UNIVERSITY OF GHANA

IMPACT OF MICROFINANCE ON SMALL AND MEDIUM SCALE ENTERPRISE DEVELOPMENT AND IMPROVEMENT IN HOUSEHOLD WELFARE: EVIDENCE FROM THE KASSENA-NANKANA MUNICIPALITY IN NORTHERN GHANA

BY

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DECLARATION

I hereby declare that, except for the reference to the work of others that have been duly acknowledged, this work is my original piece of research conducted under the supervision of Dr. Albert Gemegah, Lecturer at the University of Ghana Business School, Department of Finance. I also declare that this work has never been submitted partially or wholly to any institution for the award of any degree from any University elsewhere or this University.

.... 14-05-2013

ALI RUTH KONOGWEH DATE

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CERTIFICATION

I hereby certify that this dissertation was supervised in accordance with procedures laid down by the university.

.... 15th MAY, 2013 ....

DR. ALBERT GEMEGAH DATE

(SUPERVISOR)

DEDICATION

I dedicate this work to my lovely husband Kennedy Alatinga who has sacrificed so much to see me through this program and also to my beautiful and wonderful girls whom I call team mates I love you so much.

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I acknowledge the Almighty God for seeing me through this program. The successful completion of this study would not have been accomplished without the guidance, cooperation and support of some people. I cannot mention all those who have influenced and supported this work.

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List of Acronyms and Abbreviations

AM	Access to Microfinance
BRAC	Bangladesh Rural Advancement Committee
EC	European Commission
EU	European Union
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
GSS	Ghana Statistical Service
HW	Household Welfare
MDGs	Millennium Development Goals
NBSSI	National Board for Small Scale Industries
NKM	Kassena-Nankana Municipality
NKMA	Kassena-Nankana Municipality Assembly
OECD	Organization for Economic Co-operation and Development
SMEDEV	Small and Medium Enterprise Development
SMEs	Small and Medium Enterprises
SMMEs	Small, Medium and Micro Enterprises
UNIDO	United Nations Industrial Development Organization
USA	United States of America

ABSTRACT

This study examined the impact of microfinance on SME development and household welfare in the Kassena-Nankana Municipality in Northern Ghana. Using structured questionnaires, the study compared SMEs that accessed microfinance and SMEs that do not access microfinance for business operations with respect to savings culture, employment generation, increased incomes, improvement in household welfare and poverty reduction. The study established that access to microfinance impacts positively on SME development and household welfare. Access to microfinance increases the monthly average incomes of firms to GH¢900 and above, generates about 78.75% of employment, increases clients' savings by about 94% and enables them gain market access by 68.75%. It is also established that households of microfinance clients are able to increase their consumption and expenditure on foodstuff and balanced diets leading to improved nutrition and healthy lifestyles as well as improve upon the educational status of household members. Access to microfinance does not only enhance women's participation in economic decision-making at the household and community level, but also contributes to gender equality and the promotion of sustainable livelihoods and better working conditions for women because 81.25% of SMEs owners with access to microfinance are women. However, high interest rates, inadequate finance and limited power (electricity), amongst others, are the major challenges SMEs face in their business operations. It is therefore, recommended that government should create the enabling environment for microfinance institutions, non-governmental organizations (NGOs) and other stakeholders interested in the microfinance industry expand the outreach of microfinance services to as many SMEs as possible. . Finally, government should also ensure adequate and constant supply of power (electricity) to enable SMEs increase their production at reasonably low costs.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The Small and Medium Enterprises (SMEs) sector plays a crucial role in generating a significant share of household income, poverty alleviation, employment generation and economic development in developing countries. Globally, the Organisation for Economic Co-operation and Development (OECD) reports that SMEs are the dominant form of business organisations in all countries accounting for over 95% and up to 99% of the business population depending on the countries (OECD, 2005:16). The report further suggests that these enterprises account for almost 60% of private sector employment in OECD countries, make a large contribution to innovation, and support regional development and social cohesion (OECD, 2005:16).

In Africa, (UNIDO, 1999 cited in (Abor and Quartey, 2010) report that SMEs represent over 90% of private business and contribute to more than 50% of employment and of GDP in most African countries. In South Africa, for instance, Berry *et al.*, (2002 cited in Abor and Quartey, 2010) estimate that 91% of the formal business entities are Small, Medium and Micro Enterprises (SMMEs). In Ghana, for instance, Steel and Webster, (1991 cited in Abor and Quartey, 2010) report that small enterprises sector provide about 85% of manufacturing employment. Abor and Quartey, (2010) also argue that SMEs contribute about 92% of businesses in Ghana. Supporting this assertion, (Abor and Biekpe, 2006) also suggest that small enterprises are a characteristic feature of the production landscape of Ghana. In particular, microfinance services to small enterprises have received increasing attention and achieved significant success in the past three decades.

Yet, few systematic studies have been undertaken to determine the impact of microfinance on the development of SMEs and improvement in household welfare. For this reason,this study, therefore, seeks to unpack the impact of microfinance on the development of SMEs and improvement in household welfare in the Kassena-Nankana Municipality (NKM) in Ghana.

1.2 Problem Statement

Despite the fact that SMEs contribute significantly to the socio-economic development of nations, the SME sector in developing countries often lags behind that of the developed nations in terms of contribution to gross domestic product (GDP) (Bisman and Goela, 2010). Most SMEs still face financing and other challenges in their daily operations in developing countries. Yunus, (2003) asserts that the main challenge facing the poor is how to gain financial power to enable them boost their income generating activities.

SMEs may face difficulties in obtaining loan finance from commercial banks due to high interest rates, lack of collateral security, and other risk factors (Bisman and Goela, 2010). There is also a knowledge gap on the part of SME owners concerning their awareness of and availability of funding (*ibid*: 805). Bisman and Goela, (2010) further argue that the pool of savings available for lending in developing countries is more limited and in the context of funding SMEs, the transaction costs associated with micro financing can pose a challenge to both lenders and borrowers. Lenders profit little from small loans and the likelihood of loan default can be high. Borrowers on the other hand, have few resources of their own to commit to business ventures and lack the collateral security to secure funding. These factors, produce information asymmetries, moral hazard issues, high switching costs and other problems which are more pronounced in the SME financing context (*ibid*:805).

Given that lack of access to adequate finance may stifle the growth of SMEs with its concomitant adverse effects on socio-economic development, Microfinance Institutions (MFIs) increasingly aim to provide financial services to SMEs, focusing on poverty reduction and the economic survival of the poorest of the poor (Afrane, 2002). Nevertheless, the extent to which microfinance interventions have enhanced the development of beneficiary SMEs and improving household welfare is far from being clear. Afrane, (2002) for instance argues that impact assessment of microfinance interventions on SME development is often driven by donor agencies for the purposes of lesson-learning.

Importantly, studies by Roodman and Morduch,(2009) on microcredit in Bangladesh, suggest that after 30 years into the microfinance movement there is little solid evidence that it improves the lives of clients in measurable ways.

Against this background, the focus of this research is therefore, to examine the impact of microfinance on SME development and improvement in household welfare. Specifically, the research seeks to answer the following questions: Does access to microfinance enhance SME development in the study area? Is there any relationship between microfinance status and monthly incomes of SMEs? Does access to microfinance improve household welfare of clients in terms of health and education amongst others? What challenges do SMEs face in their business operations and in their access to microfinance services? Despite the recent growth of scholarship on microfinance in Ghana, there is still a dearth of systematic evidence on the impact of microfinance on the development of SMEs and improvements in household welfare in the Kassena-Nankana Municipality. Empirical evidence that links access to microfinance services to evelopment of SMEs and improvement in household welfare in the study area is quite limited. 'his current study is an attempt to contribute towards bridging this knowledge gap.

.3 Research Objectives

'he general objective of this study is to assess the impact of microfinance interventions on the evelopment of SMEs and improvement in household welfare in the Kassena-Nankana Municipality. Specifically, the study seeks to:

1. Examine access to microfinance on SME development and determine whether or not there is any relationship between access to microfinance and SME income levels.
2. Examine the impact of microfinance interventions in improving household welfare.
3. Identify the challenges SMEs face in accessing microfinance services and in their operations.

.4 Significance of the Study

'ollowing the important role SMEs play in nation development, the significance of this study cannot be overemphasised. To this end, this study is very significant because it will produce credible data for enhancing the development of SMEs in the study area and Ghana as a whole. Again, it will shed light on important areas that access to microfinance can enhance the household welfare improvement. Finally, the results of this study will be very beneficial to academics, microfinance institutions and other professionals interested in access to microfinance and SME development and improvement in household welfare in general.

1.5 Organisation of the Study

The rest of the study is organised as follows. Chapter two presents the conceptual framework and literature review. Definitional issues on microfinance and SMEs are discussed. It also discusses the main conceptual approach adopted for the study. The concept of microfinance and empowerment are also discussed here. In addition, access to microfinance and household welfare as well as SMEs and household economic security are reviewed. Similarly, access to microfinance and SMEs growth and development, and SMEs and socio-economic development are also highlighted in this chapter. The chapter ends with challenges to SME growth and development. Chapter three presents the research methodology of the study. Here, the research design and strategy, sampling and sample size, and the methods of data collection and analysis are discussed. Chapter four gives a descriptive background and context of the study area, and discusses the findings based on the analysis of the empirical data gathered from the field. The chapter is also devoted to the analysis of the impact of microfinance on savings; increase incomes, employment generation and household welfare amongst others. The challenges that SMEs face in their operations in the study area are also analysed here. The curtains are then drawn in chapter five with conclusions based on which are recommendations made.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a conceptual framework for assessing how microfinance interventions contribute to SME development, household security and socio-economic development in general. The purpose is to develop a conceptually grounded approach for analysing the broader impacts of microfinance interventions. To achieve this aim, the chapter opens by examining the definitional issues surrounding microfinance and SMEs. The key conceptual approach adopted for the analysis is then discussed. The chapter then moves on to review the relevant literature with respect to microfinance, SME growth and development and challenges/barriers to the growth and development of SMEs.

2.2 Definitional Issues: Microfinance and SMEs

Microfinance has been seen as a critical development tool in the fight against poverty in developing countries. The World Savings Institute, (2010) and Littlefield, Morduch, and Hashemi, (2003) for instance argue that microfinance is a key tool to achieve the Millennium Development Goals. The idea implicit in this argument is that if more money is given to the poor, poverty will be reduced. So what at all is microfinance? Stewart et al., (2010) define microfinance to include; micro-credit, micro-savings, micro-insurance and money transfers for the poor in expanding or establishing their enterprises or businesses. Even so, the terms 'micro-credit' and 'microfinance' are often used interchangeably to indicate the range of financial services offered specifically to poor, low-income households and micro-enterprises (Brau and Woller 2004, cited in Stewart et al., 2010).

Specifically, microcredit is the practice of delivering small and collateral-free loans to usually unsalaried borrowers or members of cooperatives who otherwise cannot get access to formal credit (Hossain 2002, cited in Stewart et al., 2010).It is this concept of microfinance that is being invoked in this discussion.

On the other hand, the concept of Small and Medium Sized Enterprises (SMEs) defy a universal definition. Countries have different criteria for defining SMEs including, the number of employees, financial assets, turnovers, owners and labour characteristics and capital assets amongst others (Abor and Quartey, 2010). For instance, the European Union (EU) defines an SME to be a firm with an upper employee limit of 250 whereas in the United States of America (USA), SMEs include firms with fewer than 500 employees (OECD, 2005). Small firms have fewer than 50 employees while microenterprises have at most 10, and some cases, five employees (*ibid*) In like manner, the European Commission (EC) defines SMEs largely in term of the number of employees. The EU classifies microenterprises as having between 0 to 9 employees, small enterprises 10 to 99 employees and medium enterprises having between 100 and 499 employees respectively (Abor and Quartey, 2010). Jordan *et al* (1998 cited in Abor and Quartey, 2010) also define SMEs as firms with fewer than 100 employees and less than €15 million turnover.

In Ghana, the number of employees is also the commonly used criterion for defining SMEs (Kayanula and Quartey, 2000 cited in *ibid*). The Ghana Statistical Service (GSS) considers firms with fewer than 10 employees as small-scale enterprises and their counterparts with more than 10 employees as medium and large-sized enterprises in its Industrial Statistics (Abor and Quartey, 2010). Also, the National Board for Small Scale Industries (NBSSI) in Ghana uses "fixed asset and number of employees" criteria to define SMEs. For this reason, the NBSSI defines a small-scale enterprise as a firm with not more than 9 workers, and has plant and machinery (excluding land, buildings and vehicles) not exceeding 10 million Ghanaian cedis (*ibid*). Kayanula and Quartey, (2000 cited in *ibid*) however, argue that the continuous depreciation of the local currency as against major trading currencies often makes using fixed assets definitions outdated.

In addition, Osei *et al,* (1993 cited in *ibid*) classify small-scale enterprises into three categories namely: (i) micro - employing less than 6 people; (ii) very small - employing 6-9 people; (iii) small - between 10 and 29 employees. The Regional Project on Enterprise Development Ghana manufacturing survey report classifies firms into: (i) micro enterprise, less than 5 employees; (ii) small enterprise, 5 -29 employees; (iii) medium enterprise, 30 – 99 employees; (iv) large enterprise, 100 and more employees (Abor and Quartey, 2010). Also in Ghana, SMEs can be categorized into urban and rural enterprises. Urban enterprises can be subdivided into "organized" and "unorganized" enterprises. The organized ones mostly have paid employees with a registered office, whereas the unorganized category is mainly made up of artisans who work in open spaces, temporary wooden structures, or at home, and employ few or in some cases no salaried workers. These enterprises rely mostly on family members or apprentices. Rural enterprises are largely made up of family groups, individual artisans, women engaged in food production from local crops. The major activities in the rural enterprise sector include; soap and detergents, clothing and tailoring and textile and leather amongst others (Kayanula and Quartey, 2000 cited in Abor and Quartey, 2010).

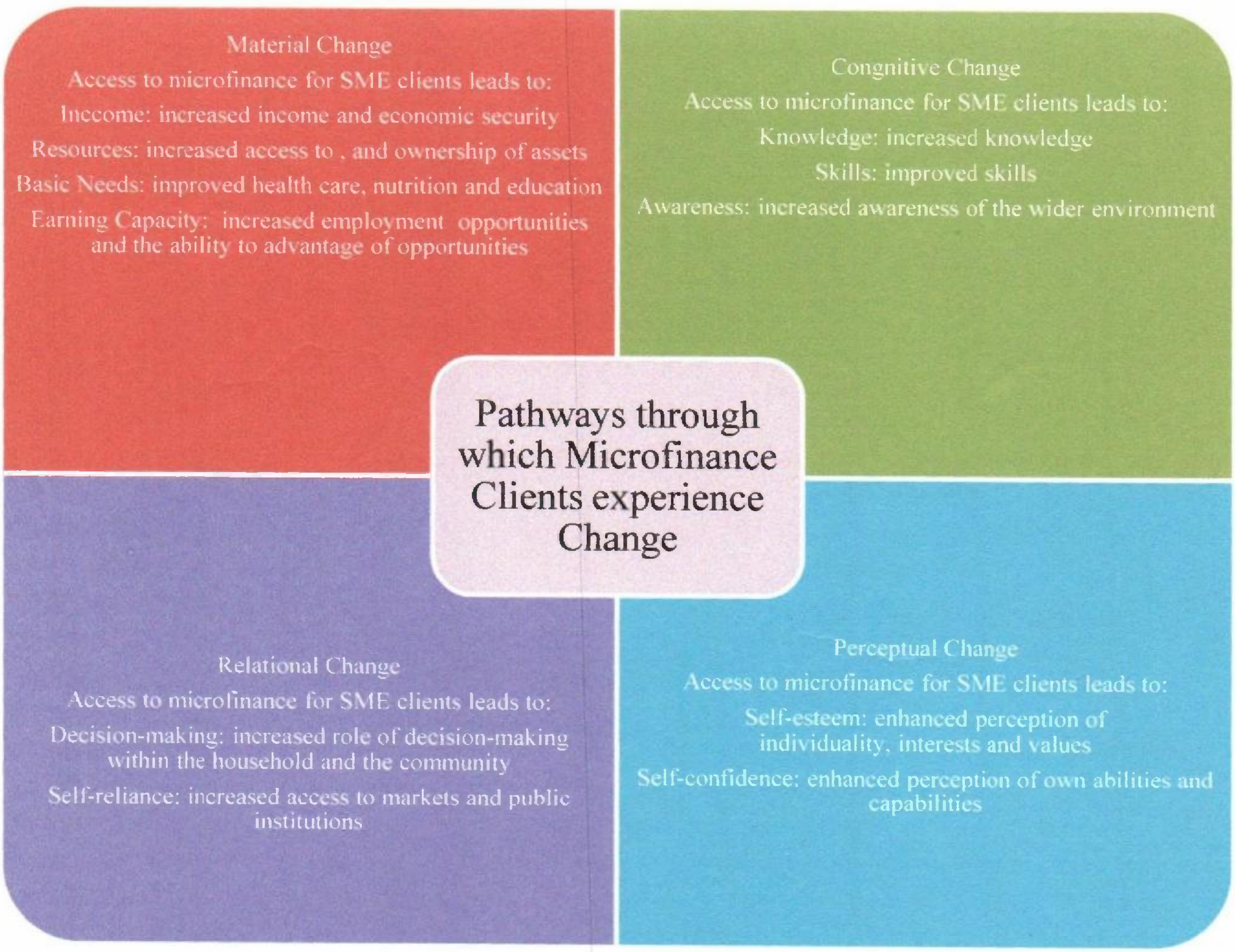
Abor and Biepke, (2006) use a three size category to define SMEs on the basis of number of employees. They classify firms with less than 5 employees as micro firms. Those with between 5 and 29 employees as small firms and medium sized firms have between 30 and 99 employees. This study will employ Abor and Biepke's, (2006) definition of SMEs because it appears easy to operationalise with respect to the current study context.

2.3 Main Conceptual Approach

Several conceptual approaches to the study of microfinance and SME development abound. For instance, in developing a conceptual framework and a research plan for monitoring the impact of the Bangladesh Rural Advancement Committee (BRAC) — a microfinance institution's interventions on women's lives in 1993, Chen and Mahmud (1995 cited in Chen, 1997) suggest that there are four pathways through which women experience change namely, *material*: that is, change in access to and control over material resources, in level of income, and in satisfaction of basic needs; *cognitive*: that is, change in level of knowledge, skills, and awareness of wider environment; *perceptual*: that is, change in individual's perception of own individuality, interests, and value; and in the perceptions by others of individual's contributions and worth; and *relational*: that is, change in contractual agreements, in bargaining power, and in ability to resist exploitation.

These pathways advanced by Chen and Mahmud (1995 cited in Chen, 1997) seem to suggest that if women clients initially receive financial services and training from the microfinance institution (BRAC), they will experience increased access to material resources and increased knowledge. Incrementally, their perceptions of their own individuality, interests, and value— their self-esteem, as well as the perception by others of their contributions and worth will also be enhanced. Ultimately, the women may begin to bargain effectively for more equal or less exploitative relationships within, first, their family and community and, eventually, their environment as a whole. These path ways, especially, in the context of the current study may be extended to other microfinance clients such as men as well and are illustrated on the figure 1 below.

Figure 1: Pathways through which Microfinance Clients experience Cha



Source: Author's construct 2013, based on Chen (1997:6-7) Consolidated Hypotheses in Assessing the Impact of Microenterprise Services

Drawing from the above framework, this current study proposes a household approach grounded in the concept of empowerment for studying the impacts of microfinance on SMEs and improvement in household welfare. The assumption here is that when SME clients receive microfinance, they will be empowered to expand their businesses and also improve the welfare of their households.

The justification for this approach stems from the fact that SMEs in general exist as part of a larger portfolio of household economic activities, and that decisions with respect to SME development whether made jointly or individually can be understood more clearly when considered in relation to options and tradeoffs within the overall household economy. These decisions have broader implications for households because SMEs depend to varying degrees on their households for capital, labor, and other inputs (Sebstad, Neil, and Barnes, 1995). Importantly, because SMEs are tied to the household economy, investment decisions at the enterprise level must be viewed in relation to their risks and returns to the household.

Besides, the rationale for a household approach is also occasioned by the need to account for the economic and social impacts of microfinance interventions which are not readily discernible at the enterprise level (*ibid*). For this reason, a household approach not only improves our understanding of dynamics and impacts at the enterprise level, but also allows us to widen the impact lens to consider impacts beyond the enterprise (*ibid*).

2.4 Microfinance and Empowerment

Empowerment may mean different things to different people in different contexts. It may range from personal empowerment that can exist within the existing social order. This kind of empowerment would correspond to the right to make one's own choices, to increased autonomy and to control over economic resources (Swain, 2007). Similarly, empowerment signifies increased participation in decision-making and it is this process through which people feel themselves to be capable of making decisions and the right to do so (Kabeer, 2001).

The World Bank, (2001) defines empowerment as the process of increasing the capacity of individuals or groups to make choices, and to transform those choices into desired actions and outcomes. Central to this process are actions that build both individual and collective assets, and improve the efficiency and fairness of the organizational and institutional context which govern the use of these assets. This World Bank's definition of empowerment is akin to Kabeer's (2001) definition and very relevant to this study. The point here is that central to the concept of empowerment is the ability to build individual and/or collective assets and the ability to make strategic decisions. In this light, the empowerment in this context relates to how microfinance enhances SME client ability to grow, expand their businesses and enhance improvement in household welfare. But to be able to expand their businesses and improve household welfare, entrepreneurs must build assets over time and take risks.

Risk is a key feature in decisions related to enterprise development and the household economy in general. Risk may be defined as the probability that an event may occur. In terms of economic decisions, the concept of risk consists of two components; the degree of chance or variability in the outcome of a decision and the size of the potential loss (Sebstad et al., 1995). Finance theory is based on the principle that people attempt to minimise risks and maximise returns in their economic decisions and investments. The theory assumes that there is a linear relationship between risk and return—the greater the potential return, the greater the chance and size of loss. To increase returns, people must take higher risks. According to this theory, a primary strategy for maximising returns and mimising the chance and size of a loss is diversification, which is, spreading risks across a range of investments with different risk levels (Sebstad et al., 1995). Microfinance programs may reduce risks for SME entrepreneurs by minimising variability in access to financial services such as loans.

Assets are a critical link between enterprise development and the well-being of households. Assets are defined as rights or claims to property (Sebstad et al., 1995). SMEs can be viewed as productive investments that generate income because households store surplus income in the form of assets. Besides, assets play an important role in poverty alleviation because they provide the basis for sustained improvements in welfare. A major factor determining a household's willingness to take higher risks in their investments, especially in enterprise development, is the availability of surplus resources—income and assets over and above the level required to maintain the household at a constant level. To this end, it is also suggested that access to flexible, convenient, and affordable financial services empowers and equips the poor to make their own choices and build their way out of poverty (Littlefield et al., 2003).

Charting this course, microfinance interventions are commonly grouped into four categories, namely; financial intermediation, social intermediation, market intermediation, and enterprise intermediation. But for the purpose of this study, only financial intermediation and enterprise intermediation are briefly discussed.

Financial intermediation mainly consists of financial services to clients and their enterprises, in the form of credit and savings. Financial services empower entrepreneurs to meet their business and household goals by expanding options for increasing the efficiency and productivity of their resources, while reducing risks. For instance, credit allows clients to invest or consume now, drawing on expected future income (Christen et al., 1994 cited in Sebstad et al., 1995). Credit reduces costs by allowing clients to purchase inputs in bulk or by providing alternatives to high cost supplier credit. Increased enterprise income resulting from investments of credit can provide the basis for an improved quality of life, asset accumulation, reinvestment in the enterprise, or investment in other productive activities. At the household level, credit smooths consumption during periods of low income or crisis, thereby precluding the need for households to take money out of their enterprises. Credit is also used for investments in nutrition, education, shelter, or health, or for the direct purchase of assets that provide the basis for household security and future productive investments. Savings allows clients to store current income as assets for future use. They provide a sure term source of liquidity and a long term reserve for emergencies. Savings improve household security by smoothing consumption when income flows are interrupted. They also enable households to advance to higher levels of economic security by providing a mechanism to accumulate surplus capital for investment in higher risk; higher return activities (Sebstad et al., 1995).

Enterprise intermediation strategies include programs and projects to improve production and management processes within enterprises. This includes management training and assistance to improve business skills and management practices. It also involves technical training and advice aimed at strengthening technical skills and capacity within enterprises. Enterprise intermediation also entails the promotion of new technologies, including equipment, tools, products, processes, materials, and skills. At the enterprise level, improved management skills, such as good record keeping, cash management and the use of bank accounts may reduce costs and improve production processes by promoting more efficient use of resources. These management skills also contribute to better management of the broader household economy and provide individuals with more control over resources.

Following from the exposition above, a two way "impact path" may be identified with respect to access to microfinance; for household welfare and for enterprise development. Household welfare is conceptualised in terms of improved access to education, health and nutrition and assets whereas enterprise development is conceptualised in terms of increased income (financial performance) from the enterprise, employment generation, and expansion and business assets amongst others. The next section briefly reviews the relevant literature.

2.5 Literature Review

This section briefly reviews the literature germane to access microfinance and household welfare, SME growth and development and challenges/barriers to the growth and development of SMEs.

2.5.1 Access to microfinance and household welfare

Within the empowerment framework, it is argued that microfinance, and the impact it produces, go beyond just business loans. In addition to business investment in their enterprises, microfinance in the form of financial services empower the poor to invest in health and education, to manage household emergencies, and to meet the wide variety of other cash needs that they encounter (Littlefield et al., 2003). The authors further suggest that access to financial services enables poor people to increase their household incomes, build assets, and reduce their vulnerability to the crises that are so much a part of their daily lives. Access to financial services also translates into better nutrition and improved health outcomes, such as higher immunization rates; allows poor people to plan for their future and send more of their children to school. For instance, increased expenditures on food may suggest improved nutritional status and well-being of household members. In the same vein, suggest that entrepreneurs of low-income households also use loans for household needs, such as school fees, medical treatment, daily consumption needs, and social and holiday expenses amongst others (Beck and Demirgüç-Kunt, 2008).

2.5.2 SMEs and household economic security

Access to finance is necessary to create an economic environment that enables firms to grow and prosper. For this reason, SMEs play an important role in poor households as a source of income. The contribution of SMEs to household income is underscored by the fact that SMEs supplement seasonal agricultural income, link the agricultural household to local markets through the sale and exchange of products, and provide a source of employment for household members not directly involved in agricultural production. As a source of employment, the SME sector is more reliable than fanning in some ways due to its ease of entry and low start-up requirements. Women, in particular, are predominant in non-farm SME activities which involve food processing and preparation, tailoring, trading, and many services in rural areas (Sebstad et al., 1995).

2.5.3 Access to microfinance and SMEs growth and development

Finance is considered the "glue" that holds together all the diverse aspects involved in small business start-up and development (Green *et al.,* 2002 cited in Abor and Quartey, 2010). For this reason, Dalberg, (2011) argues that increased access to finance for SMEs can improve economic conditions in developing countries by fostering innovation, macro-economic resilience, and GDP growth. For instance, the Global Entrepreneurship Monitor (GEM) Entrepreneurship Framework Condition singles out entrepreneurial finance as one of the key factors for stimulating and supporting entrepreneurial activity (Dalberg, 2011). It defines entrepreneurial finance as the availability of financial resources for SMEs in the form of debt and equity (Dalberg, 2011). Beck and Demirgüç-Kunt (2008) support this assertion, advancing the argument that access to finance helps all firms to grow and prosper. The authors further contend that, many models point to poor people's lack of access to finance as inhibiting human and physical capital accumulation. This lack of access not only impedes growth, as many worthwhile investment projects cannot be realized, but also results in persistent income inequality (Galor and Zeira 1993 cited in Beck and Demirgüç-Kunt, 2008). Access to finance, it is argued, helps firms overcome liquidity constraints and thus improve resource allocation in the economy (Love, 2003 cited in Beck and Demirgüç-Kunt, 2008).

Similarly, Dalberg, (2011) asserts that access to finance improves firm performance and promotes innovation and entrepreneurial activity. The point here is that access to finance has the potential to facilitate market entry for emerging SMEs and make existing SMEs more competitive in the market. In this regard, Klapper, Laeven, and Rajan (2006 cited in Beck and Demirgüç-Kunt, 2008) indicate that access to finance promotes more start-ups and that smaller firms are often the most dynamic and innovative. Moreover, better access to the financial system also enables incumbent firms to reach a larger equilibrium size by enabling them to exploit growth and investment opportunities, argue (Beck and Demirgüç-Kunt, 2008).

2.5.4 SMEs and socio-economic development

SMEs have long been recognised for their crucial contribution to socio-economic development of nations. SMEs have attracted the attention of policymakers as major vehicles that can accelerate the rate of growth in low-income countries because they are potential sources of employment and income in many developing countries (Abor and Quartey, 2010). The contributions of SMEs to socio-economic development can be viewed in terms of employment generation and increased incomes, GDP growth, curbing rural urban migration and stimulating economic activity in the economy.

SMEs make significant contributions to socio-economic development by generating employment and higher wages for unskilled and low skilled labour force in an economy (The World Bank, 2008). SMEs employ diverse groups of workers such as cleaners, watch/security personnel, day labourers, who most often have no or limited level of formal education. For this reason, there is a correlation between the existence of SMEs and economic development, especially employment generation. For instance, in Ghana, Abor and Quartey, (2010) assert that SMEs contribute over 80% to total employment, whereas in South Africa, SMEs generate about 61% of employment (Berry *et al.*, 2002 cited in Abor and Quartey, 2010).

In economic parlance, it follows that once the per capita income of households and individuals is increased through the jobs created by the SMEs, the overall GDP of the economy will also increase, *ceteris paribus* (OECD, 2005, World Bank, 2008, 2012). Abor and Quartey, (2010) for instance, support this assertion, reporting that SMEs contribute about 70% to Ghana's GDP and between 52% and 57% of GDP in South Africa. In the same vein, "SME growth also impacts GDP indirectly, through increased innovation and macro-economic resilience of the overall economy" (Dalberg, 2011: 13). This is because smaller firms are often the most dynamic and innovative, and can be a test ground for new business ideas. Besides, a stronger SME sector can bolster a country's resilience by broadening and diversifying the domestic economy, thereby reducing the vulnerability to sector-specific shocks and fluctuations in international private capital flows (Dalberg, 2011).

Besides, SMEs are powerful instruments for curbing the influx of rural migrants to urban cities in search of non-existing jobs; thereby helping to lessen the advent of social vices such as armed robbery, drug trafficking, teenage pregnancy just to mention three that usually characterize the congested urban cities in developing countries. Charting this path, Abor and Quartey, (2010) argue that because SMEs are labour intensive, they are more likely to succeed in smaller urban centres and rural areas, where they can contribute to a more even distribution of economic activity in a region and can help to slow the flow of migration to large cities. It is further argued that due to their regional dispersion and their labour intensity, small-scale production units can promote a more equitable distribution of income than large firms (Abor and Quartey, 2010). SMEs thus, improve the efficiency of domestic markets and make productive use of scarce resources, thus facilitating long-term economic growth (Kayanula and Quartey, 2000 cited in *ibid*).

Lastly, SMEs stimulate economic activity in the local economy in general. In this regard, Abor and Quartey, (2010) advance the point that SMEs are not just suppliers, but also consumers. For this reason, their demand for industrial or consumer goods will stimulate the activity of their suppliers, just as their own activity is stimulated by the demands of their clients. Demand in the form of investment plays a dual role, both from a demand-side (with regard to the suppliers of industrial goods) and on the supply side (through the potential for new production arising from upgraded equipment). In addition, demand is important to the income-generation potential of SMEs and their ability to stimulate the demand for both consumer and capital goods (Berry *et al.*, 2002 cited in *ibid*).

Despite the fact that SMEs contribute significantly to socio-economic development, a number of challenges may impede their contribution development. These challenges are taken up in the next section.

2.5.5 Challenges to SME growth and development

A number of challenges may impede the growth and development of SMEs in developing countries. These challenges may be categorised into financial and non-financial ones.

Financially, a major challenge to SME growth and development especially in developing countries is access to finance. For instance, the World Bank Enterprise Surveys reveal that, in low-income countries, on average 43% of businesses with 20 to 99 employees rate access to finance or cost of finance as a major constraint to current operations (Dalberg, 2011). Similarly, in South Africa, owners of SMEs perceive financial constraints as a major challenge to their businesses, especially in establishing or expanding their businesses (Abor and Quartey, 2010).

These financial constraints are occasioned by two main interrelated factors. The first is that, most SME owners are poor, and as such have no collateral and cannot borrow against their future income because they tend not to have steady jobs or income streams. The second factor is that, dealing with small transactions is costly for financial institutions (Beck and Demirgüç-Kunt, 2008). Beck and Demirgüç-Kunt, (2008) assert that microfinance institutions attempt to overcome these two constraints in innovative ways—group lending and increasing the size of loans. Group lending schemes improve repayment incentives and monitoring through peer pressure and also build support networks and educate borrowers (Karlan, 2007 cited in *ibid*). Increasing loan sizes, as customers continue to borrow and repay, reduces default rates (Beck and Demirgüç-Kunt, 2008).

Entering the fray, Abor and Quartey, (2010) advance the point that non-financial constraints such as lack of managerial skills, equipment and technology, regulatory issues, and access to international markets are major barriers to SME growth and development. Lack of managerial know-how is a major barrier to the growth and development SMEs. SMEs tend to attract motivated managers but they are hardly able to compete favourably relative to large firms (Abor and Quartey, 2010). This seems to suggest that there is a paucity of skilled management talent in developing countries. Again, lack of support services or their relatively higher unit cost can hamper SMEs' efforts to improve their management, because consulting firms are often not equipped with appropriate cost-effective management solutions for SMEs (*ibid*). Moreover, Kayanula and Quartey, (2000 cited in *ibid*) indicate that despite numerous institutions providing training and advisory services, there is still a skills gap in the SME sector as a whole. The reason is that some entrepreneurs cannot afford the high cost of training and advisory services while others do not see the need to upgrade their skills due to complacency (*ibid*). With regards to technology, Aryeetey *et al.*, (1994 cited in Abor and Quartey, 2010) argue that SMEs often have difficulties in gaining access to appropriate technologies and information on available techniques. This results in SMEs utilizing foreign technology with a scarce percentage of shared ownership or leasing. They usually acquire foreign licenses, because local patents are difficult to obtain (Abor and Quartey, 2010).

Another non-financial constraint that is noteworthy is regulatory processes. Regulatory processes refer to the processes, procedures, licensing and registration requirements, legal claims, and tax regimes, amongst others that SMEs require for starting-up or running businesses. Bureaucratic and cumbersome procedures for registering and commencing business are cited as key barriers to the growth and development of SMEs in Ghana and South Africa (Abor and Quartey, 2010). Buttressing this claim, the World Bank, (2012) Doing Business Report indicates that it takes 12 days to start a business and there are 7 procedures involved in licensing a business in Ghana at a cost of 17.3% of income per capita whereas in South Africa, it takes 19 days to start a business, 5 procedures involved in dealing with licensing issues and the cost of starting a business is 0.3% of income per capita. The cost is recorded as a percentage of the economy's income per capita and includes all official fees and fees for legal or professional services if such services are required by law (*ibid*). On the other hand, there is only one procedure involved in starting a business in Canada, 5 days are involved and the income per capita cost of starting a business is 0.4% and in Denmark, 4 procedures and 6 days are involved and the cost of starting a business is absolutely free, 0.0% (*ibid*)

Limited access to international markets and partners is yet another barrier that might impede the growth and development of SMEs. Besides the fact that SMEs lack the necessary information about foreign markets, SMEs are also faced with greater external competition and the need to expand market share. Nonetheless, their limited international marketing experience, poor quality control and product standardization, and little access to international partners, continue to impede SMEs' expansion into international markets (Aryeetey *et al.*, 1994 cited in Abor and Quatey, 2010). Before, drawing the curtains on this section, suffice it to underscore the fact that limited access to infrastructure such as electricity is also a major barrier to the development of SMEs. Abor and Quatey, (2010) assert that limited access to electricity has been recognised by most SME owners as a serious setback to the development of their businesses. This issue of is so important to SME growth and development that it is included in the World Bank (2012) Doing Business Report. In the ensuing section, the research methodology and techniques of data collection are examined.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section presents the research strategy, sampling procedure, the research instruments that were used to collect data and the technique of data analysis.

3.2 Research Design and Strategy

A research design provides a framework for the collection and analysis of data. On the other hand, a research strategy refers to the general orientation to the conduct of social research (Bryman, 2008). In assessing the impact of microfinance on SME development and improvement in household welfare, this study therefore, follows a randomised control procedure with the aim of clearly establishing the counterfactual. The counterfactual is an estimate of what the outcome would have been for a program participant in the absence of the program (Gertler et al., 2011). In other words, the counterfactual in the context of this study refers to SMEs without access to microfinance. The counterfactual can be estimated using comparison or control groups (SMEs without access to microfinance) and comparing them with the treatment group (SMEs with access to microfinance).

Against this backdrop, a list of about 300 SMEs submitted by the National Board for Small Scale Industries (NBSSI) to the Naara Rural Bank for microfinance was obtained from the bank. Out of this number, about 200 SMEs owners received loans from Naara Rural Bank at various stages for their business operations while 100 SMEs did not received any loans. The 200 SMEs which accessed microfinance for the development of their businesses, therefore, constitute the sampling frame for the treatment group while the 100 SMEs that did not access microfinance constitute the sampling frame for the comparison or control group. The respondents were therefore, drawn from these two sampling frames respectively for the study. The rationale for adopting a randomized control procedure stems from the fact that randomization gives everyone who is eligible an equal opportunity to participate in the microfinance program. Besides, the outcomes of the two groups can easily be compared so as to draw reasonable and sound conclusions. For this reason, a quantitative research strategy is followed for the collection and analysis of data.

3.3 Operationalisation

The study seeks to give practical or operational meaning to the major concepts used in the research questions here. In this regard, the independent variable here is access to microfinance (AM) while the dependent variables include SME development (SMEDEV) and improvement in household welfare (HW). SMEDEV= f(AM), HW= f(AM). Thus the underlying hypotheses are that: access to microfinance enhances SME development and also leads to improvement household welfare.

3.3.1 Measuring SME development

SME development in this context is meant the expansion and growth of businesses. The outcome variables used to measure SME development include, increased income, employment generation, acquisition of business assets and diversification of businesses among others.

3.3.2 Measuring improvement in household welfare

Improvement in household welfare here refers to the economic security of household in terms of improved consumption and expenditure based on the assumption that increased incomes from the enterprises will trickle down to the household level. Specifically, household welfare was measured using outcome variables such as increased consumption and expenditure, access to education, water and health, improved nutrition and the acquisition of private real property (assets) such as land and houses among others. Based on these operationalisations, three hypotheses are formulated to be tested against the empirical evidence:

1. *Microfinance clients are better placed to diversify their businesses than their counterparts.*
2. *Microfinance clients are better placed to expand their businesses than their counterparts.*
3. *Households of microfinance clients are more likely to improve upon their consumption and expenditure than their counterparts.*

3.4 Sampling and Sample Size

Nowhere is sampling more crucial than in quantitative research. According to Leedy and Ormrod, (2010:213) "nothing comes out at the end of a long and involved study that is any better than the care, precision, and thought that went into the basic planning of the research design and the selection of the population". The authors argue that the results of a survey are no more trustworthy than the representativeness of the sample. Accordingly, population parameters and sampling procedures are of paramount importance and become critical factors in the success of the study (Leedy and Ormrod, 2010). The target population was SMEs that access microfinance services for their operations and those that do not access microfinance in the study area.

Probability sampling which gives all the elements or units in the population equal chances of being selected was used. Simple random sampling was used to select 80 SMEs out of a total of 200 SMEs owners that accessed microfinance (treatment group) for the running of their businesses, representing 40% and 40 SMEs out of a total of 100 SMEs owners that did not access microfinance (control group) for the running of their businesses, also representing 40% of the control group.

A total sample size of 120 SMEs was selected; 80 for the treatment group and 40 for the control group and interviews were conducted with the owners of these SMEs. This choice of sample size was informed by the fact that decisions about sample size represent a compromise between the constraints of time and cost and the need for precision (Bryman, 2008).

3.5 Methods of Data Collection

Surveys were held with SMEs owners of both treatment and control groups. Structured questionnaire was used to elicit information from SMEs owners with specific questions relating to SME development and improvement in household welfare. The questionnaire was piloted to detect and correct deficiencies before the actual data collection began. The pilot-test helped minimize response bias in data the collection process. Response bias describes the situation where responses do not reflect the 'true' opinions or behaviours because questions are misunderstood by respondents. It also afforded the researcher the opportunity to revise and make adjustments in the questionnaire so as to improve its reliability and validity.

3.6 Data Analysis

A comparative analysis is done by comparing the two groups (treatment and control). The aim of doing a comparative analysis is to seek explanations for similarities and differences between the two groups (those with access and those without access to microfinance). Data were entered into Epidata 3.1 and analysed using Microsoft STATA 12.0. Descriptive statistics in the form of simple cross tabulations, bar charts, correlation analysis and hypothesis testing are used in the presentation and analysis of the empirical results.

With regards to the correlation analysis, the Cramers' V correlation coefficient is used to evaluate the relationship monthly income and microfinance status: to establish whether or not there is any relationship, and if indeed there is a relationship, the strength of the relationship between the two variables. The Cramers V correlation coefficient is the appropriate correlation measure to use because the variable "income" is ranked into categories, showing increasing levels of income while the variable "microfinance" is a dichotomous variable (SMEs either have access to microfinance or not). The decision rule is that the coefficient ranges in value from 0.0 to 1.0. The closer the coefficient is 1.0, the stronger the relationship and the closer the coefficient is to 0.0, the weaker the relationship. The coefficient is either positive or negative, indicating the direction of the relationship (Alatinga and Fielmua, 2011). The Cramers'V correlation coefficient is generally given by the following formular:

The Cramers'V correlation coefficient=$\sqrt{X^2/N\,(K-1)}$ where,

X^2=computed chi square value

N=Total Frequency (Sample size)

K=the smaller of R (the number of Rows) or C (the number of columns)

1= is a constant

With regards the hypothesis testing, the chi square and Wilcoxon rank sum/Mann-Whithey tests are used at 95% confidence interval. Specifically, the chi square test was used to compare microfinance status and the ability to diversify in businesses. The chi square test is appropriate in iis context because both variables (microfinance status and the ability to diversify in businesses 'e categorical). Similarly, the Wilcoxon rank sum/Mann-Whithey test was used to compare the ‹pansion in businesses with respect to firms with access to microfinance and those with no :cess to microfinance and also to compare improvement in household consumption and ‹penditure between SMEs owners who access microfinance and those who do not. The Mann-'hitney/Wilcoxon rank sum test is appropriate for the test because the variables of interest xpansion in businesses and improvement in household consumption and expenditure) are nked in order of magnitude for both SMEs with access to microfinance and those without :cess to microfinance. The level of significance is 0.05 but this is divided into two equal parts nce this is a two-tail test (0.05/2=0.025). Thus, 0.025 is the required level of significance. The ·value must be in the range of (0.000-0.025) in order to be considered significant. The Mann-'hitney U-test has three formulae but for this study, one of the formulae is used: the one for rger samples. This formula is chosen because the samples involved are greater than 20; 80 ИEs with access to microfinance and 40 SMEs without access to microfinance (n_1, n2>20). Therefore, the Mann-Whitney U-test is given by the following formula:

$$U_1 = R_1 - n_1 \frac{(n_1+1)}{2} \qquad (1)$$

Where:

n_1= sample size for sample 1, R_1=sum of the ranks in sample 1

$$U_2 = R_2 - n_2\frac{(n_2+1)}{2} \quad (2)$$

Where:

n_2= sample size for sample 2, R_2= sum of ranks in sample 2

the sum of the equations (1) + (2) is now computed as follows:

$$U_1 + U_2 = R_1 - n_1\frac{(n_1+1)}{2} + R_2 - n_2\frac{(n_2+1)}{2} \quad (3)$$

CHAPTER FOUR

RESEARCH SETTING, DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the profile of the study area, data presentation and analysis.

4.2 Research Setting

The setting of the research is the Kassena-Nankana Municipality in the Upper East Region of Northern Ghana. The Kassena-Nankana Municipality lies within the Guinea Savannah woodlands. It falls approximately between latitude 11°10' and 10°3' North and longitude 10°1' West. It is one of the three (3) municipalities in the Upper East Region of the Republic of Ghana. It has a total area of about 1,674 sq.km and stretches about 55km North-South and 53km East-West. The Municipality shares boundaries to the North with the Kassena-Nankana-West District and Burkina Faso, to the East with Bongo and Bolgatanga Districts, West with the Builsa and Sissala Districts (in the Upper West Region) and South with West Mamprusi District (in the Northern Region) (Profile KNMA, 2012).

The Municipality has a total of 97 communities with an estimated population of 79, 187 (Profile KNMA, 2012). The predominant ethnic groups in the Municipality are Kassena, Nankana and Bulisa all co-existing peacefully.

Agriculture is the mainstay of the local economy; employing over 60 per cent of the economically active population and contributes about 68.6 per cent of the Gross Domestic Product (GDP). The secondary sector is dominated by small-scale industrial enterprise activities, and contributes about 3 per cent to the Gross Domestic Product. The Small-scale informal industrial activities account for the industrial revenue and its associated employment in the

Municipality. These activities which are mainly in the areas of trading and commerce revolve around foodstuffs, Shea butter extraction, Dawadawa processing, Pito brewing (local beer) and craft items such as, smocks, hats, baskets, and pottery products amongst others. About 95 per cent of those engaged in these activities are women (Profile KNMA, 2012).

4.3 Data Presentation and Analysis

This section presents the results of the empirical research. The results are analysed using descriptive statistics in the form of cross tabulations, charts, correlation analysis and hypothesis testing. Specifically, the Cramers' V correlation coefficient, the Chi Square and the Mann-Whitney/Wilcoxon rank sum test are used.

4.3.1 Background Characteristics

The empirical results show that majority (14.17%) of SMEs surveyed have been operating for 10 years. The youngest SME surveyed was 2 years while the oldest SME was 33 years respectively. About 63.30% of the businesses are located in the urban area and 36.30% are located in the rural area and 71.67% of businesses are owned by women while 28.33% of all businesses are owned by men. The table below summarises the age, location and gender of business owners.

Table 1: Age, Location and Gender of Business Owner

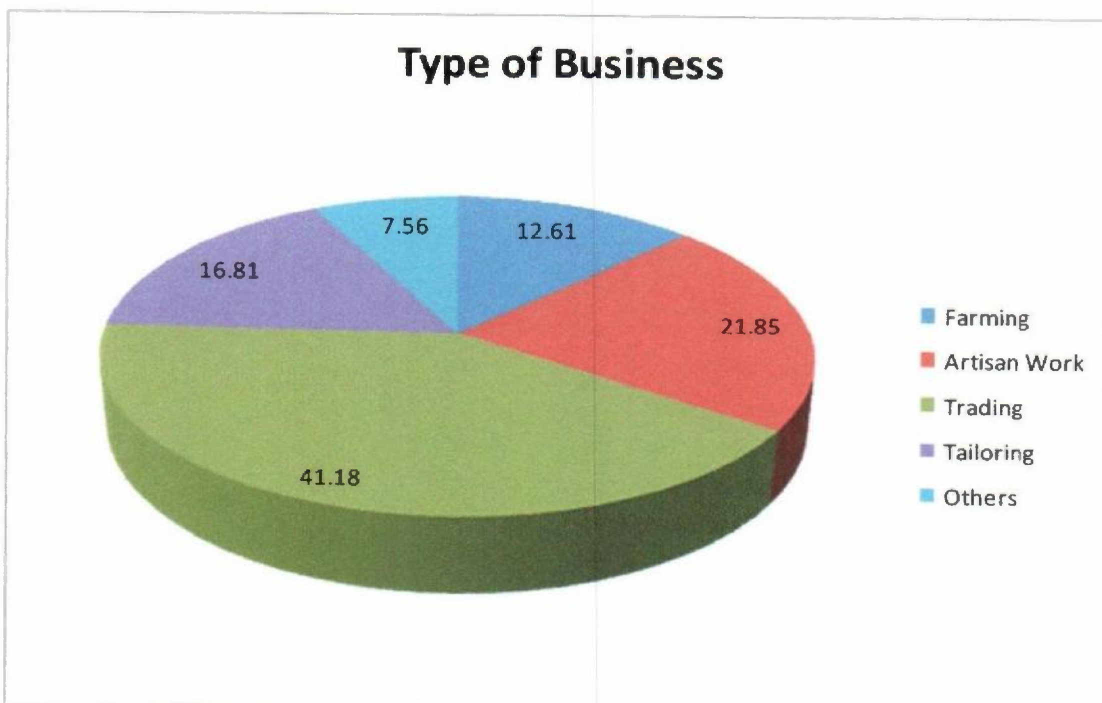
Age of Business (Years)	Frequency	Percentage (%)
2	1	0.83
3	3	2.50
4	6	5.00
5	7	5.83
6	12	10.00
7	10	8.33
8	15	12.50
9	8	6.67
10	17	14.17
11	7	5.83
12	5	4.17
13	4	3.33
14	2	1.67
15	8	6.67
18	1	0.83
19	2	1.67
20	4	3.33
22	1	0.83
24	1	0.83
25	2	1.67
30	3	2.50
33	1	0.83
Total	**120**	**100**

Location of Business	Frequency	Percentage
Rural	44	36.70
Urban	76	63.30
Total	120	100

Gender of Owner	Frequency	Percentage
Male	34	28.33
Female	86	71.67
Total	120	100

Source: Author's Field Survey, 2013

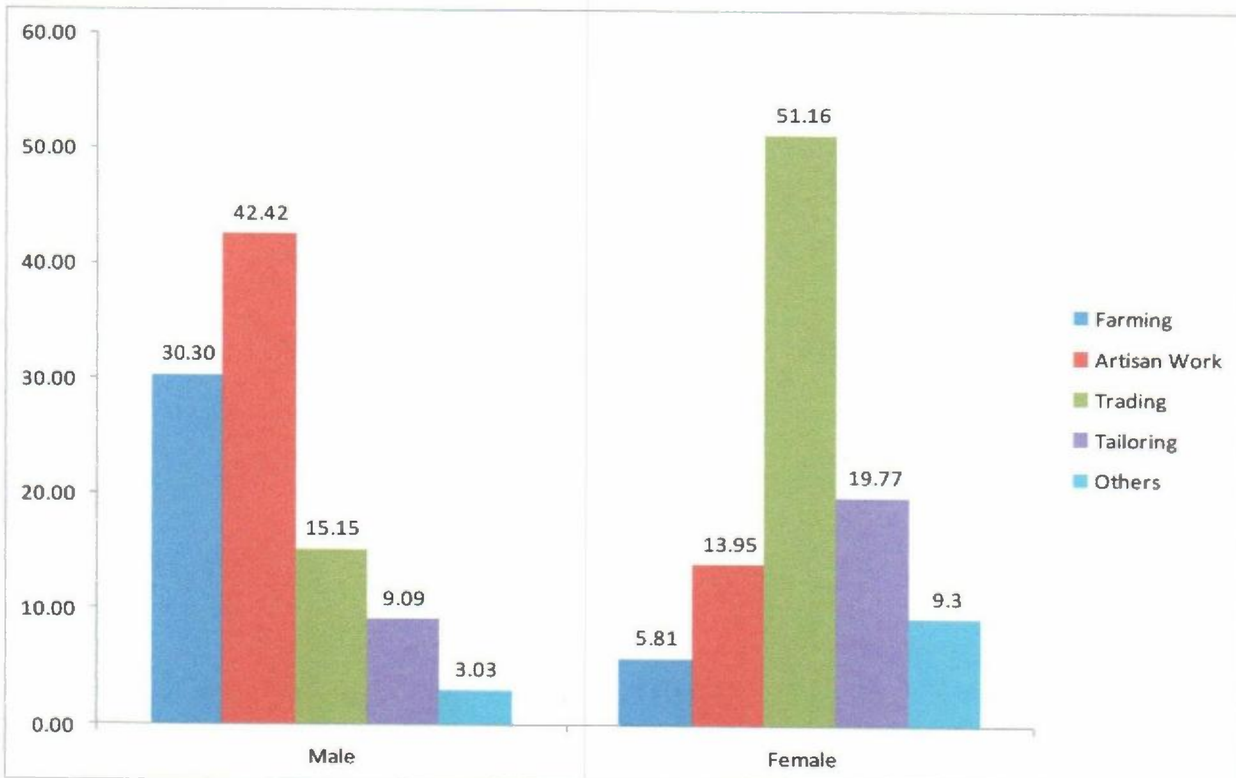
Furthermore, majority (41.18%) of SMEs are into trading and only 7.56% are into other businesses including food vending, Shea butter processing and fish mongering as shown in the Pie chart below. Figure 2: A Pie Chart Showing the Type of Businesses Surveyed



Source: Author's Field Survey, 2013

Women form the majority of traders with about 51.16% whereas men constitute about 15.15% of traders. About 42.42% of men are into artisan work, with 13.95% of women being artisans. Also, 30.30% of men are farmers and 5.81% of women are farmers. The detailed information is shown on figure 2 below.

Figure 3: Type of Business by Gender



Source: Author's Field Survey, 2013

The findings from figure 2 above that 51.16% of those engaged in trading are women confirms the earlier findings in the profile of the Kassena-Nankana Municipality (2012) that asserted that 95% of those engaged in trading and small scale commercial activities are women.

4.3.2 Gender and Microfinance Status

Microfinance status in this context refers to whether SME owners have access to microfinance or not. Given the fact that majority, 71.67% of SME owners are female, it is not surprising that majority 65, representing 81.25% of respondents (SME owners) who access microfinance services, in terms of finance or loans to run their businesses are female. Table 2 below gives the breakdown of the gender of SME owners and their microfinance status.

Table 2: Gender SME Owners and their Microfinance Status

Gender of SME Owner	Access to Microfinance		No Access to Microfinance	
	Number	Percentage (%)	Number	Percentage (%)
Male	15	18.75	19	47.50
Female	65	81.25	21	52.50
Total	**80**	**100**	**40**	**100**

Source: Author's Field Survey, 2013

With 81.25% of SME owners who access microfinance being females in the study area, these findings suggest that microfinance or microcredit reaches majority of World's because about 70% of the World's poor people are women; and women make up large and growing segment of the informal economy in developing countries. For instance, Daley-Harris, (2007) argues that of the 92.9 million poorest clients reached by microfinance or microcredit at the end of 2006, 85.2 percent or 79.1 million were women. It is also argued that women are prompt in the repayment of their loans (Mayoux□, 2000). In this light the issue of prompt repayment of loans could, perhaps, be one of the probable reasons why female SME owners constitute the majority of those who access microfinance for the running of their businesses in the study area. In fact, significant contributions to gender equality and the promotion of sustainable livelihoods and better working conditions for women could be reached as majority of SMEs owners with access to microfinance being women.

4.3.3 Source and Amount of Startup Capital

The major source of startup capital for firms (SMEs) whether they access microfinance or not is Self Savings. For this reason, 55% of firms with access to microfinance started operation with Self Savings before going in for microfinance from the Naara Rural Bank (Microfinance Project) to expand their business. It is however, significant to note that 17.50% of firms started off their business operations by borrowing from the Naara Microfinance project. Only 1.25% of firms with access to microfinance started off their businesses by purchasing goods on credit. Majority (70%) of SMEs that do not access microfinance also started off their businesses from Self Savings whereas 30% of them started their businesses by borrowing from their relatives. Table 3 shows the different sources of startup for the two groups of SME owners.

Table 3: Source of Startup Capital and Microfinance Status

Source of Startup Capital	Access to Microfinance		No Access to Microfinance	
	Number	Percentage (%)	Number	Percentage (%)
Self Savings	44	55.00	28	70.00
Support from Relatives	21	26.25	12	30.00
Borrowed Capital (Naara Microfinance)	14	17.50	0	0.00
Credit Purchase	1	1.25	0	0.00
Total	**80**	**100**	**40**	**100**

Source: Author's Field Survey, 2013.

It is also important to note from the table above that, only 17.50% of firms access finance (capital) from formal sources (Naara Microfinance) at the start of business operations while a significant proportion, 81.25% of firms access finance from informal sources (self saving and support from relatives). These findings are consistent with Kadiri's, (2012) in Nigeria which observed that virtually all the SMEs that were sampled in his study relied on informal sources of finance to start their businesses. It can thus be inferred from the above discussion that access to formal finance is still a major challenge for starting of businesses.

Indeed, firms with the highest amounts of startup capital are among the 17.50% that started off by borrowing capital from formal sources (the Naara Microfinance project). For instance, firms with the four highest amounts of startup capital ranging from GH¢1,500, GH¢3,000, Gh¢ 4,000 and Gh¢6,000 respectively started off by borrowing from the Naara microfinance project. What is also interesting about these findings is that, the 17.50% of the firms that started off by borrowing capital from formal sources, the Naara Microfinance project employs the highest number of people, with one of them employing as many as 50 people as shown in table 6 below. This finding supports the claim that finance is considered the "glue" that holds together all the diverse aspects involved in small business start-up and development (Abor and Quartey, 2010). It also follows Kadiri's argument that SMEs are unable to generate employment due to their inability to obtain adequate business finance (Kadiri, 2012).

4.3.4 Categorisation of SMEs

The study classified SMEs using a three size category based on the number of employees according to Abor and Biepke's, (2006) criteria. Thus, firms with less than 5 employees are labeled micro firms, those with between 5 and 29 employees as small firms and medium sized firms have between 30 and 99 employees. Based on these categorisations, the study found that 61.67% SMEs are micro firms while 37.50% are small firms. Among the SMEs surveyed, only one (1) medium sized firm was found representing 0.83% as shown on table two below.

Table 4: Categorisation of SMEs by the Number of Employees

Categorisation of SMEs	Number of Employees	Frequency	Percentage (%)
Micro Firms	0-4	74	61.67
Small Firms	5-29	45	37.50
Medium Sized Firms	30-99	1	0.83
	Total	**120**	**100**

4.4 Impact of Microfinance on SME Development and Household Welfare

The objective in this section is to explore access to microfinance on SME development and household welfare. To begin with, access to microfinance and SME development is examined and subsequent the sections deal with access to microfinance and household welfare. SME development was measured using the expansion and growth of businesses. The outcome variables used to measure SME development include, increased income, employment generation, acquisition of business assets and diversification of businesses.

4.4.1 Microfinance and Increased Incomes

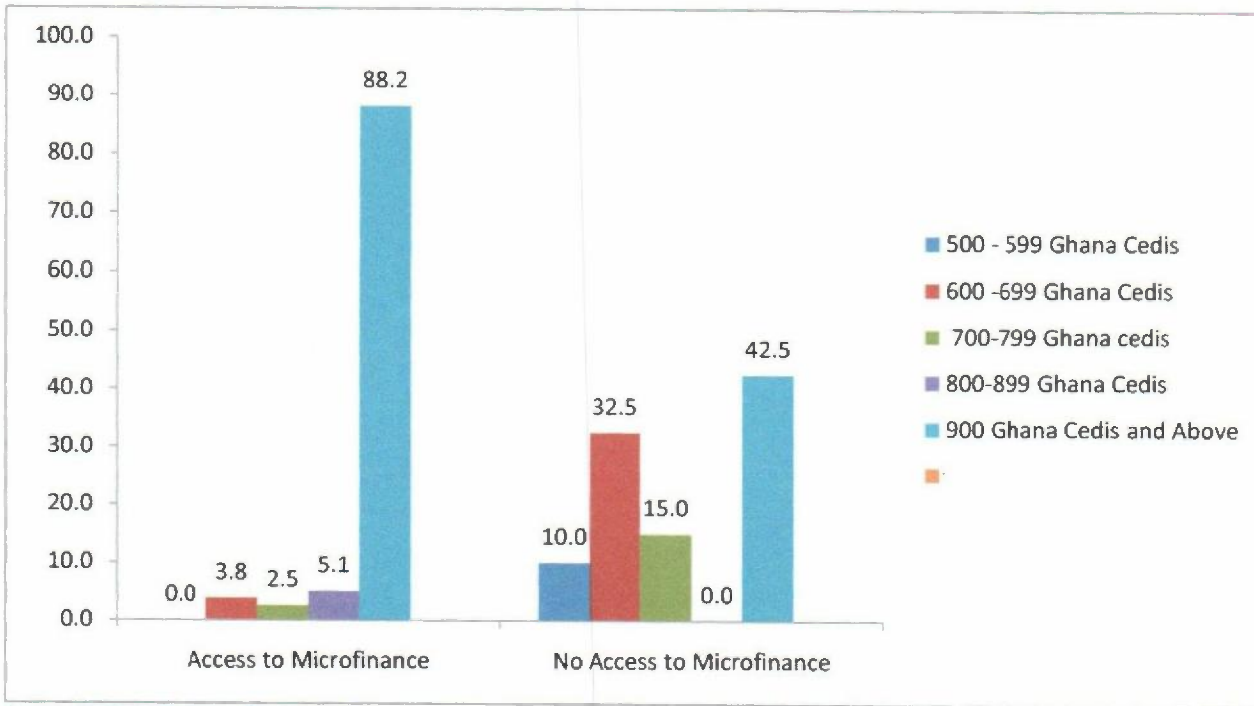
In order to establish the relation between microfinance and increased incomes, a cross tabulation of average monthly income from the business was done with microfinance status, that is, whether or not SMEs had access to microfinance. The average monthly incomes were categorised into ranges as shown in the table 5 and figure 3 respectively.

Table 5: Microfinance Status and Average Monthly Income from Business

	Average Monthly Income from Business				
Microfinance Status	**GHC 500 -599**	**GHC 600 -699**	**GHC 700-799**	**GHC 800-899**	**GHC 900 and above**
SMEs with Access to Microfinance	0.00%	3.80%	2.53%	5.06%	88.61%
SMES with No Access to Microfinance	10.00%	32.50%	15.00%	0.00%	42.50%

Author's Field Survey, 2013

Figure 4: A Bar Graph Showing Microfinance Status and Average Monthly Income from Business



Author's Field Survey, 2013

Both table 5 and figure 3 above show that 88.2% of SMEs that have access to microfinance receive an average monthly income of GH¢900 and above whereas only 42.5% of those without access to microfinance receive the same income. This could be attributed to the fact that those SMEs with access to microfinance have ready cash that can empower them to buy their goods in bulk. Furthermore, a bivariate analysis is done to establish whether or not there is any statistical relationship between microfinance status and the levels of income, and to determine whether or not the relationship is positive or negative. The Cramers' V correlation coefficient is used to evalutate this relation. The results of the Cramer's V correlation are presented in appendix 1. The results show a Cramers' V value of 0.58. The Cramer's V value of 0.58 is also positive. Based on these results, it can be concluded that there is a strong positive relationship between access to microfinance and average monthly incomes of SMEs.

Invariably, increased incomes for SMEs also suggest that the local economy will also benefit because the SMEs, for instance, those engaged in Shea butter extraction have to buy more raw materials in the form of Shea nuts for the butter processing. In the same vein, fish monger will buy more fish, and the fisher men will buy more fishing nets to enhance their catch. It is in line with this assertion that Abor and Quartey, (2010) argue that SMEs are not just suppliers, but also consumers. The point here is that their demand for industrial or consumer goods will stimulate the activity of their suppliers, just as their own activity is stimulated by the demands of their clients.

Importantly, given that 81.25% of SME owners who access microfinance are females, increased incomes from the businesses would suggest increased economic power of women, leading to the economic empowerment of women. Women economic empowerment could possibly impact positively on women's decision-making power both at the household and community levels and enhance women' overall socio-economic status generally. Increased women's decision-making ability and socio-economic status is also positively correlated with the well-being and social and political empowerment of women (Mayoux□, 2000). These findings are therefore; consist with the conceptual framework and theory of empowerment underpinning this study.

4.4.2 SMEs and Employment

The study revealed that SMEs that access microfinance generate about 78.75% of employment whereas SMEs without access to microfinance generate about 37.50%. In other words, 62.50% of SMEs that do not access microfinance do not employ labour in their operation apart from the business owner. Table 6 below gives a breakdown of microfinance status of SMEs and the number of people employed during the period of the study.

Table 6: Microfinance Status and Number of People Employed

	Microfinance Status of SMEs			
	Access to Microfinance		**No Access to Microfinance**	
Number of People Currently Employed	**Number**	**Percentage (%)**	**Number**	**Percentage (%)**
0	17	21.25	25	62.50
1	0	0.00	2	5.00
2	10	12.50	5	12.50
3	7	8.75	0	0.00
4	8	10.00	0	0.00
5	6	7.50	1	2.50
6	7	8.75	1	2.50
7	4	5.00	1	2.50
8	2	2.50	2	5.00
9	3	3.75	1	2.50
10	2	2.50	0	0.00
11	2	2.50	0	0.00
12	1	1.25	0	0.00
14	1	1.25	0	0.00
15	3	3.75	1	2.50
17	2	2.50	0	0.00
18	2	2.50	1	2.50
20	2	2.50	0	0.00
50	1	1.25	0	0.00
Total	**80**	**100**	**40**	**100**

Source: Author's Field Survey, 2013

It is interesting to note from the table above that one of the SMEs with access to microfinance employs 50 people, excluding the business owner. Against this backdrop, these findings are consistent with earlier findings in Ghana by Abor and Quartey, (2010) who asserted that SMEs contribute over 80% to total employment. Besides, as the study area is located in the Savannah Ecology zone with limited employment opportunities, these SMEs contribute significantly to job creation and thereby helping to minimize the exodus of the youth to the urban cities in search of non-existent jobs.

In addition, in line with the conceptual framework of empowerment, as most of the SME owners are females coupled with increased incomes from the businesses for women suggest more employment opportunities for women. It is against this backdrop that, it is asserted that "investment in women's economic activities will improve employment opportunities for women and thus have a 'trickle down and out' effect" (Mayoux, 2000:8).

4.4.3 Other Training Services and Improvement in Business Operations

Interestingly, 79 (98.75%) of the SMEs that access microfinance indicate that apart from receiving loans from microfinance institutions they also receive other services in terms of training that help them to improve upon their business operations. Some of these services include; leadership training, planned expenditure, limit credit sales, customer care and record keeping. These findings are consistent with the concept of enterprise intermediation strategies, which include programs and projects to improve production and management processes within enterprises. Specifically, 21.25% report that they received leadership training, 90% received training on planning their expenditures, 51.25% received training on limiting credit sales, 93.75% received training in customer care and 95% received training in record keeping respectively. So how do these services help improve upon the business operations of SMEs? These training services help SMEs with access to microfinance to improve upon their business operations in three main domains; name, increased savings, gain market access and maintain loyal customers. Table 7 and figure 4 below give a picturesque view of how these training services mentioned above help SMEs with microfinance to improve upon their business operations in the three domains mentioned earlier.

Table 7: Improvement in Business Operations as a result of receiving training from Microfinance Institutions

Improvement in Business Operations	Number	Number	Total	Percentage (%)	Percentage (%)	Total
	Yes	No		Yes	No	
Increased Savings	75	5	**80**	93.75	6.26	**100**
Gain Market Shares	55	25	**80**	68.75	31.25	**100**
Maintain Loyal Customers	54	26	**80**	67.50	32.50	**100**

Source: Author's Field Survey, 2013

Figure 5: A Bar Graph Showing Improvement in Business Operations as a result of receiving training from Microfinance Institutions

Source: Author's Field Survey, 2013

It is evident from table 7 and figure 4 above that the training services received from the microfinance institutions (Naara Rural Bank) apart from the physical loans (capital) have positive impact on the business operations of the firms. For instance, it is clear from table 7 and figure 4 above that these training services enable firms to increase their savings to a colossal 93.75%, gain market access by 68.75% and maintain 67.50% of their loyal customers. Indeed, these huge increases in all the three domains (increased savings, gaining market access and maintaining loyal customers) are indicative of firms (SMEs) growth and development. The point here is that, as firms begin to increase their savings dramatically, they are empowered to expand their businesses by diversifying into other areas of operations. In this regard, it argued that when women control decisions regarding credit and savings, they will optimise their own and the household's welfare (Mayoux, 2000).

More so, gaining 68.75% of market access and maintaining 67.50% of loyal customers seem to suggest that these firms are gradually gaining a competitive urge over other firms that do not access microfinance and for that matter, do not have access to these training services.

4.4.4 Business Growth in terms of Assets Acquired Over the Period of Operation

The growth of firms (SMEs) was measured using assets acquired during the period of operation such as vehicles, operation machinery especially in the case of artisans like carpenters, financial assets and land, amongst others. Table 8 below presents the business assets acquired and the number of SMEs, with or without access to microfinance, acquiring these assets over the period of operation.

Table 8: Business Assets Acquired and the Number of SMEs

Business Assets Acquired	SMEs with Access to Microfinance						SMEs with No Access to Microfinance					
	No. Yes	No. No	Total	(%) Yes	(%) No	Total	No. Yes	No. No	Total	(%) Yes	(%) No	Total
Vehicles	6	74	**80**	7.50	92.50	**100**	5	35	**40**	12.50	87.50	**100**
Operation Machinery	65	15	**80**	81.25	18.75	**100**	8	32	**40**	20.00	80.00	**100**
Financial Assets	68	12	**80**	85.00	15.00	**100**	4	36	**40**	10.00	90.00	**100**
Land	50	30	**80**	62.50	37.50	**100**	10	30	**40**	25.00	75.00	**100**

Source: Author's Field Survey, 2013

From table 8 above, only 6 SMEs with access to microfinance, representing 7.50% have been able to acquire vehicles for business operations. On the other hand, 5 SMEs with no access to microfinance, representing 12.50% have acquired vehicles for business operations. In terms of operation machinery, financial assets and land, however, 81.25%, 85% and 62.50% of SMEs respectively have been able to acquire these assets for business operations. However, only 20%, 10% and 25% of SMEs without access to microfinance have been able to acquire operation machinery, financial assets and land respectively for the running of businesses. These findings are also in tandem with the earlier findings that suggested that access to microfinance empowered SMEs to increase their savings and gain a greater proportion of market shares as compared to those SMEs without access to microfinance. It is therefore, logical and scientific that having gained large market shares and increased savings substantially, SME owners with access to microfinance will naturally increase their assets stock, buy innovative and modern operation machinery and acquire more land for the purposes of increasing production and expanding their businesses.

4.4.5 Business Diversification and Expansion

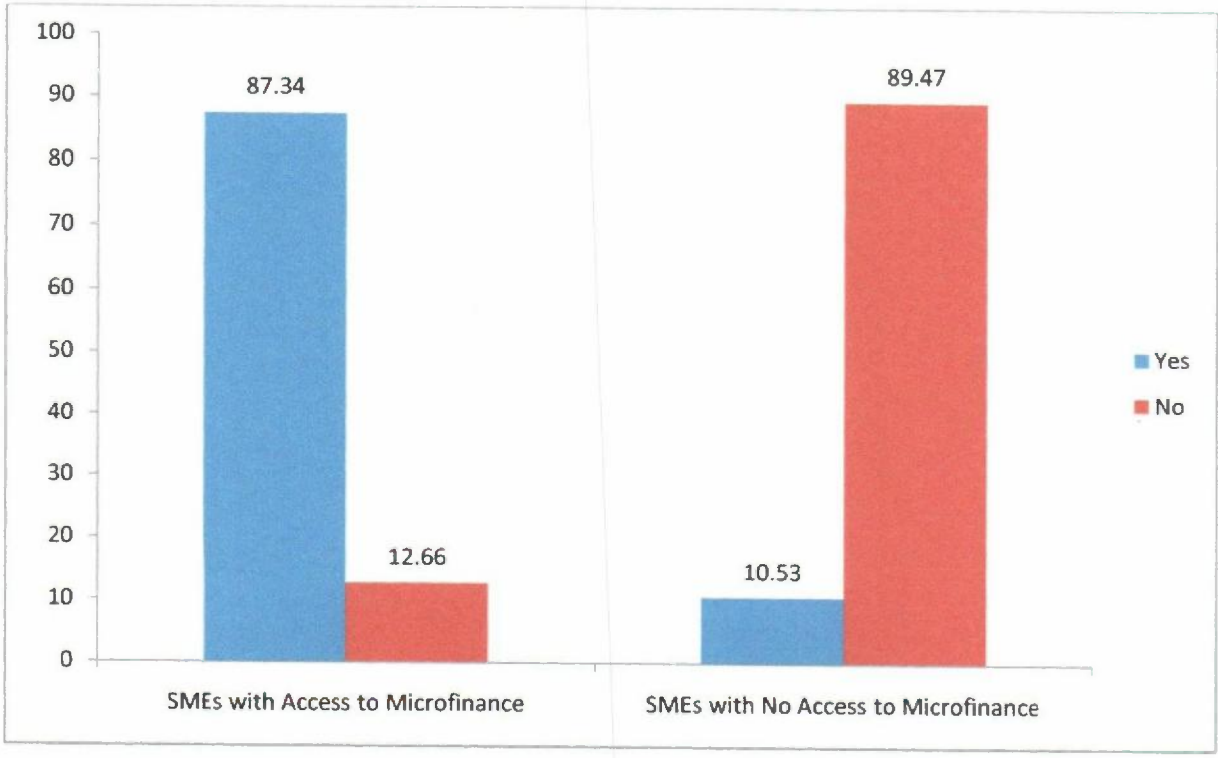
One way to determine the growth and development of SMEs is to find out how they have been able to expand by diversifying into other businesses. To establish whether or not SMEs Owners have been able to diversify their businesses, the respondents were simply asked the following question: Have you been to diversify your business? The responses to this question with respect to whether or not SME owners have access to microfinance are presented in table 8 and figure 5 respectively.

Table 9: Ability to Diversify Business and Microfinance Status of SMEs

Ability to Diversify Business	SMEs with Access to Microfinance		SMEs with No Access to Microfinance	
Yes	69	(87.34%)	4	(10.53%)
No	10	(12.66%)	34	(89.47%)
Total	**79**	**100**	**38**	**100**

Source: Author's Field Survey, 2013

Figure 6: A Bar Graph Showing Ability to Diversify Business and Microfinance Status of SMEs



Source: Author's Field Survey, 2013

Table 9 and figure 5 above show interesting results. As much as 87.34% of SMEs owners with access to microfinance have been able to diversify their businesses whereas only 10.53% of those without access to microfinance have been able to diversify their businesses. Indeed, nearly 90% (89.47%) of all SMEs without access to microfinance have not been able to diversify. Apart from the fact that access to finance (capital) accounts for this difference, a closer look at the data also suggests that the 10.53% of SMEs without access to microfinance that have been able to diversify are relatively older businesses ranging between 10 and 33 years while the 12.66% of SMEs with access to microfinance but have not been able to diversify are relatively younger businesses, ranging between 2 and 7 years. This makes a lot of sense, for, older businesses would have gained a considerable proportion of market shares and maintain their customers. It might also probably be the case that tough, this 12.66% of SMEs have access to microfinance, and they might not have yet benefitted from some of the other training services offered by microfinance institutions (Naara Rural Bank) because of their young nature. There were one missing value in the data set for the respondents with access to microfinance and two missing values for the respondents without access to microfinance, bringing the total population sizes to 79 and 38 respectively.

To determine whether there is statistically any significant relationship between the microfinance status (whether SMEs have to access to microfinance or not) and the ability to diversify businesses, the Chi Square (x^2) test is used to test the following hypotheses at 95% confidence interval:

H_0: there is no difference between microfinance status and the ability to diversify in business.

H_1: there is a difference between microfinance status and the ability to diversify in business.

The results of the x^2 test are presented in appendix 2. The results show a x^2 value of pr= 0.000). Since the P-value of (0.000) is less than (0.05), the null hypothesis that assumed that there is difference between microfinance status and the ability to diversify in business is rejected in favour of the alternative hypothesis that is the H_1. In other words, the results of the x^2 test show that statistically, there is a significant relationship between microfinance status and the ability to diversify in business. That is, access to finance is significantly associated with ability to diversify in businesses.

The ability of the 87.34% SMEs to diversify is indicative of the fact that access to finance empowers them to take risk because finance amply demonstrates that there is a linear relationship between risk and return—the greater the potential return, the greater the chance and size of loss. For this reason, to increase returns, entrepreneurs must take higher risks. The reverse scenario may also be the case. That is, the 89.47% of SMEs without access to microfinance are risk averse because they do not have adequate financial base to support them invest in higher risks ventures.

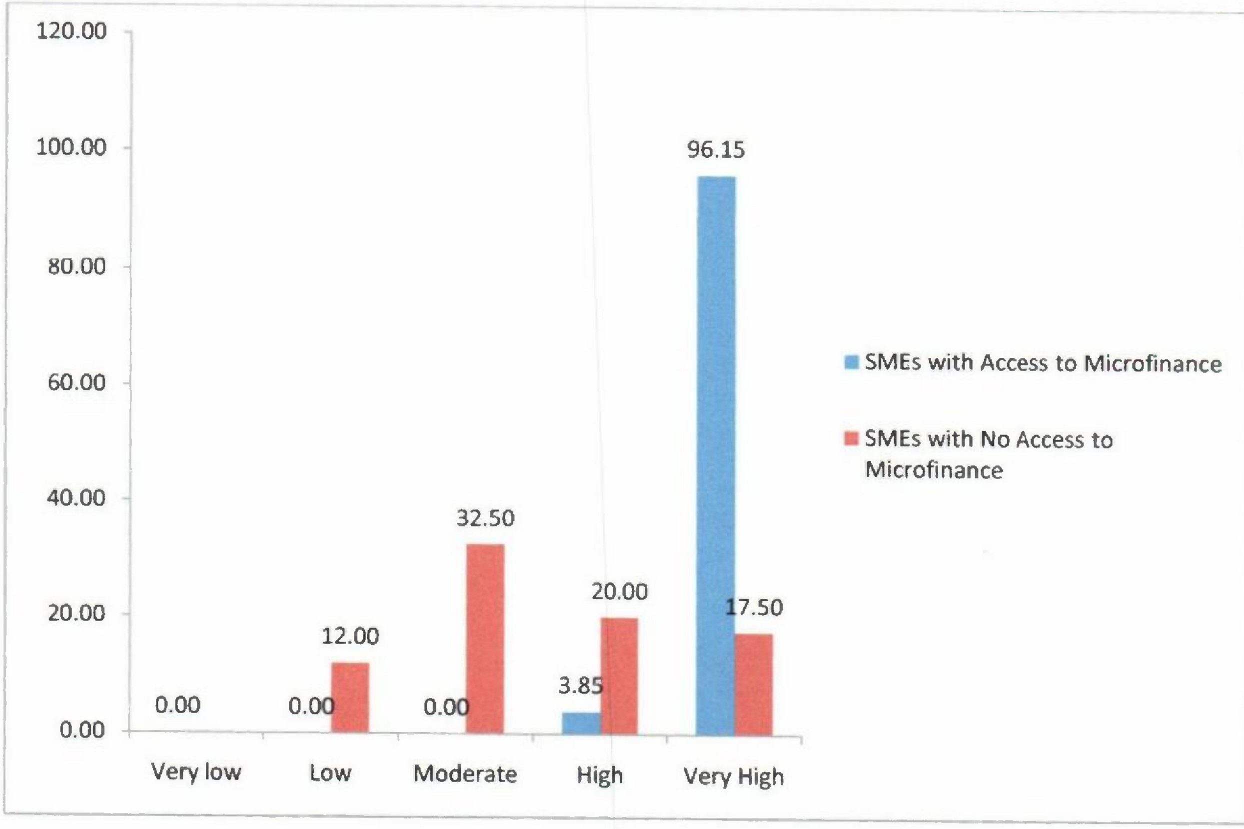
With regards to business expansion, the following question was asked: How would you rank the expansion in your business on a Likert scale of 1-5, 1 being very low, 2 being low, 3 being average, 4 being high and 5 being very high over the period of operation? Using this Likert scale, both SMEs with access to microfinance and those with no access to microfinance ranked the levels of expansion in their businesses. The results of the rankings are presented in Table 10 and Figure 6 below.

Table 10: Rankings of Business Expansion and Microfinance Status

Rankings of Business Expansion	SMEs with Access to Microfinance		SMEs with No Access to Microfinance	
Very Low	0	(0.00%)	0	(0.00%)
Low	0	(0.00%)	12	(30.00%)
Moderate	0	(0.00%)	13	(32.50%)
High	3	(3.85%)	8	(20.00%)
Very High	75	(96.15%)	7	(17.50%)
Total	**78**	**100**	**40**	**100**

Source: Author's Field Survey, 2013

Figure 7: Bar Graph Showing Rankings of Business Expansion and Microfinance Status



Source: Author's Field Survey, 2013

The above results show that 96.15% of the respondents sampled who accessed microfinance ranked the expansion in their businesses to be very high. Indeed, none of them ranked the expansion in their businesses as very low, low or moderate, with only a marginal 3.85% of them ranking the expansion in their businesses as high. On the contrary, only 17.50% of the sampled respondents who do not access microfinance ranked the expansion in their businesses as very high with, the majority of them 32.50% ranking their business expansion as moderate, 20% high and 12% low respectively. These results seem to suggest that firms with access to microfinance in the study area are nearly 6 times, (that is, approximately 5.5) more likely to expand their businesses than those firms that do not access microfinance. There were however, two missing values in the data set for the respondents with access to microfinance bringing the total sample size to 78 instead of 80. This figure is, still adequate to produce relevant results for the analysis.

Furthermore, even though the raw data above points to the fact that access to microfinance is associated with business expansion, it is still worthwhile to compare the expansion in businesses with respect to firms with access to microfinance and those with no access to microfinance. This comparison is done using quantitative statistical analysis by doing hypotheses testing in order to arrive at informed conclusions. The following hypotheses are tested using the Wilcoxon rank sum/Mann-Whithey test:

H_0: there is no difference in the levels of business expansion between firms (SMEs) that access microfinance and those that do not.

H_1: Firms (SMEs) that have access to microfinance are able to expansion their businesses higher than those that do not.

It is of significant interest to note that the Wilcoxon rank sum/Mann-Whithey test is appropriate for testing the hypotheses because the variable of interest (expansion in business is ranked in order of magnitude the samples are also independent random samples ((Alatinga and Fielmua, 2011). The results of the Wilcoxon rank sum/Mann-Whithey test are presented in appendix 3.

The results show a P-value of (0.000). Since this P-value is less than 0.025 ($0.000<0.025$), the null hypothesis (H_0) that assumed there is no difference in the levels of business expansion between firms that access microfinance and those that do not is rejected in favour of the alternative or research hypothesis (H_1). From these results therefore, it can be concluded that statistically, there is a significant difference in the levels of business expansion between firms that access microfinance and those that do not access microfinance. In other words, access to microfinance could be considered as a catalyst for business expansion among the sampled firms (SMEs) studied.

The analysis thus far consistently and logically tells a convincing story. The story is that, following all the evidences presented above, access to microfinance impacts positively on the growth and development of firms (SMEs) in the study. But does this positive story extend to improvements in household welfare with respect to access to microfinance? This question is explored in the ensuing section.

4.5 Microfinance and Improvement in Household Welfare

Improvement in household welfare was measured using household consumption and expenditure, private property (assets) acquired, health and educational status.

4.5.1 Household Consumption and Expenditure and Private Property Acquired

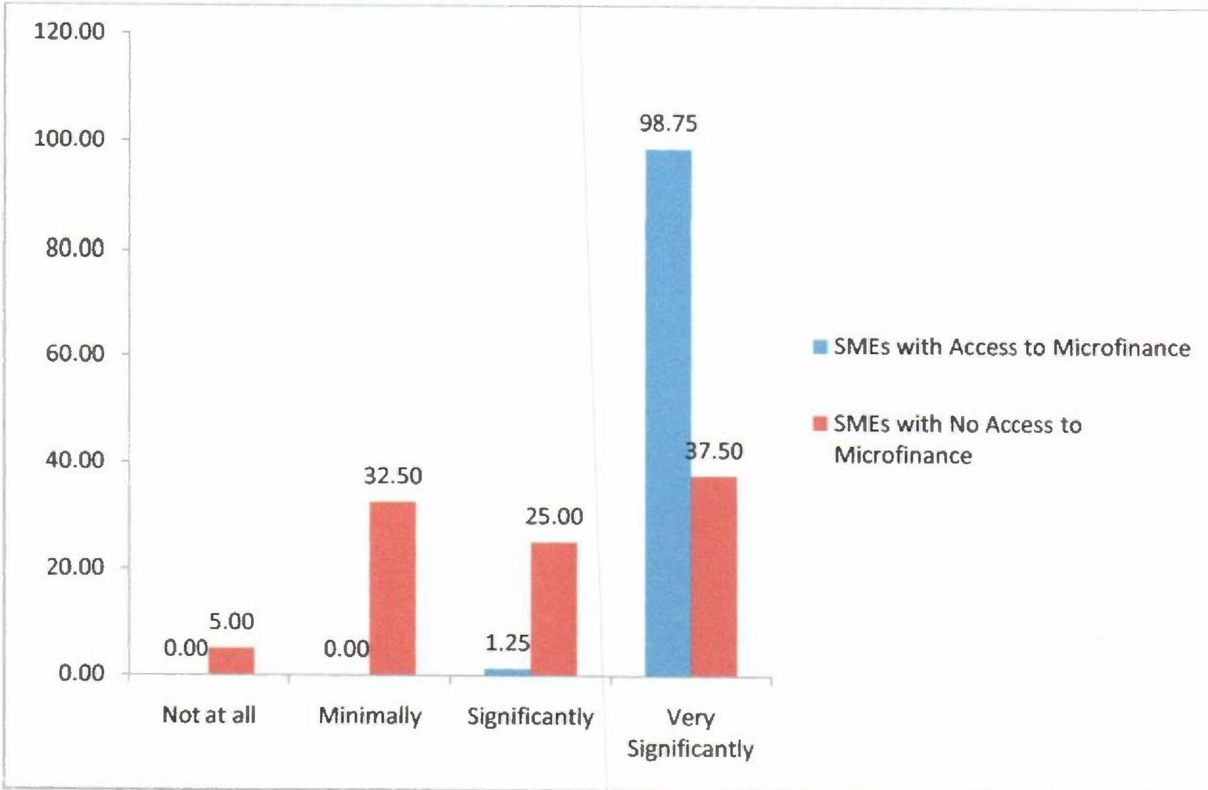
Improvement in household consumption and expenditure was measured by asking the following question: To what extent has your household consumption and expenditure improved during the period of operation? Respondents were supposed to choose one of the following alternatives: Not at all, Minimally, Significantly and Very significantly with respect to their microfinance status. The detailed responses to this question are presented in table 11 and figure 7 below.

Table 11: Extent of Improvement in Household Consumption and Expenditure and Microfinance Status

Extent of Improvement in Household Consumption and Expenditure	SMEs Owners with Access to Microfinance		SMEs Owners with No Access to Microfinance	
Not at all	0	(0.00%)	2	(5.00%)
Minimally	0	(0.00%)	13	(32.50%)
Significantly	1	(1.25%)	10	(25.00%)
Very Significantly	79	(98.75%)	15	(37.50%)
Total	**80**	**100**	**40**	**100**

Source: Author's Field Survey, 2013

Figure 8: A Bar Graph Showing the Extent of Improvement in Household Consumption and Expenditure and Microfinance Status



Source: Author's Field Survey, 2013

Table 11 and Figure 7 above show that 98.75% of the respondents sampled who accessed microfinance report that their household consumption and expenditure had improved very significantly as compared to only 37.50% of those who did not access microfinance. What is also interesting about these findings is that a considerable number 13, representing (32.50%) of the respondents without access to microfinance indicating that their household consumption and expenditure had only improved minimally during the period of business operation and 5% of them reporting that their household consumption and expenditure had not improved at all.

Again, to determine the how statistically significant the results from the raw data are, the following hypotheses are tested using the Wilcoxon rank sum/Mann-Whithey test:

H_0: there is no difference in improvement in household consumption and expenditure between SMEs owners who access microfinance and those who do not.

H_1: SME owners with access to microfinance are more likely to improve upon their household consumption and expenditure than those who do not access microfinance.

The results of the Wilcoxon rank sum/Mann-Whithey test are presented in appendix 4. The results show a P-value of (0.000). Again, since this P-value is less than 0.025 (0.000<0.025), the null hypothesis (H_0) that assumed there is no difference in improvement in household consumption and expenditure between SMEs owners who access microfinance and those who do not is rejected in favour of the alternative or research hypothesis (H_1). This means that there is, statistically, a significant difference in improvement in household consumption and expenditure between SMEs owners who access microfinance and those who do not. In other words, SME owners with access to microfinance are indeed, more likely to improve upon their household consumption and expenditure than those who do not access microfinance.

With regards the private property (assets) acquired, respondents were asked the following question: What private property has the household been able to acquire during the period of operation of the business? The following assets were specifically asked for: Motor cycle (s), Vehicle (s) Land and House.

Table 12: Private Property (Assets) and Microfinance Status of SME Owners

Private Property(Assets) Acquired	SMEs Owners with Access to Microfinance						SMEs Owners with No Access to Microfinance					
	No.	No.	Total	(%)	(%)	Total	No.	No.	Total	(%)	(%)	Total
	Yes	No		Yes	No		Yes	No		Yes	No	
Motor Cycle (s)	70	10	**80**	87.50	12.50	**100**	32	8	**40**	80.00	20.00	**100**
Vehicle (s)	3	76	**79**	3.80	96.20	**100**	5	35	**40**	12.50	87.50	**100**
Land	61	18	**79**	77.22	22.78	**100**	12	28	**40**	30.00	70.00	**100**
House	67	12	**79**	84.81	15.19	**100**	10	27	**37**	27.03	72.97	**100**

Source: Author's Field Survey, 2013

From the table above, 87.50% of respondents who accessed microfinance have been able to acquire motor cycles their household use whereas 80% of respondents who did not access microfinance have been able to acquire motor cycles for the use of their households. Only 3.80% of respondents with access to microfinance have been able to acquire vehicles while 12.50% of respondents without access to microfinance have acquired vehicles for the use of their households respective. Importantly, 77.22% of the respondents with access to microfinance have acquired land whereas only 30% of those without access to microfinance have been able to acquire land for the use of the family. In the same vein, 84.81% of the respondents with access to microfinance have been able to build houses and only 27.07% of those without access to microfinance have been able to build houses for their families. Taking these assets collectively therefore, households whose SME owners access microfinance appear to be in better standing as compared to those without access to microfinance.

4.5.2 Improvement in Household Health Status

Access to portable water, improvement in nutrition and ability to pay hospital bills were the variables used to measure improvement in the health status of household with respect to microfinance status of SME owners. Specifically, the following question was asked: In what ways has the health status of the household improved over the period of business operation? The responses of the two groups of respondents are presented in

Table 13: Improvement in health status of households and their Microfinance Status

Improvement in Household Health Status	SMEs Owners with Access to Microfinance						SMEs Owners with No Access to Microfinance					
	No.	No.	Total	(%)	(%)	Total	No.	No.	Total	(%)	(%)	Total
	Yes	No		Yes	No		Yes	No		Yes	No	
Access to Portable Water	80	0	**80**	100	0.00	**100**	38	2	**40**	95.00	5.00	**100**
Improvement in Nutrition	80	0	**80**	100	0.00	**100**	36	4	**40**	90.00	10.00	**100**
Ability to Pay Hospital Bills	80	0	**80**	100	0.00	**100**	35	5	**40**	87.50	12.50	**100**

Source: Author's Field Survey, 2013

The results on table 13 above surprisingly show that all the respondents sampled who accessed microfinance indicated that their health status with respect to the three domains listed above had improved 100% during the period of business operation. These findings, though surprising, seem to make logical sense. The reason here is that with increased from the enterprises, SMEs owners with access to microfinance are better placed to provide better diets and pay for the hospital bills of their household members than those without access to microfinance. On the other hand, about 12.50% of those respondents without access to microfinance are not able to pay the hospital bills of their household members, 10% are unable to provide nutritionally balanced diets and 5% still do not have access to portable water. It is against this backdrop that Littlefield et al.,(2003) argue that households of microfinance clients appear to have better health practices and nutrition than other households.

4.5.3 Improvement in Household Educational Status

Improvement in household welfare was also measured using improvement in the educational status of household with respect to microfinance of SME owners. The ability to pay school fees, buy school uniform for wards, and the ability to pay for the transportation of wards to school were used to measure improvement in the educational status of households. To elicit the appropriate responses, the following question was asked: In what ways has the educational status of the household improved over the period of business operation? Table 14 summaries the responses from the two groups of respondents.

Table 14: Improvement in Educational Status of Households and Microfinance Status of SME Owners

Improvement in Household Educational Status	SMEs Owners with Access to Microfinance						SMEs Owners with No Access to Microfinance					
	No. Yes	No. No	Total	(%) Yes	(%) No	Total	No. Yes	No. No	Total	(%) Yes	(%) No	Total
Ability to pay School Fees	80	0	**80**	100	0.00	**100**	35	5	**40**	87.50	12.50	**100**
Ability to buy Books	80	0	**80**	100	0.00	**100**	35	5	**40**	87.50	12.50	**100**
Ability to buy School Uniforms	80	0	**80**	100	0.00	**100**	34	6	**40**	85.00	15.00	**100**
Ability to pay for the transportation of Wards to School	72	8	**80**	90.00	10.00	**100**	22	18	**40**	55.00	45.00	**100**

Source: Author's Field Survey, 2013

The results above show that in terms of ability to pay school fees, buy books and school uniforms, all the respondents surveyed who accessed microfinance reported that the educational levels of their households had improved by 100%. On the other hand, the respondents surveyed who did not access microfinance reported that the educational levels of their households had improved by 87.50% and 85% respectively. Again, 90% of the respondents with access to microfinance reported that they are able to pay for the transportation of their wards to school whereas 55% of those without access to microfinance are able to pay for the transportation of their wards to school. These findings are akin to the previous ones, suggesting that in terms of improvement in the educational status of households, respondents with access to microfinance are better off as compared to those without access to microfinance.

Putting all these findings together in terms of improvement in household welfare, the findings strongly point to the fact that access to microfinance positively impacts on household welfare. These findings confirm the assumption in section 3.2.1 which postulated that increased incomes from the enterprises will trickle down to the household level. The findings are also consistent with the literature on access to microfinance and poverty reduction. For instance, the findings are consistent with Littlefield et al's., (2003) assertion that apart from investment in their enterprises, microfinance in the form of financial services empower the poor to invest in health and education, to manage household emergencies, and to meet the wide variety of other cash needs that they encounter; and that access to financial services also translates into better nutrition and improved health outcomes, allows poor people to plan for their future and send more of their children to school and increased expenditures on food may suggest improved nutritional status and well-being of household members.

Access to microfinance impacts positively on the two way "impact path" identified, that is, household welfare and enterprise development. It can thus be argued that access to microfinance in the form of financial services contributes to development of the local economy and the socio-economic development of countries as the existing literature suggests (Abor and Quartey, 2010). The point here is that with increased incomes and employment from enterprises, a healthier and literate population, and the socio-economic potentials of countries can be harnessed. For these reasons, access to microfinance could be described as a potential tool and catalyst for poverty reduction and the achievement of the Millennium Development Goals (MDGs). The point here is that women form the majority of SME owners and are more likely to contribute larger portions of their incomes to household consumption and expenditure than their male counterparts. For instance, it is asserted that women spend much of their income on household well-being, including daughter's education and their own health (Mayoux, 2000).

But what challenges do firms (SMEs) face in their operations? This question is explored next.

4.6 Challenges faced by SMEs in their Business Operations

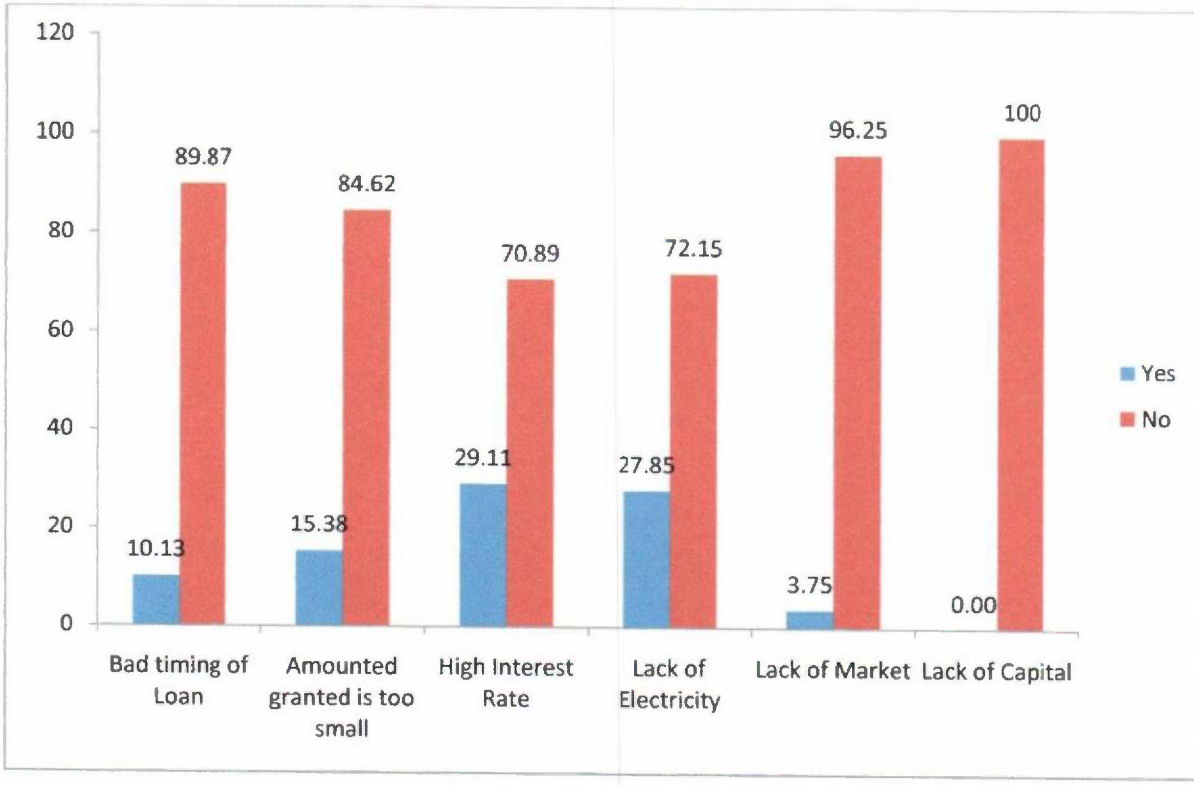
Despite the fact that SMEs contribute a lot to employment generation and socio-economic development in general, they are still faced with a number of challenges. In order to establish the type of challenges faced by SMEs with access to microfinance, the following variables were used: timing of loan, amount granted, indterest rate, electricity, market and capital. Table 15 and figure 8 below present detailed information about the various challenges faced by SMEs with access to microfinance.

Table 15: Challenges faced by SMEs with Access to Microfinance

Challenges faced by SMEs with Access to Microfinance	Yes		No	
	Number	Percentage (%)	Number	Percentage (%)
Bad timing of Loan	8	10.13	71	89.87
Amounted granted is too Small	12	15.38	66	84.62
High Interest Rate	23	29.11	56	70.89
Lack of Electricity	22	27.85	57	72.15
Lack of Market	4	3.75	76	96.25
Lack of Capital	0	0.00	80	100

Source: Author's Field Survey, 2013

Figure 9: A Bar Graph Showing Challenges faced by SMEs with Access to Microfinance



Source: Author's Field Survey, 2013

Only 10.13% of the respondents report that the time and disbursement of the loans are often delayed due to long administrative procedures from the microfinance institution (Naara Rural Bank). 15.38% of the respondents also indicated that amounts are usually too small to enable entrepreneurs diversify their businesses or invest in very profitable ventures. High interest rate also stood tall among the challenges. 23 respondents, representing 29.11% indicated that high interest rate was a challenge. In the same vein, 27.85% of the respondents pointed out that lack of electricity was a challenge they faced while only 3.75% reported lack of market as a challenge. Surprisingly, none of the respondents indicated lack of capital as a challenge.

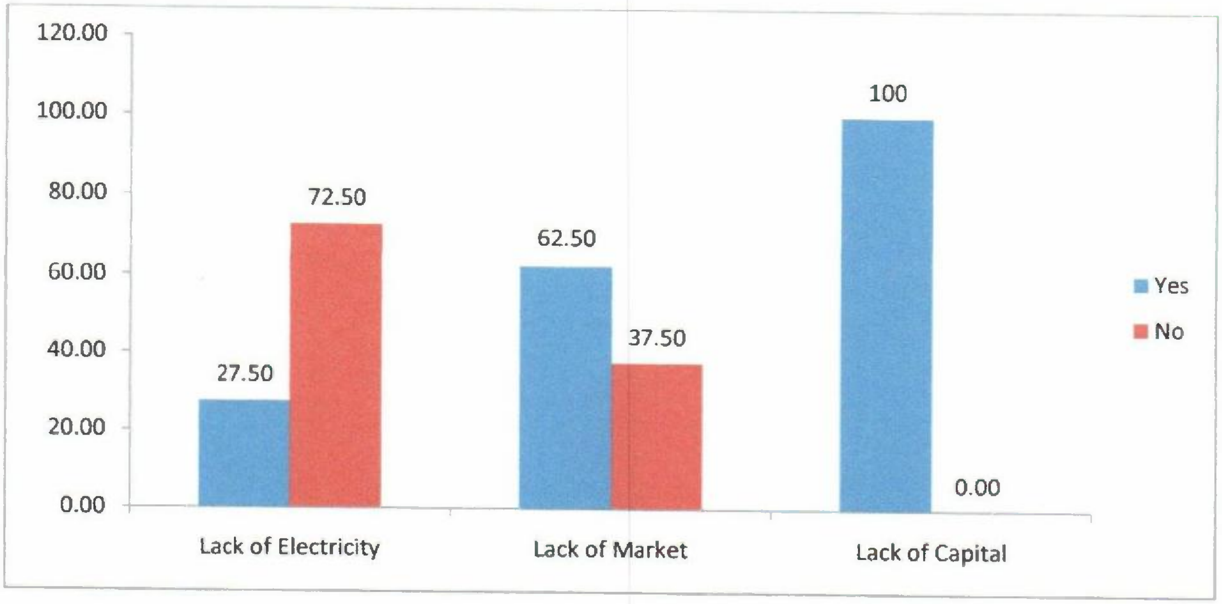
Similarly, in order to establish the challenges faced by SMEs without access to microfinance, the following variables were used: electricity, market and capital as shown on table 16 and figure 9 respectively.

Table 16: Challenges faced by SMEs without Access to Microfinance

Challenges faced by SMEs without Access to Microfinance	**Yes**		**No**	
	Number	Percentage (%)	Number	Percentage (%)
Lack of Electricity	11	27.50	29	72.50
Lack of Market	25	62.50	15	37.50
Lack of Capital	40	100	0	0.00

Source: Author's Field Survey, 2013

Figure 10: A Bar Graph Showing Challenges faced by SMEs without Access to Microfinance



Source: Author's Field Survey, 2013

Table 16 and figure 9 above show very interesting results. 40 of the respondents, representing 100% of those without access to microfinance indicate that lack of capital is their challenge. A significant proportion of them (62.50%) also indicate that lack of market was a major challenge as compared to only 3.75% of those who accessed microfinance. These results seem to make sense given that those SMEs without access to microfinance do not receive any training services such as customer care that could help them maintain their loyal customers as compared to those SMEs with access to microfinance. Importantly, 27.50% of the respondents without access to microfinance also reported that electricity was a major challenge. The fact that this figure (27.50%) is almost the same as that of the SMEs with access to microfinance, that is (27.85%) indicates the consistency of the problem faced by both groups of respondents. Indeed, the effect of lack of electricity or power shortages in general on the SMEs is the same irrespective of their microfinance status. For instance, when there is power shortages, SMEs may be compelled to buy generators in order to run their businesses. The fixed costs of running the generators will be the same for SMEs with access to microfinance and those without access to microfinance. In other words, installing and running the generators will increase the costs of operations for both groups of SMEs. In this regard, these findings are consistent with existing literature because limited access to electricity has been recognised by most SME owners as a serious setback to the development of their businesses in earlier studies, such as Abor and Quartey, (2010) and the World Bank (2012) doing business report.

In sum, whereas some of the challenges discussed above are peculiar to SMEs with or without access to microfinance, limited access to electricity is a major challenge germane to both groups of SMEs.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATION+S

5.0 Introduction

This chapter reviews the responses of the respondents, the findings and their implication on the impact of microfinance on small and medium scale enterprise development and improvement in household welfare in the Kassena-Nankana municipality of the Upper East Region of Ghana.

5.1 SUMMARY AND CONCLISION OF FINDINGS

The research findings lead to the conclusion that access to microfinance is a potent tool and a catalyst for poverty reduction and the achievement of the Millennium Development Goals. The results of the research established that about 63.30% of all the SMEs operating in the study area are located in the urban area and 36.30% are located in the rural area; and that majority 61.67% of the businesses are microenterprises.

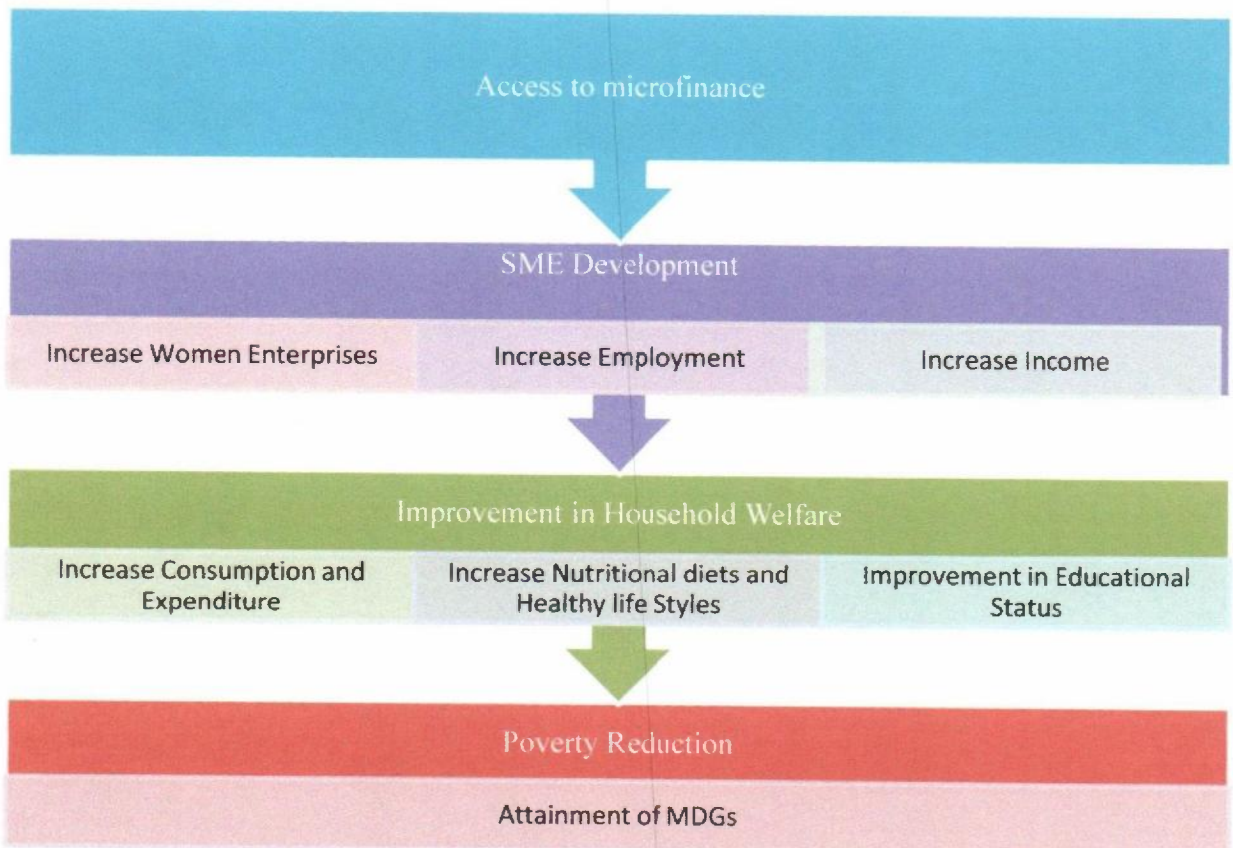
It is established informal sources of finance such as self savings and support from relative constitute the major source of startup capital for businesses. About 81.25% of respondents (SME owners) who access microfinance services, in terms of finance or loans to run their businesses are female. This development is good news for bridging the gender equity gap between men and women in productive economic activities and has the potential to positively influence women participation in economic decision-making both at the household and community levels.

Furthermore, the findings show that there is a strong positive relationship between access to microfinance and average monthly incomes of SMEs. For example, access to microfinance increases the monthly average incomes of firm to GH¢900 and above. Besides, the study revealed that SMEs that access microfinance generate about 78.75% of employment. Access to microfinance also increases clients' savings by about 94% enables them gain market access by 68.75% and maintain 67.50% of their loyal customers through enterprise intermediation offered by the microfinance institution (Naara Rural Bank). Consequently, firms that access microfinance growth faster by virtue of the fact that they are able acquire more business assets for the expansion and diversification of their businesses. In fact, 96.15% of the respondents sampled who accessed microfinance ranked the expansion in their businesses to be very high. Similarly, access to finance is significantly associated with ability to diversify in businesses because 87.34% of firms with access to microfinance have been able to diversify their businesses whereas 89.47% of all SMEs without access to microfinance have not been able to diversify their businesses.

Access to microfinance also improves household welfare significantly because increased incomes from the business enterprises have a trickledown effect on households of microfinance clients. In the first place, households of microfinance clients have been able to acquire assets such as houses for decent living. Secondly, households of microfinance clients are able to very significantly increase their consumption and expenditure on foodstuff and balanced diets leading to improved nutrition, healthy lifestyles. Besides, households of microfinance clients are pay for the hospital bills of members which might lead to an increase in the life expectancy of members. And thirdly, households of microfinance clients are better able to take care of the educational needs of their wards, such as the payment of school fees, buying of books and school uniforms amongst others. The fact that most of the owners of the SMEs are women leads to the conclusion that more female children will be educated as the women are economically empowered.

In light of the above, the impact of microfinance on the development of SMEs and improvement in household welfare can be depicted as a sequential progression that can contribute significantly towards poverty reduction and enhancing the attainment of the Millennium Development Goals as shown in figure.

Figure 11: Sequential Progression of the Impact of Microfinance on the Development of SMEs and Household Welfare



Source: Author's Construct, 2013.

Nevertheless, finance is the still the number challenge that impedes the growth and development of SMEs. For instance, all the 40 (100%) of the SMEs survey that do access microfinance reported that finance is their number challenge. More so, even among those SMEs that access microfinance, 15.38% report that the amounted disbursed is often too small to be used for any meaningful investment. Besides, the disbursement of the loans often delays (bad timing) due to long administrative procedures from the microfinance institution. Significant proportions (29.11%) of those SMEs that access microfinance cite high interest as a major challenge. Lack of market was highlighted as a major challenge facing those SMEs without access to microfinance. Summing up, a non-financial challenge that both groups of respondents highlighted is limited supply of electricity. Limited access to electricity or unpredictable power supply increases fixed costs of operation for both groups of SMEs.

5.2 Recommendation

Based on these expositions thus far, the following recommendations are made with respect to access to microfinance, SME development and improvement in household welfare. Firstly, it is recommended that government should create the enabling environment for microfinance institutions, non-governmental organizations (NGOs) and other stakeholders interested in the microfinance industry expand the outreach of microfinance services to as many SMEs as possible. In this regard, the central bank could reduce the lending rates to microfinance institutions to enable them give out loans to SMEs at the reasonably low interest rates. This will at the long run encourage many SMEs owners not only to apply for loans to startup their businesses but also apply for larger amounts of loans for the diversification and expansion of their businesses.

It is further recommended that microfinance institutions should increase their enterprise intermediation to SMEs because it has the potential of enabling SMEs increase their savings and gain a considerable degree of market shares. Thirdly, microfinance institutions should streamline or reduce their long administrative procedures to enhance a timeous disbursement of loans (funds) to SMEs. Finally, government should also ensure adequate and constant supply of power (electricity) to enable SMEs increase their production at reasonably low costs. To conclude from a public policy standpoint, when all these recommendations are implemented timely and to the letter, it will go a long way to enhance the employment and income generation capacities of SMEs, leading generally, to improvement in household welfare and poverty reduction.

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APPENDICES

Appendix 1: Results of Correlation of Microfinance Status and Average monthly Income

```
. tab2 q8doyouacc q12isyoura, V

-> tabulation of q8doyouacc by q12isyoura
```

q8. Do you access micro finance (loans)	q12. What is your average monthly income from the business					
	500 - 599	600 -699	700-799 G	800-899 G	900 Ghana	Total
Yes	0	3	2	4	70	79
No	4	13	6	0	17	40
Total	4	16	8	4	87	119

Cramér's V = 0.5802

Appendix 2: Results of Chi Square test of Microfinance Status and Ability to Diversify Business.

```
. ta q18haveyou q8doyouacc, chi
```

q18. Have you been able to diversify your business	q8. Do you access micro finance (loans) Yes	No	Total
Yes	69	4	73
No	10	34	44
Total	79	38	117

```
Pearson chi2(1) =  64.5235   Pr = 0.000

.
end of do-file
```

Appendix 3: Results of the Wilcoxon rank sum/Mann-Whithey test of Business Expansion and Microfinance Status.

```
. ranksum q19howwoul, by(q8doyouacc)

Two-sample Wilcoxon rank-sum (Mann-Whitney) test
```

q8doyouacc	obs	rank sum	expected
Yes	78	5905.5	4641
No	40	1115.5	2380
combined	118	7021	7021

```
unadjusted variance    30940.00
adjustment for ties   -10480.34
                      ---------
adjusted variance      20459.66

Ho: q19how~l(q8doyo~c==Yes) = q19how~l(q8doyo~c==No)
             z =   8.840
    Prob > |z| =   0.0000
```

Appendix 4: Results of the Wilcoxon rank sum/Mann-Whithey test of the Extent of Improvement in Household Consumption and Expenditure and Microfinance Status

```
. ranksum q21extenth, by(q8doyouacc)

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

  q8doyouacc |      obs    rank sum    expected
-------------+---------------------------------
         Yes |       80      5827.5        4840
          No |       40      1432.5        2420
-------------+---------------------------------
    combined |      120        7260        7260

unadjusted variance    32266.67
adjustment for ties   -15574.23
                      ----------
adjusted variance      16692.44

Ho: q21ext~h(q8doyo~c==Yes) = q21ext~h(q8doyo~c==No)
             z =   7.643
    Prob > |z| =   0.0000
```

Appendix 5: Consent Form and Questionnaire

Title: Impact of Microfinance on SME Development and Improvement in Household Welfare: Evidence from the Kassena-Nankana Municipality.

My name is Ali Ruth Konogweh, a Master of Business Administration (MBA) student of University of Ghana Business School, Legon. I am conducting research to enable me write my MBA Thesis and would be grateful if you would kindly take few minutes of your time of your time to respond to the following questions. You are assured that the information that will be collected will be used solely for academic purposes and will be treated confidentially. Further enquries about this work can be made from my Thesis Supervisor, Dr. Albert Gemegah, via email agemegah@gmail.com/ gemegah@ug.edu.gh ------------ or on phone --0244731209

Section 1. Background and Demographic Characteristics

1. Name of business? ....
2. Age of business? ....
3. Location of business? ....
4. Gender of owner? ....

Male.........1 Female....... 2

5. What type of business do you operate?

Farming 1

Artisan work 2

Trading 3

Tailoring 4

Others please specify......5

Section 2: SME Development

6. How much capital did you start with?

7. What was the source of your startup capital?

Self savings 1
Support from relatives......2
Borrowed capital..... 3

Other source (pls specify)..4

If borrowed please give the source, ……………..

8. Do you access micro finance (loans)?

Yes……1 No…….2 (if no skip Qs9 - 11)

9. Apart from receiving loans from micro finance institution(s), do they offer some other services in terms of training? Yes….1 No……2

10. If yes, which of these?

Leadership Training …….1

Plan expenditure………..2

Limit credit sales………..3

Customer care ………….4

Record keeping………..5

(Circle all that Apply)

11. How do these services help you improve on your business operations?

Increased savings………1

Gain market shares………2

Maintain loyal customers…3

(Circle all that Apply)

12. What is your average monthly income from the business?

500 – 600 Ghana Cedis…….1

600 -700 Ghana Cedis…….2

700-800 Ghana cedis………3

800-900 Ghana Cedis…….4

Above 900 Ghana Cedis…..5

13. Do you have other source of income?

Yes………1 No……..2

14. If yes, how much do you earn in a month?

Up to GHS 100.........1

100 – 150 GHS..........2

150 – 200 GHS..........3

200 – 300 GHS..........4

Above 300 GHS.........5

15. What percentage of business profit do you reinvest into the business?................................

16. How many people are currently in your employment? ....

Where there is a decrease in the number of employees, pls state reason(s)

17. In terms of growth, what assets has the business been able to acquire over the period of operation?

Vehicles............1

Operation Machinery...2

Financial assets..........3

Land.......................4

Others specify...........5 **(circle all that apply)**

18. Have you been able to diversify your business?

Yes......1 No........2

19. How would you rank the expansion in your business on a scale 1-5, 1 being very low and 5 being very high over the period of operation?

1........1

2.......2

3.......3

4 4

5......5

20. List any challenges you face in your business operations?

Timing of loan.............1

Amount granted is small...2

High interest rate...........3

Lack of electricity...........4

Lack of market..............5 **(circle all that apply)**

Section 3: Improvement in Household Welfare

21. To what extent has your household consumption and expenditure improved during the period of operation?

Not at all..........1

Minimally.........2

Significantly......3

Very significantly...4

22. What private property has the household been able to acquire during the period of operation?

Motor cycle (s)........1

Vehicle (s).............2

Land...................3

House.................4

Others specify........5 **(circle all that apply)**

23. In what ways has the health of the household improved?

Access to portable drinking water......1

Improvement in nutrition...............2

Ability to pay hospital bills............3

Others specify...........................4 **(circle all that apply)**

24 In what ways has the educational status of the household improved?

Ability to pay fees.....1

Ability to buy books......2

Ability to buy uniforms....3

Ability to pay for transportation of ward....4

Ability to send ward to higher level of education...5 **(circle all that apply)**

Thank you for your time!