EFFECT OF MICROFINANCE ON SMALL SCALE BUSINESSES IN GHANA: THE CASE OF KETA MUNICIPALITY

BY

ENOS KWASI AGORDAH

Thesis Submitted to the Department of Economics of the Faculty of Social Sciences, University of Cape Coast, in Partial Fulfilment of the Requirements for Award of Master of Philosophy Degree in Economics

DECEMBER 2011

DECLARATION

Candidate’s Declaration

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

Candidate’s Signature ……………………… Date……………………

Name: Enos Kwasi Agordah
Supervisors’ Declaration

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

Principal Supervisor’s Signature………………….. Date ……………………
Name: Prof. Vijay Bhasin

Co-Supervisor’s Signature………………………. Date ……………………
Name: Dr. Samuel Annim
ABSTRACT

The study sought to empirically investigate the effects of microfinance on small scale businesses in Ghana using Keta municipality as a case study. An ordinary least squares method was used, based on primary data of 200 small scale business entrepreneurs, 100 of whom have taken loans and 100 without loans.

A Cobb-Douglas production function was first estimated to find the effect of microfinance loans on productivity. Afterward, a profit function was used to estimate the effects of microfinance loans on business level profits.

For the profit function, it was found out that, the business level profit depends on sales, level of education of entrepreneurs, training of entrepreneurs education interacted with training, and credit received by the entrepreneurs. For the effects of microfinance loans on productivity, it was found out that, assets, business age, business age interacted with assets, training, assets interacted with training, gender, education interacted with training, and credit were significant in explaining productivity of the enterprises. In the estimations, it was found out that, the loans which are to aid increase in both profit and productivity rather reduced this outcome variables. In the light of that relationship, to increase productivity and profit through microfinance loans, it is recommended that, the microfinance institutions educate their clientele on how to use their loans. It is again recommended that, the microfinance institutions step up training of their members on basic business ideals.
ACKNOWLEDGEMENTS

My sincere gratitude goes to my Principal Supervisor Prof. V. Bhasin and Co-supervisor, Dr Samuel K. Annim for their constructive criticisms and comments that helped to shape this work.

I would also like to express my gratitude to my Head of Department, Dr. Peter. B. Aglobitse for his immense assistance that gave me the urge to pursue and accomplish this programme. Also, I say thank you to Ibrahim Bashiru for assisting with the estimations. I am also sincerely grateful to Mr. Ferdinand Ahiakpor, W.I.K. Azumah, Edison M. Amu, Erica Ansah-Antwi and Christian Atsu Apaloo, for their help and encouragement towards the successful completion of this study.

I would also like to express my gratitude to African Economic and Research Consortium (AERC) for their sponsorship in the 2010 Collaborative Masters Programme (CMAP) at the Joint Facility for Electives (JFE) held in Nairobi, Kenya and also for the grant for this study.
DEDICATION

To my parents, Obed K. Agordah, and Louise Y. Nyagbenu, of blessed memory; Eugene Agordah and my wife, Belinda Dormenyo Boccorh.
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td></td>
</tr>
<tr>
<td>DECLARATION</td>
<td>ii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iv</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>v</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF ACRONYMS</td>
<td>x</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>ONE  INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Background to the Study</td>
<td>1</td>
</tr>
<tr>
<td>Problem Statement</td>
<td>12</td>
</tr>
<tr>
<td>Objectives of the Study</td>
<td>15</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>15</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>16</td>
</tr>
<tr>
<td>The Scope of the Study</td>
<td>17</td>
</tr>
<tr>
<td>Definitions and Concepts of Microfinance</td>
<td>17</td>
</tr>
<tr>
<td>Organization of the Study</td>
<td>24</td>
</tr>
<tr>
<td>TWO  REVIEW OF RELATED LITERATURE</td>
<td>25</td>
</tr>
<tr>
<td>Introduction</td>
<td>25</td>
</tr>
<tr>
<td>Background of Micro Financing</td>
<td>25</td>
</tr>
<tr>
<td>Microfinance Products and Service</td>
<td>29</td>
</tr>
<tr>
<td>Organization of Microfinance Institutions</td>
<td>30</td>
</tr>
<tr>
<td>Developments in the Theory on MSEs</td>
<td>23</td>
</tr>
</tbody>
</table>
The effect of microfinance loans on business-level profit  

The effect of microfinance on the productivity (sales) of the beneficiary business Enterprises

FIVE SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction 99
Summary 99
Conclusions 101
Recommendations 103
Limitations of the study 104
Areas for Future Study 105

REFERENCES 106
APPENDICES 123
A Regression Results 123
B The Study Area in National Context 125
C The Study Area in Regional Context 126
D Spatial Distribution of Population in the Study Area 127
E Interview Schedule 128

LIST OF TABLES

Table Page
1. Definition and Measure of Variables 71
2. Age Group by Sex of Respondents
3. Level of Education of Respondents
4. Educational Level by Sex of Respondents
5. Average Monthly Income of Respondents
6. Employment Type of Respondents
7. Shocks experienced by Owners of Enterprises
8. Purpose of the Loan Received
9. Sectoral allocation of credit
10. Credit allocation and socioeconomic characteristics of respondents
11. Income differential between clients with prior loans and clients without prior loans
12. Microfinance loans and business-level profits
13. Microfinance loans and the productivity of the beneficiary business enterprises

LIST OF ACRONYMS

ADB   Agricultural Development Bank
AERC  African Economic Research Consortium
AIMS  Assessing the Impact of Microfinance Services
ASIP  Agricultural Sector Improvement Programme
CGAP  Consultative Group to Assist the Poor
CMAP  Collaborative Masters Programme
CUA   Credit Union Association
EC    European Commission
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNGO</td>
<td>Financial Non-governmental organisation</td>
</tr>
<tr>
<td>GCSCA</td>
<td>Ghana Co-operative Susu Collectors Association</td>
</tr>
<tr>
<td>GHAMFIN</td>
<td>Ghana Microfinance Institution Network</td>
</tr>
<tr>
<td>GPRS II</td>
<td>Growth and Poverty Reduction Strategy II</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>JFE</td>
<td>Joint Facility for Electives</td>
</tr>
<tr>
<td>LDCs</td>
<td>Least Developed Countries</td>
</tr>
<tr>
<td>MASLOC</td>
<td>Microfinance and Small Loans Centre</td>
</tr>
<tr>
<td>MFIs</td>
<td>Microfinance Institutions</td>
</tr>
<tr>
<td>MPCU</td>
<td>Municipal Planning and Co-ordinating Unit</td>
</tr>
<tr>
<td>NBSSI</td>
<td>National Board for Small Scale Industries</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental Organisations</td>
</tr>
<tr>
<td>OLS</td>
<td>Ordinary Least Squares</td>
</tr>
<tr>
<td>SHGs</td>
<td>Self Help Groups</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and Medium Scale Enterprises</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Product and Service Solutions</td>
</tr>
<tr>
<td>SSA</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>UNCDF</td>
<td>United Nations Capital Development Fund</td>
</tr>
<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organisation</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>VIP</td>
<td>Village Infrastructure Project</td>
</tr>
</tbody>
</table>
CHAPTER ONE
INTRODUCTION

Background to the Study

Poverty continues to be a matter of growing concern in many developing economies of the world. Today, as other continents continue to register sustainable economic growth and development, Africa is lagging behind and trapped in the vicious circle of borrowing and donor dependency syndrome which some critics point out as one of the causes sabotaging real development.

Africa has perpetually failed to focus its development efforts on the optimum utilization of the vast natural resources that many of these countries are endowed with and to turn these resources into wealth to propel the economies and people towards a high level of economic and social development and as a consequence eliminate pervasive poverty.

Ghana being one the countries in the sub-saharan Africa has had its own share of high poverty rate. Like any other developing country, Ghana has gone through several poverty eradication programmes and policies that were put forward by her and those prescribed by the Bretton Wood Institutions and other development partners, all geared at reducing poverty.

Lufumpa (1999) noted that in the mid 1990s, close to 50 percent of Africa’s population lived in abject poverty and the majority of the poor lived in rural areas. In both urban and rural areas, women as a group comprised of a high percentage of people in abject poverty. Millions of people in Africa lived each day in abject poverty. Children go without food, their bodies stunted by malnutrition which is wide spread. The commission on Africa finds the conditions of live of the majority of Africans as deplorable and an insult to their human dignity. In these economies, the rural populations were denied the opportunities for optimal mobilization of rural resources and manpower for self-reliant and self-sustaining development.
To alleviate the effects of the pervasive poverty that has bedeviled the continent, poverty eradication has been the agenda on the table of most developing countries. As a poverty reduction measure, most of the developing countries have adopted the strategies that empower the individual to be independent. For these reasons, over the past two decades, various development approaches have been devised by policymakers, international development agencies, non-governmental organizations, and others aimed at poverty reduction in developing countries. One of these strategies, which have become increasingly popular since the early 1990s, involves microfinance schemes, which provide financial services in the form of savings and credit opportunities to the working poor (Johnson & Rogaly, 1997).

Small and medium enterprises (SMEs) are the backbone of many economies in the Sub-Saharan Africa (SSA) and hold the key to possible revival of economic growth and the elimination of poverty on a sustainable basis. Despite the substantial role of the SMEs in SSA’s economies, were denied official support, particularly with credit, from formal financial service organizations.

Microfinance Institutions (MFIs) have become increasingly involved in providing financial services to SMEs focused on poverty reduction and the economic survival of the poorest of the poor.

The economic development process entails a structural transformation of industrialization and a move from traditional to modern forms of organization (Todaro & Smith, 2003). While these forms coexist during transition there is a dual economy, and it often includes a traditional informal and a modern formal sector.

The informal sector represents the economic activity that is unregulated while residing in a legal and social environment with similar activities that are regulated. The formal sector is in a sense the opposite, as it is taxed, regulated. It is important to appreciate
that in real life this is not a dichotomy but rather a continuum on which any given enterprise can be placed (USAID, 2005). An enterprise may be classified as informal, but still maintain formal characteristics, depending on definitions applied.

The dual economy of developing countries by no means excludes the financial markets. This means that financial products are being offered from both informal and more formal sources, and these products may be consumed by both informal and more formal clients and their businesses. Most developing countries have these informal businesses that make the informal sector large. Since jobs in the formal sector are scarce, people become micro-entrepreneurs, selling goods on the streets, adding to their income through home-production, or farming whatever piece of land available.

The prevalence of the informal sector is especially large in Africa, where many of the countries' legal systems make a formal sector enterprise registration extremely difficult. In 1983, a household survey in Bolivia's capital La Paz for instance, found that 57% of the labor force was involved in the informal sector and that 89% of all retailers were informal (Rhyne, 2001).

Wages and incomes in the informal sector are low and a large part of micro-enterprise workers live in poverty. Most micro-enterprises are confronted with inadequately low level of capital since their owners usually were not served by the formal sector. Even if loans from the formal sector were available, transaction costs tend to be very high, estimated at 2% to 30% of the loan size which discourages the small business owners (Murinde, 1996).

To alleviate the short-term capital needs, many of these households borrow from money lenders who charge very high interest rates. In a survey of rural moneylenders in Nigeria, Aleem (1993) finds that the average annual rate charged was 79%. An evaluation report from a rural project in Vietnam finds that moneylenders unchallenged by credit
programmes charged around 15% per month (Kervyn, 2001). The poorest households thus, have extremely high borrowing costs.

Politicians have attempted to reduce the interest rates paid by the poor through various measures. Some countries imposed interest ceilings, others set up development banks making available inexpensive loans. A large part of this money, however, never reached the targeted population. Since the funds were offered with highly attractive interest rates, a large proportion got diverted to more influential groups of the population. If the loans got distributed to the poor, they often were understood as gifts rather than loans and rarely were repaid.

After the poor performance of these development banks new approaches were tried. It was recognized that interest rates had to be raised to ensure an operation on a cost-covering basis and to discourage borrowers. While the rates have increased substantially, they are still considerably lower than the moneylenders'. In addition, new incentive schemes have been designed to generate high repayment rates, a prerequisite for long-term credit services.

About the use of subsidies, there is a current discussion among microfinance practitioners and supporters. A group argues that microfinance provides an outstanding means to help the poor, who benefit from low interest rates and improved access to credit. The costs of these small loans are very high and it is argued that the poor needs help to cover these costs since they would have to pay unacceptably high interest rates otherwise. Another group argues that microfinance can provide long-term services only if it operates on a sustainable basis.

With the view of the first proponents to push loan sizes further downwards to serve yet poorer clientele, the others argue that very poor households cannot be served on a cost-covering basis and frequently require aid rather than loans. Central to this discussion is the question of how much clients actually benefit from microfinance loans and whether or not
poorer households benefit more than others. On condition that the majority of microfinance institutions use subsidies in one form or another, one has to compare costs and benefits of supporting microfinance programme to alternative ways of development aid.

As long as the impact of microfinance programme has not been assessed, the discussion about the use of subsidies has to remain inconclusive. How then can the impact of these programmes be measured? To begin with, microfinance institutions can offer substantially lower rates than moneylenders thanks to their larger scale of operations and lower costs of funds. (Aryeetey & Udry, 1994).

The direct impact then can be measured by the reduction in borrowing costs. The leading impediment for more ample studies analyzing the impact of the loans on the clients and their businesses is the lack of adequate data. Most institutions collect very little data from their clients. Since practically none of the clients keep business records, information on their businesses is hard to obtain. Even if this basic data is available, data on control groups almost never is. That is, even if we do observe the increase in income of the microfinance clients, nothing is known about non-clients and, in particular, we do not know if and by how much the income of the clients increases also.

When we observe an increase in the clients' incomes, it is uncertain to what extent this increase is due to the loans and how much is due to the bank. If the bank approves loan applications for relatively productive people, increasing incomes of the clients might be stimulated by their higher productivity, independently of any loans. To end with, one must note that the microfinance programme placement is endogenous. They open their doors at a place where it is expected to achieve increased incomes. From increases in incomes in this location it is hard to conclude whether a related increase had been achieved in other places as well. This selection is particularly severe in countries where only few and relatively small microfinance institutions operate.
One of the first and most well known examples for the new institutions that provide collateral free loan, the Grameen bank, was set up in Bangladesh in 1976 and serves over two million clients by now. Since most households cannot provide collateral, the Grameen bank distributes group loans only in which all participants in the group are jointly liable for the loan amount and are granted successive loans only if the loan is repaid in full.

In Bangladesh, formal financial institutions like government and private commercial banks, State-owned agricultural or rural development bank (e.g. BRDP), savings and loan cooperatives, microfinance banks, leasing, housing and consumer finance companies, can offer a wide range of financial products. In between, stand financial Non-government Organizations (NGOs), self-help groups, small cooperatives and credit unions. Informal services such as microfinance cannot replace loans from friends, relatives, and moneylenders but they do complement them and enable the liquidity constrained rural population to access a wider range of financial services.

Microfinance emerged as a noble substitute for formal credit and is considered to be a powerful instrument for poverty alleviation among people who are economically active but financially constrained (Morduch & Haley, 2002).

Microfinance has become a slogan among the development practitioners. The term means providing very poor families with very small loans (microcredit) to help them engage in productive activities or develop their tiny businesses. According to the Consultative Group to Assist the Poor (CGAP), microfinance is the supply of loans, savings and other basic financial services to the poor, including working capital loans, consumer credit, pensions, insurance and money transfer services. Similarly, Hossain (1998) defines microfinance as, the practice of offering small, collateral free loans to members of cooperatives who otherwise would not have access to the capital necessary to begin small business or other income generating activities.
Microfinance is often used in a much narrower sense, referring most importantly to credit delivered through non-governmental organizations for small informal business of micro-entrepreneurs (Christen et al., 2003). Microfinance institution now refers to wide range of organizations committed to providing these services like non-governmental organizations, credit unions, cooperatives, private commercial banks and parts of the state-owned banks, and non-bank financial institutions.

Economists argue that, for the cessation of the vicious cycle of poverty, there need to be some outside force that will intervene in some point of the cycle to improve demand for goods and services. This could be done by microfinance institutions through injecting liquidity to the liquidity constrained households and thereby unlocking the productivity of the households.

In Ghana, the word microfinance might seem relatively new but the idea of microfinance is not new. Conventionally, people save or take loans from individuals and families within the context of self-help in order to start small business or farming ventures. In those days people were given items like plots of land to work on so that after they have harvested their produce they would pay for the cost of hiring the land. This practice helped the landless and people who do not have huge assets to also make a living. This system collapsed with the increasing demand for collateral from those who owned the landed properties.

There has not been any formal evidence suggesting the onset of microfinance concept in Ghana or Africa but sources suggest that the first Credit scheme in Africa was established in Northern Ghana in 1955 by Canadian Catholic Missionaries. Susu, which is one of the current microfinance methodologies, is thought to have originated in Nigeria and spread to Ghana in the early 1990s. The use of current micro financing for poverty reduction as
envisioned in its programme, the government launched the Microfinance and Small Loans Center (MASLOC) in 2006.

The main objectives of MASLOC are to: administer government’s microfinance and loans scheme; facilitate co-ordination and capacity building of the sub-sector; enhance collaboration, and develop monitoring and reporting mechanism for the sub-sector; advocate for and advise government on policies to enhance development of a decentralized microfinance system that is integrated with or linked to the formal financial system.

MASLOC has been established to provide a one-stop shop for all activities on microfinance in the country, and it was expected to co-ordinate all microfinance activities of the government which are being implemented. MASLOC is expected in future to provide policy direction, support services and capacity building and co-ordination with the view of intensification of the sector and ensuring sustainability. Microfinance Institutions Network (GHAMFIN) which is the umbrella body for all microfinance institutions and their governing bodies was established in addition to MASLOC. The network consists of the Association of Rural Banks (ARB), the Credit Union Association (CUA), Association of Financial non-governmental organizations (FNGO) and the Ghana Co-operative Susu Collectors Association (GCSCA).

The impact of microfinance in Ghana is a subject worthy of serious examination for a number of reasons. Since the inception of MFIs in Ghana their activities have grown from strength to strength although up to date data on MFIs in Ghana are not readily available.

According to Ghana Microfinance Institutions Network (GHAMFIN), the organization which coordinates the activities of MFIs, in Ghana there are over 233 regulated and non-regulated MFIs in Ghana 2008. These MFIs together served over 360,000 clients.

Once the activities of MFIs have come to stay, there is then the need to assess their impact on their clients. The question, however, is whether microfinance really will be able to
significantly improve productivity and reduce poverty in Ghana. As mentioned, in spite of the vital role played by small-scale businesses to the economy of Ghana, the sector’s inadequate working capital and investment capital has been one of the major constraints to their development (Hitzeman, 1996).

Since the SME’s are poor, they cannot purchase required inputs of productive technology. This is because the formal banks denied them access to loans.

The formal banking sector assume that, the poor in developing countries like Ghana, earning less than a dollar per day, are not credit worthy because they lack collateral and therefore, refuse them access to credit (Cheston and Kuhn, 2000). The banks also have noted that, the transaction costs associated with operating in rural areas outweigh the income that may be earned and that, there is minimal level of business required for branches to reach the scale where they become viable (Coetzee, 1997). For this reason, most small businesses are unable to access new technologies and hence ended up folding up or operating at very low levels.

In an attempt to address this worrying situation, the government of Ghana introduced microfinance institutions (MFI), to promote higher investments leading to economic empowerment, intended to promote confidence and self-esteem particularly for the vulnerable.

According to Asiamah and Osei (2007), 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, enable people to move out of poverty.

In Sub-Saharan Africa, access to deposit and credit facilities are very limited. In Ghana and Tanzania, for instance, only 5-6% of the population has access to the banking sector’s services. For this reason, a variety of MFIs have been established which offer various
services that include providing credit, providing both credit and deposit facilities whilst
others specialize in deposit collection. An approach which has been commonly used in Africa
is that of relying on community-based microfinance as is the case in Bangladesh. Traditional
community-based cooperative groups such as local clubs and village associations have played
a key role in the expansion of the microfinance.

**Problem Statement**

The main goal of Ghana’s Growth and Poverty Reduction Strategy (GPRS II) is to
ensure sustainable equitable growth, accelerated poverty reduction and the protection of the
vulnerable and excluded within a decentralised democratic environment. The intent is to
reduce widespread poverty and rising income disparity, principally among the productive
poor who composed of the bulk of the working population.

According to the 2000 Population and Housing Census, 80% of the working
population is found in the private informal sector, which is characterised by limited access to
credit, that constrains the development and growth of that sector of the economy. The
observation was stressed in the International Monetary Fund Country report on Ghana of
May 2003 that weaknesses in the financial sector that hamper financing opportunities for
productive private investment are a particular impediment to business expansion in Ghana.

Access to credit is of the essence for the development of the informal sector. It helps
to mop up excess liquidity through savings that can be made available as investment capital
for national development (World Bank, 1999).

There is continuing and quite rapid improvement in understanding how financial
services for the underprivileged can best be provided. As part of this learning process,
microfinance practitioners, donors, and governments have been interested in knowing to what
extent these credit interventions impact on the beneficiaries. Accordingly, a number of impact
measurement studies on the performance of microfinance projects have been undertaken in recent years, with varying and revealing results.

In Ghana, there has been an increased access, measurable and discernible impact of microfinance due to the microfinance revolution as exemplified in countries like Bangladesh, Bolivia, etc. In spite of this, there has not been any concerted effort at assessing the extent of coverage and impact of microfinance in the Keta municipality of the Volta Region.

In line with the policies of Keta municipality of improving the operation of small-scale enterprises in the municipality, a survey was conducted to identify all groups engaged in small-scale enterprises, and it was found out that, Forty-five (45) different economic groups existed and various sources of funds were also available for the groups to access to improve their enterprises. These sources of funds include, for example, Central Government Funds, Donors Funds: e.g., The World Bank, European Union, Grants from various Governments like Denmark, Japan, Canada, France, Germany etc. District Assembly Funds – Poverty Alleviation Fund, Social Investment Fund, and other funds from overseas donors, which are channeled through the Banks in the municipality -Anlo Rural Bank Limited, Agricultural Development Bank (ADB) etc.

The small-scale enterprises sometimes rely on individuals also for credit to improve their enterprises. These include Assembly members, private businessmen and women who want to improve the lot of their kinsmen and even money lenders and Non Governmental Organizations (NGOs). Though several sources of credit existed in the District, they have various conditions, which made it extremely difficult for the small-scale enterprises to get easy access to the credits.

In fact, access to finance by economically active poor rural households continued to be a major issue in Ghana. The situation exists despite the pivotal role of small-scale businesses in the nation's development. In order to facilitate the use of microfinance in
accelerating the change of the socio-economic setting of Ghana, it is important to understand the effects of credit and relevant services in Ghana.

This is because, with the growing use of result-based management by government and development partners, determining whether goals have been attained and realistically linking changes to specific agenda have become more and more critical. By the same token, it is important to note, however, that it will on no account be sufficient merely to set up facilities, whether buildings or institutions devoid of ensuring that these facilities are utilized by its users to the greatest extent possible.

Besides giving the strategic importance of microfinance services in combating global battles—whether they involve hunger, poverty, illiteracy, unemployment, economic crisis or inequality of wealth, it becomes pertinent to intensify the analysis of the existing microfinance services in Ghana by evaluating their effects on small-scale businesses in Ghana, using Keta municipality as a case study.

**Objectives of the Study**

The general objective of the study is to assess the effects of microfinance loans on the small-scale business enterprises in the Keta municipality.

The specific objectives of the study are to:

1. find out whether incomes of clients with prior loans differ from incomes of clients without prior loans
2. determine the effect of microfinance loans on business-level profits
3. assess the effect of microfinance loans on the productivity of the beneficiary business enterprises
4. Make policy recommendations
Hypotheses

In line with the stated objectives, the following hypotheses guided the study:

\( H_0 \): there is no difference between incomes of clients with prior loans and incomes of clients without prior loans

\( H_1 \): there is a difference between incomes of clients with prior loans and clients without prior loans

\( H_0 \): there is no relationship between microfinance loans taken by the clients and their business profit

\( H_1 \): there is a relationship between microfinance loan taken by the clients and their business profit

\( H_0 \): there is no relationship between microfinance loans and the productivity of the microenterprise

\( H_1 \): there is a relationship between microfinance loans and the productivity of the microenterprise

Significance of the Study

According to Brown (1986), the development of the rural areas should be justified by the fact that, it will not only raise production, productivity and purchasing power and living standard of the rural population, but also serve as a step towards achieving balanced urban-rural development that which has come to be considered worthwhile in any development agenda. On moral and humanitarian grounds also, Brown (1986) said, at least it will only be fair that the rural dwellers receive their fair share of the resources devoted to the development of the country.
The above considerations show the need for support system in the rural areas that can help the rural people to improve themselves and thus enhance rural development. The researcher hopes that the study, therefore, will help provide information on the impact, strength and weaknesses of microfinance services in the study area as well as allowing policy makers, microfinance operators and developers to understand the real impact of micro financing for improvement and development.

In line with the National Economic Empowerment Strategy, empowerment of the poor and the private sector, this study will help policy makers to see microfinance programme in its right perspective and given an enabling environment to thrive and actualize its goals and objectives in the lives of people and the society in general.

Furthermore, from the study, policy makers will be availed of the constraints that impede the active poor from participation in the credit market and put in place policies that can help alleviate these constraints.

The Scope of the Study

This study seeks to examine empirically the effect of microfinance on small-scale enterprises in Ghana using Keta municipality as a case study.

Definitions and Concepts of Microfinance

According to Otero (1999), microfinance is “the provision of financial services to low income and very poor self-employed people”. These financial services in the main include savings and credit and can also embrace other financial services such as insurance and payment services. Schreiner and Coleman (2001) define microfinance as “the attempt to improve access to small deposits and small loans for poor households overlooked by banks.” Microfinance involves, therefore the provision of financial services such as savings, loans
and insurance to poor people living in urban and rural settings who lack such services from the formal financial sector for the reason of lack of collateral.

Microfinance is a growth development strategy that involves providing financial services, through institutions, to low-income clients. The services provided by the MFIs include credit, saving and insurance services. Several microfinance institutions also provide social intermediation services such as training and education, organizational support, health and skills in line with their development objectives.

Robinson (2001) argues that, microfinance refers to financial services, both credits and deposits, which are provided to people who farm, fish, herd, operate micro enterprises where goods are produced, traded, services provided, work for wages or commissions, and achieve income from renting out small parcels of land, machinery and tools to other individuals and local groups in both rural and urban areas.

Microcredit is one of the main components of microfinance. This is extension of small amounts to entrepreneurs, who are excluded from the formal bank loans. In developing countries, microcredit enables the very poor to take on self-employment projects that create income and allow them to improve their livelihoods.

Microcredit is a name given to small loans made to very poor people who would normally be regarded as bad financial risks and so be unable to obtain funds through conventional banks. This is referred to by some economists as the capital gap. The distinction between the two inter related and commonly used terms, i.e. microfinance and micro-credit is that, if an institution offers only credit, it is a microcredit institution. If it offers credit and savings services, insurance as well as training, it is considered a microfinance institution.

An institution providing both credit and savings is considered to be a more important actor in the financial sector because it fills the role of financial intermediary, mobilizing idle
resources from savers and transforming them into productive resources by lending them out to people that have use for them.

Micro saving

This is also a microfinance service that allows poor individuals to save money and other treasures and earn interest. It allows a lump sum to be enjoyed in future in exchange for a series of savings made now.

Micro insurance

Micro insurance is also one of the components of microfinance services. Insurance is an important aspect of life. It provides cover to low income households. Poor households are especially susceptible to risk in terms of natural calamities as well as occurrences of illness and accidents. Microfinance help in protecting the vulnerable against such calamities through providing credit for increasing income earning opportunities and through providing savings services to build up resources that can be drawn down in cases of emergencies.

In the literature, microcredit and microfinance are often used interchangeably, but it is important to underscore the dissimilarity between them because both terms are often confused.

Microcredit refers to small loans, while microfinance is suitable when the MFIs and NGOs add-on the loans, other financial services such as savings, insurance, pension and training. Microfinance as a product has several characteristics. Some of the characteristics put forward by Mohammed and Mohammed (2007) have been explained in ensuing paragraphs. The key distinguishing feature of microfinance entails small amounts of loans which are loaned to individuals and groups to help them start some income generating activities.

Little savings over time is also an integral aspect of microfinance because it serves as security for the poor households and also helps them accumulate large capital to surmount constraints in raising capital. The loans which are given out are also short-term loan which
are usually up to the term of one year. Payment schedules are usually on weekly basis.
Installments made up from both principal and interest, which amortized in course of time.

Emergence of the microfinance intermediaries saves the time and money of the client. In terms of application, the clients need not go through procedures which are required in the formal commercial banks.

There is also short processing periods between the completion of the application and the disbursement of the loan. No collateral is required as compared to formal banking practices. Instead of collateral, microfinance intermediaries use alternative methods, like, the consideration of clients’ repayment potential, the use of decreasing interest rates over several loan cycles as an incentive to repay the loan on time. Large size loans are less costly to the MFI, so some lenders provide large size loans on relatively lower rates. The clients who pay on time become eligible for more and higher amounts.

**Micro Enterprise**

One of the major problems that arise while dealing with small and micro enterprises is lack of clear and generally accepted definition (Storey, 1994). Efforts to define small and micro enterprises have led to a significant diversity of conceptions that actually generated debate as to the different approaches of defining small and micro enterprises. Firms diverge in their levels of capitalization, sales, and employment. Depending on the prevailing realities and objectives, each country has its own definitions. Based on the purpose for which the identification is required different definitions have been instituted by researchers in the same country at different point in time.

Accordingly, the definition of small and micro enterprises may be based on persons employed, annual growth of sales, size of fixed capital invested, or a combination of the aforementioned criteria. That is why it is not possible to find universally accepted definition of small enterprises. Financing agencies measure small and micro enterprises in terms of
fixed assets; labor economists take the number of people engaged; traders might consider the volume of sale and manufacturers prefer to consider the energy use.

The first attempt to overcome problems of defining small and micro enterprises was given by the Bolton committee (as cited in Kayanula & Quartey, 2000). According to this committee, a firm can be classified as small if such a firm has, relatively small share of the market where it is managed by owners in a personalized way. Bolton committee’s economic definition is however criticized based on the fact that the economic definition which states that a small business is managed by its owners or part owners in a personalised way, and not through the medium of a formal management structure, is incompatible with Bolton committee’ statistical definition of small manufacturing firms which could have up to 200 employees.

As firm size increases, owners no longer make principal decisions but devolve responsibility to a team of managers. For example, it is unlikely for a firm with hundred employees to be managed in a personalised way, suggesting that the ‘economic’ and ‘statistical’ definitions are incompatible. Another shortcoming of the Bolton Committee’s economic definition is that it considers small firms to be operating in a perfectly competitive market. However, the idea of perfect competition may not apply here; many small firms occupy position and provide a highly specialised service or product in a geographically isolated area and do not perceive any clear competition (Storey, 1994; Wynarczyk et al., 1993).

In the light of these controversies, the European Commission (EC) coined the term ‘Small and Medium Enterprises (SME)’. The SME sector is made up of three components: (i) firms with 1 to 9 employees - micro enterprises (ii) 10 to 99 employees - small enterprises (iii) 100 to 499 employees - medium enterprises. Thus, the SME sector comprised of enterprises (except agriculture, hunting, forestry and fishing) which employ less than 500
workers. In effect, the EC definitions were based solely on employment rather than a multiplicity of criteria.

Secondly, the use of 100 employees as the small firm’s upper limit is more appropriate given the increase in productivity over the last two decades (Storey, 1994:13). Finally, the EC definition did not assume the SME group is homogenous, that is, the definition makes a distinction between micro, small, and medium-sized enterprises. However, the EC definition is too all-embracing for a number of countries.

Researchers would have to use definitions for small firms which are more appropriate to their particular ‘target’ group (an operational definition). It must be emphasized that debates on definitions turn out to be sterile unless size is a factor which influences performance. The World Bank, USAID, and UNIDO also give alternative definitions. According to the World Bank (2008) firms with fixed assets (excluding land) less than US$250,000 in value are small enterprises. According to USAID, firms with less than 50 employees are small while for UNIDO firms with 5-19 workers could be grouped in the category of small enterprises (Kayanula & Quartey, 2000).

In Ghana, NBSSI defined small-scale enterprises as production units that are engaged primarily in manufacturing outside the residence, with an investment and tools of not less than 1,000 Ghana cedis and which engage less than nine people. In this study, micro-enterprises are defined as firms engaged in manufacturing and services’ sectors whose investment is less than 700 Ghana cedis and employment level between zero and nine.

Organisation of the Study

The study is organised into five chapters. Chapter One covers the introduction to the study and consists of the background to the study, statement of the problem, research
objectives, hypotheses, significance of the study, the scope of the study, organisation and finally definition of concepts.

Chapter Two reviews relevant literature and mainly consists of theoretical and empirical literature on microfinance and poverty reduction, effects of loans on income, productivity and profit of small-scale business enterprises. Chapter Three looks at the research methodology. Chapter Four, deals with the empirical analysis and discussion of the results of the study. The final chapter, Chapter Five, summarizes the whole work along with conclusions and recommendations.
CHAPTER TWO
REVIEW OF RELATED LITERATURE

Introduction

This chapter presents the review of related literature for the study. The literature review is divided into three sections. The first section deals with the background of micro financing, development in the theory of SMEs, poverty goals and informal finance. The second section looks at the theoretical literature on microfinance and its impact on poverty reduction. The third section dwells on the review of empirical literature on microfinance and its effects on the firms and household economic activities.

Background of Micro Financing

The leading problems of poverty and unemployment of the developing economies have not been featured in the development literature and as such the mainstream policies did not recognize the human development in spite of the sincere attempt made by UNDP to place people as both means and ends of economic development.

The first performance of the conservative policies with the neoclassical ideas overthrowing Keynesian's, government failure, leading to the market as a sure step for all economic ills, were all one sided. Shetty (2001) rightly put it as “Washington Consensus,” The component of free market and unregulated competition, free trade, monetarism and fiscal compression, and minimal government intervention in economic management have all brought disappointing results in the past decade.

It is now accepted broadly that there are limits to the market with imperfect information and that, government intervention in the economic management is needed to improve the efficiency. Many advocates believed that the decentralized system of governance
might be an answer to issues relating to transparency, bureaucratic delay and widespread corruption.

The dynamics of capitalism will permit the forces of growth only if institutions are strengthened, appropriate laws and regulations are introduced and reforms effected. Hence the policy of liberalization and privatization with proper regulatory systems is what now is vigorously advocated for. The system of microfinance has been viewed as a tool for elevating the economic conditions of the asset-less poor.

Microfinance offers a rapid change in the strategy for improving the socio-economic conditions of the poor. Microfinance emerges as an answer to both market and governmental failures.

Hoff and Stiglitz (1990) have developed a theory of asymmetric information primarily on dealing with the mystery of rural poor borrowing from the local moneylender at relatively higher interest rates rather than from the formal banks at a much lower interest rate. The perception was that the local moneylenders were exploitative by charging excessive rate of interest but majority of the borrowers still borrow from them. However, theories were put forth to justify that the higher interest rate charged were competitive rates to cover high cost of screening loan applications and pursuing delinquent borrowers” (Stiglitz, 1990). This theory states that the formal sector lending failed, despite the lower interest charged, and whereas the informal sector strived better despite higher interest charged mainly because of perfect information available about their prospective clients. They can therefore separate out high and low risk borrowers and charge them appropriate interest rates and they can monitor the borrowers more effectively making sure that the funds are used productively and thus lowering the default rate (Stiglitz, 1990).

The structuralist hypothesis argues that informal credit market exist based on sound economic considerations due to differences in transaction cost structures faced by the formal
and informal lenders (Hoff and Stiglitz, 1990). Banks face high transaction costs when dealing with small borrowers. The high transaction costs prevent banks from undertaking adequate screening, monitoring and credit enforcement procedures against default risks over small loans.

The high transaction costs lead banks to perceive small borrowers to be high risk, making the banks extremely risk-averse in extending credit to small borrowers without credible collateral. The collateral is expected to serve both as a screening device against default risk and an incentive to the borrower to repay the loan within the framework of asymmetric information (Van Tassel, 1999).

Local moneylenders who have perfect knowledge on the clients and their creditworthiness are able to lend without any collateral but high interest rate.

The borrowers also do not mind paying the higher interest rates, as they feel that the transaction cost in terms of procedures and formalities, the payment of transport to and fro and also for the accompanying persons to the bank, loss of man hours etc involved in the formal sector loan, are higher. All these are absent in the informal sector. In particular, the loans are available on their doorsteps on the same day.

Realizing this irony in the credit market and success of Grameen Bank of Bangladesh, Stiglitz (1990) brought out a model for rural lending whereby others do the monitoring of the loan repayment for the bank. He calls this ‘peer monitoring’, in which the repayment is monitored not by the bank itself but by the peers of the beneficiary.

The task of monitoring which the bank is unable to do effectively is given to the local members who have perfect knowledge about the borrowers. It is added by Stiglitz (1990) that for peer monitoring to be successful, the members of the peer group must be provided with incentives to monitor the actions of their peers. It is done in the form of consigning, which emphasizes that in the absence of proper recovery the consignee takes charge of repayment.
Stiglitz finally underlined taking advantage of the opportunity provided by peer monitoring may, in these circumstances, be an effective “second-best policy”.

The message delivered in the theory is that, the market fails and hence banks are not able to support the small borrowers due to information asymmetries and peer monitoring and consigning would be a second best alternative suggested. For successfully achieving this, the bank may extend credit to group of members through peer monitoring which will be cost effective and if handled well by the bank, may be economically viable.

The alternative suggested ‘second best’ is group approach in lending where the members of a group are assigned with the task of monitoring the repayment of co members. Thus the bank’s linkage either directly or through NGOs is based on these theoretical directions as exemplified by Grameen Bank approach to credit delivery.

**Microfinance Products and Service**

Microfinance institutions provide services that can be categorized into four broad categories:

(a) Financial intermediation is the provision of financial products such as savings, credit, insurance, credit cards

(b) Enterprise development services or non financial services that assist micro entrepreneurs include skills development, business training, marketing and technology services, and subsector analysis. This may or may not require subsidies and this depends on the ability and willingness of the clients to pay for these services.

(c) Social intermediation is the process of building human and social capital needed by sustainable financial intermediation for the poor. Subsidies should be eliminated but social intermediation may require subsidies for longer period than financial intermediation.

(d) Social services or non financial services that focus on advancing the welfare of micro entrepreneurs and this include education, health, nutrition, and literacy training. These social
services are like to require ongoing subsidies and are always provided by donor supporting NGOs or the state (Bennett, 1997; Legerwwod, 1999, as cited in Quaye 2011)

**Organization of Microfinance Institutions**

Cooperative Financial Institution

This organization constitutes credit unions, savings and loan cooperatives and other financial cooperatives. They are generally identified as credit unions or savings and loan cooperatives and provide savings and credit services to its members. There are no external shareholders and run the same as a cooperative and implementing all its principles. Members who are at the same time customers make the policy of the cooperative.

Individual financial cooperatives in a country are often govern by a league that coordinate activities of these credit unions, trains and assist its affiliates, act as a place where the deposit and provide inter lending facilities and act as a link between external donors and the cooperative system (Schmidt, 1997). They raise capital through savings but to receive loans is not easy. Loans are delivered following the minimalist approach where the requirements for loans are not often difficult to meet by customers; little collateral, character and co-signing for loans between members. These loans are usually loans within the savings of the member (Schmidt, 1997). Individual financial cooperatives in a country are often govern by a league that coordinate activities of these credit unions, trains and assist its affiliates, act as a place where the deposit and provide inter lending facilities and act as a link between external donors and the cooperative system (Schmidt, 1997). They raise capital through savings but to receive loans is not easy. Loans are delivered following the minimalist approach where the requirements for loans are not often difficult to meet by customers; little collateral, character and co-signing for loans between members. These loans are usually loans within the savings of the member (Schmidt, 1997).
Group Lending

This is a method most used by microfinance that provides collateral free loans. The interest charge is around not much different from that of commercial banks but far lower than interest charge by individual by money lenders (Natarajan, 2004). The Grameen bank is a typical example of microfinance institution using this method. The repayment rate is very high since each member is liable for the debt of a group member (Stiglitz, 1990). Group formation is made by members who know themselves very well or have some social ties. Loans are not granted to individuals on their own but to individuals belonging to a group; and the group acts as a collateral which is term social collateral. This is to avoid the problems of adverse selection and also to reduce costs of monitoring loans to the members who must make sure the loan is paid or they become liable for it.

Individual Lending

This is the lending of loans to individuals with collateral. Besley and Coate (1995), say despite the advantages of lending to groups, some members of the group may fail to repay their loan. Montogomery (1996) stresses that this method of lending avoids the social costs of repayment pressure that is exerted to some group members. Stiglitz (1990) highlights that members in group lending bear high risk because they are not only liable for their loans but to that of twenty-two group members. Navajas et al. (2003) and Zeitinger (1996) recommend the importance of routine visits to the clients to make sure the loan is use for the project intended for. These monitoring is vital but at the same time increases the cost of the microfinance institution.

Self-Help Groups (SHG)
This is common among women in the rural areas who are involved in one income generating activity or another (Ajai, 2005). Making credit available to women through SHGs is a means to empower them. This group is an institution that helps its members sustainably with the necessary inputs to foster their lives. SHG provides its members with not only the financial intermediation services like the creating of awareness of health hazards, environmental problems, educating them etc. These SHGs are provided with support both financial, technical and other wise to enable them engage in income generating activities such as; tailoring, bee keeping, hairdressing, weaving etc. It has a bureaucratic approach of management and are unregistered group of about 10 – 20 members who have as main priority savings and credit in mind (Ajai, 2005). The members in the SHG have set dates where they contribute a constant and equal sum as savings. These savings are then given out as loans to members in need for a fixed interest rate (Boswan, 1995).

Village Banking

This is a method of lending to individual members to have constant access to money for their Micro-enterprise daily transactions (Mk Nelly and Stock, 1998). Borrowers are uplifted using this method because they own SME that earn money sustainably. This enables them to acquire a larger loan sum which gives them higher profit when introduced into the business and of course the interest with this high sum is high making the bank financial sustainable. Village banking as of the 90s has gained grounds and certain adjustments are made to suit partner institutions. Village banking loan and savings growth rate increases as the bank continue to exist.

Developments in the Theory on MSEs
The last 50 years have witnessed significant developments in the conceptualisation of the main issues relating to the small and medium enterprises (SMEs) sector and succeeding theoretical work. The main theory, which goes back to the influential work by Lewis (1955), is the labour surplus theory. It is argued that the driving force behind SME development is excess labour supply, which cannot be engaged in the public sector or large private enterprises and is forced into MSEs in spite of poor pay and low productivity.

Arguably, the SME sector develops in response to the growth in unemployment, functioning as a place of last resort for people who are unable to find employment in the formal sector. SMEs are expected to grow in periods of economic crisis, when the formal sector contracts or grows too slowly to absorb the excess labour force. However, when formal employment grows, the SME sector is assumed to contract again and thus develops an anti-cyclical relationship with the formal economy.

Particular attention has been paid to the behaviour of the SME sector before and after the introduction of structural adjustment policies and examples include Brand et al. (1995) for Zimbabwe and Meagher and Yunusa (1996) for Nigeria.

One interpretation of the labour surplus theory is the new literature on de-agrarianisation, which relates the development of rural non-agricultural activities to the rural surplus labour, which, in turn, either supplements agricultural production with non-agricultural activities or migrates to the urban areas (Bryceson, 1996). The effect of such a theory would be similar to that of the theory of commercialization of the rural areas, namely, a continuous growth in the informal MSE growth and development of SMEs.

First, there is lack of reliable and adequate data for researchers to test the hypothesis that SMEs absorb surplus labour from the public sector or large private enterprises and the hypothesis that increases in labour demand by SMEs has taken place before or after structural adjustment.
Second, for the SME sector to function as a last resort, it must be easily accessible. However, many studies have revealed that this is only the case for a handful of SME activities. It is also sometimes argued that SMEs concentrate on trade because this requires less capital and knowledge than production. While it may be true that production requires more investment capital than trade, small-scale traders are likely to require more working capital than small-scale producers.

This is so because, to some extent the value added is lower for the trader than for the producer, and partly because, in small-scale production, the customer will often be required to pre-finance the product while the small-scale trader will have to give credit (probably more often than larger enterprises). Therefore, there are limitations to the extent to which the SME sector can serve as a last resort during crises.

The second theory for explaining the development of the SME sector in developing countries is the output-demand theory. The theory postulates that a prerequisite for the development of SMEs is that there is a market for their products and services. Therefore, the SME sector will tend to develop a cyclical relationship with the economy as a whole. SMEs will develop in competition with large enterprises in the formal sector, and their development will, however, be constrained by formal sector monopolies.

Structural adjustment and other policies that limit such monopolies, and attempt to create more competition will therefore be advantageous to the SMEs, because this may allow them to capture more market shares from the larger enterprises. Proponents of structural adjustment and stabilization policies tend to base their arguments on this theory. Empirical studies based on the output-demand theory tend to focus on the upper end of the SME sector, particularly the manufacturing enterprises and the larger, more resourceful and successful SMEs, which have a potential to grow into the formal economy.
In addition, a modified strand of the output-demand theory links SMEs and the long-run development of the rural agrarian economy in an anti-cyclical relationship, to the detriment of agricultural production (Bryceson & Jamal, 1997).

As a result of monetization, commercialization and urbanization, the rural population turns to non-agricultural activities and the money economy. This creates a growing market for SMEs’ goods and services.

The third theory, known as the firm growth theory, contends that, as a result of industrialization and economic growth, SMEs are likely to disappear and be replaced by modern large-scale industry. This theory has, however, been shown to be inaccurate in the sense that SMEs do not normally compete directly with large enterprises, rather, they often tend to remain micro and small, co-existing with large multi-national companies, a phenomenon the World Bank (1999) has identified as the ‘missing middle’ (Ryan, 2005). For example in a study of Botswana, Kenya, Malawi, Swaziland and Zimbabwe, Mead (1994) found that most SMEs started with one to four employees and never expanded; less than 1% grew to exceed 10 employees.

However, in a literature survey on macro analyses of micro enterprises in developing countries, Liedholm and Mead (1993) came to the conclusion that macro-level empirical evidence indicates that, as aggregate per capita income increases, there is a systematic pattern of evolution of SMEs towards larger firms based in larger localities, producing more modern products.

Nevertheless, critics of this view argue that analyses on SME development must take account of differences in their efficiency, the type of influence SMEs exercise in society, linkages between small and large enterprises, the changing roles of women entrepreneurs, differences in the level of education in the labour force and other socio-economic differences.
In all, each of the three theories has been modified into some alternatives; yet, one of the important elements common to all the theories and alternatives is the proposition that the growth of SMEs through micro financing, can contribute to poverty reduction.

**Poverty Reduction Goals**

Significant innovation in development research and policy in this day and age has been the change of the objectives of development strategy from an exclusive concern with economic growth to ‘growth with poverty reduction’. The main concern of poverty reduction has also bring increased interest in the contributions that financial intermediation can make to poverty reduction.

Stiglitz (1998) argues that market failure is a fundamental cause of poverty, and financial market failures, which principally arise from market deficiency, information asymmetry and the high transaction cost for small-scale lending, limit the poor to access formal financial services, thus pushing the poor to the informal financial sector or to the extreme case of financial segregation.

It is argued that, the access to credit by economically active poor enables these economic agents to increase their productive assets and boost their productivity for sustainable livelihoods (World Bank, 2008). It is therefore argued that improving the supply of financial services to the poor can directly contribute to poverty reduction. It is against this backdrop that researchers in addition to policy analysts have shown a renewed interest in the contribution of finance to poverty reduction and development in so as to obtain an empirical ground for formulating financial sector policies that can add to poverty reduction.

It is again argued that development in the financial sector can have an indirect effect on poverty outcomes through its direct impact on economic growth. Dollar and Kraay (2002) stress that poor households turn to benefit from economic growth, although, growth can
engender different poverty outcomes (McKay, 2002). Growth may reduce poverty through improving the position of some on the lower scale of the distribution; in some cases, growth may benefit the non-poor but may improve overall income distribution.

Jalilian and Kirkpatrick (2005) model the interaction among financial development, economic growth and poverty reduction, where ‘financial development possibly has two poverty impacts, first indirectly through its impact on the rate of mean income growth, and second, directly through improved supply of, and access to, financial services to the poor’.

The model was tested on panel data covering 26 countries including 18 developing countries, allowing for various measures of financial development and poverty, including both income and headcount data for the poor as well as the Gini coefficient for inequality and the Theil inequality index. One significant discovery of the study is that one unit change in financial development improves the growth prospects of income of the poor by almost 0.4%.

Generally the outcomes are consistent with the argument that financial development does contribute to poverty reduction. A vital link between financial development and poverty reduction is through the growth of SMEs. Insufficient access to credit as well as other financial services from formal financial institutions has been recognized as a constraint on the growth of the SME sector. In reaction to what is seen as a failure of the market to provide small businesses with ample external finance, major resources continue to be directed into the financing of the SME sector in developing countries.

Informal Finance

Most financial transactions in Africa occur in the formal and informal financial sectors. Informal finance refers to all transactions, loans, and deposits occurring outside the regulations of a central monetary authority. In Africa, informal finance has been defined as the operations of savings and credit associations, professional money lenders, part-time
money lenders, relatives and friends, as well as co-operative societies (Aryeetey et al., 1997; Aryeetey & Udry, 1994). In Africa three types of informal units have been identified, that is savings mobilisation units with little or no lending; lending units that do not engage in any savings; and those units that combine deposit mobilisation and lending (Aryeetey and Udry, 1994).

Studies in Africa have demonstrated that both in the urban and rural areas, the informal sectors have been an absolute source of credit for production and consumption purposes (Aryeetey, 1996b; Sachs, 2009).

In spite of the lower transaction costs of the informal financial sector (Aryeetey, 1996b); the small and micro-enterprises have limited access to institutional financing because they are considered as too risky (Steel, 1977); and incapable of providing collateral security for the loans (Besley, 1994).

Theoretical Literature

Microfinance institutions (MFIs) have become an increasingly important component of strategies for promoting the development of micro and small enterprises in many developing countries as a means to reducing poverty. It is noted, however, that evidence of their impact has been inconclusive and controversial.

There are three essential strands of facts. The first strand, considered to be the extreme, argues that microfinance has beneficial economic social impacts (Schuler et al., 1997). The second strand, which is also considered extreme on the opposite end associated with Adams and Pischke (1992) and Rogaly (1996), cautions against too much optimism by alluding to the negative impacts of microfinance. The third strand is associated with Hulme & Mosley (1996). It takes the middle-road stance by acknowledging beneficial impacts, but stating that microfinance does not assist the poorest.
It could be argued that the seemingly conflicting empirical evidence could be attributed to definitional problems, the complicated objectives of MFIs, and the methodological approaches to impact assessment. An Action Research Programme funded by the Foundation recently proposed that the objective of understanding and improving the impact of development finance on poverty would provide new insights. This has transformed the practice of impact assessment. The question remains as to what theoretical framework has underpinned this revolution.

Discussing the ‘state of the art’ in impact assessment, Hulme (1997) recommends that approaches to impact assessment should range from ‘proving impact’ to that in which impact assessment should be seen as a process of which the objective is to ‘improve practice’. He argues further that, the two approaches exist in scale along which the donor government, researchers and practitioners can position themselves, depending on their needs and interests at any particular period of time.

Conflicts of needs and interests of the different stakeholders tend to abound. Indeed, donors tend to be more concerned with sustainability and outreach to the poor, while practitioners would be more concerned with improving practice. Hulme (1997), however, observed that the debate has been largely over the rationale, need, practicability and cost-effectiveness of carrying out impact assessment of the ‘proving impact’ variety. He put forward two approaches: the ‘intended beneficiary’ and the ‘intermediary schools’. The ‘intended beneficiary’ school is basically the traditional project life cycle approach. For all intents and purposes, it is donor driven and seeks to justify further funding of programmes.

It holds that the impact of aid-funded projects needs to be measured and attributed in order to justify the effect of the intervention through its direct impact on the poor. One way to establish this has been to use the assets and net worth of beneficiaries as categories for documenting the impacts of microfinance. Barnes (1996) examined 32 studies on the impact
of microfinance programmes and observed that asset accumulation is augmented, and that successive loans led to an increase of enterprise and household assets.

In a further study, Barnes and Keogh (1999) found that participation in microenterprise programmes results in improvements in the economic welfare of households, enterprise growth and stability, empowerment of women, and strengthening of social networks.

Johnson (1998) observed that the ‘intended beneficiary’ approach views credit as productive in its own right, having an instrumental impact on improving livelihoods through a combination of raising incomes, revolutionizing vulnerability, and reducing oppressive credit relations.

However, Adams (1988) has questioned the proposition that it is feasible to trace the effect of highly fungible credit through to particular beneficiaries. There is a strong tendency among poor people to use credit for consumption rather than for investment. Also, the ‘intended beneficiary’ school approach is further seen as deficient in the sense that it only considers the effect of credit provision on livelihoods without considering whether the existing informal financial markets are not being undermined by the new interventionist intermediaries undertaking delivery.

Essentially, there is an assumption that the existing informal financial markets are exploitative of the poor. By and large, the debate has centered on the question of causality and ascription, or whether it is possible to demonstrate that the particular intervention of the MFI has led to a specific change.

Client livelihoods and the communities in which they live is complex. Clients may have multiple sources of income, and the credit provided by the MFI is substitutable and is not of necessity that clients use the credit for the purpose for which it was requested. This makes it difficult and complex to attribute impact to an MFI, particularly given the difficulty
of establishing effective control-group mechanisms that can establish what would have happened without the MFI intervention (i.e. the counter-factual).

However, some researchers have been able to compare borrowers with a control group on a number of impact variables (Chen & Snodgrass, 1999). Johnson and Rogaly (1997) observe that impact assessment of NGO-funded financial services places emphasis on measuring changes in income levels following credit programmes. This focus on income promotion is borne out of the definition of poverty as lack of income, vulnerability to income fluctuations, and powerlessness.

However, they note that this approach has a number of methodological problems, which include establishing loan use in the presence of substitutability of cash; measuring change over time as a result of an intervention; and proving causality as other changes occur during an intervention.

As regards substitutability, Sebstad and Cohen (2000) observed that, in reality, resources within households are fungible and it is important to recognize that clients use microfinance services for a variety of purposes. Hulme (1997) acknowledges attribution and fungibility to be key problems for impact assessment studies, but argues that the problem of fungibility is not as serious an issue as many writers suggest. This view corroborates with the findings of some empirical studies (e.g. Cohen, 2000). Measures of subsidy dependency and some standard banking-type measures of profitability and portfolio analysis are applied in assessing institutions supplying microfinance.

Zaman (1998) argues that one of the most difficult aspects is achieving the twin goal of moving towards financial sustainability of an MFI and making an impact on poverty alleviation, especially by empowering women. He observes a growing emphasis on achieving sustainability in the long run, away from subsidies to self-financing.
Simanowitz (2001) argues that it is not the poverty level of potential clients that determines access and impact, but the design of the services provided. Whilst there are trade-offs between social and financial objectives, MFIs can reach out to the poor and impact on them to achieve financial self-sufficiency.

Emphasizing, the growing importance of the intermediary approach to impact assessment, Mosley and Hulme (1998) conclude that financial sustainability correlates with the charging of market interest rates, availability of savings facilities, the frequency of loan collection, and the existence of material incentives to borrowers and staff of the lending agency to maximize the rate of repayment.

Hulme (1997), however, concludes that there is no ‘optimal’ approach to impact assessment. Best practice suggests ‘achieving fit’ in meeting specific objectives ‘at an acceptable level of rigour that is compatible with the programme’s context feasible in terms of costs, timing and human resource. Microfinance advocates argue that small loans to poor people could serve as a potent tool for lessening poverty (Khan & Rahaman, 2007). This is consistent with UNCDF’s (2009) claim that microcredit provides a potent tool for expanding economic opportunities and reducing the vulnerabilities of the poor.

Asiamah and Osei (2007) have noted that this is possible because microfinance helps the poor to meet their basic needs and therefore improve the household income. Similarly, Khan and Rahaman (2007), Robinson (2001), Otero (1999) and Wehrell, Campbell, Cunningham, and Lee, (2002) arguing from a sociological perspective asserted that access to credit provides the poor with productive capital that helps to build up their sense of dignity, autonomy, and self-confidence, and hence are motivated to become participants in the rural economy.

Likewise, Pronyk, Hargreaves, and Morduch (2007) argue that microcredit presents the poor with income, food, shelter, education and health and can therefore have immediate
and long term consequences. Gender activists also argue in favour of microfinance as a means of empowerment by supporting women’s economic participation. Boyle (2009) asserts that microfinance helps to improve household well-being by supporting women’s economic participation. As reported by Littlefield (2005), opportunities created by credit availability helps a lot of poor people to invest in their own businesses, educate their children, improve their healthcare and promote their overall well-being.

Brau and Woller (2004) pointed out that MFIs provide products and services as the formal financial institutions but noted that the scale and methods of delivery differ, but the fundamental services of savings, loan and insurance are the same.

Aberra (2007) revealed that, microfinance provides financial services to clients who are excluded from the traditional financial system on account of their lower economic status and these financial services will commonly take the form of loans and savings such as insurance and payment services. According to (Bliss, 1998), microfinance is the provision of savings, credit and/or other financial products in small amounts to primarily poor customers conventionally believed not to have capacity to save as well as considered unwilling and unable to pay high interest rates required by the formal financial institutions.

Peberdy and Crush (2001), in a study carried out in Mozambique revealed that the informal sector employed about 52.4 percent of the population for which greater percentage are women.

According to Aghion and Morduch (2000) it is generally believed that microfinance programmes will raise incomes and broaden financial markets by principally providing credit among other services to micro/small entrepreneurs. Further, emphasizing the presence of women in the informal sector (Mayoux, 1999) revealed that micro-entrepreneurism has been seen to have a particular advantage for women because of their flexibility, ease of entry and links with local markets.
Littlefield (2005) argued that the poor are generally excluded from the financial service sector of the economy. This they claim is as a result of the fact that the poor are not credit worthy because they lack collateral so MFIs have emerged to address this market failure. The aim of microfinance according to Otero (1999) is not just about providing capital to the poor, but also has a role at the institutional level that seeks to create institutions that will deliver financial services to the poor. More recently, Littlefield, Morduch and Harshemi (2003) noted the critical role of microfinance in achieving the millennium development goals. They stated that "Microfinance is a key strategy in reaching the MDGs and in building global financial systems that meet the needs of the poorest people". Perhaps the fundamental question for the motivational underpinning of microfinance is whether it is a viable strategy for poverty alleviation relative to other poverty alleviation policies.

Adams and Pischke (1992) tried to answer this question directly by comparing modern to the failed rural credit agencies established by the governments of Least Developed Countries (LDCs) in the 1960s and 1970s, did nothing to advance poverty alleviation but rather wasted public funds. They concluded that there are similarities between the two and that MFIs are likely to fail. Buckley (1997) in partial support of the above statement argues that fundamental structural changes in socio-economic conditions and a deeper understanding of informal sector behaviour are needed for microfinance to prove effective. Johnson and Rogaly (1997) were of the view that the provision of microfinance can give poor people the means to protect their livelihood against shocks as well as to build up and diversify their livelihood activities.

Robinson (2001) in a study shows that, access to microfinance services has led to an enhancement in the quality of clients and an increase in their self-confidence and helps them to diversify their livelihood security strategies and thereby increasing their incomes through engaging in productive income generating activities.
Matin, Hulme and Rutherford (1998) noted that microfinance services help the poor to maintain and improve their livelihoods, not merely by giving them access to credit to start or run a business but also by offering them savings and insurance service that help them maintain and improve their human and social capital throughout their lives.

**Empirical Literature**

Several studies carried out on microfinance programmes in different parts of the world have shown how successful they have been in term of effectiveness, outreach (i.e. getting to the target population -the poorest poor) and achieving self sustainability. Schuler and Hashemi (1996) in a survey in Bangladesh revealed that almost all girls in Grameen clients’ households had some schooling, compared to 60% of girls in non-clients households. The schooling rate for boys was significantly higher, 81% of boys in client households received some schooling compared to 54% in non-client's households.

Microcredit programmes perform several social capital development activities. Mckernan (2002) uses primary data on household participants and nonparticipants in Grameen Bank and two similar microcredit programmes to measure the total and noncredit effects of microcredit programme participation on productivity. The total effect is measured by estimating a profit equation and the noncredit effect by estimating the profit equation conditional on productive capital. Productive capital and programme participation are treated as endogenous variables in the analysis. She finds large positive effects of participation and the noncredit aspects of participation on self-employment profits.

Ngwu (2005) noted that microfinance can indeed help in the attainment of goal one of the MDGs. This assessment was based on the empirical observation of the role of microfinance in lifting people out of absolute poverty by the National Poverty Eradication
NAPEP in Nigeria. He further stated that in 2004, NAPEP provided non-collateral micro-
credit to 45 co-operative groups in Enugu state.

The co-operative societies on lent the money to at least ten of their members. Thus, given an average family size of 6, the scheme impacted on at least 2,700 family members. A baseline data that captured the level of income, economic and social status was collected for all participants before the commencement of the programme. The data was re-validated bi-
annually and a significant improvement was noticed in all the parameters in 88.8% of the participants.

Tadesse, Bekele, and Fekadu, K. (2002) carried a study in Ethiopia that seeks to examine and assess the concept of micro-credit as the key to empowerment. The study covered six microfinance institutions and five NGOs that provide micro-credit as one component of their activities. It employed group discussion and case studies with the beneficiaries of the microfinance institution and interviewed major stakeholders. The study found that small land holding farmers and women beneficiaries of the service could pay their house rent, meet basic needs (mainly food and clothing), cover health expenses send children to school and make positive changes in their livelihoods.

Kan (2000) used data on micro-survey of households in Taiwan, and find that a household's involvement in an informal savings group (a rotating savings and credit association) has a positive impact on household investment. In 1991/1992 the Bangladesh Institute for Development studies and the World Bank jointly conducted a survey of households in rural Bangladesh to study the impact of three microfinance programmes. The survey was designed to consist of a number of control groups such as villages without access to one of these programmes and households that were not eligible for participation in any of these programmes. The survey has been used by a number of studies since.
Pitt and Khandker (1998) analyzed the impact of group loans from one of these microfinance programmes with a focus on gender-specific effects. They find that annual household expenditure increases by a larger amount if women are the recipients of these loans. In a follow-up analysis, Pitt and Khandker (1998) examine the impact of group loans on children's health and found a significant positive impact of loans to mothers and a non-significant impact of loans to fathers.

Morduch (1998), on the other hand, did not find any evidence of impact of loans on higher consumption levels or increased school enrollment. However, he does find evidence for lower variability of consumption implying that participating households better manage to smooth consumption over time. In an overview article Morduch (2000) discussed these and other findings. The effects of these programmes on wages and employment are examined in Khandker, Samad, and Khan (1998) and Pitt (1999), who find evidence for increase in wages and self-employment.

McKernan (2000) and Madajewicz (1999) analyze the impact of participation in these programmes on profits. While McKernan finds a significant impact with profits increasing by roughly 175%, Madajewicz focuses on the distinction of group loans from individual loans. She finds that when compared to individual loans, group loans from the Grameen bank increase profits by 8% for households with no land and by less for wealthier households (with a negative influence on profits for households with more than 2 acres of land). That is, wealthier households benefit more from individual loans than from group loans.

Coleman (2001) analyzes a microfinance programme in Northeast Thailand. Correcting for selection bias, he finds that the impact of microfinance institutions on household wealth is either non-significant or negative. He attributes the negative impact to the small size of the loans. Being too small for investment, the loans are used for
consumption smoothing and households turn to moneylenders to finance the repayments. When he distinguishes between wealthy and poor clients, he finds that only the wealthy clients benefited from the loans. The results by Coleman and Madajewicz (1999) have a similar structure in that they show the large influence of wealth. While the authors find negative or insignificant effects if averages are considered, there are significantly positive effects for groups with high wealth (Coleman (2001) and individual loans in Madajewicz (1999)) or low wealth (group loans in Madajewicz (1999)).

In recent years, Assessing the Impact of Micro-enterprise Services (AIMS) project has provided guidelines for impact analyses based on data already collected by most institutions. One strategy suggested consists in the comparison of clients who have passed the bank's screening but who have not yet received a loan, with clients who have received a loan some time ago. Through the restriction to clients who have passed the bank's screening, selection bias is reduced.

Mosley (2001) and Copestake, Bhalotra, and Johnson (2001) use this approach to assess the impact of micro-loans in Bolivia and Zambia, respectively. Both find a positive impact of loans on the clients' economic situation and Mosley (2001) also finds evidence for poorer clients benefiting less because they prefer low-risk and low-return investments.

While these studies reduce selection bias in restricting their analysis to clients who have passed the bank's screening, their results are of a limited generality since they apply to clients only. Specifically, we cannot infer whether similar benefits would have been achieved if the programme was extended to a larger part of the population. The benefits observed could be explained by the selection of the clients, that is, if the bank selects those clients that make the best use of the additional funds, we cannot expect similar benefits for other potential clients. In addition, neither of the papers model drop-out of clients.
A study in South Africa by Karlan and Zinman (2006) indicates that recipients of microcredit were better off than non-beneficiaries. In another study by Khan and Rahaman (2007) in the Chittagong district in Bangladesh, recipients of microfinance facilities were reported to have improved their livelihoods and moved out of poverty. More importantly, Khan and Rahaman reported that microfinance recipients had empowered themselves and become very active participants in the economy.

Further, using a regression model to examine the impact of microfinance in Ghana, Priya (2006) found that there is significant positive relationship between credit received and income. The findings suggest that programme participation led to a 10% increase in income.

UNCDF (2009) report however, suggests that despite the fact that microcredit may be helpful in reducing poverty, it is never a universal remedy and that it is only one of such tools to reduce poverty or the vulnerabilities of the poor. Buckley (1997) and Rogaly (1996) have also noted that microfinance may not always be the best tool to help the poorest of the poor.

Roodman (2009) asserts that microcredit might actually leave people worse off, just as credit cards and mortgages made people poorer in developed countries. Referring to the over-advertised benefits of microfinance, Ditcher (2006) claims that while the promise of microcredit is irresistible, the hope for poverty reduction impact of microcredit remains obscure. Karnani (2007) made a similar statement in his critique of microfinance programmes and argued that though microcredit yields some non-economic benefits, it does not significantly alleviate poverty and that the promise of microfinance is less attractive than the reality.

Karnani (2007) explained that the best way to alleviate poverty is to create jobs and increase worker productivity but not through microcredit. This is because poor borrowers tend to take out consecutive loans that protect their subsistence, and hardly ever invest in new technology, fixed capital or hiring of labor. Further, Sachs (2009) claims that microfinance
may not be appropriate in every situation and advised against “one size for all” strategy in the use of microfinance in poverty easing. Sachs (2009) explained that the poor governance infrastructure, dispersed populations in the rural areas might limit the potential benefits of microfinance in Africa. In these cases, infrastructure improvement, education and training programmes could be more effective.

Empirically, Buckley (1997) studied micro enterprises in three African countries (Kenya, Malawi, and Ghana), and questions whether the wide donor interest in microenterprise finance really addresses the problem of micro-entrepreneurship or just offers an interim to the problem. The findings of the study suggest that the basic difficulty has been lack of infrastructure rather than the introduction of capital. On the other hand, Chemin (2008) using a matching strategy to examine the impact of microfinance in Bangladesh reported a positive, but lower than previously thought, effect on expenditure per capita and school enrollment for boys and girls.

In another study to examine the impact of microfinance on rural farmers in Malawi, Aguilar (2006) reported that farmers who borrow from microfinance institutions were no better off than those who did not borrow. Like Aguilar (2006), Augsburg (2008) argues that there is the need for a supplementary component such as training in financial management, marketing and managerial skills and development of markets, for microfinance to succeed. The studies reviewed above indicate that the promised benefits of microfinance are not always realized and that many other factors including client characteristics, microfinance structure and functional arrangements may mediate the impact of microfinance.

Despite the fact that most of the above mentioned studies provide evidence for a positive influence of micro-loans on household welfare, they do not explicitly model the micro-enterprises through which the increase in incomes is achieved.
McKernan (2000) estimates a reduced form profit equation. While she finds that participation in a microfinance programme increases profits, the analysis is restricted to contemporaneous effects. That is, profits are higher while participating in the programme. The data do not allow inferences about longer term effects such as growth of the businesses. In addition, most of these studies use data from Asian countries where the samples consist of very poor households in a restricted rural economic environment.

Microfinance in South America, in contrast, caters to a different group of clients. The loans distributed are considerably larger and are targeted to the better-off households among the poor. Interest rates charged were higher and the institutions work on a cost covering basis. As a consequence, we can expect the structure of the microenterprises and the way income is generated to differ considerably.

Besides the impact studies discussed above, there is a large body of literature on small firm growth in developed countries that follows the debate on Gibrat's law (stating that growth is independent of firm size).


As a result, this study contributes to the literature by examining the impact of microfinance on small-scale businesses in the Keta municipality of the Volta Region of Ghana. It is a study that focuses specifically on the experiences of the beneficiaries of microfinance. Accordingly, it is to examine how microfinance has impacted on the lives of small and micro enterprises in the municipality.
Conclusion

In this chapter, the study looked at the overview of microfinance sector in Ghana as well as theoretical and empirical literature on the effects of microfinance on small scale businesses. The goal was to evaluate whether incomes of programme small-scale business enterprises differ from that of non-programme small-scale enterprises. It is also to evaluate the effect of microfinance loans on productivity and profitability of small-scale business enterprises. The literature reviewed on the small-scale enterprises sector revealed that, close to 80% of the working population in Ghana is found in the private informal sector which is mostly constrain by access to credit.

It was found out from the literature that, client livelihoods and the communities in which they live is complex and the clients may have multiple sources of income, and the credit provided by the MFI is substitutable and not used for the purpose for which the loans were requested. It was noted from the review of the literature that the profitability of the business enterprises is influenced by factors such as sales, the level of education, training, education interacted with training and credit.
CHAPTER THREE

METHODOLOGY

Introduction

The study seeks to find the effects of microfinance on small-scale businesses in Ghana. The chapter focuses on the study area, research design, population, sample and sampling procedure, data collection instrument and procedure, data analysis. It also discusses the econometric model, definition and measure of variables, justifications of variables, and estimation techniques that were used in order to achieve the objectives of the study.

The Study Area

Keta municipality, with Keta as the capital is one of the 18 administrative districts of the Volta Region. It was carved out of the then Anlo District, which also comprised Akatsi and Ketu Districts. The municipality lies within Longitudes 0.30E and 1.05E and Latitudes 5.45N and 6.005N. It is located east of the Volta estuary, about 160km to the east of Accra, off the Accra-Aflao main road. It shares common borders with Akatsi district to the north, Ketu district to the east, South Tongu district to the west and the Gulf of Guinea to the south.

Out of the total surface area of 1,086km$^2$, approximately 362km$^2$ (about 30 per cent) is covered by water bodies. The largest of these water bodies is Keta Lagoon, which is about 12 km at its widest section and 32km long. Hence, the remaining land area is only 724km$^2$. Keta municipality is a low-lying coastal plain with the highest point of only 53 meters above sea level around Abor in the north. The lowest point is approximately between 1-3.5 meters below sea level along the coast around Vodza, Kedzi and Keta Township. The 2000 population census puts the total population of the District at 133,661 which forms 8.2% of the Regional total population.
Major economic activities in the study area

In the Municipality, wide range of industrial activities has been identified and all the industries, which are small-scale, are owned and managed mainly by sole proprietors. This sector employs about 13.0 per cent of the labour force of the Municipality and constitutes seven primary or supplementation sources of livelihood (MPCU Field Survey, 2010). Depending on raw material base and production orientation, the industrial activities in the Municipality have been grouped under seven categories. The categories include:

- Agro-based: Fish processing, cassava processing, sugar cane juice distilling, and coconut-oil extraction
- Mining: Salt mining and sand winning.
- Wood-based: Carpentry, Standing brooms.
- Textile: Kente Weaving, Tailoring/Dressmaking.
- Straw Weaving: Straw mat weaving (Ketsiba), Pouch weaving (Kevi).
- Ceramics: Pottery.

Sources of Funds in the Municipality

In the Municipality, it was found out during Municipal Planning Co-ordinating Unit (MPCU) Field survey 2010 that, various sources of funds are available for the small-scale enterprises to access to improve their enterprises. These include; Central Government Funds and Donors Funds: e.g. World Bank, European Union, Grants from various Governments like Denmark, Japan, Canada, France, Germany etc. District Assembly Funds – Poverty Alleviation Funds, Social Investment Fund, ESRP Fund, village Infrastructure Project (VIP),
Agriculture Sector Improvement Programme (ASIP), and other funds from overseas donors, which are channelled through the Municipal Assembly, Banks - Anlo Rural Bank Limited.

Sometimes some of the small-scale enterprises rely on individuals for credit to improve their enterprises. They include Assembly members, private businessmen and women who want to improve the lot of their kinsmen and even money lenders and Non Governmental Organizations (NGOs).

Research Design

A descriptive correlation survey was used for the study. This follows the description of Fraenkel and Wallen (2002) that survey is a method of data collection in which information is gathered through oral or written questionnaires and could be structured, more informal or a mixture of approaches. Newman (2003), also indicate that surveys systematically ask many people the same question about a situation or a programme and measure many variables which infer about past behaviour experience or characteristics. The correlation aspect examined the relationship between dependent and independent variables of the study.

Population

The population for the study comprised all small-scale enterprises in the Keta municipality who are clients of Anlo Rural Bank’s microfinance scheme. The study considers all individual small-scale businesses who benefited from the microfinance loans or otherwise.

Sample Size and Sampling Procedures

Sarantakos (2005) argued that, a sample consists of carefully selected unit that is representative of the entire population. In determining a sample size, the general notion by
researchers is that, the larger the sample the smaller the sampling errors. Kahn and Rahaman (2007) argues that sample size depends on nature of the population, the data to be gathered, the type of analysis to be done and funds available for the studies.

The sample for the study was made up of two groups which comprised of a group of clients who had borrowed from the Bank’s microcredit programme, referred to as clients with prior loan and a group who has passed the Bank’s screening, and therefore met the Bank’s lending criteria, but not yet borrowed from the Bank’s credit programme, referred to as clients without prior loan.

The researcher sampled a cross-section of the beneficiary small-scale businesses. A sample frame of beneficiaries of the microfinance scheme was obtained from the participating microfinance service provider, Anlo Rural Bank and a simple random sampling method was used to select the respondents for the study. The simple random technique was used because the respondents proved identical based on the fact that every one met the bank’s lending criteria, and also provides more representativeness.

The technique also provides an equal chance to every member of the defined population to be included in the sample. A list of individuals that have registered and passed the bank’s screening but so far not benefited from the credit programme was received from the bank and used as a counterfactual or the comparison group. Sample size of 293 respondents were interviewed in the survey.

The desire sample size was arrived at based on the formula given by Selvanathan, Selvanathan, Keller, and Warrack (2007, p. 465).

\[
n = \left[ \frac{Z_{\alpha/2} \sqrt{\hat{p} \hat{q}}}{B} \right]^2
\]

where: \( n \) is the desired sample size;\
\( \hat{p} \) is sample proportion, and \( \hat{q} = 1 - \hat{p} \)
As suggested by Selvanathan et al. (2007), let $\hat{p} = \hat{q} = 0.5$ because the product of $\hat{p}$ and $\hat{q}$ can reach the maximum value given $\hat{p} = 0.5$. The sample size must be larger than the calculated sample response to take into account sample attrition. Literature indicates that sample response rates based on survey questionnaires are normally between 60% and 90% (see for example, Atieno, 2001; Coleman, 1999; Husain, 1998).

Using a conservative estimated response rate of 80%, the calculated working sample size for the study was 293 (i.e. 234/0.8). The real sample size used for empirical analyses was 200 enterprises whose responses were found good to be included in the analysis.

**Data collection procedure**

Subsequent to the preparation of the questionnaire, a pre-test was conducted to ensure the research instrument was appropriate and understandable. It was also to make sure the data collected maintains its validity and reliability. The pre-test conducted exposed some troubles with certain responses that made some questions to be reframed and some others removed as they were inappropriate.

Data for the study was from primary source which was obtained from interviews to examine the effects of microfinance on small-scale businesses in Ghana using Keta municipality as a case study. Detailed and carefully designed interview schedule was used for the primary data collection. The interview schedule in this study was conducted with the help of a group of trained survey assistants who were trained for half a week on mechanism of interviewing so as to obtain the right responses from the respondents in order to achieve the objective of the study, and this data collection was done under the supervision of the researcher. The study was conducted between September 2011 and November 2011.
An interview was used as a means to collect data from the selected beneficiary small-scale businesses. Data were collected from the beneficiary small-scale businesses in order to assess the effects of loans, for example, on profit, output growth as well as socio-economic attributes of the respondents.

**Data analysis**

Data were edited to ensure consistency and accuracy of responses obtained from the field and inputted into the computer using Statistical Product and Service Solutions (SPSS) software in view of the fact that it was very convenient and easy for inputting data. The data was then transferred from SPSS to Stata for analysis. The data were used to run the econometric model to get the estimates of the parameters and descriptive statistics were used to establish relationships among the variables. The results of the study have been presented in the form of tables (percentages, frequencies and estimation results) and interpreted aptly.

**Theoretical Model**

The theoretical literature indicate that microcredit may have had positive impacts on microenterprises, including positive impacts on enterprise revenue, fixed assets, employment, transaction relationships, and formalization. In some cases, microcredit was to increase the levels of these enterprise performance variables. In other cases, microcredit serves to insulate the enterprises from the poor economic climate so that reduction in these variables such as the enterprise revenue, fixed assets, employment and the rest, would not be as large for clients’ enterprises as they were for non-clients’ enterprises.
Several other studies focused explicitly on output, and found that credit had a significant impact on output even when controlling for other factors such as the number of family labour, the level of fixed assets, higher labor costs, or longer working hours (Lapar, et al., 1995a; Lapar, et al., 1995b). One study concluded that credit raises output by allowing entrepreneurs to use inputs more intensely or optimally, to use newer technology, and to overcome financial constraints related to the purchase and efficient allocation of inputs (Lapar, et al. 1995a). Several studies showed the effects on output to be cumulative with the number of loans (Buckley, 1996; Churchill, 1995).

The impacts of microfinance credit on enterprise income, measured as either gross profits or net profits were generally positive. Income increased for at least half of the enterprises in most of the studies, while it remained the same or even decline for a significant proportion. Several studies found the effects of credit on enterprise income to be cumulative. Incomes of repeat borrower were higher. A few studies looked at changes in profit margins, reflecting more on structural change in the enterprise operations, and found that profit increases among only small proportion of enterprises studied.

A study conducted in Kenya shows a negative effect of credit on profit margins for poor borrowers, due partially to rising inflation and price decontrols (Buckley 1996). These findings further suggest that credit contributes to sustained growth among only a small proportion of enterprises while the large majority grow only up to a point, then level out because of diminishing cost. A small proportion even decline or close down, but this generally is due to factors unrelated to credit.

Again, economists and econometricians have been studying statistical methods for programme evaluation with non-experimental data. This is in response to the need to evaluate many of the social intervention programmes, particularly those designed to aid the poor with educational, training and poverty eradicating programmes. Among recent papers, Piehl et al
provided important insights into the recent development of programme evaluation measures.

According to Piehl et al (2003) if the effect of a particular intervention is to be evaluated, (i.e. a treatment) on individual levels of some outcome variable say \( Y \) (the outcome variable) which has the following definitions:

\[ Y_{it}^* = \text{level of outcome variable for individual } i \text{ at time } t \text{ if he or she has not received the treatment} \]

\[ Y_{it}^{**} = \text{level of outcome variable for the same individual } i \text{ at time } t \text{ if he or she has received the treatment at some prior date, then:} \]

\[ Y_{it}^{**} = Y_{it}^* + \alpha \quad (2) \]

Or

\[ \alpha = Y_{it}^{**} - Y_{it}^* \quad (3) \]

The aim of the evaluation is to obtain an estimate of the value of \( \alpha \), the treatment effect. The easiest way to think about what one seeks in an estimate of \( \alpha \) is to consider individuals who have gone through a programme and therefore have received the treatment, and for whom we later measure their value of \( Y_{it}^{**} \). Ideally, one may wish to know the level of \( Y_{it}^* \) for such individuals – that is, one would like to know what their level of \( Y \) would have been had they not gone through the programme. If \( Y_{it}^* \) could be known, the difference between them (i.e. \( Y_{it}^* \) and \( Y_{it}^{**} \)) would be a satisfactory estimate of \( \alpha \). The problem with the above methodology is that \( Y_{it}^* \) can not be observed directly, but only the values of \( Y_{it}^* \) for nonparticipation of the programme. Defining a dummy variable for whether an individual has or has not received the treatment:

\[ d_i = 1 \text{ if individual } i \text{ has received the treatment} \]

\[ d_i = 0 \text{ if individual } i \text{ has not received the treatment.} \]
Then an estimate of \( \alpha \) could be obtained by estimating the difference between \( Y_{it}^{**} \) and \( Y_{it}^{*} \) for those who did and did not go through the programme, respectively:

\[
\tilde{\alpha} = E(Y_{it}^{**} | d_i = 1) - E(Y_{it}^{*} | d_i = 0) \tag{4}
\]

Where \( E(Y_{it}^{**} | d_i = 1) \) is the expected value of \( Y_{it} \) of those who have received the treatment and \( E(Y_{it}^{*} | d_i = 0) \) is the expected value of \( Y_{it} \) for those who have not received the treatment. But that is not what one wishes to evaluate. It is rather the difference between the expected value of \( Y_{it}^{**} \) for those with \( d_i = 1\) and the expected value of \( Y_{it}^{*} \) that would have been obtained for those with \( d_i = 1\) as well – that is, the value of \( Y \) that would have been arisen if those who did go through the programme had not gone through it. That is one would like to know

\[
\hat{\alpha} = E(Y_{it}^{**} | d_i = 1) - E(Y_{it}^{*} | d_i = 1) \tag{5}
\]

The estimated \( \hat{\alpha} \) in (5) is, in fact, the estimate that would be obtained if one had successfully administered a randomized controlled trial for evaluation. For example, as individuals come in through the door of the programme, they would be randomly assigned to treatment status or control status, where the latter would receive none of the services of the programme. At some later date one could measure the levels of \( Y \) for the two groups and calculate (5) to obtain an estimate of the effect of the programme.

In the context of the aforementioned literature and supporting empirical evidence that relates with analysis of the contribution to productivity growth from microfinance loans and following Lichtenberg and Siegel (1991), Hanel (2000) and Wakelin (2001), the study considered an algebraic representation of the extended Cobb-Douglas production function:

\[
Y = A(K^{\beta_1}, L^{\beta_2}) \tag{6}
\]

Where \( Y \) is value added (or sales), \( L \) is labour input, \( K \) is the capital input \( A \) is the level of technology and efficiency of its use. \( A \) is a constant; \( \beta_1 \) and \( \beta_2 \) represent production factor elasticity given labour and capital; and constant returns to scale have been assumed with
respect to the conventional factors \((L \text{ and } K)\), that is to say, if the sum of elasticities is one, \(\beta_1 + \beta_2 = 1\), the production function generates constant returns to scale. By extending the Cobb-Douglas production function to take on the variables of interest, equation (6) has been augmented as follows:

\[
Y = A(K^{\beta_0}, L^{\beta_1}, X^{\beta_n})
\]  

(7)

Where \(Y\), \(K\), \(L\) and \(A\) are as defined and \(X\) = the vector of personal and business enterprise specific characteristics such as age, gender, total assets, employment level, level of education, training and business age. The study used the extended Cobb-Douglas function based on its extensive use in the empirical literature as well as its simple applicability.

**Empirical Model**

With the intension of finding out whether income of clients with prior loans differs from income of clients without prior loans, the mean comparison was employed to test whether the income differentials were significant.

In order to examine the effects of loans on productivity, the study compared clients with prior loans on one hand and clients without prior loans on the other hand. Everything else being constant, do clients with prior loans generate higher sales revenue from the loans as clients without prior loans do with their own funds? The study conducted the analysis in accordance with the literature by augmenting and applying natural logarithm to equation (7) and estimated the model of the following form:

\[
\ln Y_i = \beta_0 + \beta_1 \ln K_{i1} + \beta_2 \ln L_{i2} + \beta_3 \ln X_{i1} + \beta_4 \ln X_{i2} + \beta_5 \ln X_{i3} + \beta_6 X_{i4} + \\
\beta_7 X_{i5} + \beta_8 \ln X_{i6} + \epsilon_i
\]  

(8)

Where \(Y_i\) is natural logarithm of sales of the \(i\)th firm, \(K_{i1}\) is the natural logarithm of asset, \(L_{i2}\) is natural logarithm of the number of employees, \(X_{i1}\) is natural logarithm of business age
interacted with assets, \( X_{i2} \) is the year of schooling, \( X_{i3} \) is credit received, \( X_{i4} \) is natural logarithm of asset interacted with training, \( X_{i5} \) is gender of the entrepreneur, \( X_{i6} \) is training received by the individual entrepreneur, \( \beta_0 \) is the constant and \( \varepsilon_i \) is the random error term independently and identically distributed with zero mean and constant variance. 

\( \beta_0, \beta_1 \ldots \beta_9 \), are the parameters to be estimated and,

\[ i = 1, 2 \ldots 200 \]

In order to determine the effect of credit on clients’ enterprise profit, the following regression model was estimated:

\[
P_{ji} = \alpha_0 + \alpha_1 Z_{1i} + \alpha_2 Z_{2i} + \alpha_3 Z_{3i} + \alpha_4 Z_{4i} + \alpha_5 Z_{5i} + \alpha_6 Z_{6i} + U_i \quad (9)
\]

Where \( P_{ji} = \) is the \( jth \) outcome/profit of the \( ith \) enterprise

\( Z_{1i} = \) is natural logarithm of sales,

\( Z_{2i} = \) is natural logarithm of employment

\( Z_{3i} = \) is training received by the individual entrepreneur

\( Z_{4i} = \) is the year of schooling of an individual entrepreneur

\( Z_{5i} = \) is credit received

\( Z_{6i} = \) is natural logarithm of business age

\( U_i = \) the disturbance term

\( \alpha_0, \alpha_1 \ldots \alpha_7 \), are the parameters to be estimated and

\[ i = 1, 2 \ldots 200 \]

Table 1: Definition and measures of variables

<table>
<thead>
<tr>
<th>List of variables</th>
<th>Definition of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lnsales</td>
<td>Natural log of sales measured in Ghana cedis.</td>
</tr>
<tr>
<td>Lnempl</td>
<td>Natural logarithm of employment measured by the number of people employed</td>
</tr>
</tbody>
</table>
Training =1 if owner received training, 0 otherwise  
Education Years of schooling  
Credit =1 if owner had access to credit, 0 otherwise  
Lntotalass Natural log of total asset in Ghana cedis owned by the business  
Lnbusage Natural logarithm of age of business in years  
Busaset Business age in years interacted with asset measured in Ghana cedis.  
Lnassetrain Natural log of asset interacted with training  
Gender The sex of the respondent owner  
=1 if the respondent is a male, 0 otherwise

**Estimation Technique**

The mean comparison test was used to test whether the income differential between clients with prior loans and those without prior loans was significant. The ordinary least square method was employed for the estimation. The method of ordinary least square is a statistical technique that uses sample data to estimate the true population relationship between variables of interest.

Firstly, a production function was specified to estimate the effects of microfinance loans on client’s enterprises productivity. Secondly a model was used that captured the effects of microfinance loans on business level profit.
**Justification of the Variables**

Microfinance and its effects on small-scale businesses’ profit are assumed to be influenced by socio-economic and demographic characteristics namely sales, employment level, educational level interacted with training, training, access to credit, the age of the business, age of the respondent, total assets of the business and gender.

Sales

For profit maximising firms, a strategy to maintain a high level of profitability requires that the firms must produce quality products which can easily be sold to generate more revenues, especially through effective and efficient marketing strategies. To achieve full potential of sales, the product life cycle must be considered and the entrepreneurs must maximise the profitability during the growth stage. It is expected that, sales carries a positive sign, in conformity with economic theory. This means that profits should increase with sales.

Employment

The level of employment indicates the size of business measured by the number of employees. As the size of firms becomes bigger, more profits are expected to be realised. This is because larger firms find it easier to obtain credit for expansion from the financial institutions. They also enjoy the economies of bulk purchasing, and increase therefore, the quantity and quality of factors of production such as equipment and machinery and employ more workers which will ultimately increase profit.

No empirical evidence of the influence of the number of full time equivalent employees on small-scale business sales has been identified in the literature. However, assuming the goal of profit maximisation, small-scale business owners are likely to employ labour when it increases the profit (and therefore sales) generated by the firm.
Education

Education embodies the human capital endowment. There is evidence of a positive linkage between higher level of education and the participation in more worthwhile economic activities. The higher the level of education of the individual, the better he or she becomes enlightened and dexterous in handling his business affairs leading to increase in the level of productivity and profit. According to Lanjouw (1999) there is a high probability of getting job in a regular non-farm wage employment as the level of education of the individual rises. According to Gordon and Craig (2001) there are various processes that strengthen the impact of education on incomes. This include; the ability of education to increase skill levels which are needed in the microenterprise activities that contribute to productivity; education and training processes increases ones level of confidence in establishing useful contacts that add to productive outlay and finally education helps the entire household as uneducated household members may benefit from the advice from the educated ones.

Training

This is a dummy variable which represents whether the business owner has undergone skill training and knowledge transfer associated with microfinance or not. The individual business owners with such skill training are more dynamic and more productive. It is likely for them to demonstrate a higher degree of achievement. The expectation is that, the individual business owner with business training will impact positively on profit and productivity of the enterprise.

Access to Credit

Access to credit is positively related to firm’s profitability and profits of small-scale firms tend to increase with increasing amount of loans. Simple economic theory suggests that
access to credit should lead to higher profits. According to McMahon, Holmes, Hutchinson and Forsaith (1993), the financing decision impacts upon the profitability of an enterprise. The coefficient of credit is expected to be positive as a priori expectations of economic theory.

Business Age

This variable measures the number of years the business has been established. The age of business should carry a positive sign as a priori expectation. This indicates that, the older the firms are, the more likely their profitability. Stanger (2000) argues that the relationship between firm age and profitability should be positive, since older businesses are more likely to have attained diminishing costs of production over some range of sales and hence be able to operate more economically and efficiently than recently established ones.

Age

The age distribution of client has important effect on the expansion on the household’s small-scale enterprises. It is generally practical that the possibility of going for credit increases with age up to a maximum and then begins to decline. It is thought that individuals increase their work effort in earlier years as they accumulate assets to rely on later in life.

Total Asset

All things being equal, increased quality and quantity of assets available to a firm, will generate more production, and through effective and efficient marketing strategies enhance firm’s performance. Assets can be used as a security for further borrowing. All things being equal, assets of a firm will generate more production. It is expected that increase quantity and quality of a firm’s total assets will lead to higher productivity.

Gender
Gender is included as explanatory variable to examine the effect of gender or sex on the productivity of the clients' enterprises. Many studies indicate that businesses owned by women underperform as compared to those of men (Roffey et al. 1996). Underperformance has been found in relation to lower sales (Hisrich & Brush, 1984) and lower profit (Miskin & Rose, 1990). Brush (1992) concludes that women-owned firms are similar to male-owned firms along numerous dimensions but differs across, such as owner characteristics, education and experience. Brush suggests that differences in male and female psychology play a major role in these differences.

However, a study by Kallenberg and Leicht (1991) explored whether differences in performance of entrepreneurial firms by gender are the result of discrimination or other factors. They analyze a sample of firms from selected industries in South Central Indiana over a three-year period, 1985-87, and find that female-owned firms were no more likely to go out of business or to be less successful (as measured by gross earnings) than firms owned by men.

**Conclusion**

This chapter discussed the methodology for the study. The descriptive study design was adopted for the study. Primary data were collected through survey of small-scale firm in the Keta municipality. The data collection started with a pilot survey. The study employed interview schedule for data collection. The study adopted the Cobb Douglas production function for the analysis of the effects of microfinance loans on productivity of the small-scale firms. To achieve the objective on effects of microfinance loans on profit, a profit function was used.
CHAPTER FOUR

RESULTS AND DISUSSION

Introduction

This chapter presents and discusses the results from the study. It is organized into: socio-economic characteristics of respondents, monthly income distribution of business entrepreneurs, credit received and socioeconomic characteristics of sample households, sectoral distribution of business entities, the income differential between clients with prior loans and those without prior loans, effect of microfinance loans on business-level profits and the effect of microfinance loans on the productivity of the beneficiary business enterprises.

Socio-Economic Characteristics of Respondents

This study used primary data collected from individual businesses who were clients of Anlo Rural Bank’s microfinance programme in Keta municipality. Information on individual characteristics for instance age, sex, educational level, type of occupation, levels of income, among others were collected and analyzed in the study.

Out of two hundred individuals who were sampled for the study, 76 representing 38% were males and 124 representing 62% were females. This implies that majority of our respondents were females. From Table 2, about 10.48% of respondents in the age group <20 were females while males in the same age group constituted 22.37%. The age group >50 had the lowest number for both males (11.84.26%) and females (7.26%).

Table 2: Age Group by Sex of Respondents

<table>
<thead>
<tr>
<th>Sex</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Age Groups</th>
<th>Female</th>
<th>Percent</th>
<th>Male</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 20</td>
<td>13</td>
<td>10.48</td>
<td>17</td>
<td>22.37</td>
</tr>
<tr>
<td>21-30</td>
<td>24</td>
<td>19.36</td>
<td>28</td>
<td>36.84</td>
</tr>
<tr>
<td>31-40</td>
<td>36</td>
<td>29.03</td>
<td>12</td>
<td>15.79</td>
</tr>
<tr>
<td>41-50</td>
<td>42</td>
<td>33.87</td>
<td>10</td>
<td>13.16</td>
</tr>
<tr>
<td>&gt;50</td>
<td>9</td>
<td>7.26</td>
<td>9</td>
<td>11.84</td>
</tr>
<tr>
<td>Total</td>
<td>124</td>
<td>100.0</td>
<td>76</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011

Largely, majority of the female respondents fall into the economically active age groups, from 31-50 representing 62.90%. The male respondents for the same age group (i.e. 31-40 and 41-50) represent 28.95%. The age group 41-50 had the highest number of females (33.87%) and the age group 21-30 had the highest number of males representing 36.84%.

Table 3 displays educational level of respondents. It shows that 12.5% of the individuals in the study had no formal education. As Table 3 shows, 18.5% of the respondents had education up to the primary level while those with education up to the JHS level constituted 26%.

**Table 3: Level of Education of Respondents**

<table>
<thead>
<tr>
<th>level of education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>25</td>
<td>12.5</td>
</tr>
<tr>
<td>Primary</td>
<td>37</td>
<td>18.5</td>
</tr>
</tbody>
</table>
The table shows again that, 31.5% were those who went to school up to the secondary level. About 11.5% respondents went to school up to tertiary level. Of all the levels of education, the secondary level had the highest number of respondents representing 31.5%.

The gender distribution for levels of education is displayed in table 4. It shows clearly that, 10.53% and 13.71% of males and females respectively, had no formal education. About 20.16% of respondents with primary education were females while 15.79% were males.

**Table 4: Educational Level by Sex of Respondents**

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Female</th>
<th>Percent</th>
<th>Male</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>17</td>
<td>13.71</td>
<td>8</td>
<td>10.53</td>
</tr>
<tr>
<td>Primary</td>
<td>25</td>
<td>20.16</td>
<td>12</td>
<td>15.79</td>
</tr>
<tr>
<td>JHS</td>
<td>34</td>
<td>27.42</td>
<td>18</td>
<td>23.68</td>
</tr>
<tr>
<td>Secondary</td>
<td>34</td>
<td>27.42</td>
<td>29</td>
<td>38.16</td>
</tr>
<tr>
<td>Tertiary</td>
<td>14</td>
<td>11.29</td>
<td>9</td>
<td>11.84</td>
</tr>
</tbody>
</table>
It can be seen from Table 4 that about 27.42% of the respondents with JHS education were females while males with the same education were 23.68%. It is clear that majority of the respondents 87.5% were educated or literate. The uneducated or illiterate respondents however constituted 12.5%.

Frequencies of average monthly income of respondents are shown in table 5. As depicted by the table, 43% of the respondents earned between 101 and 300 Ghana cedis per month. This income bracket GH¢ 101 – 300 also had the highest number of respondents (86). Given the current national daily minimum wage of 3.11 Ghana cedis, the results show that majority of the respondents had relatively higher incomes. In fact, they can be classified as being above the poverty threshold of 90 Ghana cedis per annum.

### Table 5: Average Monthly Income of Respondents

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; GH¢ 100</td>
<td>37</td>
<td>18.50</td>
</tr>
<tr>
<td>GH¢ 101-300</td>
<td>86</td>
<td>43.00</td>
</tr>
<tr>
<td>GH¢ 301-500</td>
<td>37</td>
<td>18.50</td>
</tr>
<tr>
<td>GH¢ 501-700</td>
<td>29</td>
<td>14.50</td>
</tr>
<tr>
<td>&gt; GH¢ 701</td>
<td>11</td>
<td>5.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011
Observing again from Table 5, about 18.5 percent of respondents earned between 301 and 500 Ghana cedis. 14.5 percent of the respondents earned between 501 and 700 Ghana cedis. Those who earned above 701 Ghana cedis, were about 5.5 percent.

The various types of employment of individuals selected for the study are shown in Table 6. The results of the study show that most of the respondents were petty traders, representing about 86%, and peasant farmers accounted for only about 0.5%.

**Table 6: Employment Type of Respondents**

<table>
<thead>
<tr>
<th>Employment Type</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peasant farming</td>
<td>1</td>
<td>0.50</td>
</tr>
<tr>
<td>Petty trading</td>
<td>172</td>
<td>86.00</td>
</tr>
<tr>
<td>Private sector worker</td>
<td>3</td>
<td>1.50</td>
</tr>
<tr>
<td>Public sector worker</td>
<td>24</td>
<td>12.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011

The results from Table 6 again revealed that private sector workers accounted for about 1.5% of the study population while public sector workers were about 12%. This results show that the microfinance loans were mostly skewed to full time business entrepreneurs who are engaged in petty trading.
The major shocks experienced by the owners of enterprises in the last six months are shown in table 7. The results of the study show that, majority (90) of the respondents representing about 45.00% experienced no shocks in their businesses.

### Table 7: Shocks Experienced by Owners of Enterprises

<table>
<thead>
<tr>
<th>Employment Type</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Shock</td>
<td>90</td>
<td>45.00</td>
</tr>
<tr>
<td>Poor sales in the business</td>
<td>26</td>
<td>13.00</td>
</tr>
<tr>
<td>Marriage ceremony</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>Illness of one of a household member</td>
<td>40</td>
<td>20.00</td>
</tr>
<tr>
<td>Death in the household</td>
<td>26</td>
<td>13.00</td>
</tr>
<tr>
<td>Theft of key assets</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011

The results from Table 7 also show that 13% of respondents experienced poor sales, 5.5% reported they had marriage ceremonies, 40 respondents representing 20% experienced illness of one of the household members, 13% experienced death in the household and 3.5% had their key business asset stolen. This finding reveals that for the period under consideration, business entrepreneurs experienced some challenges.

Hundred respondents of the sampled population had prior loan. The different uses in which the respondents put their credit are shown on table 8. From the table, 11 business owners representing 11.0% used their loans as a startup capital and 49 respondents
representing 49.0% used their loans to meet some other household needs including school fees.

Table 8: Purpose of the Loan Received

<table>
<thead>
<tr>
<th>Purpose of loan</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>To start business</td>
<td>11</td>
<td>11.0</td>
</tr>
<tr>
<td>To repay back another loan</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>To meet some other household needs including school fees</td>
<td>49</td>
<td>49.0</td>
</tr>
<tr>
<td>To expand my business</td>
<td>38</td>
<td>38.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011

Thirty eight of the respondents representing 38.0% used their loans to expand their businesses.

Table 9 displays the sectoral distribution of business enterprises and whether clients received prior loans or not.

The services sector had the highest respondents with 89% of those who received credit and 81% of those who did not receive the credit. Indeed, the Agricultural sector accounted for only 1% of the respondents.

Table 9: Sectoral Allocation of Credit
<table>
<thead>
<tr>
<th>Sector</th>
<th>Whether credit was received or not</th>
<th>Yes</th>
<th>Percent</th>
<th>No</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>11.00</td>
<td>18</td>
<td>18.00</td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td>89</td>
<td>89.00</td>
<td>81</td>
<td>81.00</td>
</tr>
<tr>
<td>services</td>
<td></td>
<td>0</td>
<td>0.00</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>agriculture</td>
<td></td>
<td>100</td>
<td>100.0</td>
<td>100</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011

The results from Table 9, clearly shows that microfinance loans were skewed to the service sector. Surprisingly, no client operating in the agricultural sector had prior loans. This could be due to the viability of most businesses that operate in the services sector compared to the other sectors.

**Credit allocation by the Microfinance Institution**

Table 10 displays responses for whether prior loans were given or not in relation to the socioeconomic characteristic of the sample households. Considering the entire sample, greater proportion of female respondents representing 54.8% had prior loans compared to male respondents of 42.1%. It might be due to the reason that females are more responsible and can better manage resources.
With regard to the age category, the study found that, a bulk of clients with prior loans representing about 73.1% belongs to the 41-50 age categories.

Table 10: Credit Allocation and Socioeconomic Characteristics of Respondents

<table>
<thead>
<tr>
<th>Socioeconomic condition of households</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>SEX</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>32 (42.11%)</td>
</tr>
<tr>
<td>Female</td>
<td>68 (54.84%)</td>
</tr>
<tr>
<td>AGE</td>
<td></td>
</tr>
<tr>
<td>&lt; 20</td>
<td>12 (40.00%)</td>
</tr>
<tr>
<td>21-30</td>
<td>30 (57.69%)</td>
</tr>
<tr>
<td>Age</td>
<td>Count</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>31-40</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
<tr>
<td>41-50</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>14</td>
</tr>
<tr>
<td>&gt;50</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

**EDUCATIONAL LEVEL**

<table>
<thead>
<tr>
<th>Level</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Schooling</td>
<td>6</td>
<td>24.00%</td>
</tr>
<tr>
<td>Primary</td>
<td>16</td>
<td>43.24%</td>
</tr>
<tr>
<td>JHS</td>
<td>30</td>
<td>57.69%</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>42.31%</td>
</tr>
<tr>
<td>Secondary</td>
<td>33</td>
<td>52.38%</td>
</tr>
<tr>
<td>Tertiary</td>
<td>15</td>
<td>65.22%</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>34.78%</td>
</tr>
</tbody>
</table>

**MARITAL STATUS**

<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>11</td>
<td>28.21%</td>
</tr>
<tr>
<td>Maried</td>
<td>66</td>
<td>55.93%</td>
</tr>
<tr>
<td>Divorced</td>
<td>8</td>
<td>50.00%</td>
</tr>
<tr>
<td>Separated</td>
<td>4</td>
<td>80.00%</td>
</tr>
<tr>
<td>Widowed</td>
<td>11</td>
<td>50.00%</td>
</tr>
</tbody>
</table>

**OCCUPATION**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peasant</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>100%</td>
</tr>
</tbody>
</table>
It is also observed from Table 10 that taking into consideration educational level of respondents, the largest proportion of clients with prior loans representing about 30.93% had tertiary education. The smallest proportion of clients with prior loans representing about 10.0% had no formal education. This is expected since clients with no formal education may have inadequate knowledge regarding business development in a competitive environment. Moreover, the results reveal that 66.0% of clients who received prior loans were married with the least of them separated. In addition, the largest proportion of clients with prior loans representing about 85% work as petty traders.

**Differences in Incomes between Clients with Prior Loans and Clients without Prior Loans**

Table 11 displays the income differential between clients with prior loans and clients without prior loans. The mean value of income for clients with prior loans is 374.64 and that for clients without prior loans is 223.73 with 150.91 as the mean value of the difference.

It can be observed that the mean value of the difference is positive because the average value of the incomes of clients with prior loans is greater than the average value of the incomes of clients with no prior loans.
Table 11: Income Differential between Clients with Prior Loans and Clients without Prior Loans

<table>
<thead>
<tr>
<th>Credit</th>
<th>Obs.</th>
<th>Mean</th>
<th>Standard Error</th>
<th>t-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>With</td>
<td>100</td>
<td>374.64</td>
<td>33.03814</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without</td>
<td>100</td>
<td>223.73</td>
<td>19.34512</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference***</td>
<td>150.91</td>
<td>38.28514</td>
<td>3.9417</td>
<td>0.0001</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011

Note: *** denote statistical significance at 1% conventional level.

From Table 11, the null hypothesis of no significant difference between the incomes of clients with prior loans and those clients without prior loans is rejected at the 1% conventional level of significance. The implication is that 150.91 which is the mean value of the difference between incomes of clients with prior loans and clients with no prior loans are not due to random process. This means prior loans have contributed significantly to the increase in the level of their incomes.

The Effect of Microfinance Loans on Business-level Profit

Based on the literature, a number of economic and socio-demographic variables were identified and incorporated into the business level profit equation. The variables included sales, number of employees, level of education of business owners, training, credit, and business age of firms. Within the framework of the linear regression model, the coefficients of the variables were estimated by the ordinary least square method using Stata Version 11. The results of the OLS estimation are presented in Table 12. All the variables had their expected signs except the coefficients of credit and the constant term. The coefficients of the
variables were significant except the coefficients of number of employees, and business age of firms.

The variables that are significantly related to firm level profit are sales, education of business owners, training, and credit. The signs of the coefficients of these variables conform to expectation.

From Table 12, the coefficient of sales is statistically significant at 1% conventional level and its positive sign conforms to theory. The indication is that a 100% increase in sales will generate about 37.4% increase in profit ceteris paribus. The positive coefficient of sales is in conformity with a priori expectation of economic theory. This means that profits tend to increase with increase in sales. For profit maximising firms, a strategy to maintain a high level of profitability requires that the firms produce quality products which can easily be sold to generate more revenues, especially through effective and efficient marketing strategies that will increase revenue in excess of the expenditure leading to increase in business level profit.

As anticipated, the coefficient of training is positive and statistically significant at the 5% level. Its positive coefficient implies that those entrepreneurs who received training through their participation in the microfinance programme realized an increase in their monthly profit levels by 1.77 Ghana Cedis more than those who did not receive training ceteris paribus. This increase is quite minimal, however.

The results indicate that education variable measured by years of schooling has the predicted sign and is statistically significant. This shows that business owners who had formal education were more likely to realize profit growth than those with no formal education. The 1.685 coefficient means that entrepreneurs with formal education realized approximately 1.68 Ghana Cedis increase in their monthly profits compared to those with no formal education all other things being equal. This result is consistent with findings by Copestake, Bhalotra and Johnson (2001).
Table 12: Microfinance Loans and Business-level Profits

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t</th>
<th>P&gt;t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insales</td>
<td>0.37352***</td>
<td>0.058005</td>
<td>6.44</td>
<td>0.000</td>
</tr>
<tr>
<td>training</td>
<td>1.76707**</td>
<td>0.813683</td>
<td>2.17</td>
<td>0.031</td>
</tr>
<tr>
<td>education</td>
<td>1.684579**</td>
<td>0.801391</td>
<td>2.1</td>
<td>0.037</td>
</tr>
<tr>
<td>credit</td>
<td>-0.39617***</td>
<td>0.132097</td>
<td>-3</td>
<td>0.003</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.32309</td>
<td>1.629071</td>
<td>-0.2</td>
<td>0.843</td>
</tr>
</tbody>
</table>

F( 9, 190) = 10.16
Prob > F = 0.0000
R-squared = 0.3249
Adj R-squared = 0.2929
Number of obs = 200

Source: Field Survey, 2011

Note: *** and ** denote statistical significance at 1% and 5% levels respectively.

A look at Table 12 reveals that, the coefficient of credit shows negative sign contrary to its expected positive sign. At 1% level of significance credit had significant effect on the profit levels of business enterprises.

The results show that entrepreneurs who had access to credit realized approximately 0.40 Ghana cedis decrease in their monthly profits compared to those who did not receive credit all things being equal. Although it is quite a small reduction, it is statistically significant. The negative effect of credit on profit is due mainly to the high interest payment which aggravates the total cost of doing business thereby lowering the profit levels. Indeed, most of the respondents said during the data collection that they used the chunk of their incomes to service their loans leaving very minimal profits.
This counterintuitive result of credit, according to literature, could be as a result of the fact that, business enterprise level effects may perhaps be limited when: (i) credit is provided without technical (cost reduction) or marketing (sales increasing) measures in highly competitive markets; (ii) credit funds are diverted and not invested in the enterprise; (iii) the loan size is so small to raise production to an efficient level; and (iv) credit is granted to enterprises which are already operating at an effective level of production (Nelson & Bolnick, 1984).

The coefficient of business age carries a positive sign, conforming to the a priori expectation. This indicates that the older the firms are, the more their profitability. The older businesses are more likely to have attained diminishing costs of production over some range of sales and hence be able to operate more economically and efficiently than recently established ones (Stanger 2000).

The model exhibits a moderate explanatory power with an R-squared of 0.32 implying that about 32% of variation in the level of profit is attributable to changes in the explanatory variables. The F-test statistic is statistically significant at the 1% conventional level indicating that all the explanatory variables jointly explain level of profit of respondents.

The Effect of Microfinance on the Productivity (Sales) of the Beneficiary Business Enterprises

In establishing the effect of microfinance on the productivity of the business enterprises, the study estimated the augmented aggregate production model and the result is presented in Table 13. The model exhibits a good fit with an R-squared value of approximately 0.78 indicating that 78% of the variation the dependent variable (aggregate production) is accounted for by the independent variables. The F-test statistic is statistically
significant at the 1% conventional level indicating that all the explanatory variables jointly explain level of productivity of respondents.

From Table 13, it can be seen that, the variables including assets, number of employees, business age, business age interacted with assets, credit dummy, gender, training, training interacted with assets, and the constant term are statistically significant. The business age interacted with assets, credit dummy and training variables did not carry the anticipated signs.

At 10% level of significance, assets have significant and positive relation with productivity. This is expected since, the higher the level of assets, the higher the investment and the higher the productivity level. The estimated coefficient indicates that a 100% increase in the level assets will lead to about 12% increase in productivity all other things been equal. This result is consistent with findings by Vogelgesang (2001).

Age of the business which is a firm specific variable was found to have a positive effect on the level of productivity and significant at 10%. The positive relationship indicates that businesses which are older gather more experiences with regards to operations and management decisions which ultimately lead to increase productivity.
The estimated coefficient indicates that a 100% increase in age of a business enterprise will increase productivity by approximately 65% all things been equal. This result is in line with findings by Vogelgesang (2001).

Table 13: Microfinance Loans and the Productivity (Sales) of the Beneficiary Business Enterprises

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-statistic</th>
<th>P&gt;t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lntotalass</td>
<td>0.119199*</td>
<td>0.06615</td>
<td>1.8</td>
<td>0.073</td>
</tr>
<tr>
<td>Busaset</td>
<td>-0.10001*</td>
<td>0.059763</td>
<td>-1.67</td>
<td>0.096</td>
</tr>
<tr>
<td>Lnbusage</td>
<td>0.649895*</td>
<td>0.375009</td>
<td>1.73</td>
<td>0.085</td>
</tr>
<tr>
<td>Credit</td>
<td>-0.17227**</td>
<td>0.075536</td>
<td>-2.28</td>
<td>0.024</td>
</tr>
<tr>
<td>Lnassetrain</td>
<td>0.860204***</td>
<td>0.039442</td>
<td>21.81</td>
<td>0.000</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.21203***</td>
<td>0.070841</td>
<td>-2.99</td>
<td>0.003</td>
</tr>
<tr>
<td>Training</td>
<td>-1.01401*</td>
<td>0.537858</td>
<td>-1.89</td>
<td>0.061</td>
</tr>
<tr>
<td>constant</td>
<td>3.110541***</td>
<td>1.132033</td>
<td>2.75</td>
<td>0.007</td>
</tr>
</tbody>
</table>

F( 15, 184) = 49.37
Prob > F = 0.0000
R-squared = 0.7753

Source: Field Survey, 2011

Note: ***, ** and * denote statistical significance at 1%, 5% and 10% levels respectively.

From Table 13, business age interacted with assets exhibits a negative effect on the level of productivity. It is significant at the 10% conventional level. This is in contrast with
the expected sign. The expectation is that an older business enterprise gathers more experience and so given more assets or resources productivity level increases. The estimated coefficient indicates business age interacted with assets decreases productivity by 0.100 units. This result corroborates with works by Vogelgesang (2001).

The credit variable has a negative relationship with the productivity level of business entrepreneurs and is statistically significant at 1 percent. This result is contrary to expectation because prior loans received by clients are expected to increase productivity levels. The estimated coefficient means that clients with prior loans realized a decrease in their level of productivity by about 0.17 units ceteris paribus. This could be because clients do not spend these prior loans effectively and efficiently. The study observed that clients expended a chunk of the loans to satisfying basic needs and for smoothing their consumption.

At 10% significance level, Training exhibited a negative effect on productivity(sales) contrary to expectation. The estimated coefficient for training indicates that clients who received training realized 1.01 unit reductions in productivity, all other things held constant. This result clearly indicates that entrepreneurial training alone without credit, would not improve sale.

The constant term was also significant at the 1% conventional level. If all explanatory variables were held constant, productivity levels will increase by approximately 3.11 units.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This final chapter summarizes the major findings of the empirical study undertaken on the effect of microfinance on small-scale businesses in the Keta municipality. It also includes the main conclusions drawn from the study and recommendations derived from the analysis of the available data. Suggestions for further research are also outlined.

Summary

Microfinance services make a critical contribution to fight against poverty by providing to low income entrepreneurs with the small-scale financing they need to start and grow their income-generating businesses. Small-scale enterprises in developing countries stem principally from the widespread concern over unemployment. Governments in most developing countries are currently interested in the effects of the small enterprise sector on job creation. All reports on small-scale enterprises in the past years appeal to the greater labour intensity of these enterprises and the importance of shifting a greater share of investment towards them. Before promoting structural shifts in investment, however, policy makers and development partners should know the effects of their investment on the progress of these enterprises.

The purpose of this study was to assess the effects of microfinance on the small-scale business enterprises in Ghana using Keta municipality as a case study. To this end, the study used a survey research method. The survey method involved 293 respondent small-scale enterprises. The study was to find evidence of the effects of microfinance on enterprise productivity, profit and income. The sample frame was taken from the officials Anlo Rural Bank, a microfinance service provider in the municipality. A simple random sampling
method was used to select samples from small-scale enterprises. Among the 293 participating enterprises selected, 150 were those who had prior loans and 143 without prior loans.

A comprehensive interview schedule was developed to collect data from the business enterprises on socio-economic characteristics, demographic characteristics, sales, level of profit, size of business (measured by the number of employees) and business age.

The analysis was done using both descriptive statistics, including tools, such as frequency distribution, tables and a linear regression analysis to examine the effects of microfinance loans on profit and output growth of the small-scale enterprises.

The study employed, firstly, a linear regression model that involved specifying an equation that incorporated profit as a dependent variable and sales, number of employees, education of business owners, training, credit, business age, as independent variables for the 200 firms randomly selected.

Secondly, the study used an augmented aggregate production model that included sales as the dependent variable and age, asset, employment interacted with assets, business age, employment, level of education, credit, assets interacted with training, and training as explanatory variables.

**Conclusions**

From the standpoint of the objectives of the study, the following conclusions were made.

The study found out that, the income levels of entrepreneurs who had credit differs from those without credit. It was noticed that, microcredit has contributed significantly to the increase in the level of incomes of those who received it.

From the results, the business level profit was found to depend on sales, education of entrepreneurs, training of entrepreneurs and credit received by the entrepreneurs. It was found
out that, sales positively affect profit levels of businesses. Specifically, as sales increase, ceteris paribus, profit levels increase pari passu. It implies, therefore, that growth of sales is necessary for an increase in profit levels.

It was found out that training of entrepreneurs through their participation in the microfinance programme has positive effect on business level profits. Entrepreneurial training is crucial in upgrading the knowledge, and skills of entrepreneurs particularly for the leadership positions that can enhance the firm’s performance. Training, which is in line with the firm’s objectives according to literature, can increases the competency of entrepreneurs and positively affects business level outcomes. The indication is that entrepreneurs with prior qualification and accumulated business training are able to demonstrate good confidence and reliable performance. Hence, the entrepreneurs’ skills and competencies are associated with business success.

Level of education was found to impact positively on profits of the firms. Credit was found, to impact negatively on profit levels of the firms contrary to expectation. Those with the microfinance loans had a reduction in their profit levels. It was realized that, credit funds were diverted and not invested in the enterprise and also due to high interest payment.

The productivity of the business enterprises was found to depend on assets, business age, business age interacted with assets, assets interacted with training, gender, training and credit. The total assets of the individual entrepreneur had positive effect on productivity. This implies that, as the individual asset levels increase, there is likelihood that the entrepreneur will augment his investment that leads to higher productivity. This is consistent with economic theory that suggests that wealth or asset in itself do not make meaning unless they are reinvested or use in acquisition of other wealth.

Again, the age of business was found to have a positive impact on productivity. This implies that businesses which are older gather more experience with regard to operations and
management decisions which ultimately leads to increase in productivity. Furthermore, it came to light that, training interacted with assets exert positive effect on productivity. In addition, education interacted with training was found to impact positively on productivity. The implication is that, entrepreneurs with prior education and also who obtain business training will be more skilful in managing their businesses leading to an increase in productivity.

It was observed surprisingly that the key variable, credit, had a negative correlation with productivity. It implies that, credit received was not serving the small-scale businesses to realize increase in productivity probably for the same reasons as noted above that, credit funds were diverted and not invested in the enterprises and also due to high interest payment.

**Recommendations**

Taking into consideration the findings of the study, the following recommendations are made.

Evidence of negative effect of credit on productivity and profit levels of the enterprises, it demonstrates clearly that loans do not contribute to growth in productivity and profit levels of these small-scale enterprises. The clients do not invest their loans productively to generate more sales revenue. Against this backdrop, it is recommended that, clients should be advised to invest their credits on the intended purpose for which they took the loans.

The results of the profit level estimation show that, training had a positive correlation with profitability of the enterprises. It is therefore recommended that clients of the microfinance institutions undergo training to update and upgrade their know-how, knowledge and skills on basic business ideals, so as to minimize business related hazards.

An entrepreneur with a higher level of education and entrepreneurial training has a greater ability to adopt improved business skills in order to achieve increase business
outcomes. It is recommended therefore that the small-scale entrepreneurs should attain higher levels of education. The Ministry of Education and the Ghana Education Service should make an effort to establish more commercial schools in the rural areas so as to encourage young potential entrepreneurs to acquire entrepreneurial skills.

**Limitations of the study**

This study is limited by some factors. The first limitation is about the exclusive reliance on only clients who passed the banks screening. This may admittedly lead to limited generality of the result.

Respondents were also reluctant to disclose information on important variables like profit. The other problem with the research is that, it focuses on a given specific locality and a small client group, which made it difficult therefore to generalize or make reliable conclusions that reach across borders or the whole country in terms of income levels or socio-economic status.

Time as well as resources also constituted constraints to this study. The study was carried out within a precise academic period and therefore limited the coverage and the number of small-scale businesses to be included in the sample. Finance to take enough research assistants and materials was also limited therefore a contributing factor to the size of the sample.

**Areas for Future Study**

This study has found some areas for further research to extend the understanding and literature on the effects of microfinance loans on small-scale businesses. Future research should examine the effect of microfinance loans on recipient’s microenterprises over time,
since some studies suggest that it takes time for microfinance to have an effect on livelihoods and business outcomes of the poor household enterprises.
APPENDICES

APPENDIX A

Regression results

\[ \text{xi: reg lnprifitmth Insales Inempl eductrained training leveledu} \]

\[ > \text{rt credit Inbusage} \]

\[
\begin{array}{l}
\text{Source} | \text{SS} \quad \text{df} \quad \text{MS} \quad \text{Number of obs} = 200 \\
\hline
\text{Model} | 46.4166253 \quad 9 \quad 5.15740281 \quad \text{Prob > F} = 0.0000 \\
\text{Residual} | 96.4536978 \quad 190 \quad 0.507651041 \quad \text{R-squared} = 0.3249 \\
\hline
\text{Total} | 142.870323 \quad 199 \quad 0.717941322 \quad \text{Root MSE} = 0.7125 \\
\end{array}
\]

\[
\begin{array}{l}
\text{lnprifitmth} | \text{Coef.} \quad \text{Std. Err.} \quad t \quad P>|t| \quad [95\% \text{ Conf. Interval}] \\
\hline
\text{Insales} | 0.3735202 \quad 0.0580054 \quad 6.44 \quad 0.000 \quad 0.2591029 \quad 0.4879374 \\
\text{Inempl} | 0.0234735 \quad 0.1958641 \quad 0.12 \quad 0.905 \quad -0.3628739 \quad 0.4098209 \\
\text{training} | 1.76707 \quad 0.8136826 \quad 2.17 \quad 0.031 \quad 0.1620576 \quad 3.372081 \\
\text{education} | 1.684579 \quad 0.8013914 \quad 2.10 \quad 0.037 \quad 0.1038119 \quad 3.265346 \\
\text{credit} | -0.3961691 \quad 0.1320967 \quad -3.00 \quad 0.003 \quad -0.6567335 \quad -0.1356047 \\
\text{lnbusage} | 0.1034234 \quad 0.1247685 \quad 0.83 \quad 0.408 \quad -0.142686 \quad 0.3495329 \\
\text{_cons} | -0.3230884 \quad 1.629071 \quad -0.20 \quad 0.843 \quad -3.536476 \quad 2.890299 \\
\end{array}
\]

\[ \text{xi: reg lnsalesm Intotalasset4 busasset lnbusage lnempl leveledu credit} \]

\[ > \text{lnincome gender eductrained training} \]

\[
\begin{array}{l}
\text{Source} | \text{SS} \quad \text{df} \quad \text{MS} \quad \text{Number of obs} = 200 \\
\hline
\text{Model} | 46.4166253 \quad 9 \quad 5.15740281 \quad \text{Prob > F} = 0.0000 \\
\text{Residual} | 96.4536978 \quad 190 \quad 0.507651041 \quad \text{R-squared} = 0.3249 \\
\hline
\text{Total} | 142.870323 \quad 199 \quad 0.717941322 \quad \text{Root MSE} = 0.7125 \\
\end{array}
\]

\[
\begin{array}{l}
\text{lnsales} | \text{Coef.} \quad \text{Std. Err.} \quad t \quad P>|t| \quad [95\% \text{ Conf. Interval}] \\
\hline
\text{lnbusage} | 0.1034234 \quad 0.1247685 \quad 0.83 \quad 0.408 \quad -0.142686 \quad 0.3495329 \\
\text{credit} | -0.3961691 \quad 0.1320967 \quad -3.00 \quad 0.003 \quad -0.6567335 \quad -0.1356047 \\
\text{lnbusage} | 0.1034234 \quad 0.1247685 \quad 0.83 \quad 0.408 \quad -0.142686 \quad 0.3495329 \\
\text{_cons} | -0.3230884 \quad 1.629071 \quad -0.20 \quad 0.843 \quad -3.536476 \quad 2.890299 \\
\end{array}
\]
<table>
<thead>
<tr>
<th>Model</th>
<th>136.89017</th>
<th>13</th>
<th>10.5300131</th>
<th>Prob &gt; F</th>
<th>0.0000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual</td>
<td>39.6681257</td>
<td>186</td>
<td>0.213269493</td>
<td>R-squared</td>
<td>0.7753</td>
</tr>
<tr>
<td>Total</td>
<td>176.558296</td>
<td>199</td>
<td>0.887227619</td>
<td>Root MSE</td>
<td>.46181</td>
</tr>
</tbody>
</table>

| lnsalesm | Coef. | Std. Err. | t | P>|t| | [95% Conf. Interval] |
|---------|-------|-----------|---|-----|------------------|
| lntotalassets4 | .1191992 | .0661498 | 1.80 | 0.073 | -.0113012 | .2496996 |
| busaset | -.1000143 | .0597626 | -1.67 | 0.096 | -.217914 | .0178853 |
| lnbusage | .649895 | .3750085 | 1.73 | 0.085 | -.0899218 | 1.389712 |
| lnempl | -.2133879 | .8385042 | -0.25 | 0.799 | -1.867589 | 1.440813 |
| education | -.7330866 | .5287272 | -1.39 | 0.167 | -1.77616 | .3099866 |
| credit | -.1722684 | .0755356 | -2.28 | 0.024 | -.321285 | -.0232519 |
| lnincome | .8602039 | .0394422 | 21.81 | 0.000 | .7823923 | .9380154 |
| gender | -.2120335 | .0708406 | -2.99 | 0.003 | -.3517879 | -.072279 |
| training | -1.01401 | .5378581 | -1.89 | 0.061 | -.2075096 | .0470765 |
| _cons | 3.110541 | 1.132033 | 2.75 | 0.007 | .8772672 | 5.343815 |

APPENDIX B

The Study Area in National Context
APPENDIX C

The Study Area in Regional Context
APPENDIX D

Spatial Distribution of Population in the Study Area
APPENDIX E
INTERVIEW SCHEDULE
UNIVERSITY OF CAPE COAST, DEPARTMENT OF ECONOMICS
INTERVIEW SCHEDULE FOR CLIENTS

Hello, my name is ………………………………………………. and I am here on behalf of Enos K Agordah, one of the Masters’ Degree students at the University of Cape Coast, Department of Economics. He is researching on the topic: The Effects of Microfinance on Small Scale Businesses in Ghana: The Case of Keta Municipality. I would deeply appreciate your filling out this questionnaire to help him make vital analyses. Your privacy would be protected. You do not need to write your name or contact. Only the general results, conclusions and recommendations drawn from these analyses would be included in the final report and not the individual papers.

Respondent ID: _____________

GENERAL/BACKGROUND INFORMATION

1. What is your age? ________________

2. Gender: Male [ ] Female [ ]


5. Number of Household’s members ______________________________


CREDIT HISTORY

9. **Other source of income for individual** __________________________

10. **Do you receive credit from the above mention MFI?** [1] Yes [2] No *(If No, skip to 26.)*


12. **Date of joining the program** _________________________________

13. **Have you received your first loan?** [1] Yes [2] No


16. **How much did you get in your previous loan from the MFI?** ______

17. **How much did you apply for?** _______________________________

18. **Year and month of first loan taken** __________________________

19. **How much did you get in your current loan from the MFI?** ______

20. **How much did you apply for?** ______________________________

21. **Year and month of current loan taken** _______________________

22. **What is the duration (in days) between the previous and the current loan?** ______

24. If in arrears what is the balance remaining? ____________________


27. Number of other household borrowers ______________________

BUSINESS ASSETS


29. If yes, please name them and give their approximate value

<table>
<thead>
<tr>
<th>Asset</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>


32. If yes, please list them and their values

<table>
<thead>
<tr>
<th>Asset</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
33. Has there been any structural improvement in your business since joining the MFI? [1] Yes [2] No

34. Have you purchased any new assets in your business after taking the credit? [1] Yes [2] No

35. If yes, please name them and give their approximate value

<table>
<thead>
<tr>
<th>Asset</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>______________________</td>
<td>___________</td>
</tr>
<tr>
<td>______________________</td>
<td>___________</td>
</tr>
<tr>
<td>______________________</td>
<td>___________</td>
</tr>
</tbody>
</table>

HOUSEHOLD ASSETS

36. Tick appropriately which of the following items you have been able to buy with your own income

<table>
<thead>
<tr>
<th>code</th>
<th>Assets</th>
<th>Replacement value</th>
<th>code</th>
<th>Asset</th>
<th>Replacement value</th>
</tr>
</thead>
<tbody>
<tr>
<td>36-1</td>
<td>Cassette Recorder</td>
<td></td>
<td>36-9</td>
<td>Poultry</td>
<td></td>
</tr>
<tr>
<td>36-2</td>
<td>Television</td>
<td></td>
<td>36-10</td>
<td>Jewellery</td>
<td></td>
</tr>
<tr>
<td>36-3</td>
<td>Mobile Phone</td>
<td></td>
<td>36-11</td>
<td>House</td>
<td></td>
</tr>
<tr>
<td>36-4</td>
<td>Fan</td>
<td></td>
<td>36-12</td>
<td>Cloth</td>
<td></td>
</tr>
<tr>
<td>36-5</td>
<td>Refrigerator</td>
<td></td>
<td>36-13</td>
<td>Bicycle</td>
<td></td>
</tr>
<tr>
<td>36-6</td>
<td>Vehicle</td>
<td></td>
<td>36-14</td>
<td>Radio</td>
<td></td>
</tr>
<tr>
<td>36-7</td>
<td>Livestock</td>
<td></td>
<td>36-15</td>
<td>Sewing machine</td>
<td></td>
</tr>
<tr>
<td>36-8</td>
<td>Land/Plot</td>
<td></td>
<td>36-16</td>
<td>Furniture</td>
<td></td>
</tr>
</tbody>
</table>
*For replacement value, ask if they were to sell these assets, how much will they sell each item?


38. What are the revenues of your business per week? _________________

39. What is the range of your profit per week? _______________________

40. What is your profit per month? _________________________________


HUMAN CAPITAL (EDUCATION)

42. Number of years spent in school_______________________________


44. Have you recently taken training courses? [0] Yes [1] No


COPING WITH SHOCKS


48. Have you sold off some of your assets to pay back the credit to the MFI? [1] Yes [2] No

**REMITTANCES**

50. **Do you receive money from relatives or friends living abroad?** [1]Yes [2] No


**SELF-EMPLOYMENT ACTIVITIES**


56. **State the initial amount of money you used for your business _______**


61. Do you have any relatives including your children who give unpaid services to the business? [1]Yes [2] No

62. If yes, who are they? [1]My son(s)/ daughter(s) [2] Other close relatives [3] Other (specify) ________________

63. How many hours do they work per day? ______________

64. On the average how many hours per day do you spend working on your business? ______________

65. How many days do you work a week? ______________

66. How would you describe financial situation since having your own business?
REFERENCES


Cheston, S., & Kuhn L. (2000). Empowering Women through Microfinance,


Littlefield, E. (2005). *Microfinance: Where We Are Now and Where We Are*
Headed. Paper presented at the International Year of Microcredit at Georgetown University Conference in, Washington DC.


from Flagship Programmes in Bangladesh, Department of Economics and HIID, Harvard University and Hoover Institution, Stanford University, Stanford, UK, 1998.


Corridor Spatial development and informal cross-Border trading. *South African Geographical Journal*, 83(20), 115-123.


