 Microfinance institutions characteristics and loan repayment

Microfinance is defined by Steel and Andah (2002) as small financial transactions with low income households and micro enterprises using non-standard methodologies like character-based lending, group guarantee and short term repeated loans. Microfinance is provided by formal, semi-formal and informal financial agents. According to Otero (1994), microfinance creates access to productive capital for the poor, which together with human capital, addressed through education and training, and social capital, achieved through local organization building, enables people to move out of poverty. By providing material capital to a poor person, their sense of dignity is strengthened and this can help to empower them to participate in the economy and society (Otero, 1994). Credit granting non-governmental organizations, credit cooperatives and to some extent, a few rural banks have utilized microfinance as a sustainable mechanism to provide basic financial services to small-scale borrowers (Llanto, 2001). The wide network of low-income clients of microfinance institutions proves that there is a great demand for credit by the poor and that they can successfully use these small loans to earn income (Llanto, 2001).

The institutions involved in microfinance are either formal, semi-formal or informal. The formal microfinance institutions are larger businesses licensed to do financial intermediation

through deposit mobilization and credit giving. They include the rural banks and the savings and loans companies. The semi-formal microcredit institutions include the non-governmental institutions involved in giving microcredit to the poorer members of the community. These include CCML, Susu firms and credit Unions.

The underlying business principles and characteristics of these institutions influence their client basis and affect the repayment of the facilities they grant. The informal financial intermediaries have a cost advantage over the formal intermediaries in addressing the information asymmetry problem because they have access to devices and mechanisms to collect the necessary information about their clients. They frequently have more detailed knowledge of clients and their communities, and the local conditions in which they operate. As a result, they often face lower transaction cost in their service delivery. According to Aleem (1990), informal lenders mainly use the established relationship with borrowers as a screening and credit rationing mechanism. The formal intermediaries on the other hand enjoy economy of scale and can mobilize large amounts of deposits for lending.

Institutions have typically been burdened with severe agency problems in dealing with peculiar risks, that is, the problems caused by costly and imperfect information such as adverse selection, moral hazard, and contract enforcement (Nissanke and Aryeetey 1998). Karlan and Zinman (2004) used a randomized intervention to identify the extent of adverse selection and moral hazard in a South African credit market. They found out that about 40% of defaults in this market can be attributed to asymmetric information.

Meyer and Nagarajan (2000) recommend that formal financial institutions must design their products and services according to the expected demand in rural areas, taking into consideration the presence of informal credit sources, and according to how costs could be recovered and profits could be generated. Such would then lead to a widened outreach. Essel

(1996) has also noted that group-lending schemes (informal methodology) have been gradually gaining ground among the Rural Banks in Ghana and that the benefits reaped by the banks and their customers to date have been significant. He concludes by arguing that the banks should intensify efforts to establish group-based lending programmes.

2.16 Summary

The chapter reviewed literature that underpinned the study, including Small and Medium Scale Enterprises (SME), the role of credit in success or failure of SMEs, causes of credit failures in small scale agro- processing businesses, amongst other sub-topics. The literature makes a case for the use of credit in women's empowerment and the importance of credit in affirmative action.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

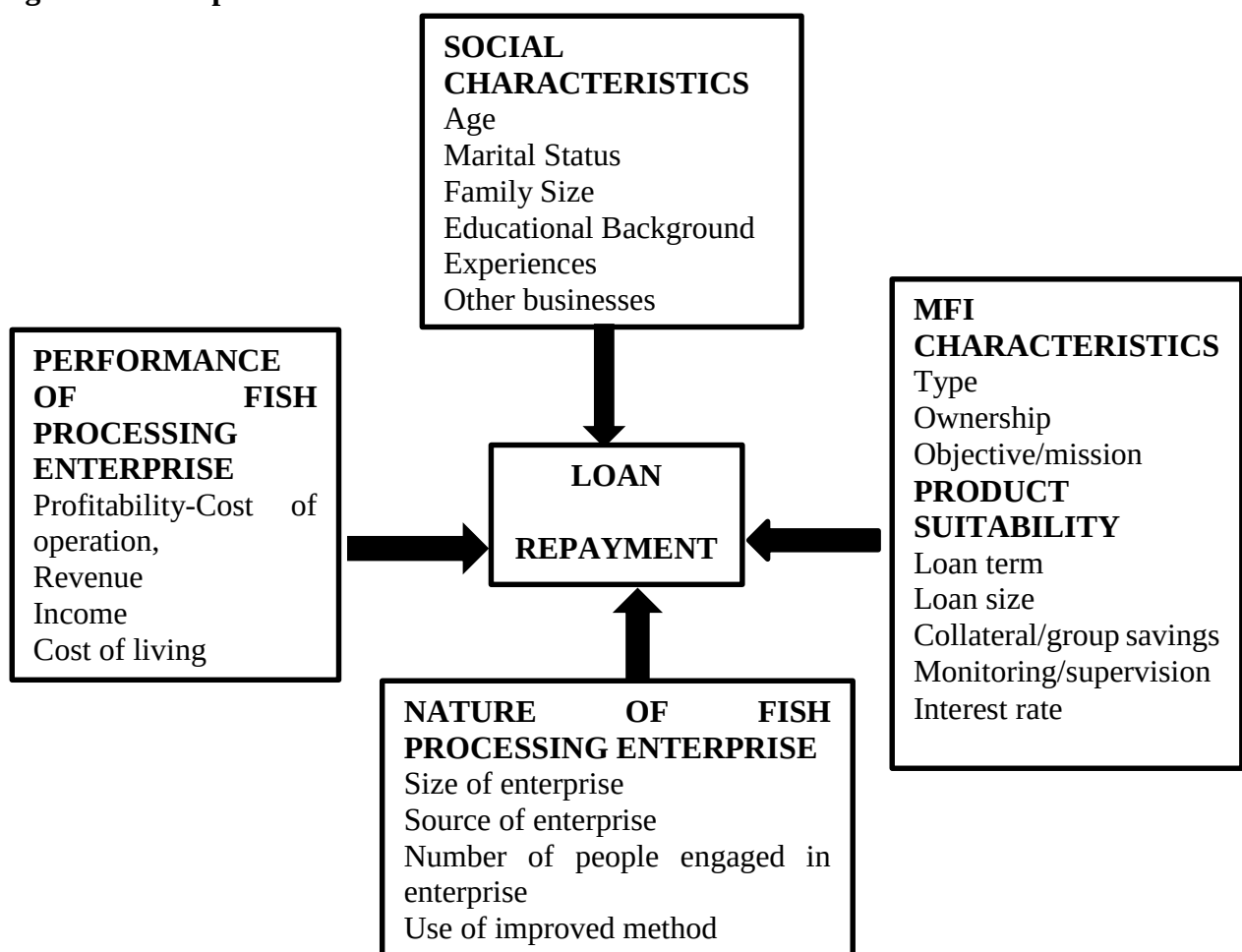
This chapter discusses methods and procedures used for the study including the conceptual framework. It also describes the method of analysis used to address specific objectives, that is, the influence Microfinance Institution (MFI) characteristics and products suitability have on loan repayment, the socio-economic characteristics of women fish processors' influence on loan repayment in the study area, the influence of the nature of fish processing enterprises on loan repayment and how the performance of women fish processors enterprise affect loan repayment. The chapter also provided a description of the sample selection procedures and the sources of data and method of analysis.

3.1 Conceptual Framework

A conceptual framework, (in Figure 1), showing the models involved in the study, was developed for the study. The concept is that, various socio- economic characteristics such as age, marital status, family size, education level and experience are believed to have effect on the profitability of the firm of the entrepreneur. This effect translates into the ability or otherwise of that entrepreneur to repay loans granted the enterprise. The concept also expects that characteristics of the MFI and the product suitability of the MFI granting the microcredit have influence on the repayment of the loan. Some products may not be suitable for a particular type of business or the nature and terms of payment of some MFIs and their products may make repayment of their loans easier or more difficult, hence affecting repayment of such loans. The characteristics of the MFI include type of MFI, composition of the ownership of the MFI, the objective and mission of the MFI.

All these attributes of the MFI can influence loan repayment of the clients of the MFI. The MFI may be semi-formal or formal and each of these have some implications for product design and loan repayment. The nature of the fish processing enterprise of the MFI client also can affect the loan repayment of the MFI client. The nature of the processing enterprise include size of the enterprise, level of processing knowledge of the entrepreneur or manager of the enterprise and use of improved methods or techniques for processing. The performance of the fish processing enterprise which includes profitability can affect the loan repayment. Factors that affect profitability include cost of operation, revenue or income, cost of living of the sole proprietor and all these factors can affect loan repayment. The conceptual framework is shown in Figure 1.

Figure 1: Conceptual Framework



Source: Author

3.2 Sample Selection

The main basis for the sample selection is to collect data from the MFIs that are known to support the main women fish processor groups within the Tema metropolis. The various products that are accessed by the women fish processors were used in determining where to select respondents. Dangbe Rural Bank sells 3 main products to women entrepreneurs. These include agriculture loan, microfinance loan and community loan. Amongst these three, it is the microfinance loans that are well patronized by the women fish processors. Based on the information provided by the bank on its spread of such clients, the sampling was done. The two semi-formal MFI institutions sampled also gave their products and which ones are targeted at women fish processors. CCML serves its clients with Boafo, Enidaso, Asetenapa and Mpotuo micro credit products. All these are accessible to the women fish processor clients. The distribution of the client base of the CCML guided the selection of respondents in the communities within Tema metropolis. The other semi-formal MFI, OI, sells group loans such as Adehye group, and individual loans such as Adehye individual loans for SMEs to the women groups. The distribution of the clientele base of this MFI was also followed in the selection of respondent.

The sample size for each community/zone was determined in proportion to the size of the zone and respondents randomly selected from each of the zones. The total sample size was one hundred and fifty-two (152). It was made up of different generations of borrowers from the selected MFIs who process fish within the Tema metropolis. Structured questionnaires were administered to these respondents to obtain a cross sectional data. Table 2 shows the distribution of the selected zones and the sample.

Table 2: Distribution of sampled respondents by location

Community in Tema	No. of respondents	MFI that served clients
Tema Manhean	96	RB,OI and CCML
Kpone	56	RB,OI and CCML
Total	152	RB,OI and CCML

Source: Author's Field Data 2012

3.3 Types of Data and Methods of Data Collection

Primary and Secondary data was employed by the study. Primary data was obtained from women fish processors through the administration of questionnaires and direct interviews. Secondary data was obtained from records of the sampled MFIs, libraries and the internet. The cross-sectional data obtained from the MFIs was collected through direct interviews with the loan officials. The MFIs also provided some secondary data on repayment or loan recovery rates of their clients. The completed questionnaires that were administered directly by the researcher provided that cross-sectional data on the MFI client women fish processors.

3.4 Analytical methods

Data collected was analyzed using the Statistical Package for Social Scientists (SPSS). SPSS provided descriptive statistics such as frequency distributions, percentages, chi square and t-test. Tables and other data presentation methods were used in presenting the results obtained. A comparison was made between the products characteristics of the semi- formal and formal MFIs. The nature and objectives of these products were tabulated and compared. The processing procedures and other general features of these products were compared in a table. The purpose for the comparison is to find out if some features of the products themselves are contributory to the difficulties faced by the clients in paying back the facilities. To determine whether product suitability affected loan repayment, the characteristics of the products of semi-formal and formal MFIs were compared. The loan repayment of semi-formal MFI clients

were also compared with those of the formal MFI clients. These led to determination of whether MFI and product characteristics have influence on loan repayment of women fish processor MFI clients.

To determine whether socio-economic characteristics of women fish processors have an influence on loan repayment, the various socio-economic characteristics of semi-formal and formal MFI clients were compared.

A regression was also run to find out factors influencing loan repayment. Loan repayment of clients was used as the dependent variable and the various indicators under socio- economic, nature of enterprise and performance of enterprise as independent variables. Test were carried out to determine whether the result of the regression showed that each of the indicators have a significant effect on loan repayment.

To determine socio-economic effect on loan repayment, age, marital status, household size number of adults and children, and gender of household head were examined.

To determine whether the nature of fish processing enterprises have an influence on their loan repayment, the size of enterprise, source of labour and different types of methods for fish processing used by the women were examined.

To determine whether the performance of processors enterprises have a significant effect on loan repayment, the financial performance of each respondent's enterprise was analyzed in terms of the enterprises profitability. The profitability of the firm is a measure of the performance of that firm. The performance of semi-formal and formal MFIs was also compared. This was to enable a determination of whether enterprises of clients of semi-formal MFIs performed better than enterprises of clients of formal MFIs or otherwise.

Kendall's Coefficient of Concordance (W) was used to analyse the degree of agreement among the constraints ranked by women fish processors on loan repayment. Kendall's Coefficient of

Concordance (W) is an analytical tool used for analysing a given set of constraints. The Kendall's Coefficient of Concordance (W) analysis gives a measure of degree of agreement among m set of n ranks. The Coefficient of Concordance (W) is an index that measures the ratio of the observed variance of the sum of ranks. If the ranks are in perfect agreement, the variability among this sum will be maximum of one (Mattson, 1986). The identified constraints are ranked according to the most pressing to the least pressing using; 1234.... n in that order. The least score rank is the most pressing whilst the highest score rank is the least pressing. The total rank score is computed and used to calculate the Coefficient of Concordance (W) to measure the degree of agreement in the ranking. The limits for W cannot exceed one and cannot be negative. That is, it can only be positive in sign and ranges from zero to one. It is one when the ranks assigned by each respondent are the same as those assigned by other respondents, and it is zero when there is maximum disagreement among the respondents. According to Edward (1964) the Coefficient of Concordance (W) may be tested for significance in terms of the F- distribution. The various methods of analysis enabled the researcher to address the objectives of the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This chapter presents the results and discussion of the study. It starts with the analysis of the supply side of micro finance with regards to the characteristics of the Microfinance Institutions (MFIs) and the attributes of the products and services they provide to their clients. On the demand side, the chapter discusses the socio-economic characteristics and the nature of the fish smoking client's enterprise and how these features affect the repayment of loans taken by the clients from the MFIs. It further looks at the comparisons of performance of loans taken from Financial Non- governmental Organizations (FNGOs) and loans taken from Rural Banks (RBs). The chapter discusses the findings of the study in the light of the main objectives of the study which seeks to examine factors that influence loan repayment among women fish processors in the Tema Metropolis. The chapter discusses how the suitability of micro credit products influence loan repayment amongst women fish processors in the Tema metropolis. The chapter further discusses the findings on whether the nature of fish processing enterprises amongst the different women fish processors' have an influence on loan repayment.

4.1 Characteristics of the financial Service providers

Three MFIs were interviewed in all. Two of them were semi-formal namely Christian Community Microfinance Limited (CCML) and Opportunity International (O.I). However, one (1) was formal namely Dangme Rural Bank. All the three (3) organizations are Limited Liability Companies. Two (2) were NGOs comprising CCML and Opp. Int. They all have the objective of profit making.

The mission statement of CCML states “to deliver sustainable returns by offering excellent customer-centered financial services that support the community”. Its Core Values are Excellence, Sustainability, Innovation Social responsibility and Integrity on common people.

The Mission of Opportunity International is “To serve micro and small entrepreneurs with loans, deposits and other financial services that enable them to increase their income and help transform their lives while earning appropriate returns for our shareholders. Its core values are commitment, humility, respect, integrity, stewardship and transformation.

The mission statement of the rural Bank is “to play pivotal role in economics, social and cultural development in its catchment area through profitable banking business for the benefit of customers, employees, shareholders and the community. Its objectives are aimed at maintaining high profits, intend to accelerate and sustain growth, and continue to deliver services and offer excellent customer care.

CCML’s target customers are economically active people and business people. Opportunity International’s target customers are economically active people and rural poor and the rural banks’ target client are agriculture, micro and small scale enterprises, traders, and others. With these objectives, the MFI offers certain products to its clients.

Table 3: Summary of Comparative MFI Characteristics

TYPE	SEMI-FORMAL (FNGOs)		FORMAL
CHARACTERISTICS	CCML	OI	RB
Limited Liability	Yes	Yes	Yes
Bank Objective	Non-profit making	Profit making	Profit making
Mission (Summary)	To deliver sustainable returns by offering excellent customer-Centre financial service that support the community.	To serve micro and Small entrepreneurs with loans, deposits and other financial services that enable them to increase their income	To play pivotal role in social, economic and cultural development in its catchment area.
Have specific product for women	Yes	Yes	Yes
Target Customers	Business people and Economically active people	Economically active people and business people	Agribusiness people

Source: Author's Field data, 2012

4.1.1 The MFI Products and Service Characteristics

The products are the financial intermediation given to the clients by the MFIs. They are usually designed to meet the target market. However, due to the mixture of MFIs target clients who often live in remote areas and are illiterate, social intermediation is also given in the form of training.

In accessing the products, there are processes and procedures to be followed and these involve eligibility criteria, application procedure/ steps, processing procedure, time from application to disbursement, type of collateral and location for services.

The products have certain attributes such as type of product, loan size, interest rate, repayment period, repayment frequency, commission/commitment fee, moratorium period, typical service duration and social intermediation.

Clients who are eligible should be economically active or business people who have operated their businesses for some time. Clients of both semi-formal and formal MFIs are supposed to be in a group for at least three months or save with the bank and these criteria run for both the formal and semi-formal MFIs. It also involves filling of forms and operating account for a week or two for semi-formal. However, with the formal, the group executives make a written application, fill forms and operate account for 2 to 3 weeks. Individual clients can also apply for their products. Semi-formal clients have shorter application procedure of just filling forms than the clients of formal MFIs who need to turn in a written application before filling of forms. Procedure for processing loan is through screening, house assessment, providing passport pictures and guarantors for individuals whiles with the formal, loan committee processes the loan or subject it to approval by a board.

Time from application to disbursement is between 3 days and 4 weeks for the semi-formal whiles the formal MFI takes 1 month. The semi-formal has shorter period from time of application to disbursement than the formal.

Both semi-formal and formal MFIs use group as social collateral, however the MFIs demand that the group operate an account for a certain period. In addition, individual clients also do savings and/or provide guarantors.

The semi-formal has four types of products, eg, CCML has products in local names, Boafo, Enidaso, Asetenapa and Mputuo. The Boafo product is a starter loan for clients. If a client accesses this starter loan and is able to pay as required, then she can qualify for the second product named Enidaso. Also, Enidaso loan without default, qualifies one to Asetenapa, then to Mputuo. In all these, the loan amount increases from one product to the other.

The OI also has group loans and if the group does not default in paying that, it qualifies them to access Adehye group loan which has higher amount than the first. The other products are the Adehye Individual, which is basically an individual loan. This product is designed such that members of Adehye group who have not defaulted can individually access the Adehye Individual loan. The fourth product is general individual loans that can be accessed by anybody; SMEs, salary workers, etc.

The formal MFI also has Agricultural loan, microfinance loan and community loan which can be accessed by clients. The semi-formal has diversity of products than the formal. Also, the formal MFI does not have specific loans for starters but amounts differ based on certain factors.

The loan size for semi-formal ranges between one hundred Ghana cedis to five thousand Ghana cedis (GH ₵100.00–GH ₵5,000.00) while the formal has loan size of between two hundred Ghana cedis to ten thousand Ghana cedis (GH ₵200.00–GH ₵10,000.00). The formal MFI has high loan size.

The semi-formal charges between forty-one and forty-eight percent (41%-48%) on interest per annum while the formal charges twenty-seven percent per annum. The formal MFI charges lower interest rate than the formal.

The repayment period ranges between four months to nine months for the semi-formal while the formal gives 6 months to 12 months. Repayment period is shorter for the semi-formal than the formal.

Semi-formal has weekly repayment and the formal has monthly payment. This shows that repayment frequency is shorter in semi-formal than the formal. Both semi-formal and formal MFIs charge 3% of loan amount as commission fee.

CCML does not have any moratorium period, OI has 4-6 weeks and formal has 2 months moratorium period. Both semi-formal and formal MFIs provide services on MFI premises.

Both the semi-formal and the formal have social intermediation by giving training on the loan facilities. The summary of comparison of MFI product and services characteristics are shown in Table 4.

Table 4: Summary of comparative MFI product and services characteristics

TYPE	SEMI-FORMAL (FNGOS)		FORMAL (RB)	Comparison of Semi-formal and Formal Banks
	CCML	OI	RB	
Eligibility criteria	Should be in a group for at least 3months or save with MFI	Should be in a group for at least 3months or save with MFI	Should be in a group for at least 3months or save with MFI	Both the semi-formal and the formal clients should be in a group or save with the bank.
Application procedure (steps)	Filling of forms (Operate account for a week)	Filling of forms, operate account for 2 weeks to three months	Written application by group/ filling of form. Operate account for 2 weeks to 3 months	Semi-formal has Shorter application procedure than formal.
Procedure for processing loan	Screening, guarantor, house assessment, passport pictures	Screening	Loan committee Subject to board's approval.	Semi-formal does screening whiles RB has a board for approval
Time from Application to disbursement	One week	3 days-4 weeks	1 month	Semi-formal has shorter period than formal.
Type of security/ Collateral	Savings/group (social collateral)	Group Individual savings	Group/Individual Guarantor	Both the semi-formal and formal use social collateral and guarantors for individuals
Type of Product and services	*Boafo *Enidaso *Asetenapa *Mputuo	*Group loan *Adehye group *Adehye (Individual) *Individual loans i.e. SME loans	*Agric loan *Microfinance loans *Community loans	Semi- formal has diversity of products

Table 4 Continued

	SEMI-FORMAL (FNGOS)		FORMAL (RB)	Comparison of Semi-formal and Formal Banks
TYPE	CCML	OI	RB	
Loan size	GHC100-GHC1000	GHC700-GHC5000	GHC200-GHC10,000	Formal MFI has high loan size
Interest rate	48% per month	41% per annum	27% per annum	Formal has Lower interest rate.
Repayment Period	4 months-6 months	4 months-9 months	6 months-12 months	Shorter for semi formal than formal
Repayment Frequency	Weekly	Weekly	Monthly	Repayment frequency is more frequent in formal than in semi-formal
Commission/commitment fees	3%	3%	3%	Both institutions charges same amount.
Moratorium period	Nil	4 weeks-6 weeks	3 months	Shorter for semi formal than formal
Whether any Form of social Intermediation	Training on loan	Training on the loan	Training on the loan	All 3 have training on the loan
Location for Provision of services	MFI premises	MFI premises	MFI premises	All located at MFIs premises

Source: Author's Field data, 2012

41-60 forming 62.4% of clients of the semi-formal institutions' clients while 62.7% are clients of the formal institutions. Respondents who are aged above 61 form only 5.9% semi-formal MFI client respondents and 4.6% of formal institution respondents. Age is an important factor in both activity level of women fish processors and is an important measure of experience in the business and may be important in making profits or losses from the operations. It may be important in repayment of loans granted by MFIs. This will be shown in the sub topic that deals with loan repayment by both semi-formal and formal clients.

4.1.2. Education Level

Education levels are generally expected to affect performance of roles and efficiency of workers. The study therefore analyzed the education level of clients of both semi-formal and formal MFIs. Clients of semi-formal institutions who had no formal education are 61.2% of respondents and clients of formal institutions who also have no formal education form 44.8%. Respondents of both semi-formal and formal MFIs with education level up to Middle School level form 38.2%. Semi-formal institution clients form 32.9% of those with formal education up to middle school level. Formal institutions clients with education up to middle school also form 44.8% of respondents. Semi-formal institutions clients form 5.9% of this group with above middle school level of education and formal institutions clients form 10.4%. In all, respondents with no formal education for both semi-formal and formal clients form the largest group with 82 respondents out of the total 152 respondents.

4.1.3 Number of Children of MFI Clients

Family size is a measure of level of responsibility and financial commitment of individual respondents. It is expected that, generally, the larger the number of children in a normal average household, the higher the expenditure on maintenance of the household. With a fixed disposable income level, the higher the maintenance cost of a household the more likely the difficulty in loan repayment by the client. The study therefore analyzed the number of children in the family of both semi-formal and formal MFI clients. Semi-formal MFI institutions client respondents had 27.1% of them as respondents who had no children while formal MFI institutions clients formed 40.3% of respondents. Client of semi-formal

MFI institutions with one child in the family form 23.5% of semi-formal MFI client respondents while clients of formal MFI institutions clients with one child in the family form 25.4% of formal MFI client respondents. Clients of semi-formal MFI with 2 children in the family form 29.4% of semi-formal MFI client respondents while clients of formal MFI client

respondents with 2 children formed 16.4%. MFIs with 3 children in the family formed 15.3% of semi-formal MFI client respondents and clients of formal MFI client respondents with 3 children formed 7.5%. Clients of semi-formal MFIs with 4 children in the family formed 4.7% of semi-formal MFI client respondents while clients of formal MFIs with 4 children in the family form 7.5%. Clients of semi-formal MFIs respondents do not have families with 5 children while clients of formal MFIs with 5 children in the family form 3.0% of formal MFI client respondents. From the data, generally, families with more children are clients of semi-formal MFIs. Respondents of clients of semi-formal MFIs formed 55.9% while clients of formal MFIs form 44.1%.

4.1.4 Number of Adults in a Family of MFI Clients

It is generally expected that the more adults in a family, the more labour likely to be available to family enterprises. It then, flows that the more family labour available, the more likely larger generation of family income. Depending on the extent of family expenditure on these adults, the more likely the ability of such a family to repay loans or the less likely the ability of that family to repay loans.

The number of adults in a family of respondents ranged between 2 and 8 for both semi-formal MFI clients and formal MFI clients. Clients of semi-formal MFIs with 2 adults in the family form 17.6% of semi-formal MFI client respondents while clients of formal MFIs with 2 adults in the family form 7.5%. Clients of semi-formal MFI respondents with 3 adults in the family formed 25.9% of semi-formal MFI client respondents while clients of formal MFIs with the same number of adults per family form 25.4% formal MFI client respondents. Clients of semi-formal MFIs with 4 adults per family form 24.7% of formal MFI client respondents while clients of formal MFIs with 4 adults in each family form 23.9%. Clients of semi-formal MFIs with 5 adults in the family form 16.5% of semi-formal MFI client respondents while clients of formal MFIs with 5 adults in the family form 14.9%. Clients of semi-formal

MFIs with 6 adults in the family form 9.4% of semi-formal MFI client respondents while clients of formal MFIs with 6 adults in the family form 11.9%. Clients of semi-formal MFIs with 7 adults in the family form 1.2% of respondents while clients of formal MFIs with 7 adults in the family constitute 7.5%. Clients of semi-formal MFIs sampled with 8 adults in the family form 4.7% of semi-formal MFI client respondents while clients of formal MFIs with 8 adults in the family form 9.0%.

4.1.5 Marital Status

The marital status of clients is an important factor in the study. Married women are likely to receive some support from their counterparts and this can influence their repayment unlike single parents. When respondents were asked whether they were married, 31.8% of semi-formal clients were single with the remaining 68.2% married. For clients of formal MFIs, 22.4% were single and the remaining 77.6 were married. Table 5 shows a summary of socio-economic characteristics of the women fish processors.

Table 5: Summary of socio-economic characteristics of the women fish processors

Variable		Source of credit			
		Semi-formal		Formal	
		Freq.	%	Freq.	%
Age	21-40	27	31.8	22	32.8
	41-60	53	62.4	42	62.7
	>61	5	5.9	3	4.5
	Total	85	100.0	67	100.0
Level of Education	No formal education	52	61.2	30	44.8
	up to middle school	28	32.9	30	44.8
	Above middle school	5	5.9	7	10.4
	Total	85	100.0	67	100.0
No. of Children	0	23	27.1	27	40.3
	1	20	23.5	17	25.4
	2	25	29.4	11	16.4
	3	13	15.3	5	7.5
	4	4	4.7	5	7.5
	5	0	0	2	3
	Total	85	100.0	67	100.0
No. of Adults	2	15	17.6	5	7.5
	3	22	25.9	17	25.4
	4	21	24.7	16	23.9
	5	14	16.5	10	14.9
	6	8	9.4	8	11.9
	7	1	1.2	5	7.5
	8	4	4.7	6	9
	Total	85	100.0	67	100.0
Marital status	Single	27	31.8	15	22.4
	Married	58	68.24	52	77.6
	Total	85	100.0	67	100.0

Source: Author's Field data, 2012

4.1.6 Household Size of MFI Clients

A household is made up of the total number of people living together as one family unit. They share the wealth of the family and depend largely on each other for livelihood. Labor can be supplied by the household just as income can be used by the household. A large family may supply part or most of the labor required by the enterprise. The larger family may also expend some of the income and reduce profitability. The household expense if high could reduce the ability of the enterprise to repay loan. The study therefore analyzed the household size of both clients of semi-formal and formal MFIs.

Household size of between 2 and 4 constitutes 36.4% of semi-formal with a mean of 0.364 while the formal MFI constitutes 28.3% with a mean of 0.28. For the range of 5-7 household size, semi-formal forms 42.4% with a mean of 0.424 while the formal forms 47.8% with a mean of 0.478. The highest household size for both semi-formal and formal falls within the 5-7 range. A summary of household size of MFI clients are shown in Table 6.

Table 6: Household Size of MFI Clients

Household Size	Source of Credit					
	Semi-formal			Formal		
	Freq.	Mean	%	Freq.	Mean	%
2-4	31	0.364	36.4	19	0.28	28.3
5-7	36	0.424	42.4	32	0.478	47.8
8 -11	18	0.212	21.2	16	0.24	23.9
Total	85	1.00	100.0	67	1.00	100.0

Source: Author's Field data, 2012

4.1.7 Gender of Household Heads of MFI Clients

The household head is expected to control household income and expenditure. Where the household head is the female fish processor, it is expected that the burden meeting the

household cost depends largely on this household head. Where the household head is the male, he works to supplement the income of the female household member who is the fish processor. This relieves the female entrepreneur of the burden of spending much of the income from the enterprise on running the household. It is therefore expected that households with male heads will allow the female fish processor entrepreneur enough savings to repay loans. Female household head may face more challenges in loan repayment than her counterpart who has a male household head. The study therefore analyzed the household headship of households sampled.

Female household heads formed 59.9% while male household clients MFIs formed 40.1% of respondents. Female heads of households who are clients of semi-formal MFIs constitute 64.7% of respondents while female household heads who are clients of formal MFIs form 53.7% of respondents. Clients of semi-formal MFIs who have males as heads of their households' form 35.3% of respondents while clients of formal MFIs who have males as heads of their households form 46.3% of respondents. Women fish processors in the Tema metropolis play a vital role in household management as they form 59.9% of household heads of all respondents sampled. This responsible position of these women could impact on their repayment of loans. The chi square value did not show any significant difference between the semi-formal and formal MFIs. A summary of gender of household heads of MFI clients is as shown in Table 7.

Table 7: Gender of household heads of clients

Household head	Source of credit				Total	%	χ^2
	Semi-Formal		Formal				
	Freq.	%	Freq.	%			
Male	30	35.3	31	46.3	61	40.1	$\chi^2=1.89$ df=0.171 significant
Female	55	64.7	36	53.7	91	59.9	
Total	85	100.0	67	100.00	152	100.0	

Source: Author's Field data, 2012

4.2 Characteristics of Clients and their Enterprises

The attitude of individual MFI clients and the nature of their enterprises affect the performance of their businesses. The manner in which the clients conduct the fish processing business in relation to their own lifestyles affect the general performance of the enterprises. The socio economic characteristics of the MFI clients influences the successes or otherwise of their business and the loan repayment.

4.2.1 The Attributes of the Fish Processing Enterprise

The study analyzed the nature of fish processing enterprises, such as size of enterprise, number of people engaged, sources of labour and types of processing methods used by client of FGNOs and RBs clients with the chi square. Small size enterprises are considered as businesses that processed less than 30 cartons of fish per week, while medium business are those that processed between 31 and 50 cartons of fish per week and large implies business that processed over 51 cartons of fish per week. The chi square results of ($\chi^2=18.99$, df = 2, P = 0.00) was statistically significant. This implies that the size of enterprise differed between the semi-formal and formal banks with the clients of the formal banks having the largest enterprise size (above 50 cartons) representing 56.9% compared to 23.5% for the semi-formal

banks. The study again showed that the semi-formal banks had their clients with the lowest enterprise size (1-30 cartons) representing 31.8% as compared to 18.5% for the formal banks.

In terms of number of people engaged, the chi square results of ($\chi^2 = 5.20$, $df = 2$, $p = 0.158$) shows that there was no significant difference between the semi-formal and formal MFIs. Semi-formal clients who engaged 2 to 3 workers were 56.5% while formal clients who engaged 3 or 4 workers were 43.1%. The study again showed that formal MFI clients who engaged more than 6 workers formed 22.4% which was more than semi-formal MFI clients who formed 10.6%.

The study also analyzed the sources of labour employed by clients of Semi-formal and Formal MFIs. The chi square results of ($\chi^2 = 8.28$, $df = 2$, $p = 0.016$) showed significant difference between the semi-formal and formal clients. Semi-formal clients who used family labour only in processing fish were 56.5% while Formal clients who used family labour only in fish processing business were 35.4%. Formal MFI clients who used family and others were 56.7% and client of the semi-formal formed 34.1%. The results show that fish processing business by women groups in the Tema metropolis was mainly a family business that engages family members but in addition to that, formal MFI clients used more workers outside the family than semi-formal clients.

Women fish processors applied different technologies to fish processing. The chi square result of ($\chi^2 = 3.90$, $df = 3$, $p = 0.273$) did not show any significant difference between the semi-formal and formal clients on the type of processing technology. This result indicates that differences in technologies applied by clients are not sufficient to bring about differences in performance of both semi-formal and formal clients. The Chorkor smoker was the most popular technology used in fish processing. Semi-formal clients who applied this method were 65.9% while clients from Formal clients who applied the Chorkor smoker technology were 76.9%. The drum

technology was used by 30.6% FNGO clients while 17.9% clients of Formal MFIs also used this method for fish smoking. The attributes of Fish Smoking Enterprises of FNGOs and RCB clients are shown in Table 8.

Table 8: Attribute of fish smoking enterprises of clients

Category		Semi-formal		Formal		Total		χ^2
		Freq.	%	Freq.	%	Freq.	%	
Size of enterprise	Small (1-30 cartons)	27	31.8	12	17.9	39	25.7	$\chi^2 = 18.99$ df = 2 P=0.000 significant
	Medium(31–50)	38	44.7	16	23.9	54	35.5	
	Large (51+ cartons)	20	23.5	39	58.2	59	38.8	
	Total	85	100.0	67	100.0	152	100.0	
Number of People engaged	1	6	7.1	4	6.0	10	6.6	$\chi^2 = 5.20$ df = 3 p=0.158 not significant
	2-3	48	56.5	28	41.8	76	50.0	
	4-5	22	25.9	20	29.9	42	27.6	
	≥6	9	10.6	15	22.4	24	15.8	
	Total	85	100.0	67	100.0	152	100.0	
Source of labour	Family Only	48	56.5	23	34.3	71	46.7	$\chi^2 = 8.28$ df = 2 P=0.016 significant
	Outside family	8	9.4	6	9.0	14	9.2	
	Family and others	29	34.1	38	56.7	67	44.1	
	Total	85	100.0	67	100.0	152	100.0	
Type of processing technology	Chorkor smoker	56	65.9	52	77.6	108	71.1	$\chi^2 = 3.90$ df=3 p=0.273 not significant
	Drum	26	30.6	12	17.9	38	25.0	
	Mud oven	2	2.4	1	1.5	3	2.0	
	Other	1	1.2	2	3.0	3	2.0	
	Total	85	100.0	67	100.0	152	100.0	

Source: Author's Field data, 2012

4.2.2 Mean Expenditure on Fish Processing Before and After Loan Compared

The student t-test was used to determine mean expenditure, the mean revenue and the mean profit or loss of the enterprises of both Semi-formal clients and Formal clients before they accessed loans. The t-test result of ($t = 2.322$, $p = 0.022$) showed significant difference at 95% confidence level, between the mean expenditure on fish processing before

accessing the loan. On the average, each of the 85 clients of FNGOs spent GH¢ 411.06 on the business while each of the 67 clients of the RBs spent on the average GH¢ 597.46 on their business.

The study also analyzed the mean revenue from fish processing businesses before accessing loan. The t-test result of ($t = 5.874$, $p = 0.000$) showed significant difference between the FNGO and RB clients. Clients of FNGOs had GH¢ 436.94 while clients of formal had GH¢ 746.79 on their business.

Some clients of both FNGOs and RBs had other sources of income apart from fish processing business. The t-test result of ($t = 0.623$, $p = 0.536$) did not show any significant difference between the means compared. On the average, each of the 28 clients of the FNGOs had GH¢ 51.07 from other sources of income whereas each of the 26 clients of the RB clients had on the average GH¢ 56.15 from their other sources of income.

In terms of profitability, both clients of FNGOs and RBs made profit on the average. The t-test result of ($t = 6.551$, $p = 0.000$) showed significant difference between the means compared. The average profit made by the 85 respondents of FNGO clients was GH¢ 98.64 before accessing loans.

On the other hand, each of the 67 respondents of the RB clients made on the average GH¢ 172.46 from their enterprises before taking loans. The study result therefore show that RB clients were more efficient and therefore made more profit on their investments in fish processing than FNGO clients even before accessing loans. This may explain why the RBs located within the catchment areas of this group of clients selected them as clients for giving out loans to. The RBs may have a better method of selecting loan taking clients than the FNGOs. It is possible that loan recovering among RB clients will be more than amongst the

FNGO clients. The hazard of not identifying good clients for loan disbursement may be high amongst FNGOs than among RBs.

The study used the student t-test to compare the mean expenditure, revenue and profit of clients of FNGOs and RBs after the clients accessed loans. The t-test result of ($t=6.912$, $p=0.000$) showed significant difference between the means compared at 95% confidence level. On the average, each of the 85 respondents of the FNGO clients spent GH¢595.88 on their enterprises after taking loans while each of the 67 clients of RBs spent GH¢ 975.82 on their enterprises after taking loans.

At 95% confidence level, the t-test result of ($t=6.785$, $p=0.000$) showed significant difference between the means of revenue compared. The average mean of revenue from fish processing business of each of the 85 FNGO clients was GH¢ 709.65 while the average for each of the 67 clients of RBs was GH¢1176.05.

Some clients of both FNGOs and RBs had some other sources of income after taking loans to run their businesses. The t-test result of ($t=0.568$, $p=0.572$) shows there was no significant difference between the means of revenue compared. The average other income made by each of the 28 clients was GH¢ 55.89 while each of the 26 RB clients also made other income of an average of GH¢ 60.76 after taking loans.

The difference in the mean profit of FNGO clients and RB clients was significantly different at 95% confidence level. The t-test result was ($t=7.629$, $p=0.000$). FNGO clients made a mean profit of GH¢ 156.18 each while RB clients on the average made profit of GH¢ 267.46 each after taking loans.

The higher mean profit made by clients of RBs further explain the higher efficiency of these clients compared with their FNGO clients. The RB may be better at assessing the quality of their clients before issuance of loans than FNGOs. The higher mean profit of RB clients can

also be explained by the higher investment in terms of expenditure made by this group of clients. This means the more a fish processor invests in the enterprise, with some level of efficiency, the higher the profitability of the enterprise. The loan levels granted by both FNGOs and RBs may not have been high enough to exceed the highest expected utility level to be derived from the utilization of the facilities. FNGOs may not be applying the best methods to assessing their clients before loan issuance and may have more difficulty in loan recovering than the RBs. Table 9 shows the result of the student t-test ran on the expenditure, revenue and profit levels of FNGO and RB clients.

Table 9: Mean expenditure on fish processing before and after the loan

	SOURCE OF CREDIT			
	Semi-formal	Formal	t-Test	p-value
BEFORE LOAN				
Expend. (n =85); (n = 67)	411.06	597.46	2.322	0.022**
Revenue (n = 85); (n = 67)	436.94	746.79	5.874	0.000**
Inc. other sources (n=28);(n=26)	51.07	56.15	0.623	0.536
Ave. Profit (n = 85); (n = 67)	98.64	172.46	6.551	0.000**
AFTER LOAN				
Expend. (n= 85); (n =67)	595.88	975.82	6.912	0.000**
Revenue (n= 85); (n =67)	709.65	1176.05	6.785	0.000**
Inc. other sources of income (n=28);(n=26)	55.89	60.76	0.568	0.572
Ave. Profit (n = 85);(n = 67)	156.18	267.46	7.629	0.000**
Difference in profit after loan compared with profit after loan	57.54	94.54		

Source: Author's Field data, 2012 Note: Mean values **significant at 5% level

4.2.3 Changes in Enterprise Expansion

When respondents were asked the changes that occurred after accessing the loan, 44.7% of semi-formal clients said their businesses expanded while 53.7% of formal client said yes. Respondents were again asked whether their enterprises have decreased and 23.5% of semi-formal said their businesses decreased while 28.4% of formal clients said yes. 22.9% of semi-formal clients had their businesses stable and formal clients were 17.9%. Table 10 shows the changes in enterprise.

Table 10: Changes in enterprise expansion

	Source of Credit			
	Semi-formal		Formal	
	Freq.	%	Freq.	%
Expanded	38	44.7	36	53.7
Decreased	20	23.5	19	28.4
Stable	22	25.9	12	17.9
Others	5	5.9	0	0
Total	85	100.0	67	100.0

Source: Author's Field data, 2012

4.2.4 Participation in capacity building of clients

Data was collected on client's participation in capacity building activities that influence their profitability. The activities involved, better business practice, fish processing technology and access to and managing micro credit. When respondents were asked whether they had any training on investing to earn profit, the chi square results of ($\chi^2 = 3.74$, $df = 1$, $p = 0.05$) showed significant difference between the semi-formal and formal clients. Semi-formal clients who responded yes was 22.4% but 77.6% said no while formal MFI respondents who said yes formed 10.4% and those who said no were 89.6%. On marketing of their processed fish, the chi square results of ($\chi^2 = 0.465$, $df = 1$, $p = 0.495$) showed no significant difference

between the semi- formal and formal clients. 30.6% of semi-formal clients said yes and the 69.4% said no while formal clients who said yes were 35.8% and 64.2% said no.

On sanitation practices, the chi square results of ($\chi^2 = 7.05$, $df = 1$, $p = 0.008$) showed significant difference between the semi- formal and formal clients. 81.2% of semi-formal respondents said yes and 18.8% said no while 95.5% of formal said yes and 4.5% said no. The chi square result shows that difference in knowledge of FNGO clients and RB clients on some topics

Table 11: Participation in capacity building activities

Type of Training	Response	Semi -formal		Formal		Total	%	χ^2
		Freq.	%	Freq.	%			
Better business practice								
Investing to earn profit	Yes	19	22.4	7	10.4	26	17.1	$\chi^2= 3.74$ df=1 P=0.05 significant
	No	66	77.6	60	89.6	126	82.9	
	Total	85	100.0	67	100.0	152	100.0	
Marketing of goods	Yes	26	30.6	24	35.8	50	32.9	$\chi^2= 0.465$ df=1 p=0.495 not significant
	No	59	69.4	43	64.2	102	67.1	
	Total	85	100.0	67	100.0	152	100.0	
Management of enterprise	Yes	23	27.1	19	28.4	42	27.6	$\chi^2= 0.032$ df=1 P=0.859 Not significant
	No	62	72.9	48	71.6	110	72.4	
	Total	85	100.0	67	100.0	152	100.0	

Source: Author's Field data, 2012

Table 11 continued

Type of Training	Response	Semi -formal		Formal		Total	%	χ^2
		Freq.	%	Freq	%			
Fish processing technique								
Good handling practices	Yes	74	87.1	64	95.5	138	90.8	χ^2 = 3.209 df = 1 P= 0.73 not significant
	No	11	12.9	3	4.5	14	9.2	
	Total	85	100.0	67	100.0	152	100.0	
Sanitation at processing site	Yes	69	81.2	64	95.5	133	87.5	χ^2 = 7.05 df=1 p=0.008 significant
	No	16	18.8	3	4.5	19	12.5	
	Total	85	100.0	67	100.0	152	100.0	
Type of ovens and their quality	Yes	72	84.7	63	94.0	135	88.8	χ^2 = 3.279 df= 1 p=0.070 not significant
	No	13	15.3	4	6.0	17	11.2	
	Total	85	100.0	67	100.0	152	100.0	
Good Packing	Yes	67	78.8	63	94.0	130	85.5	χ^2 =6.999 df =1 P=0.008 significant
	No	18	21.2	4	6.0	22	14.5	
	Total	85	100.0	67	100.0	152	100.0	
Storage Problems	Yes	74	87.1	63	94.0	137	90.1	χ^2 =2.047 df=1 p=0.153 not significant
	No	11	12.9	4	6.0	15	9.9	
	Total	85	100.0	67	100.0	152	100.0	
Accessing micro- credit and managing funds								
How to obtain funds	Yes	47	55.3	35	52.2	82	53.9	χ^2 =0.141 df=1 P=0.708 not significant
	No	38	44.7	32	47.8	70	46.1	
	Total	85	100.0	67	100.0	152	100.0	
importance of savings	Yes	42	49.4	35	52.2	77	50.7	χ^2 = 0.12 df=1 p=0.729 not significant
	No	43	50.6	32	47.8	75	49.3	
	Total	85	100.0	67	100.0	152	100.0	
Loans repayment	Yes	36	42.4	34	50.7	70	46.1	χ^2 = 1.062 df=1 p=0.303 not significant
	No	49	57.6	33	49.3	82	53.9	
	Total	85	100.0	67	100.0	152	100.0	
Identifying if enterprise is improving	Yes	49	57.6	38	56.7	87	57.2	χ^2 =0.013 df=1 p=0.908 not significant
	No	36	42.4	29	43.3	65	42.8	
	Total	85	100.0	67	100.0	152	100.0	

Source: Author's Field data, 2012

4.3 Fish Processing Clients Perception of Attributes of Products and Services Provided by MFIs

The MFI women fish processing clients hold different views about the attributes of the products and services of their MFIs. These attributes include the frequency of loans taken requirements for loan application approvals, frequency of loan application before loan is granted and challenges faced by respondents in accessing loans.

4.3.1 Frequency of Loans Taken

Respondents were asked how often they took loans from the same MFI source. Respondents from the semi-formal MFI clients who took loans only once form 15.3% of the total respondents. Semi-formal MFI clients who took loans from the same source twice form 68.2% of respondents while those who took loans 3 times and 4 times from the same source form 16.5% and 0.0% 99respectively. Respondents of formal MFI who took loan only once from the same source form 13.6%. Formal MFI clients who took loans 2 times from the same source form 74.2% of respondents while those from this group who took loans 3 and 4 times from the same source form 10.6% and 1.5% respectively. No client of formal MFI took loans 4 times from the same credit source. In all, MFI clients who took loans only once from the same credit source form 14.6% while those who took loans 2 times from the same source form 70.9%. Clients of MFIs who took loans 3 times from the same source form 13.9% and those who took loans 4 times from the same source form 0.7% of respondents. The commonest time that a woman fish processor in the Tema metropolis is likely to take a loan from a MFI is 2 times while it is most unlikely that such an entrepreneur will take loans 4 times from the same source. Failure to repay credit may be the reason behind MFIs not able to give loans to client for more than 3 times. Table 12 summarizes the frequency at which MFI clients took loans.

Table 12: Frequency of loans taken

Number of times loans have been taken	Source of Credit			
	Semi-formal		Formal	
	Freq.	%	Freq.	%
1	13	15.3	9	13.6
2	58	68.2	49	71.2
3	14	16.5	7	10.6
4	0	0	1	1.5
Total	85	100.0	67	100.0

Source: Author's Field survey, 2012

4.3.2 Requirements for Loan Application Approvals

The MFIs have general requirements that must be met in order for clients to qualify for loan. The study analyzed these requirements and how they affected access to loans by the MFI clients. The study results show that, generally, a loan applicant must be saving with the MFI, belong to a group of similar product producers, have a regular source of income and have other combinations of these 3 attributes to qualify for a loan. Semi-formal MFI clients who consider savings with a MFI as the factor that qualifies the entrepreneur for loan form 58.8% and 31.8% consider the entrepreneur's belonging to a group as a reason for qualifying for loans. Having a regular source of income was considered by 4.70% of semi-formal MFI clients as a reason for qualifying for loans while 4.7% considered other combinations of these 3 factors as the reason for qualifying for loans. Respondents who are clients of formal MFIs who believe it is savings with the MFI that qualifies one for loans from 71.2% of respondents. Formal MFI clients who believe belonging to a group is one of the factors that qualify one for loans constitute 21.2% of respondents while 3.0% of formal MFI client respondents believe having a regular income is a factor that qualifies one for MFI loans. Only 4.5% of formal MFI clients consider other combinations of 3 other factors as what qualifies an individual for loans. In general, amongst both formal and semi-formal MFI clients, 64.2% of respondents believe saving with a MFI is

the factor that qualifies one for loans while 27.2% of the respondents believe belonging to a group is what qualifies an individual for loan. MFI clients who believe having a regular source of income is what qualifies one for loans form only 4% while those who believe it is a combination of these 3 factors that earn one a loan from 4.6%. Discussions with loan officials of MFI indicate that all 3 factors and their combinations are important in qualifying one for loans. It is also true that savings with the MFI is the single most important factor considered in qualifying as an individual for a loan. The MFIs, however, have both group and non-group credit products. Chances of a client of MFIs are brighter if that client also has a regular income. Since no one factor alone is considered in granting loans, it goes to say a combination of 3 factors is important in qualifying for a MFI credit. Table 13 gives a summary of factors considered by MFI clients as important in accessing credit from MFIs.

Table 13: Requirement for loan approval

Requirement for loan approval	Source of Credit			
	Semi-formal		Formal	
	Freq.	%	Freq.	%
Savings with the bank	50	58.8	47	71.2
Belong to a group	27	31.8	14	21.2
Have regular income	4	4.7	2	3
Other combinations	4	4.7	3	4.5
Total	85	100.0	66	100.0

Source: Author's Field data, 2012

4.3.3 Frequency of loan application before loan is granted

MFI respondents believe that a first time application may not lead to approval of loans. Applicants learn from the requirements during the first application to then meet the full requirements at subsequent loan application attempts. The study therefore asked respondents the number of times they applied for loans from a particular source before their application were successful. Clients of semi-formal MFIs who had loans approved for them after

applying less than 2 times were 30.6% of respondents. Most semi-formal MFI clients applied between 2 and 4 times before the facilities were approved for them, and this group form 62.4% of respondents. Semi-formal MFI clients who were granted loans after more than 4 applications were 7.1% of respondents. Formal MFI clients who had loans after less than 2 applications were 19.4% while formal MFI clients who had loans after applying between 2 and 4 times were 71.6%. Formal MFI clients who had loans approved them after more than 4 applications were 9.0% of respondents. From this result it is clear that most MFI clients get loans after applying for 2 to 4 times. The learning curve improves as the clients know the requirements of the MFIs. This means also that some experience with the process to go through in getting the loans eventually pay off when loans are granted by MFIs.

The MFI institutions themselves also seem to deal with the issue of asymmetry information in the process get to know the frequent applicants better before letting go the credit. The formal MFI may have better structures in place to carry out due to diligence on the part of the clients than the semi-formal clients; hence these institutions are able to grant loans faster than the semi-formal MFIs. Without the MFIs it may take a much longer period for the major banks to do a good assessment on a client in the rural settings before granting loans. This explains the asymmetry information problem and how institutions or lenders closer to the borrower are able to overcome it than the lender from the distance. Table 14 shows the frequency of loan application from MFIs before loan was granted.

Table 14: Frequency of loan application before loan was granted

Frequency of application before granted	Source of Credit			
	Semi-formal		Formal	
	Freq.	%	Freq.	%
2times	26	30.6	13	20.0
2 – 4 times	53	62.4	46	70.8
4 times	6	7.1	6	9.1
Total	85	100.0	67	100.0

Source: Author's Field data, 2012

4.3.4 Challenges Faced by Respondents in Accessing Loans

Respondents were asked to mention some of the challenges they faced in accessing loans from both semi-formal and formal credit giving MFIs. Respondent clients from semi-formal MFIs cited the need to provide collateral or a guarantor as one of the challenges they face in accessing loans. This group of respondents forms 11.8% of clients of formal MFIs. Delays in processing of loan applications formed challenges of 7.1% of clients of semi-formal MFIs. Clients of semi-formal MFIs identified the fact that processing time of loans as being too long as a major challenge to their accessing loans. This group forms 78.8% of semi-formal MFI client respondents.

Semi-formal MFI clients also identified various combinations of these three factors as a combined challenge to their access to loans. This group also forms 2.4% of semi-formal MFI client respondents. Respondent clients of formal MFI clients constituted 6.2%, 1.5%, and 90% for guarantors or collateral, delays in processing loan applications and processing time being too long respectively as challenges to their access to loans. The summary of responses from respondents on challenges to their ability to access loans is shown in Table 15.

Table 15: Perception of respondents on challenges of accessing loans

Challenges of loan application	Source of credit			
	Semi-formal		Formal	
	Freq	%	Freq.	%
Guarantor/collateral	10	11.8	4	6.1
Delayed application	6	7.1	1	1.5
Processing time too long	67	78.8	60	90.9
Combinations of 3 and above	2	2.4	1	1.5
Total	85	100.0	66	100.0

Source: Author's Field data, 2012

4.3.5 Challenge to Loan amount Granted

Loan applicants do not sometimes get the amounts they requested in their applications disbursed to them. The loan or credit officers sometimes cut down the amount the applicant requested as a step to reduce the MFIs risk exposure or to reduce the debt burden of the client. Some loan applicant find this cut in their amounts requested very discouraging because this sometimes leave them with meager amounts that cannot run the business the way they expected it to run. When respondents were asked whether they were granted loans up to half of the sum they applied for, 12.3% of semi-formal MFI client respondents said they received up to half the total sum they requested and 87.7% said they received more than half the amount they requested in their applications. In the case of clients of formal MFI client respondents, 7.7% said they received up to half the loan sum they requested for while 92.3% of formal MFI clients said they received more than half the loan amount they applied for. These cuts in the loan sum required may pose challenges to loan repayment if the amounts granted do not meet the threshold for running the businesses the loans are intended for. Table 16 gives the summary of what loan fraction of loan respondents are granted by MFIs.

Table 16: Challenge to loan amount granted

Amount given from the requested	Source of Credit			
	Semi-formal		Formal	
	Freq.	%	Freq.	%
Half the amount requested	9	12.3	3	7.7
More than half the amount	64	87.7	36	92.3
Total	73	100.0	39	100.0

Source: Author's Field data, 2012

4.3.6 Follow-up Services after Loan Disbursement

Clients of MFIs expect that loan officers or credit officers from the MFIs that provided them with loans will do follow-up visits to their businesses to ascertain how the businesses fare after loan disbursement. The respondent clients believe the technical know-how of the loan officers in the area of financial management will help the applicants succeed in their businesses and so be able to repay loans faster. Respondents were asked how often loan officials visited them at their business locations as their loan facility relationship officers. Weekly loan officials visit were identified by 12.2% of semi-formal MFI client respondents while fortnight visits were identified by 6.1% of this client respondents. Monthly visits were identified by 73.2% of semi-formal MFI client respondents as the frequency at which loan officers visit their offices. None of the selected frequencies of loan officer visits were also identified by 8.5% of the semi-formal MFI client respondents.

Client respondents of formal MFIs identified weekly visits of loan officers to their business offices. This weekly visit by loan officers was identified by 4.6% of formal MFI client respondents while fortnight visits were identified by 1.5 % of these formal MFI client respondents. Monthly visits by loan officers was identified by 89.2% of formal MFI client respondents as the frequency at which loan officers visit their business premises. Only 4.6%

of formal MFI clients identified none of the 3 visit frequencies as intervals at which loan officers visited their business premises. Monthly visit are the highest frequencies at which loan officers visited the premises of loan beneficiaries. The formal MFI are perceived by their clients as making more such monthly visits to their clients than semi-formal MFI loan officers do to their client premises. Table 17 shows the summary of the frequency of loan officer visits to their clients.

Table 17: Follow-up visits after Loan Disbursement

Follow-up visits	Source of Credit			
	Semi-formal		Formal	
	Freq.	%	Freq.	%
Weekly	10	12.2	3	4.6
Fortnightly	5	6.1	1	1.5
Monthly	60	73.2	58	89.2
None	7	8.5	3	4.6
Total	82	100.0	65	100.0

Source: Author's Field data, 2012

4.4 Loan Repayment

Loan repayment is very important for the sustenance of any credit system. The loan repayment returns loanable funds to the MFIs for re-lending to the other potential or future clients. Loans must also be paid as and when they fall due to bring trust between the MFIs and the client. Although, most women fish processors do not keep strict data or records on their loan repayments, they at least know when they have fully paid-up their liabilities to the MFI credit givers. The study therefore asked MFI client respondents whether they paid off loans granted them by MFIs.

The chi square result of ($\chi^2 = 4.410$, $p = 0.036$, $df = 1$) showed significant difference between the loan repayment of clients of semi-formal and formal. 60% of semi-formal MFI

client respondents show that they were able to repay all the loan amounts granted them by their MFI while 40% of this group said they were unable to repay all the loans granted them by the MFIs. On the other hand, 76.1% of formal MFI client respondents said they paid off the loans granted them by the formal MFIs and 23.9% said they were unable to repay the loans. From the study result, it is clear loan recovery rates are higher by the formal MFIs than by the semi-formal MFIs. Many reasons may account for this observation. The formal MFIs are mainly rural banks with more organized business structures and probably more trained and qualified credit officers than the semi-formal MFIs. The formal MFI may have found a much better means of addressing the problem of asymmetry information of their clients than the semi-formal MFIs. The formal MFIs therefore may be selecting more reliable and trustworthy clients than the semi-formal MFIs.

Table 18: Loan Repayment (Recall)

Repayment	Source of credit				χ^2
	Semi-formal		Formal		
	Freq.	%	Freq.	%	$\chi^2= 4.410$
Yes	51	60	51	76.1	df=1, p=0.036 significant
No	34	40	14	23.9	
Total	85	100	67	100.0	

Source: Author's Field data,

4.4.1 Reasons for Difficulty in Loan Repayment

From the study, it is realized that women fish processors face a number of challenges in the acquisition and repayments of loans namely, high interest rates, loan amount been inadequate, produce been sold on credit, poor market for produce and untimely disbursement of loans. After ranking of the constraints by the women individually, high interest rates came up as the most pressing problem (ranked 1st) with untimely disbursement of loans been the less

pressing constraint (ranked 6th). Using the Kendall's coefficient of concordance, high interest rates came up with the least total weight score (TWS) of 108 indicating that it is the most pressing constraint faced by farmers in the study area. Selling produce on credit followed with a total weight score (TWS) of 116 indicating it is the second most pressing constraint faced by women fish processors. From the analysis untimely disbursement of loans came up with the highest total weight score (TWS) of 301 indicating it is the least pressing constraint among those ranked by farmers. Table 19 shows the ranking of the constraints by respondents.

Table 19: Ranking of reason for difficulties in loan repayment

Challenges	Overall rank	TWS(T)	RANK SCORE OF CHALLENGES					
			1	2	3	4	5	6
Spend income from loan	4 th	273	1	3	8	15	16	17
interest rates too high	1 st	108	31	15	10	3	1	0
loan amount inadequate	5 th	287	0	3	4	18	13	22
sold on credit	2 nd	116	22	23	12	3	0	0
Poor market	3 rd	175	6	15	22	13	3	1
Untimely disbursement	6 th	301	0	1	4	8	27	20

Source: Authors computation, 2012 $W = 0.3$ $F_{cal} = 25.3$ and $F_{tab} = 3.02$

The study revealed that there is a degree of agreement ($F_{cal} = 25.3 > F_{tab} = 3.02$) between the constraints ranked by the women fish processors. The study however reveals that even though, there is a level of agreement between the constraints ranked by the women fish processors, the Kendall's coefficient of concordance (W) was 0.3 (30%), implying that the degree of agreement is not strong. That is 30% agreed to the ranking of constraints as shown in the table above.

4.5 Factors Influencing Loan Repayment

The result of a regression run on the effect of socio-economic factors on loan repayment showed that some socioeconomic factors have significant effect on loan repayment while others do not. The dependent variable was loan repayment (denoted by LR).

4.5.1 Age

The age of the entrepreneur of the fish processing business, denoted by AGE, has no significant effect on loan repayment. The study result showed that the age distribution of women fish processors in the Tema Metropolis range from 20 to over 61 years. Most of the younger fish processors understudied their more experienced mothers for years as work hands before starting their own fish processing businesses. This means that though experience may be important in fish processing, these younger women fish processors gained some good level of it before starting their own enterprises. The more profitable or successful the fish processing business is the more likely it is that the entrepreneur will pay up loans granted her. Age is not a factor that affects loan repayment under this study. The result does not meet the apriori expectation of the study, hence the null hypothesis is accepted. The finding contradicts Kimuyu and Omiti (2000) that age exerts a significantly positive effect on loan repayment.

4.5.2 Educational Level

The level of education of the women fish processors, denoted by EDUC has a negative effect on loan repayment and the effect is significant at 99% confidence level. It is generally expected that with higher formal level of education, the higher the knowledge and skill level of the individual. Higher skills are also generally expected to increase productivity and profitability and profitability could lead to better loan repayment rates. The sampled fish processors have levels of education ranging from no formal education, through middle school education to

post middle school education. People's lifestyles also affect their spending patterns. People with higher education level also tend to spend more on non-business items and this takes earned incomes away from loan repayment. The more educated fish processors have higher lifestyles with higher non-business expenditure patterns that may negatively affect their ability to repay loans. This negative relation between level of education and loan repayment does not meet the apriori expectation of the study hence the null hypothesis is accepted.

4.5.3 Gender of Household Head

It is expected that the gender of the household head, denoted by G , has effect on the entrepreneur's ability to repay loan. The gender of the household head has no significant effect on loan repayment. It therefore does not matter the gender of the household head, loans may or may not be paid back by such entrepreneurs involved in fish processing business. This may be that women who double as household heads spend just about the same in supporting their households just as women who have men as the heads of their households do. This result does not meet the apriori expectation of the study hence the null hypothesis is accepted.

4.5.4 Household Size

The size of women fish processor entrepreneurs' household, denoted by HHS , has no significant effect on loan repayment by the business. Household size relates to how many people are in the household and relates to household expenditure on non-business items. It is generally expected that many entrepreneurs will pull funds from their businesses to meet the normal household running cost to the neglect of repayment of their loans. It may also be that some family members also provide service to the business for which they are not paid as they are not counted as labourers and this may compensate for funds spent on them as household members. This could cancel any effects that household size should have on loan repayment. The result does not meet the apriori expectation of the study hence the null hypothesis is accepted.

4.5.5 Marital Status

The study shows that marital status of the women entrepreneur, denoted by MSTUS, has no significant effect on loan repayment. It is generally expected that the marital status of the entrepreneur will affect her efficiency, profitability of her enterprise and her ability to repay loans taken for the business. Unmarried single entrepreneurs may save more revenue from the business and be able to repay loans. Single women with children to fend for alone, divert some income to taking care of their children and this is expected to affect both profitability and loan repayment. However, the study results did not show this. This means single women and married women may have understood the separation of their enterprises from their family lives, hence applied funds for the business only to the business and not to other family pressures. The result, however does not meet apriori expectation of the study hence the null hypothesis is accepted.

4.5.6 Number of People Engaged

The effect of the number of people engaged in new enterprise, denoted by PEINE, has a significant effect on loan repayment. This effect is positive and is significant at 95% confidence level. This means that the more workers engaged by the women fish processor entrepreneur, the more likely it is that she will repay her loan. There must be a threshold of labour needed to be engaged in order to make the fish processing operation efficient and feasible to enable the entrepreneur to repay his loans. This also means that more people engaged in the fish processing business does not lead to labour wastage and that each additional hand engaged was useful and contributed positively to loan repayment. The several processes involved in fish processing may require many hands to make the operations efficient and capable of repayment of loan liabilities. The result meets apriori expectations; hence the null hypothesis is rejected.

4.5.7 State of the Fish Processing Enterprises

The study results show that the state of the fish processing enterprises, denoted by SOFPE, has a positive significant effect on loan repayment and this is significant at 95% confidence level. This means that if the state or the nature of the fish processing enterprise is such that productive activities are at efficient levels, the enterprise is able to repay its loan liabilities. The better the state of the fish processing enterprise, the more likely the enterprise is to pay its loan liability. The better state of the enterprise connotes better efficiency in the utilization of productive resources, hence better profitability and the more likelihood in repaying loans taken. This result meets the apriori expectation of the study hence the null hypothesis is rejected.

4.5.8 Size of the Fish Selling of the Enterprise

The study results show that the size of the fish selling of the enterprise, denoted by SOFSE, has no significant effect on loan repayment. This means that the volume of fish sold has no effect on the loan repayment. This may be because the fish processing business has a very low level of fixed costs hence the sales costs is mainly determined by the variable costs. Hence the more fish an enterprise sells, the more variable cost it meets hence savings on the low fixed costs is marginal and has no impact on the enterprises ability to repay loan. The result, however, does not meet the apriori expectations of the study; hence the null hypothesis is accepted.

4.5.9 Selling Price

The study results show that sale volume of the processed fish, denoted by SP, has a significant effect on loan repayment. This effect is positive and significant at 99% confidence level. This result is expected as the unit of sales revenue is price. The higher the selling price implies, the higher the revenue or income from the fish processing business. The higher income from a unit of fish processed, the more likely it's that profit is made, hence the more likely it is for the fish processing enterprise to pay its debt which in this case is the loan. The result meets apriori

expectation of the study hence the null hypothesis is rejected. Table 20 shows a regression result of factors influencing loan repayment.

Table 20: Regression results of factors influencing loan repayment

Dependent Variable: LR Method: Least Squares				
Date: 06/04/13 Time: 05:31				
Sample: 1 164				
Included observations: 152				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
AGE	0.041672	0.069543	0.599227	0.5500
EDUC	-0.181174	0.058833	-3.079457	***0.0025
G	0.001829	0.007671	0.238423	0.8119
HHS	0.016638	0.018102	0.919094	0.3596
ITEP	0.126560	0.133506	0.947968	0.3447
LOVALC	0.058495	0.058796	0.994876	0.3215
MOG	0.053969	0.104315	0.517362	0.6057
MSTUS	0.034439	0.083603	0.411929	0.6810
PEINE	0.139210	0.061003	2.282031	**0.0239
SOFPE	0.145504	0.045401	3.204879	***0.0017
SOFSE	-0.084947	0.065497	-1.296952	0.1967
SP	0.540843	0.144760	3.736144	***0.0003
R-squared	0.224402	Mean dependent var		0.556962
Adjusted R-squared	0.160214	S.D. dependent var		0.498324
S.E. of regression	0.456663	Akaike info criterion		1.348955
Sum squared resid	30.23851	Schwarz criterion		1.600941
Log likelihood	-93.56747	F-statistic		3.496040
Durbin-Watson stat	0.598853	Prob(F-statistic)		0.000149

Source: Author's Field data, 2012

*** = 1% significance level

** = 5% significance level

From the results discussed above, some socioeconomic and other production factors of the fish processor and the fish processing enterprise affect profitability and repayment of loans taken for running the business. For instance, educational level of the fish processor, the number of people engaged in the new enterprise and the state of the fish processing enterprise significantly affect loan repayment. Chapter five gives the summary, conclusion and recommendations of the study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter gives a summary of the entire study and conclusions drawn from the findings. The chapter also gives some recommendations based on the results of the study as well as the limitations of this study. The recommendations are intended to help stakeholders in the microfinance industry; namely, MFIs, clients of MFIs, policy makers, other financial institutions, and the central bank take informed decisions.

5.1 Summary of the Findings

The study was set out to examine the extent to which different explanations for poor loan repayment explain loan repayment by women fish processors in the Tema Metropolis. The specific objectives of the study include to determine whether MFI characteristics and products suitability influences loan repayment, to determine the extent to which socio- economic characteristics of women fish processors influence loan repayment in the study area, to examine whether the nature of fish processing enterprises have an influence on loan repayment and to determine the performance of women fish processors enterprise on loan repayment.

The results as outlined in Chapter 4 of this study show that formal MFIs like the rural banks have fewer products but these products come with eligibility criteria and loan approval processes that select credit worthy loan clients who are able to repay their loans. The clients of the formal MFI indicated that they have a better loan repayment as in the regression result. Formal MFI clients who said they had finished paying loans received from 76.1% of the formal MFI clients while 60% of semi-formal MFI clients said yes they had also paid up loans received. The results indicate that formal MFI clients have better designed products with

characteristics that are able to address the problem of information asymmetry. Like the traditional village lender, the formal MFI products are not designed to be in haste of giving out loanable funds and are therefore able to avoid the moral hazards associated with clients who will do everything to take loans and may not use the loans for the intended purposes. This result, although is in contradiction with the theory behind microfinance, may explain why some microcredit institutions are failing in Ghana. It is therefore important to note that for a faster loan recovery by MFIs, the MFI characteristics, the product design and characteristics must be aimed at improving loan recovery and not just to attract loan clients. The group loans seek to address these challenges but some groups are formed only for the purposes of receiving loans and are non-functional after loans have been received by clients. These types of groups do not aid loan recovery.

The study also shows that some socio-economic characteristics of the women MFI clients themselves affect the repayment of loans. The results in Chapter 4 indicate that education level of MFI clients exerts a negative effect on loan repayment and this effect is significant at 95% confidence level. This the study results show may relate to higher lifestyles of more formally educated clients which come with higher non-business expenditures. This higher lifestyle related expenditures take funds away from loan repayment and spends these funds on costly funeral clothing and great child out-dooring costs.

Marital status of the women fish processor MFI client was found not to exert any effect on loan repayment.

The study results in Chapter 4 also indicate that the state of the fish processing enterprise (SOFPE) exerts a positive effect on the loan repayment by the enterprise and this effect is significant at 99% confidence level. Within this attribute of the state of the fish processing business is the nature of the business and how well it is managed. Fish processing businesses that are generally well managed and are of the optimum size are said to be in good state. This

state allows optimum application of loans to the business and proper utilization of funds. These lead to profitability of the enterprises which in turn results in loan repayments.

The number of people engaged in the enterprise (PEINE) was also found to exert positive effect on loan repayment. The effect is significant at 99% confidence level. The number of people engaged in the fish processing business if optimum will lead to good application of labour. The result is a more profitable enterprise that can repay its loans. In processing MFI loan applications, therefore, attention needs to be paid to the number of people engaged by the enterprise. The number of people engaged by the fish processing enterprise is a measure of the performance of the enterprise. Hence the generally performance of the enterprise, measured by the number of people engaged by the enterprise affects loan repayment positively.

In effect, the performance of a fish processing business affects the loan repayment of the enterprise. Loans can best be recovered if granted to MFI clients whose businesses show such good attributes of good performance.

5.2 Conclusions

The results of this study leads to the conclusion that women engaged in fish processing enterprises within the Tema Metropolis in their quest for funds to operate their businesses seek loans from both semi-formal and formal microfinance institutions. These microfinance institutions have different micro-credit products with different characteristics. The characteristics of the MFIs, the types and design of the MFI products affect the repayment of loans taken by MFI women fish processing clients. The nature of the enterprises of the MFI clients and some socio-economic characteristics of the women MFI clients affect the repayment of the loans by the women fish processing enterprises. Women fish processor clients of the formal MFIs gave a higher repayment rates than their counterparts who are clients of semi-formal MFIs.

The study also concludes that some selected socio-economic characteristics of the women fish processors in the Tema Metropolis affect repayment of loans. Education level was found to significantly affect loan repayment negatively. Marital status of the women entrepreneurs, was not found to affect loan repayment of the women MFI clients.

The state of the fish processing enterprise is a proxy for the nature of the enterprise that was found to significantly exert a positive effect on loan repayment.

The number of people engaged by the enterprise was found to significantly affect loan repayment. Selling price of the fish product for instance, affected loan repayment positively. The fish processors like many women small scale business units will continue to seek funding for their enterprises. It is believed findings from this study will lay the foundation for recommendations and steps that can ensure better loan recovery by MFIs who lend to the women.

5.3 Recommendations

The results of this study lead to the following recommendations, that:

- 1) Product design and characteristics of such MFIs products should be done such that they can lead to faster loan repayment by the women small scale fish processor clients of MFIs. The loan amount, the repayment period and timing may have to be done to meet the needs of the clients.
- 2) Semi-formal MFIs should learn from formal MFIs their product designs and loan eligibility criteria that will help the former overcome the problem of information asymmetry which then can lead to better loan recovery amongst semi-formal MFIs.
- 3) Since some socio-economic characteristics of women fish processor clients of MFIs affect the women's loan repayment, loan giving decisions by MFIs should take into account these characteristics in deciding on loan application approvals.

- 4) The effects of such socio-economic characteristics could be enhanced through training of these women clients
- 5) The performance of the women fish processing enterprises should be improved as a way improving loan repayment rates.
- 6) Improvements be made to the state of the fish processing enterprises as a way of improving their performances and that the state of the fish processing enterprises is an important factor which must be considered in loan appraisals.
- 7) A further study that will compare loan repayment groups of different women groups engaged in different economic activities including fish processing in the Tema Metropolis.

5.4 Limitations of the Study

The study of factors influencing loan repayment among small scale women fish processors in the Tema Metropolis was based on data collected from respondents engaged in fish processing businesses within the Tema Metropolis only. Many of respondents do not keep written records and had to depend largely on their capacity to recall records from memory. Some respondents also harbour fears that the information they give out may be used for tax purposes and were therefore very hesitant to divulge information. Group leaders of the various women groups, however, were very helpful in giving out information as they seem to have understood the purpose of the research much better than their members.

It was also very difficult to have adequate information or data from the managers of the MFIs. The MFI officials were unwilling to give out information on their clients. The officials were also hesitant to give out information on their individual institutional loan recovery rates with other enterprises to allow comparison between loan repayments rates amongst different industries. Despite, these challenges, enough data was obtained that allowed a successful

research on the topic. It is also believed that adequate data was collected to answer the research questions.

The current study could not compare loan repayment by other women groups engaged in other enterprises other than the fish processing industry to enable a fair interpretation of whether the current trends in loan repayment amongst respondents MFI clients are better or not. It is believed that future studies will fill this gap.

REFERENCES

- Ackerly, B. A. (1995). "Testing the tools of development: Credit programmes, loan involvement, and women's empowerment." *IDS Bulletin* 26(3):56-68.
- Adebayo O. O, and Adeola, R. G. (2008). Sources and uses of agricultural credit: by small scale farmers in Surulere Local Government Area of Oyo State. *Anthropologist*, 10(4): 313-314.
- Aleem, I. (1990). Imperfect Information, Screening, and the Costs of Informal Lending: A Study of a Rural Credit Market in Pakistan. *World Bank Economic Review* 4(3):329-349
- Arene, C.J, (1993). An analysis of loan repayment potentials of smallholder soybean group farmers in Nigeria. *Quarterly J. Int. Agric*, 32:160-169.
- Awoke, M. U (2004). Factors Affecting Loan Acquisition and Repayment Patterns of Smallholder farmers in Ika North-East of Delta State, Nigeria. *Journal of Sustainable Tropical Agricultural Research*, 9: 61- 64.
- Chaudhuri, B. R. (2010) Credit and Women Empowerment: Is the Relationship Positive, an Article Published by Indian Institute of Foreign Trade, 2010, New Delhi, India.
- Chen, (1992). Household Economic Portfolios, AIMS Project, Washington, D.C.: Management Systems International.
- Cheston, S. & Kuhn, L. (2002). Empowering Women through Microfinance. New York: UNIFEM.
- Chowdhury, A.M.R., Bhuiya, A. (2001). Do poverty alleviation programmes reduce inequities in health? The Bangladesh Experience. In *Poverty Inequality and*

Health: An International Perspective, edited by D. L. a. G. Walt. Oxford: Oxford University Press.

Chowdhury, J.H. (2001). Reintegration of Internally Displaced People: The Need for microcredit I.N. Hossain, F. and Rahman, Z. (Eds), *Microfinance and Poverty: Contemporary Perspectives*. Tampere, Finland: Department of Administrative Sciences, University of Tampere. 69-85.

Chowdhury, M.J.A., Ghosh, D. and Wright, R.E. (2005). The Impact Microcredit on Poverty: Evidence from Bangladesh, *Progress in development Studies* 5(4), 298-309.

Chowdhury, S. (2004). 'Search Cost and Rural Producers' Trading Choice between Middlemen and Consumers in Bangladesh. *Journal of Institutional and Theoretical Economics* 160(3), pp 522-554.

Copisarow, R. (2000). The application of micro credit technology to the UK: key commercial and policy issues *Journal of Micro Credit*, 1(1), pages 6-12.

DoF (2006) A study on issues bordering fishing systems in relation to environment, trade, food security and socio-economic situations in Ghana. Directorate of fisheries, Ministry of Fisheries, Ghana.

Easterling T., James W., Fenton F. and Sands B. (2008) *Factors Affecting Economic Growth*, October 2008, Heiman Educational Books Limited, London.

Essel, T.T. (1996). "The Impact of Rural Banks' Lending Operations on Rural Development: A Case Study of Kakum Rural Bank". An Unpublished M.Phil. Thesis, University of Cape Coast, Cape Coast.

F.A.O. (1993) *Agricultural Extension & Farm Women in the 1980's*, F.A.O. of the United Nations, Rome. No. 19 pg. 182.

Fatchamp, M.(1997). "Trade Credit in Zimbabwean Manufacturing". *World Development*, Vol. 25; No. 5, pp 795-815.

Germidis, D., Kessler, D., & Meghir, R. (1991). *Financial systems and development: What role for the formal and informal financial sectors?* Paris, France: OECD

Ghana Statistical Service, (2010), *Ghana Living Standard Survey, 2nd Report*, September, 2009 – August 2010, Accra.

Ghate, P. B. (1992). "Interaction Between the Formal and Informal Financial Sectors: The Asian Experience", *World Development*, No. 1, XIV.

Goet, A.M and R.S. Gupta, (1996), *Who Takes the Credit? Gender, Power and Control over Loan Use in Rural Credit Programs in Bangladesh*. *World Development* 24, 45-63

Goetz, A. M., and Sen Gupta, R. (1994). *Who takes the credit? Gender, power and control over loan use in rural credit programmes in Bangladesh*. *World Development*, 24(1), 45-63.

<https://www.imf.org/external/np/seminars/eng/2008/afrfin/pdf/Aryeetey.pdf>

Hulme, D and Mosley, P (1996) *Finance Against Poverty*, volumes 1 and 2, London: Routledge

Hulme, D. (2000). *Impact assessment methodologies for microfinance: Theory, experience and better practice*. *World Development*, Vol 28 No 1, pp 79-98.

Institute of Statistical, Social and Economic Research (ISSER). *University of Ghana Review of Performance of Ghanaian Economy in First Half of 2006*.

ISSER (2011), *The State of The Ghanaian Economy in the 2010*, The Institute of Statistical Social and Economic Research, University of Ghana, Legon.

Johnson, S. & Rogaly, B. (1997). *Microfinance and Poverty Reduction*. London: Oxfam.

- Kabeer, N. (2003). *Gender Mainstreaming in Poverty Eradication and the Millennium Development Goals: A Handbook for Policy Makers and Other Stakeholders. New Gender Mainstreaming Series On Development Issues* Author Contributors Canadian International Development Agency, Commonwealth Secretariat, International Development Research Centre (Canada), 245 pages.
- Karlan, D., and Zinman, J. (2004). "Observing Unobservable: Identifying Information Asymmetries with a Consumer Credit Field Experiment", Princeton Economics Department working paper
- Kashuliza A. K., Hella P., Magayane, F. F., and Mvena Z.S.K. (1998). The role of Informal and Semi-formal Finance in Poverty Alleviation in Tanzania: Results of a field study in two regions of REPOA. Research Report No 98.1
- Kimuyu, P and Omiti, J. (2000). Institutional Impediments to Access to Credit by Micro and Small Scale Enterprises in Kenya, IPAR, Discussion Paper No. 26 August.
- Kurwijila, R. and Due, J. M. (1991). Credit for Women's Income Generation: A Tanzanian Case Study, *Canadian Journal of African Studies*. Vol. 25, No. 1, pp.90-103.
- Leaman, S. H., Cook, T.J., & Stewart, L. S. (1992). Rural Economic development: Learning from success. *Economic Development Review*, 104(4), 27-33
- Ledgerwood, J. (1998). *Microfinance Handbook: An Institutional and Financial Perspective*. Washington, D.C.: The World Bank.
- Levy, B., (1993). Obstacles to Developing Indigenous Small and Medium Enterprises: An Empirical Assessment, *World Bank Economic Review*. Vol.7, No.1, pp.65-83
- Littlefield, E and Rosenberg, R. (2004). "Microfinance and the Poor", *F&D*, Vol.41, No.2.

- Littlefield, E., Murdoch, J. & Hashemi, S. (2003). Is Microfinance an Effective Strategy to Reach the Millennium Development Goals? Focus Note Series no. 24. Washington: CGAP -Consultative Group to Assist the Poor.
- Llanto, G. (2001). "Sustainable Rural Finance: Policy and Design Issues". PIDS Policy Notes No. 2001-04. Makati City, Philippines: Philippine Institute for Development Studies.
- Majoer H. and Maanders J. (2009) Women Empowerment- Comparing Concepts and Assessing implications for Microfinance, May 2009.
- Malhotra, A., Schuler S. R. and Boender C. (2002). "Measuring Women's Empowerment as a Variable in International Development." International Center for Research on Women and the Gender and Development Group of the World Bank.
- Mensah S. (2004) A Review of SME Financing Schemes in Ghana- Presented at the UNIDO Regional Workshop of Financing Small and Medium Scale Enterprises, Accra Ghana 15-16th March, 2004.
- Meyer, R. L. and Nagarajan, G. (2000). "Rural Financial Markets in Asia: Flagships and Failures". Paper Presented at the Mini-Symposium on Building Financial Markets in Developing Countries for Tomorrow's Agriculture: Status, Reforms and Innovations, XXIV International Conference of Agricultural Economists, Berlin, Germany.
- Mosedale, S. (2003). Towards a Framework for Assessing Empowerment. Paper prepared for the international conference, New Directions in Impact Assessment for Development: Methods and Practice, 24 - 25 November. Manchester, UK.

- Navajas, S., Schreiner, M., Meyer, R. L., Gonzalez-vega, C., & Rodriguez-meza, J. (2000). Microcredit and the Poorest of the Poor: Theory and Evidence from Bolivia. [Article]. *World Development*, 28, 333-346.
- Nissanke, M. and Aryeetey, E. (1998). *Financial Integration and Development in Sub-Saharan Africa, Liberalisation and Reform in sub-Saharan Africa*, London and New York: Routledge.
- Okorley E. L., Zinnah M. M., Mensah A.O. and Owens M. (1998) Women and Agro-processing in Ghana: A Case Study of the State of Women in Fish smoking in the Central Region of Ghana, Directorate of fisheries, Ministry of Fisheries, Ghana.
- Okorley, E. L. and Kwarteng J. A. (2001). Women in agro-processing in Ghana: a case study of the state of women in small-scale fish smoking in the Central region of Ghana. Louisiana: Association for International Agricultural and Extension Education (AIAEE). Proceedings of the 17th Annual Conference of the Association for International Agricultural and Extension Education held in Baton Rouge.
- Oladeebo J.O. and O. E. Oladeebo (2008). Determinants of Loan Repayment among Small Holder farmers in Ogbomosho Agricultural Zone of Oyo State, Nigeria. *J. Soc. Sci.*, 17(1): 59-62.
- Otero, M. (1994). "The Evolution of Nongovernmental Organizations Toward Financial Intermediation." In Maria Otero and Elisabeth Rhyne (eds.), *The New World of Micro enterprise Finance: Building Healthy Institutions for the Poor*. pp. 94-104. West Hartford, CT: Kumarian Press.
- Otero, M. (1999). Binging Back Development in Microfinance, *Journal of Microfinance*, Volume 1, number 1.

- Pitt, M. M., Khandker, S. R. & Cartwright, J. (2003). Does micro-credit empower women? Evidence from Bangladesh. Policy Working Paper Series 2998. Washington D.C: World Bank.
- Roslan, A. H., & Mohd Zaini, A. K. (2009). Determinants of microcredit repayment in Malaysia: the case of Agrobank. *Humanity & Social Sciences Journal*, 4(1), 45-52.
- Schuler, S. R., Syed M. H., and Ann P. R. (1997). "The influence of changing roles and status in Bangladesh's fertility transition: Evidence from a study of credit programs and contraceptive use." *World Development* 25(4).
- Sethuraman, S.V. (1977). "The Urban Informal Sector in Africa", *International Labour Review*.
- Simanowitz and Brody. (2004). Realising the potential of microfinance, id21 insights, December, Issue -51.
- Sinha, S. (1998). 'Micro-Credit: Impact, Targeting and Sustainability', *IDS bulletin*, Vol. 29, No. 4.
- Steel (2006), cited in Aryeetey, E. (2008, March). From Informal Finance to Formal Finance in Sub-Saharan Africa: Lessons from Linkage Efforts. Washington, D.C: International Monetary Fund Retrieved from
- Steel, W.F. and Andah, D. O. (2002). *Review of Rural Microfinance Regulations in Ghana: Implications for Development and Performance of the Industry*, Washington D.C., World Bank.
- Sterns, K. (1995). The hidden beast: delinquency in micro enterprise credit programme. ACCION Discussion. Thesis Document No. 6.

Tedeschi, G. A. (2008). Overcoming selection bias in microcredit impact assessments: a case study in Peru .*Journal of Development Studies*, 44(4), 504-518.

UNIDO Regional workshop of Financing Small and Medium Scale Enterprises, Accra 15-16 March, 2004.

Victor, O. and Asiamah J. P. (2007), Microfinance in Ghana: an Overview Research Dept, Bank of Ghana, Accra.

Wheeler, T. and Kay, M. (2010.). Food crop production, water and climate change in the developing world. *Outlook on Agriculture*, 39 (4). 239 -243.

World Bank, Rural and Micro Finance Regulation in Ghana: Implications for Development of the Industry, World Bank, New York (2004).

Zeller, M. and Sharma, M. (2000). Many Borrow, More Save, and All Insure: Implications for Food and Micro Finance Policy. *Food Policy* Number 25, IFPRI

APPENDICES

Appendix 1: Questionnaire for Fish Processors

UNIVERSITY OF GHANA-LEGON

DEPARTMENT OF AGRICULTURAL EXTENSION

RESEARCH TITLE: FACTORS INFLUENCING LOAN REPAYMENT AMONG SMALL SCALE WOMEN FISH PROCESSORS IN THE TEMA METROPOLIS

QUESTIONNAIRE FOR FISH PROCESSORS

This questionnaire is designed to collect information on factors influencing loan repayment among small scale fish processors in the Tema Metropolis.

The output of the research will be a thesis which identifies facilitating factors and problems that are encountered by the women for appropriate interventions to be made. This is an academic exercise and any information provided will be treated with confidentiality.

Please answer each question by ticking and/or filling the spaces provided.

General Information

Name of respondent.....

Community.....

Questionnaire No.....

Demographic Characteristics

1. How old are you? Specify number of years 99= Don't know

2. Marital status 1=Married/free union 2=Separated/divorced/widowed/single/never married

3. Level of formal education 1= No formal education 2=up to middle school or JSS completed 3=Above middle school or JSS

4. How many persons in your household- those who live together and share the same food at least once in a day- are Children – up to 17 years=1 Adults – 18 years of age or older=2

5. How many persons in your household is working- engaged in work that earns income or products? Number of economically active:

6. Who is the head of your household - the person who is the principal decision-maker?

1=Self/Female relative (mother, sister, aunt, grandmother Mother-in law 2=Male relative (husband, father, brother, uncle, father-in-law, brother-in-law)

7. How long have you been processing fish? 1= 0.5 years 2= 6-10 years 3= 11-15 years
4=16-20 years 5= above 20 years

Part B: Performance of fish processing enterprise

8. What other source of income do you have?

9. How much were you spending on fish processing per week before the loan? A

10. How much fish were you selling per week before the loan? B

11. How much other income were you earning from other activities before the loan? C

12. What was your average profit per week before the loan? (B+C)-A

13. How much were you spending on fish processing per week after the loan? D

14. How much fish were you selling per week after the loan? E

15. How much other income were earning from other activities after the loan? F

16. What was your average profit per week after the loan? (E+F)-D

17. How much do you pay as loan principal in a week?

18. How much interest do you pay in a week on loan? G

19. What is your profit after paying interest each week? $\{(E+F-D)-G\}$
20. What is your average cost of living (=cost of running the home) in a week?
21. Has this cost of living increased after you took the loan? Y=1, N=0
22. How much is this cost of living before the loan per week?
23. How much is this cost of living after the loan per week?
24. Has your fish processing enterprise?

Part C: The nature of the fish processors' enterprise

25. How many people are engaged by your enterprise? 1=1, 2 to 3=2, 4 to 5=3, over 6=4
26. What is your source of labour? Only family=1, Family and others=2, only outside family=3
27. What quantity of fish do you buy and smoke in a week?
- 1-30 basins/cartons 31-50 cartons/basins above 51 cartons/basins
30. What type of oven do you use? Chorkor smoker=1, Drum type=2, mud oven=3, Other{ }4
31. Have you participated in training in the following subject areas?

Topic	Yes=1 No=0	What were some of the things you were taught (don't read)	Yes=1 No=0	How suitable or useful was the content Useful =1
Better Business Practice		Investing to earn profit (eg. How to calculate Marketing of goods Management of		
Fish processing technique		Good handling Sanitation at processing Types of ovens & their Good packaging Storage problems		
Accessing micro credit and managing funds		How to obtain funds Importance of savings Loan repayment Identifying if enterprise		

Part D: Accessibility of the MFI product, suitability their influences on repayment

36. Have you ever taken a micro creditor loan in the past three years for your fish processing activities? Yes=1, No=0

37. If yes, was it a group loan or an individual loan? Group=1, Individual=2

38. If group, how long have you been in the group before loan application? Less than 6 months=1, 6 to 12 months=2, 12 to 24months=3

39. Date of first loan application:.....

40. When loan was granted.....

41. How many times have you taken the loan? 1=1, 2=2, 3=3 (day/mo/yr)

42. How many times did you apply for loan before you were granted? Less than 2=1, 2 to 4=2, more than 4=3

43. What is the source of your loan? 1=Formal (Banks) 2=Informal (friends/Susu/Money Lenders) 3=Semi- formal (NGOs)

44. What is the basic requirement for loan approval?

1=Collateral/guarantor, 2=Application applied, 3=Processing time too long

45. Did you receive the loan at the time it was most needed? Yes=1, No=0

46. Were you given the total amount requested for? Yes=1, No=0

47. If no, what amount were you given: 1=Half the amount, 2=more than half

48. How often were you visited by loan officials after you collected the loan?

1=Weekly, 2=Fortnightly 3=Monthly

Part E: Reasons for difficulties in repayment

49. Were you able to repay your loan (s) within a scheduled time? Yes=1, No=0

50. If no, why were you unable to pay within schedule? Rank reasons 1=most important reason, 8= the least important reason

REASON	RANKING 1 TO 10
Spent income from loan activity on family	
The interest rate was too high	
The loan amount was inadequate	
Cost of input too high	
Sold on credit	
Untimely disbursement	
Poor market	
Spent loan on other business other than fish	

51. Will you take another loan if you get the chance? Yes=1, No=2

52. What will be your suggestion for further improving the loan to allow for easy repayment?

.....

Appendix 2: Checklist for individual interviews with the MFI personnel**UNIVERSITY OF GHANA-LEGON****DEPARTMENT OF AGRICULTURAL EXTENSION****RESEARCH TITLE: FACETORS INFLUENCING LOAN REPAYMENT AMONG
SMALL SCALE WOMEN FISH PROCESSORS IN THE TEMA METROPOLIS**

Checklist for individual interviews with the MFI personnel

This checklist is designed to collect information on factors influencing loan repayment among small scale fish processors in the Tema Metropolis.

The output of the research will be a thesis which identifies facilitating factors and problems that are encountered by the women for appropriate interventions to be made. This is an academic exercise and any information provided will be treated with confidentiality.

To determine whether MFI characteristic and product suitability influences loan repayment

Client identification number.....

Community.....

1. Description of characteristics of your organization and the MFI product(s targeted at fish processors. Please use Yes or no. Y=1 N=0

Characteristics of the MFI or Bank	Y=1	N=0
Formal		
Informal		
Semi-formal		
Public		
Private		
Public Private Partnership		
NGO		

Enterprise/Sole proprietor		
Limited Liability Company		
Partnership		
Joint Venture		

2. What is your mission statement?

3. What is the objective of the Bank or the MFI? Tick as appropriate:

Non-profit making..... Profit making

4. Who are your target consumers?

5. Do you have a specific product for women? Y=1 N=0

6. What is the name of the product if yes to the above?

7. Terms and Conditions of financial products for SME especially fish processors

Terms and conditions				
Name of product	Product 1	Product	Product	Product
Product targeted to:				
LOANS				
Loan size				
Frequency and amounts				
Interest rates				
Repayment periods				
Provision of				
Commissions/commitment				
Application procedure				
Time from application to				

disbursement		
Procedure for processing of		
Location for provision		
Moratorium period		
Typical service duration		

Attributes	Fish processors product	Other women groups products	General public products
Loan recovery rate			
Default rate			
Rate of payment within the schedule			
Rate of delayed but paid up			
Rate of over aged loans			
Rate of collateral was available			
Rate at which repeated loans were granted			
Other			

Appendix 3: Map of the study area.