UNIVERSITY OF AGDER

The effectiveness of microcredit programmes on alleviating poverty and empowering women in Cairo, Egypt

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Abstract

The ability of microfinance and microcredit programmes to alleviate poverty and fuel development is often debated and questioned. This study aims to contribute to this literature by investigating the impact of microcredit programmes on alleviating poverty and empowering women in Cairo, Egypt. I also investigate the efficiency of management policies of microcredit institutions in targeting the 'real' poor. Lastly provide some insights on how to enhance these programmes effectiveness in alleviating poverty. Using a quasi experimental research design, this study supports the extant literature that found a positive impact of microcredit programmes on enhancing the participants' income, expenditure, quality and quantity of food and children's education. In addition the results reveal a significant positive correlation between microcredit and an increase in recipients' business profits and capital. However I did not find that the provision of microcredit was able to enhance women's feelings of empowerment and independence. Moreover the targeting criteria of microcredit institutions were found to be not that efficient in being able to reach the extreme poor. In addition I could not find results that verify the efficiency of women in managing microcredit compared to men. This finding questioned the validity of microfinance institutions policy (that usually target poor women rather than poor men) in the Egyptian society where men are considered the main household bread winners.

Finally the study referred to common challenges in microfinance business that apparently microfinance institutions in Cairo are facing. The focus of these institutions on making a profit often hinders these programmes in terms of their poverty alleviation strategies. In general for these programmes to be more effective in alleviating poverty a new paradigm or regulatory body is required to link microcredit institutions with each other, organize collective efforts, and make it more attached to the real developmental needs of the poor.

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Table of Contents

List of abbreviations

MFI	Micro Finance Institution
UN	United Nations
NGOs	Civil Society Organizations
MDGs	Millennium Development Goals
PBDAC	Principal Bank of Development and Agriculture
PF	Productive Families Project
SFD	Social Fund for Development
UNDP	United Nations Development Programme
EBI	Egyptian Banking Institute
AKDN	Aga Khan Agency for Microfinance
CBE	the Central Bank of Egypt
FMF	First Microfinance Foundation
LF	Lead Foundation
AYB	Alshanek ya Balady

List of figures

List of tables

Chapter One: Introduction

There is currently a substantial amount of debate regarding the ability of microfinance and microcredit programmes to alleviate poverty and fuel development. The successful introduction of microfinance in 1976 by Mohamed Younis, through the establishment of the Grameen Bank in Bangladesh, grabbed worldwide attention. Since then it has been widely replicated in many other developing countries such as India, Indonesia, and Thailand. It was even mentioned by the United Nations (UN) as a significant contributing factor for achieving the goal of halving extreme poverty by 2015, one of the Millennium Development Goals (MDGs) (Hermes & Lensink, 2007).

Along with other developing countries, Egypt has adopted microcredit programmes in its strategy for alleviating poverty. Microcredit programmes have been depicted as an efficient tool not only for alleviating poverty but also for empowering women and fostering equality in society. However poverty alleviation and development is not only about income enhancement or meeting peoples' basic needs but it is also about offering caregivers and their children an opportunity for a better life. Whilst microcredit loans may help the poor financially, there are other questions regarding their ability to enable them to have a better life in terms of education and health service provision, instituting better relations within their families, increasing their financial sustainability, empowerment and self-esteem.

This research aims to assess the impact of microcredit programmes on enhancing Egyptian recipient families' income and welfare. This research is important for a number of reasons. First, given the dearth of empirical studies on the impact of microcredit programmes in Egypt, this research will provide a unique contribution to the existing literature on the efficiency of these programmes to uplift recipients. Second, the influence of these programmes on reducing poverty and enhancing peoples' wellbeing can be investigated in a unique setting. We can see whether these programmes enhance the recipients' ability to get health services, to provide adequate education to their children and to improve their families' consumption levels. The research will focus on women recipients and their perceptions of empowerment, financial sustainability and the generation of peace inside their families. Given the Egyptian culture that conceives men as the breadwinners, it is not clear how these programmes will affect those women's lives. In addition an assessment of the microfinance sector should enable the industry to improve the administration of their programmes as well as utilise them best in combating poverty. Lastly, this research should provide information on the efficiency of microcredit programmes in targeting the poor and in creating real economic growth.

1.1 Presentation of research topic

Poverty is one of the main challenges that face the development process in Egypt. According to Abou-Ali et al. (2009), around half of the Egyptian society is either poor or vulnerable to poverty. Poor people suffer social exclusion and lack access to various sources of income, markets, education and health services (Attia, 2008). Among the strategies for combating poverty, microfinance programmes are regarded as a mechanism for poverty alleviation and as a way of creating employment opportunities in Egypt. This was outlined in a package of economic reform policies adopted by Egypt in the 1990s. Based on these policies each donor or institution working in the field of poverty supports microfinance programmes in one way or another either by providing direct loans, or other services in the form of technical support or research and information dissemination (Barsoum, 2006). As a result microfinance programmes have been incrementally adopted by the government, commercial banks and civil society organizations (NGOs) to aid poor people and enhance their well-being. In many cases, women are the intended beneficiaries of these loans, based on studies that show how women are more likely to invest in their children compared to men (UNDP & INP, 2008).

Microfinance services is not new in Egypt, however its scope has evolved from human development and social services to being more business oriented with the recent joining of the banking commercial sector. In the 1950s microfinance was provided mainly to farmers and workers in the agricultural sector through a governmental bank known as the Principal Bank of Development and Agriculture (PBDAC). Later in the 1970s a nongovernmental initiative known as the Productive Families Project (PF) was initiated by the Ministry of Social Solidarity to provide microcredit to low-income families with a guarantor from an employer in the public sector (Barsoum, 2006).

The microfinance services started to be more business oriented in 1988 by the initiative of the United States Agency for International Development (USAID) targeting small businesses in the poor urban. In 1991 the first quasi- governmental entity responsible for organising microfinance services for small and medium enterprises was established; the Social Fund for Development (SFD) is the largest donor and is responsible for coordinating the creation and development of successful microfinance institutions (MFIs) with many other international donors (PlaNet, 2008). Beside the USAID and SFD, other major donors in the field of microfinance include UNICEF, the Ford Foundation, the Canadian International Development Agency, the United Nations Development Programme (UNDP), the Italian Fund of Egypt the Egyptian-Swiss Development Fund European Commission's MEDA Programme, the Friedrich Ebert Foundation, and the Aga Khan Agency for Microfinance (AKDN) (Barsoum, 2006; Wesselink, 2011).

In 2004 the SFD was assigned the responsibility to coordinate the micro and small enterprises sector in Egypt. The microfinance sector role was further adopted with the launching of “The National Strategy for Micro-Finance" in 2006. Its main aim was to develop a microfinance industry capable of providing sustainable financial services to small business aimed at developing microfinance. This strategy was prepared and funded by big donors in the field like the United Nations Development Programme (UNDP), USAID and Germany's government-owned German Development Bank. The Central Bank of Egypt (CBE) was involved through its affiliate, the Egyptian Banking Institute (EBI) (PlaNet, 2008).

1.2 Problem statement

It is debatable whether microcredit programmes in Egypt have been effective in enhancing not only poor people’s income but their overall wellbeing. According to Abdul Hakim & Ismail (2010) the well-being or quality of life of people is as important for development as income. Graham (2005) found that people value aspects like health, stable employment, marriage as much as, if not more than, income. However it is not clear from the literature assessing the impact of microcredit on the poor in Egypt whether these programmes are really efficient in alleviating poverty and promoting the overall wellbeing of it recipients. Whilst, in many cases a beneficiary did enhance their income through a loan it remains unclear whether other aspects of their social wellbeing improved as well. In a survey in one of the poorest districts in Cairo called “Ain EL Sira” families were interviewed about the usefulness of the loans they received from microcredit programmes. Both women and men complained that they sometimes have to sell their basic household items in order to be able to repay the debt and its interest (UNDP, 2008). In another survey by PlaNet (2008) half of the participants indicated a positive change in their quality and quantity of their food after receiving loans while only a few declared improvements in their children's level of education and health conditions. Moreover, in a sample of 100 women from Cairo, Nader (2008) found that microcredit loans were highly correlated with beneficiaries' children's education, income and assets, yet it had no effect in terms of enhancing their accessibility to better health services and having less quarrels or stressful events inside their families. In her qualitative research using focus groups, interviews, and observations of 69 women in microcredit programmes in poor districts in Cairo, Drolet (2010, p.7) found that although these programmes helped women to meet their practical gender needs; like buying food, educating children, repaying debt, and getting health care, the programmes couldn't enable them to meet their strategic gender needs; financial security, individual dignity, and peace in the household.

The impact of microcredit on women's social harmony and peace inside their families has not been sufficiently investigated. When studying the impact of microcredit on the harmony inside the family, Nader (2008) found the relation to be insignificant, yet she noted that further research was needed to expand this finding. Moreover the microcredit policy of targeting females rather than males was argued by Barsoum (2006) to be "a myopic poverty alleviation strategy that can actually oppress women rather than empower them". She found that loans were not enough to "challenge socially ingrained notions about women's economic dependency on men". In a group discussion with female borrowers in Upper Egypt Barsoum (2006) found that women see that taking loans did not affect their role inside the family with a number of women indicating that "The man is the man and the woman is the woman". Moreover being the target audience to the microcredit programme is a burden on the females rather than an empowerment tool where usually men take that as an excuse not to meet the households' needs and expenses and instead rely completely on the woman who had access to the loan. In other cases women became unpaid workers in their husbands business in addition to the liability of the debt. Some women ask for accessibility of loans to men to make them bear the responsibilities of their families instead of relying on the woman.

Finally, I could not find many studies evaluating microfinance institutions criteria to reach the poor, except for a study by USAID (2006); however it focused on investigating the level of gender equality in microfinance operations outreach. According to the UNDP (2008) around 20% of Egyptians or around 2 million families are living below the national poverty line in 2007. This raises a main question on the efficiency of microcredit programmes in reaching those poor. It has been pointed out by Hermes and Lensink (2007) that microcredit does not reach out to those in extreme poverty.

1.3 Research objectives

The main research objectives of this research are:

1- To assess the effectiveness of microcredit programmes in Cairo, Egypt.
2- To assess the impact of microcredit programmes on female recipients' welfare and their perception of independence, empowerment, the creation of harmony inside their families and overall satisfaction.
3- To investigate the efficiency of policies of microcredit institutions in targeting the real poor compared to national/international poverty lines and the compatibility of these polices with their needs and expectations from such programmes.

4- To investigate the validity of the targeting policies of microcredit institutes that target females rather than males as main audience for such programmes.
5- To provide information to microcredit institutions on clients' perceptions and satisfactions levels for future service enhancements and microfinance industry expansion.

1.4 Research questions

Through the course of this research I intend to provide answers to the following research questions:

1. How are microcredit programmes in Egypt managed?
2. What are the impacts of microcredit programmes on poverty reduction?

    - What are the impacts on recipients' families' income and average expenses?
    - What are the impacts on recipients' families' wellbeing?
    - What the impacts of loans on female recipients? Do they gain more independence and have peace inside their families? Do they feel more empowered and respected?
    - What are the activities financed by these loans and is there enough profits for businesses expanding and reinvesting the loan money into their businesses?

3. How efficient are the microcredit programmes in targeting the poor?

4. How efficient is the microfinance institution policy of targeting females rather than males given the Egyptian context? Are really women more efficient in managing micro loans than men?

1.5 Thesis outline

This thesis is organised into five distinctive chapters:

Chapter1 gives an introduction to the topic and provides a rational for the study. The research objectives and research questions of the study are also provided.

Chapter 2 provides a literature review on the topic of microcredit and its complex relationship with poverty alleviation.

Chapter 3 presents the method used in conducting the research and outlines the data collection and analysis methods employed.

Chapter 4 outlines the empirical findings and lastly,

Chapter 5 provides a discussion in the light of main research questions and literature review.

Chapter Two: Literature Review

2.1 Introduction

From the voluminous strands of literature on microfinance and microcredit, it is possible to distinguish between two main types. The first deals with the institutional system of the microcredit programmes and its financial performance (e.g. Hermes & Lensink, 2007; Cull et al., 2006; Cassar et al., 2007; Lapenu & Zeller, 2002; Jain, 1996; Gutiérrez-Nieto et al, 2007; Haq et al, 2009). The second is concerned with assessing the impact of microcredit on the welfare of the poor. It is this latter category that is the focus of this study. In this chapter I will explore the relationship between microcredit and poverty reduction, investigate the potential impacts of microcredit on the wellbeing of the poor and consider the debate on the effectiveness of microcredit programmes as a bottom up development engine.

2.2 Microcredit and poverty reduction: Conceptual background

2.2.1 The concept of poverty

The literature contains of number of definitions of poverty, starting with the lack of main resources to meet the basic needs to sustain life; to lacking access to main services and rights. As stated in Smith (1776, p.21) “every man is rich or poor according to the degree he can afford to enjoy the necessaries, convenience and amusement of human life”. It is the perception of poverty that really differs when defining what is really meant by poverty. As referred by Fasoranti (2010) perception differs according to the present experience of the individuals, conditions of the surrounding environment, their vocation, education and their definition of a good life. Hence “poverty has become a general phenomenon that is perceived to mean different things to different people at different times and places” (Fasoranti, 2010, p. 1439).

There are two conceptualizations for poverty; the traditional and the monetary concept. The former refers to the ability of the individual to meet the basics needs of food and consumption. The latter refers to the materialistic boundaries to include other aspects starting from education, health, shelter, nutrition, till enjoying security and rights like freedom of speech (Haughton & Khandker, 2009). In general poverty can be defined as the “pronounced deprivation in wellbeing.” (World Bank, 2000, chap. 1), where wellbeing here embraces not only material capabilities as measured by income and consumption levels but immaterial as well measured by the level of education, health, children nutrition and rights. It is even broadened to include vulnerability and exposure to risk, voicelessness and powerlessness. It is as referred by Amartya Sen (1987 in Haughton & Khandker, 2009) as the individual capability to function in the society.

Accordingly poverty is a multidimensional phenomenon that cannot be defined by just enhancing the income of the poor or increasing their levels of consumption rather it requires an integrated strategy to enable the poor to acquire the capabilities needed to enhance their wellbeing in general. Microfinance/microcredit programs are considered one of the effective tools that can enable the poor to not only enhance their income but their household overall well being as well.

2.2.2 The concept of microfinance and microcredit programmes

Microfinance/microcredit programmes are based on the theory of utilizing social capital to fuel development from below; as a result these programs have emerged as a favoured model of development (Rankin, 2002, p.9). Microfinance is a phenomenon that reflects the provision of credit and microloans to low income people in order to enable them to engage in productive economic activities that help them enhance their income (Awojobi & Bein, 2011). Microfinance is a wider concept than microcredit as it includes the provision of other financial services like saving funds and insurance services in addition to the provision of microcredit; however the two terms (microfinance and microcredit) are often used interchangeably (Khandker, 1998).

There are many definitions of microcredit. Generally the main idea behind it is to enable poor people to have access to financial services that they cannot attain through regular banks since they lack the collateral required in such a case. According to Schreiner & Colombet (2001, p. 339) it is an "attempt to improve access to small deposits and small loans for poor households neglected by banks". It also includes "the mobilization of savings and disbursement of micro-credit to the economically active poor, so as to provide employment and means of sustainability to improve the living standard in an economy" (Awojobi & Bein, 2011, p. 160). In general the main purpose behind microcredit programmes are to "extend small loans to poor people for self-employment projects that generate income, allowing them to care for themselves and their families. In most cases, microcredit programs offer a combination of services and resources to their clients in addition to credit for self-employment. These often include savings facilities, training, networking, and peer support." (The Microcredit Summit Campaign, 2009) Microcredit entails not only providing the poor with financial services but with the added capabilities needed to set up their self employment business projects and maintain their sources of sustainable livelihoods instead of waiting for employment opportunities from the government (Fasoranti, 2010). Microcredit are given to the poor either to help them establish their new business projects or to help small entrepreneurs who already have their business to expand it and be more sustainable (Johnson & Rogaly, 1997). Usually the duration of these kinds of loans are short-term, maximum two years, conditioned to be used in productive projects for example agriculture, industry, trading and not in consumption. Typically the interest rates are higher compared to traditional bank loans (Jaffer, 1999).

Whilst microfinance institutions are not banks and should aim to serve people that do not have access to traditional banks, they still operate like traditional banks in that they are interested in making a profit. Hence microfinance institutions are two-faced in nature: "social nature and a for-profit nature" (Gutiérrez-Nieto et al., 2007, p. 131). There are different kinds of microcredit programmes; however in general microfinance institutions offer credit either through joint liability group lending or individual-based lending. The individual lending model is close to the banks model where there is a direct relationship between the programme and the loan holder, whereas the group lending model a group of borrowers are responsible for loan repayments. In this case if one of the group members does not repay the loan the others group members have to contribute otherwise the whole group will be deprived future access to loans from the programme (Hermes & Lensink, 2007).

There are different forms of microfinance institutions. A survey in developing countries by Lapenu & Zeller (2002), classified micro finance institutions as either: NGOs, cooperatives, registered banking institutions, government organizations, or projects. The research results showed that banks are the best in terms of staff productivity but are the worst in terms of outreaching to the poor especially women. NGOS are the best in outreaching but have low productivity. On the other hand government institutions are low in both staff productivity and outreach. However microfinance institutions performance is not in the scope of this research rather it's the efficiency of these programmes in alleviating poverty and enhancing the wellbeing of the poor.

2.3 The impacts of microcredit programs on alleviating poverty

The impact of microcredit programmes on reducing poverty and enhancing social well-being of the poor has been widely investigated. Reviewing the literature investigating the microfinance impact on poverty alleviation shows disparities between supporters and opponents. In summary one can identify three main positions in the microfinance literature: those that argue for the positive impact of microcredit on the poor; those that argue for the negative impact of microcredit on the poor; and the third position lies somewhere in between where there is a positive impact yet not for the poorest.

According to the first position microcredit programs have a positive impact not merely on the poor household income and consumption level but on their social wellbeing as well, reflected by the impact of these programmes on recipients' level of education, health and children nutrition. Furthermore it extends to women feelings of empowerment and independence. The positive impacts of microcredit on income and consumption levels have been well documented. For example, in his study on participants of Grameen Bank in Bangladesh, Hossain (1988) found significant impacts of the effect of microcredit programmes on alleviating poverty in Bangladesh. This was reflected in higher income, capital accumulation and employment among loan recipients. Similarly Khandker (1998) found that 5% of the loan recipients' households in Bangladesh were able to get out of poverty due to the loans from microcredit institutions. In both studies there were spill-over effects where the overall employment rate and wages rate were enhanced in the whole village in which the microcredit programs operated. Additionally the significant effects for the programmes were found to be greater when the recipient was a woman (Pitt & Khandker, 1998). Other research in Bangladesh by Mustafa (1996) found that microcredit programmes enabled the recipients to enhance their material wellbeing reflected in indicators such as wealth, revenue earning assets, value of house structure, the level of cash earned, per capita expenditure on food, total household expenditure. While Zaman (1999) found microcredit programmes to enhance recipients' ability to build assets and reduce their vulnerability by enabling them smooth their consumption through balancing between their savings and spending during different phases of their life, hence become less vulnerable to income shocks. The results showed that in general women's participants are relatively more efficient than men in promoting the well-being of the households. As verified in Pitt et al (2003), women usually invest in their children's health and enhance their nutritional status. These results were further emphasized in further studies in Bangladesh (see Khandker et al., 1998; Khandker, 2001, 2003).

Positive impacts of microcredit have also been found by Kaboski & Townsend (2005) who evaluated the impacts of microfinance institutions in rural Thailand. They found it to enhance asset growth, consumption smoothing and occupational mobility, while decreasing borrowers' vulnerability, also especially if women are the main recipients. In another study Kaboski & Townsend (2009) found that income, consumption and agricultural investment increased among recipients as well as overall wages levels in a village in Thailand. In Mexico Bruhn & Love (2009) found positive impacts of opening a new microcredit institution branch on business ownership, income and employment. In a randomized experimental research in Manila Philippines, Karlan & Zinman (2009) found that microcredit institutions increased business profits but only for male entrepreneurs not females. Similar results were found in another study by Banerjee (2010) in a randomized evaluation of the impact of introducing microcredit in a new market in Hyderabad, India. They took a random sample from clients before and after the introduction of the microcredit program in the market and found that only the expenditure on durable goods and number of new businesses increased in the treated areas while expenditure per capita per month did not change.

In addition microcredit programmes have been found to enhance household social well-being and women empowerment. In his study Khander (1998) found significantly higher levels of schooling for children and especially that of girls for all credit program participants. Other positive impacts of microcredit on households' wellbeing were found in their children's education, health and household nutrition especially when woman are the participants (e.g Zaman, 1999; Panjaitan-Drioadisuryo & Cloud, 1999; Pitt et al., 2003). Moreover, microcredit empowers women by enabling them to make their own decisions, increase their mobility, awareness, and self-esteem (Hashemi et al., 1996; Schuler et al., 1997; Husain, 1998; Zaman, 1999). Mustafa et al (1996) found that the impact on women lives although small was evident; women have better influence in decision making inside the household and better treatment from their husbands. However this significant positive impact of microcredit was not reached by other studies. Banerjee et al (2010) did not find such positive impacts on social wellbeing like measures of health, education, or women's empowerment. Lastly, Karlan & Zinman (2009) found no positive impact on the social wellbeing of the household in India especially when women were the participants. On the contrary he found that males' applicants are significantly more likely to enrol their children in school than female applicants.

On the other side of the argument Adams & Pischke (1992) found microcredit to be ineffective on the poor income and overall well-being status. The researchers argued that lacking financial services is not the most pressing problems faced by the poor; and further argued that their problems will not be solved by going into further debt. The cost of providing these financial services was also very high compared to the benefits received by recipients especially in poor countries. This was further emphasized by Buckley (1997) in his research on micro entrepreneurs in the informal sector in Kenya, Malawi and Ghana. He found that these form of "capital injections" offers the "illusion" of fixing the profound problems of these people which rather need more structural changes in the socioeconomic conditions that defines their activities. Utilizing case studies from Sri-Lanka and Bangladesh, Montgomery (1996) showed the disadvantages of group lending schemes. He argued that there is incompatibility between meeting the poor needs and extending the credit. These programs give more pressure to the recipients and resulted in added social costs.

In Bangladesh, Morduch (1998) used a cross sectional survey of 180 respondents from participants and nonparticipants in micro-credit programmes. He found no evidence indicating higher consumption levels or educational enrolments for children of loan holders, but merely a reduction in consumption variability across the seasons for the participants. Accordingly microcredit programmes were not found to enable households to increase their consumption level but simply offered them "ways to smooth their consumption through smoothing income". This benefit he found negligible compared to the programmes costs. In his work Mordouh (1998) argued that the estimation techniques used by both Khandker (1998) and Pitt & Khandker (1998) overestimated the significant positive impact of microcredit programmes. Pitt et al (1999) in turn questioned the estimation technique used by Mordouh (1998) accusing it of underestimating the programme impacts, yet Roodman & Morduch (2009) in their research replied to this study and questioned the validity of the results in term of the econometric techniques used in the research. Using a randomized experiment analyzing about 5,000 households in rural Morocco who received loans of $125 to $1,850 for two years period, Dufflo, Esther (in Straus, 2010) found insignificant results on these households consumption, social well-being and women empowerment .

In the middle of the road some researchers see the benefits of such institutions but also identify the relative pitfalls. For example, Hulme and Mosley (1996) in their survey research in Bangladesh, India, Sri-Lanka and Indonesia found that more affluent recipients benefited more from the microcredit programmes than the poor, hence doubting the efficiency of microcredit program as a poverty alleviation tool. This is further emphasized by Mosley (2001) in his research study in Bolivia. He found that although these credits reduced poverty and increased participants' income and assets it did not reduce extreme poverty. Furthermore in his note, Hulme (2000) indicated that effective microfinance institutions only provide services for the poor but not for the poorest and "the poorest of the poor". Hulme supported Pischke (1992) in his naming for microcredit as "micro debt" since not all microcredit programmes were found to produce favourable results especially for the very poor working in low returns activities and vulnerable to environmental and economic shocks.

Additionally when evaluating the impact of two microcredit programmes in Thailand, Coleman (2006) found that the wealthier participants are more likely to participate in these programmes than the poor. Furthermore the positive impacts on the household were found to occur merely when the microcredit loans go to relatively wealthy households. Coleman recommended reconsideration for the eligibility criteria to be more vigilance to the poor. This finding was supported by Kondo (2007), in a research study in the Philippines where he found that microcredit did enhance income per capita and per capita expenditure but this applied mainly to the more affluent recipients while the impact was negative or insignificant in case of poorer loan recipients.Using panel data Khandker (2003) found significant positive impacts of microcredit programmes on per consumption levels and household non-land assets for the extreme poor in Bangladesh, although Roodman & Morduch (2009) questioned the validity of these results because of the technique used.

In summary, the research assessing the effectiveness of microcredit institutions on individual social and economic wellbeing is mixed. One cannot identify a clear positive or negative impact for microcredit programs either on enhancing the economic and social welfare conditions for the poor. It is obvious that further research is required in this area.

2.4 Questioning the ability of microcredit for poverty alleviation

As mentioned previously, on one side of the argument there are significant positive effects for microcredit programmes on household material and social well-being with further spill-over effects on the local economy while on the other side of the argument there are well-documented negative effects, particularly on the extreme poor. As noted by Khandker (2003), assessing the impact of microcredit programmes is sensitive to the methods used. Both quantitative and qualitative research methods have been used in impact assessment studies (Hulme, 2000). However, studies that are solely built on qualitative research methods are uncommon (Montgomery, 1996). There is an increasingly common trend in applying the mixed research methods by combining qualitative and quantitative research techniques (e.g. see Hashemi et al., 1996; Mustafa et al., 1996; Husain, 1998). Mixed research methods have been adopted for their usefulness in enhancing the validity of information and increasing confidence in research findings (Hulme, 2000).

Quantitative methods in particular have been widely applied in estimating the impact of microcredit programmes. As explained in Montgomery (2005) a perfect evaluation of these programs requires an accurate comparison between the status of the participants before and after joining micro credit programs. This kind of accuracy is hard to attain for many reasons: First in a panel data analysis (observation of same individuals through time) one cannot guarantee that any enhancement in microcredit program participants standards of living are purely due to the credit and not due to any other factors that might have happened to them over the same time period, hence separation of the impact of microcredit programs from other influences is hard to attain. Second in cross sectional data analysis (observation of many individuals at one point at a time) it is hard to compare two groups of individuals with identical characteristics who differ only in terms of credit taking because of the various personality and character traits of individuals. Other problems relate to differences in locations or areas of microcredit programs that are not chosen randomly. Usually microcredit program are located in specific areas like poor areas or that have certain physical infrastructure. Hence the impact of microcredit programmes on participants' standard of living and well being cannot be completely attributed to the program itself since its impact cannot also be separated from any influences that return to certain characteristics of the area, like having access to roads or communication infrastructure. The existence of such unobservable characteristics or influences lead to two kinds of bias in any empirical impact evaluation: program placement bias and self-selection bias.

In order to avoid these biases researchers have adopted three main approaches. The first approach uses quasi-experimental research methods which compare participants in micro credit programs with non participants using fixed effect methods to control for placement bias (e.g Khandker et al., 1998; Pitt & Khandker, 1998; Khandker, 1998; Mustafa et al., 1996; Hossain, 1988). However this type of research methodology is often not supported because of a selection bias since participants and non participants are often not good comparables (Mordouh, 1999). The second approach attempts to control for the self selection bias by including eligible participants from control villages which are villages where microcredit program have recently started to work in. They assume that participants from these villages will probably have similar conditions and characteristics as the treatment group; old participants in microcredit programs (e.g, Hulme & Mosely, 1996; Coleman, 1999). Nevertheless these types of studies have been criticized for not including drop-outs from the microcredit programs which leads to the emergence of the third approach of quasi-experiment research. Karlan (2001) found that dropouts cause two kinds of problems. The first one is the incomplete sample bias since assumingly the impact on dropouts is different or even worse compared to old or new loan holders. The second problem is attrition bias resulting from different characteristics of those who dropout than the others who remain in the program. If drop outs are successful and were able to get financially independent after leaving the program then not including them can cause an underestimation of microcredit impact and vice versa. Hence to get an accurate evaluation for microcredit impact those dropouts should be considered as well.

The experimental research methodology can deal with all kinds of selection bias where both treatment and control groups are selected randomly from a potential population of program participants; hence any impact can be attributed just to the program not to any sort of bias (Montgomery, 2005). Hence those methods are more efficient in terms of their internal model validity and the robustness of the results (Bryman, 2008). These experimental research studies (e.g. see Dupas & Robinson, 2009; Banerjee et al., 2010) do however have many limitations in addition to time and resources. For example, it is hard to use them in evaluating running microcredit programmes, since it requires the monitoring of the participants in microcredit programs before and after they join the program in order to identify the real effect on these participants standards of living resulted from taking credit (Odell, 2010). It is due to these methodological issues that there is little consensus among researchers regarding the evidence indicating their impact on poverty alleviation.

Bateman (2011) provides examples in developing countries like in India, the Balkans and Bosnia, where microcredit caused poor people to be indebted rather than helping them out of poverty. In India it has even driven the poor to take loans from local shark moneylenders just to be able to pay back the microfinance loans. These money lenders usually charge much higher interest rates on the loans than microfinance institutions which make the poor to be even more submerged in debt (Gokhale, 2009). Worth noting that these high interest charged by local loan lenders were one of the main reasons driven by Muhammed Yunis, the Bangladesh Professor initiator for microfinance programmes, to promote microfinance to international donors. However as argued by Bateman (2011) such “conferring of social legitimacy upon microfinance” have made the poor more open to go into debt.

However this should not be enough to indicate the failure of these programs as a poverty alleviation tool, as even the effects cannot be clearly reflected in monetary terms yet it can be sensed on the ground for two main reasons: The first is the existence of actual case studies of individuals where microcredit really helped them out of poverty. Such examples can be found in different countries such as Egypt, Afghanistan, Mozambique India and Bosnia (see ACCION International et al., 2010). The second as noted by Chowdhury (2009), is that there are other contributions for microfinance programs that are not acknowledged in the literature that go far beyond the traditional way of measuring the impact of microcredit. For example if microcredit’s only contribution is enabling the poor to sustain their levels of consumption in periods of fluctuations or crises then it contributes in enhancing productivity in the long run. Since by smoothing consumption the poor can maintain their ability to send their children to school buy essential medications and take care of their children’s nutrition. Hence microcredit “fulfils an important safety-net task”, especially in the absence of a “state-sponsored social security system”. Furthermore formalising the credit market has not only curtailed the local money lenders but also the microfinance institutions themselves that became under the surveillance of the community and media. In addition away from the impact on income or consumption these forms of microcredit empower the poor and give them some opportunities, hope and self-esteem. Besides microfinance institutions create large numbers of jobs in local communities in the form of loan officers and supervisors.

Moreover criticizing the microcredit programs for not reaching or targeting the extreme poor may be not because of these programs deficiencies, as it may be as a result of the fact that the extremely poor people themselves do not like to take risks, are fearful of new initiatives and/or lack proper information about the programmes (Hermes & Lensink, 2007). Also extremely poor people are often isolated and lack the essential human and social capital required to know and be members of microfinance programmes (Khandker et al., 1998). According to Ciravegna (2005) the lack of microcredit programmes diffusion in Italy for example was due to the lack of a microcredit culture itself, where people were not fully aware of the benefits of these programmes and as a result they were reluctant to try new initiatives, also the existence of strict rules for borrowing and getting permits are among the factors curtailing these programmes functioning there. Another important factor affecting the success of microcredit initiatives is the general economic conditions in the country (see Ciravegna, 2005), where economic stagnation in Italy hinders the success of any development initiatives such as microcredit programmes.

As a result the lack of success of some microcredit programmes cannot be totally attributed to the deficiencies of these programmes themselves but rather to the economic climate and culture of the 'host' country. Microcredit can be considered as a necessary but not sufficient tool for poverty alleviation (Mahajan, 2005). As stated by Prof Mohammed Yunus "Micro-credit is not a miracle cure that can eliminate poverty in one fell swoop. But it can end poverty for many and reduce its severity for others. Combined with other innovative programs that unleash people's potential, micro-credit is an essential tool in our search for a poverty-free world" (Yunus & Jolis, 2003, chap. 9). In addition human capital, skills to produce and market goods and social capital is important to first know about microcredit programmes and then to manage the business after taking the loans. Another valid point in this regard is the targeting criteria of microfinance institutions; it should reflect and should consider the social surroundings and culture of the area where they will be located. Women are not usually more successful than men in managing such loans (Karlan & Zinman, 2009). Moreover focusing on women as the target audience might be another factor of such loans failure in some areas even if women are the loan holders sometimes the loans ends up in men hands where women became workers in their husband business (Goetz & Gupta, 1996; Barsoum, 2006).

Viewing the literature of microfinance one gets the impression that it is more a statistical or econometric dispute between two teams; advocates and opponents for microcredit programs. This dispute mainly focuses on the techniques and methodologies employed by researchers rather on the potential of these programs to help the poor out of poverty. In my opinion such focus on the methodological problems of the quantitative methods used in studying the impact of these programs is superfluous and insufficient to judge the real impact of these programs. It has given grounding to doubt greatly the usefulness of these programs and taken attention away from the real problem which is trying to improve this tool and enlarge its benefits in the real world.

Microfinance institutions have a two faced contradictory missionary, it has a social and humanitarian side helping the poor overcome their poverty and at the same time they need to sustain their financial existence (i.e., make a profit). However microfinance institutions bear high costs to run their business, due to high transaction and information costs. As a result they need to set high interest rates for their clients. This reduces the potential positive impact on income generating from these credits (Cull et al., 2006; Hermes & Lensink, 2007). Given the dearth of sustainable financial resources and high costs still there is not enough solid empirical research studying the cost effectiveness of microcredit programs (Hermes & Lensink, 2007). Furthermore such high costs and the financial unsustainability of microfinance institutions hinders its outreaching policies for the extreme poor. Enhancing outreach policies requires stable financial resources to endure possible risks (Pischke, 1996). However stable financial resources in turn require relying on commercial funds instead of donations. This is very risky since focusing on the commercialisation of microfinance may cause a drift in these institutions mission from poor helper into profit seekers. Such drift violates Yunus description of microcredit in the 1997 Microcredit Summit as "a human right and not as an activity designed to create profit for the lenders".

Accordingly still there are many missing answers in the paradox of microcredit program, its financial sustainability and commercialisation versus more outreaching to the poorest and further impact and social development these all need to considered while search for more integrated approaches to measure the effectiveness of these programs in alleviating poverty.

2.5 Theoretical framework

According to the theory of microcredit, the poor can be lifted up if they have access to micro loans that enable them establish small business to finance their living. As presented in the theoretical framework in figure 2.1, microcredit impacts on the loan holders can be captured on three different levels; the material welfare level of the loan holder household through better income, consumption and capital growth, the social welfare level through better education, health and nutrition for children and overall household and finally in case if a female is the loan holder microcredit enhances her self esteem, sense of independence and empowerment. Further microcredit positive impact can be expanded to the overall economy through direct spill over effects on the local community through enhancing investment and employment or indirect spill over effects through for example increasing productivity, awareness of the local citizens and curtailing shark money lenders in the community.

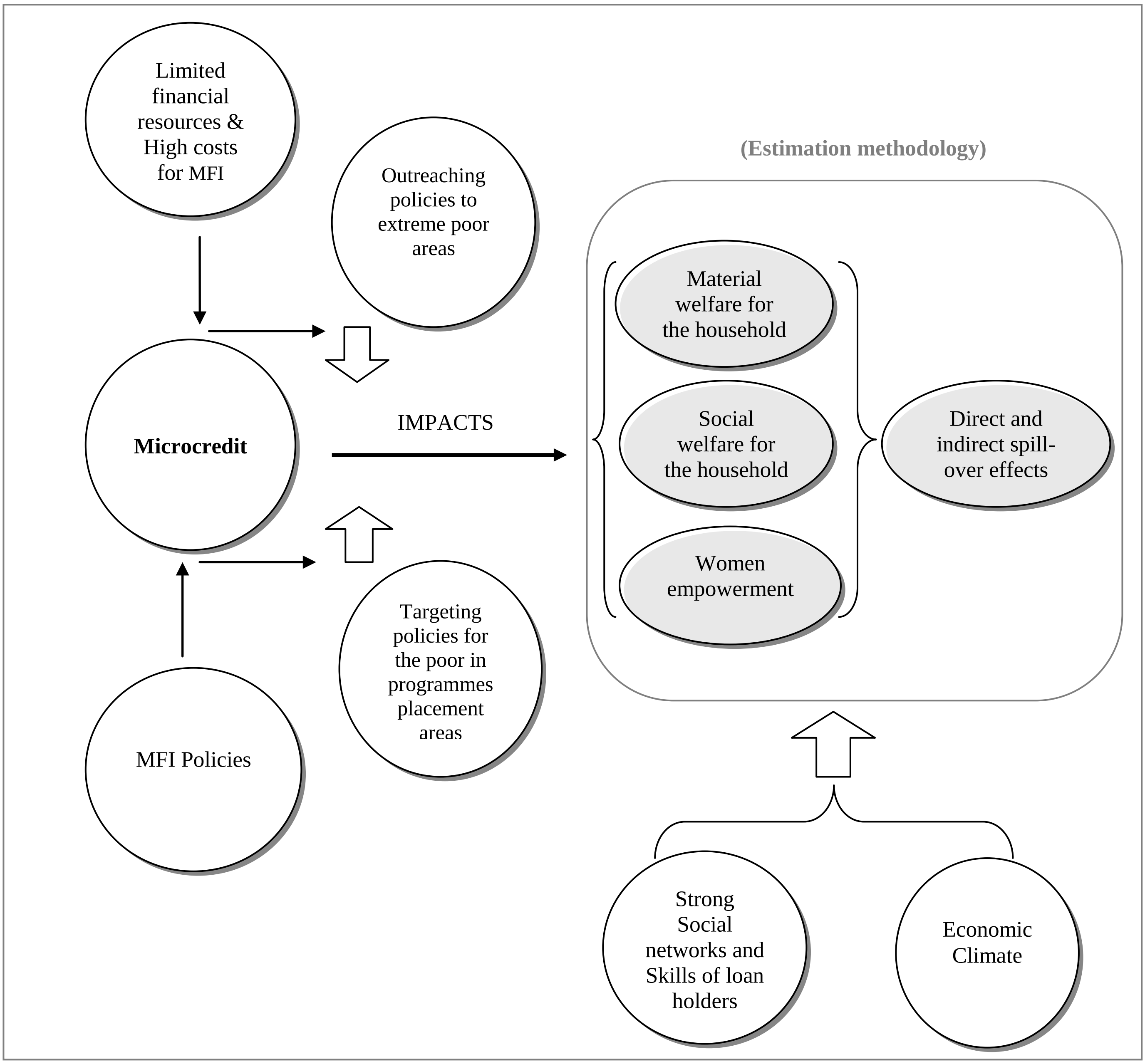

Figure 2.1: Theoretical Framework

However according to the literature these effects of microcredit varied according to the estimation methodology used in assessing microcredit programmes. Furthermore there are other contributing factors for the effectiveness of microcredit to take place. I can distinguish between two kinds of factors; internal factors and external factors. The internal factors are related to the MFI itself as represented in these institutions policies and different challenges they face. The high costs of the microfinance business and unsustainable financial resources hinder MFI outreaching policies to reach isolated and disadvantaged poor areas. In addition these institutions ongoing policies especially that for targeting the poor in programmes placement areas sometimes causes these loans to go to the more affluent instead of the real poor in these areas. Also as revealed from the literature review for examples targeting women not men don’t usually enhance the wellbeing of women otherwise it can deteriorate it. Hence these internal factors can cause these loans to end up in the wrong hands rather than the main target group required for these programmes to have a real impact on alleviating poverty.

The other set of factors are external and they are related to the general surrounding and environment where these programmes work. I can distinguish between two kinds of external factors; the first is related to the economic climate in general, for example it is very risky to establish a business in a stagnating economy. The second is concerned with the loan holders themselves, they should maintain basics skills, knowledge and social networks first to know about the microcredit programme and then to run their business successfully.

Chapter Three: Research design and method

3.1 Research area

This research will focus on greater Cairo in Egypt. Greater Cairo includes three Governorates namely Cairo, Giza, and Qalyoubia. According to the 2006 census, the population in greater Cairo is approximately 14.2 million (CAPMAS, 2006). Poor people living in slums or poor informal settlements, also known locally as "*ashwa'iyyat*" are estimated to range between 6 to 10 million people (Sabry, 2009). Although the poverty rate in Cairo is relatively low when compared to other governorates, it is estimated to increase from 4.6% in 2005 to 7.6% in 2015 because of the existence of these slums (UNDP, 2008).

In 2008 Egypt was the largest microfinance market in the Arab region with 1.3 million active clients and a gross loan portfolio of US$324 million (SANABEL, 2010). There are currently more than 300 organizations working in microfinance (MF) in the country (Wesselink, 2011). Among these institutions are big donors like USAID, World Bank, UNDP, and the Ford foundation and others that only give consultancy, training, technical support or other non financial services. Financial services offered by MFIs vary between credit, saving/deposits and insurance services; credit service is the most prominent form in all institutions while other services are restricted to formal financial institutions (Moussa, 2007). Financial services given to micro, small and medium enterprises are given to them in accordance to their size and business capital. According to the Small Enterprise Development Law No. 141 of the year 2004, there are two kinds of small and medium enterprises (SMEs), small enterprises are those with capital starting from 50,000LE, while micro enterprises, are those enterprises with capital less than 50,000LE (The Egyptian Parliament, 2004).

Of the 300 organizations working in microfinance in Egypt only 28 institutions provide loans directly to the participants without any mediators, 18 of them are located in greater Cairo.

3.2 Research design

In this research the quasi-experimental model is used to assess the microcredit programmes in Cairo. Among the different approaches of quasi-experimental methods, the control group method is the most widely method applied to deduce causal relationships where one population group which benefitted from microcredit; the "treatment group" is compared to another population group which did not – the "control group" (Mosley, 1998). These studies may depend either on cross-sectional data (e.g. see Morduch, 1998; Pitt and Khandker, 1998; Morduch, 1999) or on panel data (e.g. Khandker, 2003). According to the literature review, programmes impact assessments based on quasi experimental designs like the one used in this research are subject to two main sources of bias; program placement endogentiy resulting from the unobserved characteristics of the area where the microcredit programme is located and the self selection bias, in addition to the sample bias resulted from not including considering the drop outs as raised by Karlan (2001) and Gwendolyn & Karlan (2009). Not controlling for the selection bias can lead either to overestimation or underestimation of the impact of microcredit programme on recipients' welfare (Morduch, 1999). A way out to control for this kind of biasness is the choice of control group to be from new participants in the microcredit programme who presumably have similar characteristics to old participants (Hulme & Mosley, 1996). The same will apply when not controlling for program placement biasness where choosing disadvantaged areas as the location for microcredit program causes downward biasness, consequently a program in better infrastructure areas for example might cause estimates to be biased upward (Morduch, 1999). This kind of bias is controlled for in this research by using region fixed effects estimation, which treats the unobserved effects, resulted from non random program placement (region-specific error) as a parameter to be estimated (Pitt & Khandker, 1998; Wooldridge, 2003).

The methodology used in this study is based on cross sectional data and a quasi- experiment control group approach where two groups of loan holders have been selected; a treatment group includes old loan holders who have been taking loans for more than one year and a control group that includes new loan holders who have just join the microcredit program with loan duration less than one year. Kinds of bias will be considered in the econometric model used in assessing the impact of the loans on different socioeconomic indicators reflecting microcredit recipients' welfare status.

3.3 Sampling and data collection

Methods for data collection can be considered on a continuum with quantitative methods at one end of the spectrum and qualitative methods at the other while between these two methods are different combinations (Johnson and Onwuegbuzie, 2004). It is important that a researcher knows the characteristics of each method to better choose the optimal method to be employed. In this research a combination of both quantitative and qualitative methods will be employed when collecting primary data in order to enhance the validity of data and information collected and to better understand the impacts of microcredit programmes on individuals' welfare status. However before pursuing with the data collection method, a sample frame for the loan holder population from which the sample will be drawn should be first identified.

3.3.1Sampling

There are 18 organisations that offer microcredit in greater Cairo, they are three kinds of these organisations; quasi government, NGOs (national and international), and banks (public and private). There are two kinds of credit offered: interest credit and free interest credit. The breakdown of the 18 microfinance organisations in Cairo is provided in terms of their characteristics in Table 3.1 below.

Table 3.1 Distribution of microcredit organizations in greater Cairo

	Quasi-Government[1]	NGOs		Banks	
		National	International	Public	Private
Interest-based loans	1	7	3	4	1
Interest-free loans	0	1	0	0	1

A number of these microcredit organisations were contacted in order to take part in this research but only one micro-credit organisation in greater Cairo was willing and able to provide us with the data required to complete the analysis. This organisation was the First Foundation. Whilst this is a limitation of the research it should not detract from the value of

[1] This refers to The Social fund for Development (SFD), it is established as a social safety net and it receive funds from both the government and donor agencies mostly from World Bank (MOUSSA, 2007).

doing such analysis since the results are important, and potentially applicable to all microcredit organisations in greater Cairo.

First Micro Finance Foundation (FMF)

The First Micro Finance Foundation (FMF) was established in Egypt in 2005, its total outstanding loans reached roughly US$5 million by 2010 and includes arround166 employees. It is affiliated to Aga Khan Agency for Microfinance (AKDN), one of the biggest microfinance institutes that offer microcredit in many countries all over the world including India, Pakistan, Syria and a number of west African countries. Initiatives of this institution vary between village lending, regulated MFIs and full-fledged microfinance banks. In addition to providing financial services AKDN provide business or technical advisory services and business development programmes. In Egypt the FMF provides non-financial services to microfinance clients through its Business Development Services (BDS) Centre that was established under the Canadian International Development Agency's Cairo Economic Livelihood Project. It helps clients to establish a successful and rewarding business through providing them with necessary knowledge, guidance and business linkages that the enterprise needs to thrive in a competitive business environment. Since its establishment in 2009, BDS has provided financial education services to 2,878 clients especially to women who represent around 56% of the beneficiaries of such service.

Although FMF's operation in Cairo was disturbed as a result of the revolution on the 25th of January 2011 it has gradually recovered to its previous levels of portfolio quality, however the loan portfolio growth was down significantly when compared with past years (The Aga Khan Development Network, 2007).

In this research a cluster sampling approach was employed to reach a proportional representation of loan holders at the FMF. The foundation had a total of approximately 19,000 clients all over Egypt; 5411 are located in three main districts of Cairo: Darb Ahmar with total of 1416 clients, Gamlyia with 2973 clients and Manshyiet Naser 1022. Out of a master sample of around 1075 clients from the three districts the sample has been selected to be proportionately reflect the geographical distribution of the clients.

The selected sample was 180 clients. It consisted of two groups of clients; new clients representing the control group (those who have been taking microcredit for less than a year), and old clients representing the treatment group (those who have been taking microcredit for more than one year). Given the total population of FMF clients in Cairo this sample provide a confidence level of 95% and confidence interval of 7. The samples have been selected randomly using the sampling tool in Excel data analysis tools.

3.3.2 Data collection

In this research three types of data collection methods were used:

1. Secondary sources

Reviewing previous studies on microcredit programmes in Egypt and other countries provided a good background for understanding these programmes; their impact assessment techniques; and the kinds and content of surveys and questionnaires used in research of this nature. However as mentioned by Crawford (1997) the information in these sources was not taken as axioms, and they were considered carefully for any conceptual differences or measurements errors or even invalid or old references.

2. In-depth interviews

In-depth interviews with social and economic experts were conducted in order to obtain a better understanding of the microfinance industry in Egypt. Three in-depth interviews were conducted with experts in social science and field work. The first in-depth interview was with a professor in social science and a consultant at the Egyptian Cabinet Information and Decision Support Centre, Dr Saeed El-Masry. In this interview we discussed the issue of microcredit and the possible social impacts especially on women taken in consideration the eastern cultural view that the man is the bread winner. The other two in-depth interviews were with experts in field work surveys, Dr. Hanan Girgis Operation Manager in “Bassera” - a public opinions poll centre - and a former executive manager for population and development policies project, and Dr. Kamal Selim, Professor in the Computer department at the faculty of Economics and Political Science in Cairo University. During these interviews we also discussed the design and structure of the questionnaire and as a result I made some enhancements and edits on the final questionnaire structure and content.

3. Survey research

In this research two research surveys were conducted: a MFIs survey and a household survey. The purpose of each survey was different as the institution survey was a semi structured questionnaire while the household survey was a structured one. The following gives more details on each survey.

<u>Institution survey</u>

Semi-structured interviews were conducted with key informants in some MFIs in order to obtain some information about microfinance such as the criteria in defining those eligible for the loans, the value of the loans, the conditions for getting the loan and the follow up procedures whether it is just for repaying the loan only or also monitoring the usage of the loan.

The main purpose of the survey was to collect information about the main features of the loan programmes. Another important aspect was to investigate the financial sustainability of these institutions.

Among the list of the 18 organizations working in great Cairo in the field of microcredit, only three organizations agreed to do the interviews; Alshanek ya Balady(AYB), the Lead foundation (LF) and FMF.

Field visits were undertaken to these three organisations offices after setting appointments. The ‘LF’ office is located in the Mohandessen district of Cairo while the FMF and AYB are located in the Maadi district. The three organisations have mostly women clients and they give both micro- and small loans. The “LF” also however gives group lending. This research was primarily concerned with individual microcredit and not group lending so the focus of the interviews was to explore the difference between these institutions with regards to individual microcredit in order to get the institutional perspective of these loans.

The semi structured questionnaire included five main sections; the first inquiring about the main features of the microcredit programmes offered by each institution, the second inquiring about the eligibility criteria for the clients, a third section inquiring about loan usage restriction and insurance arrangements, the fourth section inquiring about the monitoring procedures for loan usage and repayments and the fifth section inquiring about the institution performance and sustainability indicators. A copy of the questionnaire is included in Appendix 1.

Household survey

Structured interviews were held with the selected participants in order to collect data on different social and economic conditions of the loan holders. This kind of structured interviews is good for quantitative research since as mentioned in Bryman (2008, p. 194) it "promotes the standardization of both the asking and recording of questions". This can reduce the error that may be caused by the variation in the questioned asked and increase the accuracy in processing the participants' answers as well. The questionnaire was modified in some parts to be more relevant for the objectives of this study.

The questionnaire for loan holders contained 5 sections; section one included information on loan holder demographics, and loan holding history; section two included information on the loan characteristics, features and usage; section three included information on the impact of the loan on the loan holders' business; section four included information on the impact of the loan on the welfare status of the household and section five included information on the level of satisfaction about the loan programme. A copy of the questionnaire is included in Appendix 2.

The data collection process in the field took approximately three months to complete. Before going to the field two day training sessions were conducted between the main researcher and three other research assistants who helped in collecting the data. The first session was around 3 -4 hours long, and involved a detailed explanation about the purpose of the research and its objectives. The questionnaire design, logic and sequence of questions were also discussed and its purposes were explained. During these sessions some inquires and inconsistencies in the design of the questionnaire were uncovered and these were corrected when compiling the final draft. Further discussions took place on the nature of the people in these areas and the cautions and ethics that should be considered in addressing them. Since these areas are famous for violence it was very critical to stress the most appropriate ways to address people there. The second session was held two days after the first session where the researchers had time to practice and train on the questionnaire after editing it and the session was spent role playing where each one asked questions and the other acted as the respondent.

There were two rounds for data collection in the sampled areas; the first round was the pilot testing phase. Piloting ensures that the survey questions and research instruments as a whole operate well. The team gathered 15 questionnaires and problems were discussed. Two kinds of problems emerged during the pilot test; one concerned the question in the questionnaire pertaining to the previous credit status of the loan holder as well as the question asking for further information on the kind of business they work in. The other problem was with the interaction with the people themselves as from the first round it was found that in some cases women loan holders took loans behind the back of their husbands and they took us away to answer the questionnaire, in one of the cases when her husband found out he beat her and kicked out the researcher. Accordingly, we decided to ask at the beginning if the person (especially women) is a loan holder or not although we are sure that she is yet it was to give the woman the opportunity to decline in case their family or husband don't know that she is.

Two cases told us to meet them in other place away from home since her family don't know she is a loan holder.

Also in the third round there were some replacements in the field work team so one further role playing training session is conducted with the new team. The second round started were the rest of the questionnaires has been collected peacefully in the three districts.

3.2.2 Data analysis

The analysis of quantitative data occurred in three main steps: data preparation, descriptive statistics and inferential statistics (Trochim, 2006). The following explains each step.

- Data preparation

The first stage in the research data analysis was the data preparation; where information and data collected was logged, coded and organised in a database. This step was done using Survey Xact, which is a web surveying tool offered by the University of Agder. This tool was very helpful in organising the data and obtaining an insight regarding the main characteristics of the sample. First I entered the questions in the system then I entered the answers for each respondent, this tool enabled me to get a standard report analysing the main features of the sample answers and some aggregations.
The second step in the data preparation phase was to code the categorical variables into binary variables to be used in the regression analysis, like respondents perceptions on their quality of food they can consume after taking the loan; feelings of independence; meeting family needs; their children's educational level, and ability to spend income on medicine and health. These variables were measured in the questionnaire using a Likert scale to indicate their agreement or disagreement with statements inquiring if they feel these conditions are better, same or worse since the provision of the loan.

- Descriptive statistics

The second stage was to get some descriptive statistics for the data gathered. This stage is important for two reasons; the first is to test the variation and dispersion in the sample which provides an indication of the existence of outliers that could negatively affect the results of the analysis The second is it gives us quantitative description for the kind of relationships and correlations that exist between different variables that will be used in the regression analysis. This step was done using statistical analysis programme, Stata10.

- Inferential statistics

The last stage in the quantitative analysis was inferential statistics. This equates to the use of inferential statistics to evaluate the microcredit programs against their primary goal, which is to enhance poor peoples' welfare as measured by various socioeconomic indicators like income, expenditure, and education. This was undertaken by fitting regression equations to capture the impact of microcredit on three different levels; the household welfare level - as reflected in household income, expenditures and their perceptions on their spending on food quality, education and health. The individual welfare level - as reflected in their sense of independence, meeting family needs and harmony in their families especially for women. The final level is the economic level - as reflected on the ability of these loans to enable loan holders to maintain a sustainable business and add value to the broader economy.

The impact evaluation is measured using a regression framework similar to that in Coleman (1999); Montgomery (2005); and Kondo (2007). More precisely the following equation is estimated for the dependent variable

$$y_{ij} = F(\beta_1 M_{ij} + \beta_2 X_{ij} + \beta_3 D_j + \beta_4 P_{ij} + \varepsilon_{ij})$$

Where:

Y_{ij} = outcome of interest
X_{ij} = Household characteristics
D_j = District characteristics (Gamlyia, Darb Ahmar and Manshyia)
M_{ij} = Treatment dummy variable equals1 if participant is an old loan holder who has taken loans for more than one year; 0 otherwise
P_{ij} = Program availability in the area (i.e., number of years that the programme has been operating in the district)

Depending on the nature of the dependent variable of interest, the F() function can be linear or non- linear as is cases of binary variables . The following framework handled the three main sources of biasness in programmes impact assessments. The self-selection bias is controlled for by choosing a control group from the new loan holders in the institution that have recently took the loan from less than a year who would presumably share the same unobserved characteristics as the treatment old loan holders group. This is reflected by using the dummy variable reflecting membership in the institution M_{ij} . The non-random programme placement bias is controlled for by using district characteristics or fixed effects estimation D_j for the districts subject of research in this study. While the bias resulting from not including dropouts is controlled for by including some dropouts as urged by Karlan (2001) (roughly 12% of the sample are dropouts).

Variables used in impact assessment of microcredit programme

In this study the impact of microcredit is conducted on three different levels: first the impact of microcredit on household wellbeing in general. In the literature this is captured by assessing the impact of microcredit on the material welfare level and social welfare level; the material welfare level entails measure on two main variables; average income and average consumption or expenses of the household (Khandker, 1998, 2003; Morduch, 1998; Mosley, 2001; Mustafa et al., 1996). They considered consumption as a better indicator of poverty than income (Husain 1998). Since consumption is considered a better welfare indicator capturing long-run welfare levels compared to income that can be subject to seasonal fluctuations (World Bank, 2000). However since these programmes main target is not just to enable these household to enhance their income or consumption level but their social wellbeing as well, changes in socioeconomics indicators are used to test the benefits of joining micro credit programmes such as the impact of these programmes on the health of the household, and children's schooling and nutrition (Zaman, 1999; Khandker, 1998). In this study the perception of respondents on the quantity and quality of food used by the household, the level of their expenditure on medication and health of their households, as well as the level of their children education was used to get a rough idea about the impact of microcredit on a household’s welfare level.

The second level is assessing the microcredit impact on individual welfare level as reflected on the loan holders' perceptions of the quality of the life especially that of women and their sense of empowerment. These are usually qualitative variables extracted from questions about women sense of self-esteem and role in decision making in the household (Hashemi et al., 1996; Schuler et al., 1997; Husain, 1998; Morduch, 1998; Zaman, 1999; Nader 2008; PlaNet 2008).

The third model assessed the impact of the microcredit programme at the economic level, that is, to assess the ability of these microcredit programmes to enable the loan holders to sustain their businesses; make profits, reinvest and enlarge their business, hire workers and benefit the economy overall (PlaNet, 2008). Accordingly three main variables are used to evaluate the impact of loans at the economic level in this study: the average profits of each loan holder business, the change in the business capital and ability of the loan holders to reinvest in the business.

According to the existing literature the impact of microcredit is usually assessed using a set of explanatory variables including the type of loan holder [whether the person is an old client in the institution (more than one year loan holder) or new client (less than one year loan holder)] and a set of control variables of main characteristics of the loan holder; age, marital status, gender, size of the household, education in addition to variables controlling for regional difference. The impact of being more than one year old client in First Foundation is tested in addition to a list of explanatory variables to control for household characteristics (household size, education, marital status, etc,…). Respondents of this sample have further characteristics like they differ in their sources of income where 57% of them have other sources of income rather than the business that is financed by the loans, and the business age. Furthermore two other variables were included to control for discrepancies between regions and institution branches age. More explanations and descriptions for the data set that will be used in the regression; dependent and explanatory variables will be displayed in the coming chapter.

Chapter 4 Empirical findings

This chapter includes three main sections: the first outlines the main characteristics of the study sample; the second contains a description of the data and analysis, while the regression results are provided in the third section.

4.1 Characteristics of the sample

Out of 180 only 159 questionnaires were completed and the rest either refused to complete the questionnaire or could not be reached. Approximately 67% of the respondents were from Gamliyia, 21% were from El Darb El-Ahamar and 12% were from Manshyet Naser. Coinsidering the type of the loan holders, roughly 55% of the respoindants were old clents who took loans from more than one year, and 45% were new clients who had joined the programme for less than a year. Females represented 74% of the sample (117 women) and males 26% (42 men). This coincided with the population characteristics that these types of institutions are targeting as femles generally represent between 75-80% of their clients. Table 4.1 (below) indicates that the majority of men were old clients (60%) while the majority of women were new clients (62%)

Table 4.1: Relation between gender and type of loan holder

Gender	Type of loan holder		Total
	New	Old	
Male	17	25	42
Female	72	45	117
total	89	70	159

According to Table 4.2 below, more than a third of the sampled clients were aged between 31-40 years (33%), while 27% were aged between 41-50, 17% were older than 50 years and 23% between 20-30 years. According to Table 4.3, only 5% of the clients had a university education, 32 % had medium-technical education, approximately16% had less than a primary school education and 12% were not educated. Of the 19 uneducated loan holders 18 were female, while the majority of both male and female have finished medium-technical education, 23 and 28 respectively.

Table 4.2: Relationship between gender and age

Gender	Age categories					Total
	<20	20-30	31-40	41-50	>50	
Male	0	5	12	11	9	37
Female	0	29	36	29	16	110
total	0	34	48	40	25	147

Table 4.3: Relation between gender and education

Gender	Education category							Total
	Not educated	Less than primary	Primary	Preparatory	Medium-technical education	Above Medium-technical education	University	
Male	1	2	6	4	23	1	4	41
Female	18	23	19	25	28	0	4	117
total	19	25	25	29	51	1	8	158

Table 4.4: Relation between gender and martial status

Gender	Marital status					Total
	Not married	Married	Divorced	Separated	Widow	
Male	3	37	1	1	0	41
Female	9	94	3	6	5	117
total	12	131	4	11	1	159

Roughly 82% of the sample were married (see Table 4.4). The average household size of the study sample was four, while 30% of the sampled households had more than two children aged less than 18 years, 22% of respondents had three children and 5% had more than four children. Roughly 65% of the respondents were working before they took the loan (see Table 4.5 below). The majority of loan recipients work in trade, women as “dalalah” which is passing by homes to sell products, cloths and electrical machines.

Table 4.5: Relation between type of loan holder and having a previous job

Having a job before the loan	Type of loan holder		Total
	New	Old	
Having a previous job	40	2	42
Don’t have a previous job	64	53	117
total	104	55	159

Roughly 83% of the respondents took the loan to expand their business; while 15% wanted to start a new business and 2% took out the loan in order to meet financial obligations (see Figure 4.1 below)

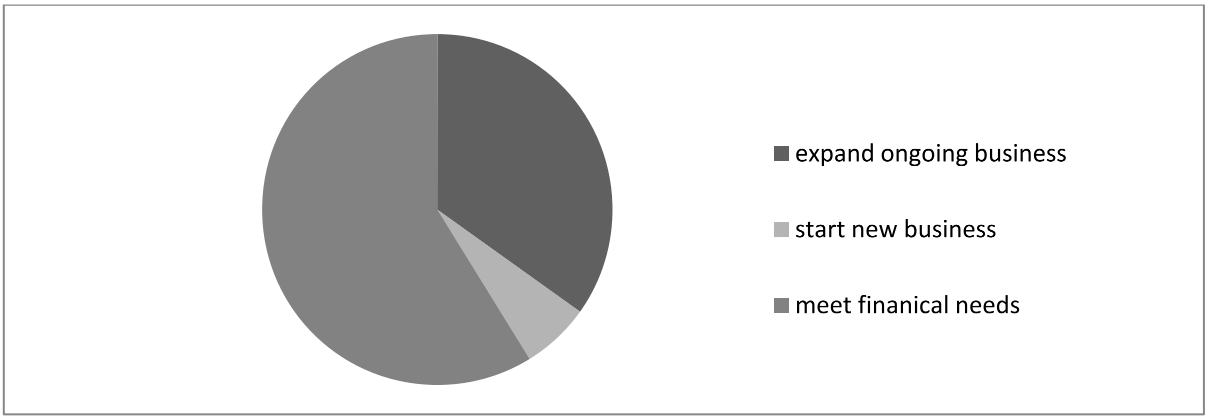

Figure 4.1: Reasons for taking the loan

Roughly 61% of old loan holders considered the business financed by the loan as their main source of income while that was not case with new loan holders, where only 28% considered their business as the main source of income (see Table 4.6 below).

Table 4.6: The relationship between type of loan holder and whether the business is the main source of income

Business main source of family income	Type of loan holder		Total
	New	Old	
yes	25	43	68
No	64	27	89
total	89	70	159

The percentage of females who did not consider business as their main source of income is much higher than males (see Table 4.7 below). Approximately 40% of respondents state that their husbands' work is the main source of income for their household

Table 4.7: The relationship between gender and whether the business is the main source of income

Project main source of family income	Gender		Total
	Male	Female	
yes	30	38	68
no	12	79	91
total	42	117	159

Roughly 76% of the study sample works in the trade sector (as shown in Figure4.2), 11% in industry in crafts and handmade accessories, 6% in services and 7% have no business.

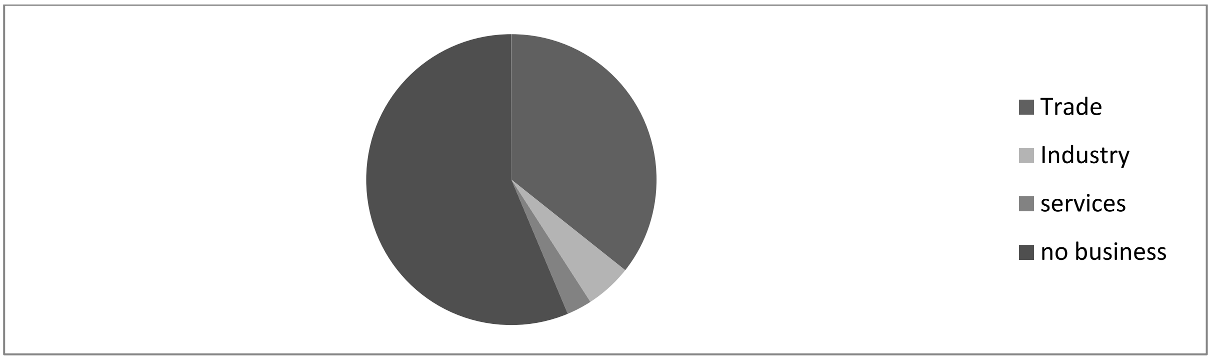

Figure 4.2: Distribution of sectors of business for loan holders

4.2 Data and method

In this study the impact of microcredit is conducted on three different levels; First the impact of microcredit on household wellbeing was assessed by studying the impact on: average income and average consumption or expenses of the household, the perception of respondents on the quantity and quality of food used by the household, the level of their expenditure on medication and health of their households, as well as the level of their children education. Second the impact on individual welfare was assessed by studying the impact of microcredit on three variables; respondents' perception about the frequency of conflicts in the home, feelings of independence and meeting their family needs. The third is an assessment for the impact of the microcredit programme on the economy and is assessed through examining the impact on three variables; the average profits of each loan holder business, the change in the business capital and tendency of loan holders to reinvest in the business.

Identifying the final set of variables to be included in the regression analysis required examining the quality of the data collected by identifying outliers and missing values as well as determining the kind of relationships between the different variables. I was also wanted to identify the explanatory variables that best related to the dependant variables.

4.2.1 Descriptive statistics

The descriptive analysis for the independent variables that were be used in the analysis is presented in Table 4.8. Roughly 44% of the sample was old clients at the FMF. The average household size is four people. On average respondents have completed the preparatory level in education, which is the 4th level in the categorical variable "education". Most recipients are married (2nd category in marital status variable) and are in the 3rd age category which is between 31-40 years old. On average 60% of the sample have other sources of income rather than the business financed by the loan and their business age is five years old on average. The average life of the institution branch is six years which is for the “Gamalyia” branch where 67% of the respondents in the sample are located. There is no wide dispersion in the variables as indicated by the small values of standard deviation which also suggests a lack of outliers.

Table 4.8: Descriptive statistics for independent variables for respondents

Variable	Mean	S.D	Min	Max
Type of loan holder	0.44	0.5	0	1
Age	3.4	1.02	2	5
Marital status	2.1	0.6	1	5
education	4	1.6	1	7
gender	1.7	0.4	1	2
Household size	4.2	1.5	1	8
Other sources of income	0.6	0.5	0	1
Business age	5	2	1	7
Institution branch age	6	1	5	9

Correlations between the independent variables were undertaken to test for multicollinearity. There are different types of independent variables which require the usage of different types of methods to test for correlation. These include interval variables such as business age, household size and institution branch age; ordinal variables such as age, education and marital status; and dichotomous or dummy variables including client age in the institution, gender, and other sources of income.

The relationship between the interval variables[2] can be tested using either a scatter plot or *Pearson’s r method*. According to the latter method, the closer the person’s coefficient is to 1, the stronger the relation between the variables. The Person’s r correlation matrix is shown in Table 4.9 and shows a very weak positive relationship between household size and both business age (0.06) and institution branch age (0.11), while a stronger relationship exists between the institution’s branch age and business age (0.23) implying that the older the branch is the longer the business age of the respondent.

Table 4. 9: Correlation matrix for interval independent variables

Variable	Household size	Business age	Branch life
Household size	1		
Business age	0.06	1	
Branch life	0.11	0.23*	1

NOTE: *p<0.01

To test the significance of these results a one way *Anova test* was run which shows a non-significant relationships between differences in household size in both the business age and institution branch life. While a significant relationship exists between business age and institution branch life at a 99% confidence level (p=0.01). However the relationship was not found to be not that effective by calculating *“eta”*. As indicated in (Bryman 2008), the closer the “eta” coefficient is to 1 the more effective the relation is. eta^2 =0.05, eta = 0.22 where 22% of variance in business age is explained by the branch age.

[2] Interval or ratio variables are variables where distance between categories are identical across the range of categories (Bryman, 2008)

To examine the relationship between the dichotomous and interval or ordinal variables[3] *Spearman's rho test* was used. Like the Person's r method, the closer the Spearman's rho coefficient is to 1 the stronger the relationship between the variables. As presented in Table 4.10 the strongest positive significant relationship was found to be between marital status and age (0.47). A strong positive relationship was also found between business age and client age in the institution (0.43) where clients older than one year old in the institution have more permanent or lasting business age. However negative significant relationships were found between age and education (-0.38) the older the client in age the less education he/she has, a negative relationship was also found between gender and education (-0.36) as previously shown in Table 4.3. Almost all the uneducated respondents were females. Additionally a negative significant relationship was found between marital status and education (-0.32) and between business age and the existence of other sources for income (-0.31) which implies that loan holders with longer business age have no other sources of income rather than their business.

Table 4.10: Spearman correlation matrix for independent variables

Variable	Type of loan holder	Age	Marital status	Education	Gender	House hold size	Business primary source of income	Busin ess age	Branch age
Type of loan holder	1								
Age	0.12	1							
Marital status	-0.02	0.47**	1						
Education	-0.04	-0.38**	-0.32**	1					
Gender	-0.18**	-0.15	0.07	-0.36**	1				
Household size	0.07	0.18**	-0.09	-0.07	0.06	1			
Other source of income	NA	-0.17*	-0.12	-0.02	NA	0.11	1		
Business age	0.43**	0.23**	0.15*	-0.02	NA	N.A	-0.31**	1	
Institution branch age	0.12	0.13	0.12	-0.05	-0.07	NA	-0.08	NA	1

NOTE: **correlation significant at 0.01level; *correlation significant at 0.05 level

Additionally two dummy variables have been extracted to be included in the list of independent variables representing the region from where the client comes from. Table 4.11 shows the final list of independent variables to be included in the regression analysis after omitting the most highly correlated variable which is business age.

[3] Nominal and ordinal variables are categorical variables the only difference is that ordinal variable can be ranked ordered while nominal cannot , while dichotomous variables are variables containing only two categories like gender (Bryman, 2008)

Table 4.11: List of independent variables to be used in the regression models

Explanatory variables	Definition
Type of loan holder	Dummy variable= 0 if the respondent is less than one year old in the institution and = 1 if more than 1 year
Age	Categorical = 1 if less than 20 years old, 2 if from 20-30 years, 3 if from 31-40 years, 4 if from 41-50 years, 5 if more than 50 years old
Marital status	Categorical: 1 if not married, 2 married, 3 divorced, 4 separated, 5 widow
Education	Categorical = 1 if not educated. 2 if less than primary, 3 primary , 4 preparatory, 5 Mediterranean ,6 above Mediterranean, 7 University
Household size	Number of people living together inside the household
Gender	Dummy = 1 if the respondent is male, and = 2 if it is a female
Other sources of income	Dummy =0 if the business is the main source of income , = 1 if the business is not the main source of income and there is another source for family income
Institution Branch life	Number of years since the establishment of the institution branch in the area
gamlyia	Dummy = 0 if the respondent from gamlyia, =1 if not
manshyia	Dummy = 0 if the respondent from manshyiet naser, =1 if not

Before pursing with the regression models the dependent variables were examined. Like the independent variables, the dependent variables are either interval; average income, total expenditure, change in business capital and profits average of the loan holder business, or categorical (better, same, worse) reflecting respondents' perception on: quality and quantity of food, children education, medication and health improvement, conflicts inside the household (a proxy for harmony inside the family), feeling of independence and ability to meet family needs. The interval variables were explored and cleaned from outliers and missing values. The first step was to explore the data and solve for outliers and missing values. The box plots for the set of interval variables; average income, profit average, change in business capital, average total expenses, shows the existence of outliers (see Figure 4.3 below).

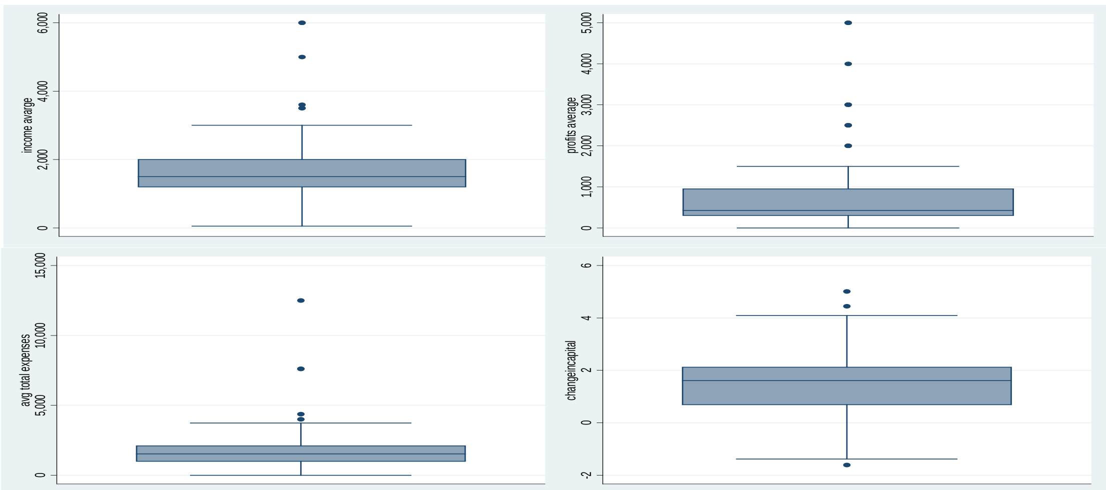

Figure 4.3 Box plot for main interval variables with outliers

In the analysis, log transformations were used to normalize the data and reduce the effects of the outliers among the dependent variables. However after these attempts there were still some variables with extreme values (see Figure 4.4 below). To solve this problem, the median of the data suffering from outliers was used to overcome the distortion in data distribution.

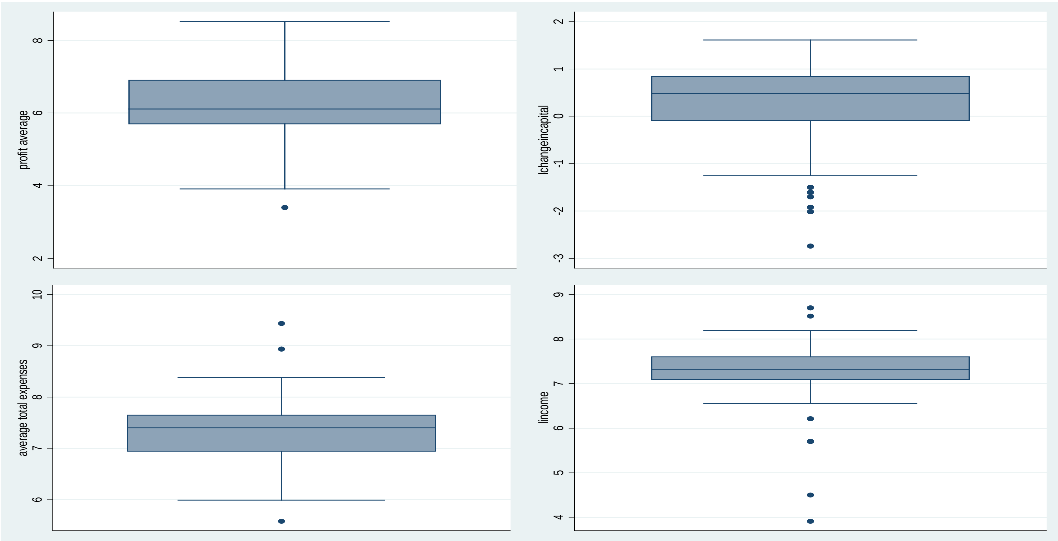

Figure 4.4: Box plot for interval variables after log transformation

Further dependant categorical variables were coded and transferred into dummy variables. The list of all the dependant variables used in the regression models is represented in Table 4.12 below.

Table 4.12: List of dependent variables used in the regression models

Dependant variables	Definition
Income per capita	Log (Average income / household size)
Average of total expenditure per capital	Log (Total average of expenditure per month on food, education, medication, cloth, electricity, gas, transportation, house rent, loans instalments and any other expenses/ household size)
Respondents' perception on the quantity and quality of food and beverage after the loan	Dummy = 1 if respondent perception that the quantity and quality of food is better and 0 if it is the same or worse
Respondents' perception on their expending on medication	Dummy = 1if the respondent perceive that he/she can spend better on medication and health, and 0 if it is the same or less
Respondents' perception on their children education level	Dummy =1 if the respondent feel their children education is better and = 0 if he/she feel it is the same or worse
Respondents' perception about Conflicts frequencies inside the family	Dummy =1 if the respondent feel conflicts are less and =0 if he/she feel it is the same or worse
Feeling independence	Dummy =1 if the respondent feels independent and =0 if not
Meeting family needs	Dummy =1 if the respondent feel he/she can better meet the

	family needs and = 0 if the ability is the same or worse
Profits average	Log (Total profits per each respondent / number of respondents)
Business current capital	Log (business current capital)
Tendency to reinvest	Dummy =0 if there is no tendency to reinvest part of the profits in the business and =1 if there is tendency

4.3 Empirical analysis

4.3.1 Studying the impact of microcredit on household welfare level

In order to assess the impact of microcredit on the wellbeing status of loan recipients' households a total of five regression models were run. First, two ordinary least square (OLS) regression models were employed to study the impact of microcredit on income per capital and expenditure per capita. While three logistic regression models were then run to test the impact of microcredit on respondents' perception on the quality and quantity of food; the perception on education level of the children and perceptions on medication and health improvement. The results of regression can be prone to bias due to certain hidden relationships occurring between independent variables and other unobserved factors, a problem known as heteroskedasticity[4] (see Mosley, 1998). In order to get more efficient estimation results all regression models were corrected for using heteroskedasticity-robust standard errors. The results of the first set of OLS regression models after correcting for heteroskedasticity are presented in Table 4.13

Table 4.13: OLS regression results studying the impact of microcredit on income and expenditure per capita

	OLS regression	
	Income per capita (A)	Expenditures per capita (B)
Type of loan holder	0.15 (0.01)***	0.25 (0.01)***
Age	0.12 (0.00)****	0.07(0.07)*
Marital status	-0.10(0.05)**	0.01(0.88)
Education	0.06 (0.00)****	0.02(0.35)
Household size	-0.16(0.00)****	-0.15(0.00)****
Gender	.040(0.53)	-0.19(0.14)
Other sources of income	0.14(0.01)***	0.25(0.01)***
Branch life	0.10 (0.00)****	0.07(0.06)*
Gamlyia	0.28(0.00)****	0.28(0.01)***
Manshyia	0.41(0.00)****	0.45(0.01)***
constant	5.11(0.00)****	1.92(0.00)****
R^2	0.43	0.29
F probability	0.000	0.00

NOTE: **** p<0.001, ***p<0.01, **p<0.05, *p<0.1; p values in parenthesis

Results of the first regression model (A) and second regression model (B) are significant at the 99% confidence level (p=0.00) where the set of explanatory variables used explains 43%

[4] Heteroskedasticity is the case when the variance of the unobservable changes with different values of the explanatory variable (Wooldridge, 2003)

of the variation in income per capita (r^2=0.43) and 29% of the variation in expenditures per capita (r^2=0.23). However microcredit has a higher significant positive impact on expenditure per capita more than on income per capita, as implies by the results in model (A) older loan holders have a predicted income about 0.15 point higher than new loan holders who spend less than a year in the institution, while as per model (B) results, old loan holders have a predicted expenditure 0.25 point higher than new ones.

The impact of microcredit on income and expenditure is not totally reflected on the respondents' perceptions. While loan holders feel that there are enhancements in their ability to buy more food with better quality, and spending more on improving their children's education level, they don't perceive any enhancement on their ability to expend on medication and health improvement. Table4.14 presented the results of Models (C-E) indicating these findings. Worth mentioning in this regards that getting a significant overall model fit[5] for these models can be reached after omitting the variable "branch life" from the explanatory variables. Results of the logistic models (C) is significant at the 95% confidence level (p=0.04), where model (D) is significant at the 99% confidence level (p=0.04), and model (E) the less in significance (p=0.1). Although the explanatory variables here don't explain much of the variation in the dependant variable (see models C-E) but as Wooldridge (2003) observes, R^2 may not be high in social science due to the existence of other confounding factors.

Table 4.14: Logistic regression results study the impact of microcredit on loan holder perception on quality of food, children education level and expenditure on medication

	Logistic regression		
	The quality and quantity of food and beverage (C)	Spending on medication and health (D)	Children level of education (E)
Type of loan holder	1.00(0.01)***	0.63(0.12)	1.03(0.02)**
Age	0.01(0.95)	-0.26(0.27)	0.35(0.17)
Marital status	0.48(0.14)	0.69(0.04)**	-0.04(0.92)
Education	0.16(0.26)	0.13(0.33)	0.41(0.01)***
Household size	0.35(0.01)***	0.47(0.01)***	0.69(0.00)****
Gender	0.39(0.42)	0.67(0.20)	0.96 (0.10)
Other sources of income	0.92(0.03)**	0.22(0.59)	0.85(0.05)**
Gamlyia	0.57(0.23)	0.65(0.23)	1.41(0.01)***
Manshyia	-0.36(0.59)	-0.11(0.87)	-0.18(0.80)
constant	-5.19(0.01)***	-5.4(0.01)***	-9.6(0.00)****
Wald chi2(9)	17	16	25
Pseudo r^2	0.14	0.11	0.22
Chi^2 probability	0.04**	0.06*	0.00****

NOTE: **** p<0.001, ***p<0.01, **p<0.05, *p<0.1; p values in parenthesis

Microcredit enhances the probability that loan holders perceive improvements in the quality and quantity of food and their children educational level. According to the regression results, being an older loan holder significantly increase the probability of perceiving improvement in quality and quantity of food by 100% and the probability of perceiving improvement in the

[5] Insignificance of overall model fit means that there is no evidence that at least one of these independent variables used predict changes in the dependant variables. This might be cause by either self-selection bias or inclusion of irrelevant variables over specifying the regression model or the omission of other relevant variables (Wooldridge, 2003).

children education level by 63%. Meanwhile microcredit was insignificantly affecting the probability of perceiving improvement in spending on medication and health. This result can be further verified using Table 4.15 below which shows the results of the question asking respondents on their perception about their ability to spend on medication to indicate whether it is better improved or the same or is worsened. The majority of old loan holders don't perceive any enhancements in their expenditure on medication and health improvement because of the loan (41 out of 70 old loan holders).

Table 4.15: The relationship between kinds of loan holders and expenditure on medication

Spending on medicine	Type of loan holder		Total
	New	Old	
No. of respondents indicates improvement in spending abilities	34	29	63
No. of respondents indicates no improvement in spending abilities	48	41	89
No of respondents indicates deterioration in spending abilities	3	0	3
Total	85	70	155

Another notable finding is the non-significance of gender in all regression models (A-E) which contradicts previous research (see Zaman 1999; Pitt et al. 1999; Pitt et al. 2003) where female was found to be more efficient compared to males in managing the loan and expending on their children education and health. However in this sample the majority of females are new clients which can be a reason for not be that efficient in managing the loan compared to males which represent the majority of old clients (see Table 4.1).

4.3.2 Studying the impact of microcredit on individual welfare level

Logistic regression models were employed to assess the impact of microcredit on the wellbeing status of the loan recipients, especially that of women. Three logistic regression models were run to test the impact on three dependant dummy variables which are respondents' perceptions of: A) conflicts in their household, B) empowerment and feelings of independence and C) the ability to meet family needs. As in the previous section all regression models are corrected for heteroskedasticity using heteroskedasticity -robust standard errors. Table 4.16 presents the results of the different regression models (A-C). Worth noting here is that like in the previous case "branch life" variable caused the models to be non-significant. However even after removing this variable the models testing the impact of conflicts inside the household, and ability to meet the family needs remains non-significant. Significant models can be further obtained by omitting "age" variable from the explanatory variables.

According to the logistic regression model (A) microcredit increases the probability that loan holders perceive an improvement in harmony inside the household (as measured by the perception of conflicts frequencies). The older the loan holder the higher the probability of enhancement in harmony inside the family, where changes in loan holder type significantly increased the probability of less conflicts occurrence by 95% (p=0.02). Moreover female loan holders perceive that conflicts decrease inside their households after the provision of a loan.

Being a female caused the probability of perceiving less occurrence of conflicts inside the household to increase by 83% however it was only significant at 10% (p= 0.06)[6].

Table 4.16: Logistic regression results study the impact of microcredit on loan holder perception on conflicts inside the household, independence, and ability to meet the family needs

	Logistic regression		
	Conflicts inside the household (A)	Independence (B)	Ability to meet family needs(C)
Type of loan holder	0.95(0.02)**	1.01(0.01)***	1.39(0.00)****
Age	NA	-0.06(0.78)	NA
Marital status	0.16(0.56)	-0.12(0.97)	0.22(0.41)
Education	0.31(0.02)**	0.05(0.71)	0.14(0.22)
Household size	0.18(0.17)	0.02(0.83)	-0.036(0.75)
Gender	0.83(0.06)*	0.43(0.40)	-0.08(0.85)
Other sources of income	0.58(0.13)	0.85(0.03)**	0.73(0.06)*
Gamlyia	-0.39(0.38)	1.25(0.01)***	-0.24(0.56)
Manshyia	-1.08(0.12)	-0.41(0.54)	-1.10(1.63)
constant	-4.9(0.00)****	-2.2(0.21)	-1.64(0.23)
Wald chi2	16	18	16
Pseudo r^2	0.09	0.10	0.08
Chi^2 probability	0.03**	0.03**	0.03**

NOTE: **** p<0.001, ***p<0.01, **p<0.05, *p<0.1; p values in parenthesis

Equivalent results can be derived from regression models (B) where microcredit enhanced loan holders’ perception on feelings of independence. According to model (B) being an old loan holder has a significant positive impact on perceptions of independence (p= 0.01), in other words microcredit enhances the probability of independence perception by 101%. Additionally old loan holders feel that they can better meet their family needs, where microcredit increased the probability of meeting family needs by 139% (p=0.00). However a strange finding is the non-significant impact of gender on perceptions of independence. This is a strange finding when compared to other similar research where usually female respondents feel more independent (especially women) (see Hashemi et al. 1996; Schuler et al. 1997; Husain 1998; Morduch 1998; Zaman 1999). But this might return to the fact that the majority of females were new loan holders with less than one year with loans hence the impact is not effective(see Table 4.1). Table 4.17 shows the relationship between gender and feelings of independence to be significant at 10% (p=0.08) which is a very weak relationship.

Table 4.17: the relationship between Perception of Independence and Gender

Independence	Gender		Total
	Male	Female	
Independence Same or worse	23	46	69
Independence is Better	19	71	90
Total	42	117	159

Pearson chi2(1) = 3.0016 p = 0.083
phi = Cohen's w = fourfold point correlation = 0.1374 phi-squared = 0.0189

[6] As indicated by Bryman (2008) the maximum level of risk that can be taken inferring a relationship between variables in population where the sample was drawn is (0.05) (Bryman 2008).

4.3.3 Studying the impact of microcredit on the economy.

Regression models were employed to assess the impact microcredit has on the economy. Two regression models were run to test the impact of microcredit on respondents' profits and change in business capital whilst a logistic regression model was used to test the impact on tendency to reinvest in the business. As in the previous section all regression models are corrected for heteroskedasticity using heteroskedasticity -robust standard errors. Table 4.18 presents the results of the different regression models (A-B).

Results of the regression model (A) and (B) are significant at the 99% confidence level (p=0.00) where the set of explanatory variables used explains 37% of the variation in profit average (r^2=0.37) and 19% of the variation in expenditures per capital (r^2=0.19). According to the models coefficient analysis microcredit has a significant positive impact on profits average and business capital where being an old loan holder causes average profits to increases by 51% (p=0.00) and business capital by 54% (p=0.01). A notable result is the significant negative relationship found between gender and profits, being a female loan holder caused average profits to decrease by up to 72% (p=0.00) if all other variables remain constant. This is normal given the characteristics of the sample where as previously noted female represent the majority of new loan holders (see table 4.1) with shorter business age. This relationship is verified by calculating spearman coefficient between business age and type of loan holder, the results shows a significant positive relationship between business age and type of loan holder (p=0.00) (spearman= 0.43).

Table 4.18: OLS regression results study the impact of microcredit on business profit average and change in capital

	OLS regression	
	Profits average (A)	Change in business capital (B)
Type of loan holder	0.51 (0.00)****	0.54(0.01) ***
Age	-0.037 (0.62)	0.16(0.11)
Marital status	0.02(0.82)	-0.04(0.75)
Education	0.03 (0.44)	0.004(0.99)
Household size	0.13 (0.00)****	-0.07(0.26)
Gender	-0.72(0.00) ****	-0.08(0.77)
Other sources of income	-0.17(0.32)	-0.45(0.03) **
Branch life	0.22 (0.00)****	0.26(0.00)
Gamlyia	0.25(0.07)*	0.91(0.00)
Manshyia	0.77(0.01)***	1.00(0.05) **
constant	4.9(0.00)****	-1.005(0.31)
R^2	0.37	0.19
F probability	0.000	0.000

NOTE: **** p<0.001, ***p<0.01, **p<0.05, *p<0.1; p values in parenthesis

A logistic regression model is run to test the impact of microcredit on respondents' tendency to reinvest part of their profits in the business. However using the same set of control variables as in the previous part, overall model fit for the logistic regression model was no significant at both confidence level 95% and 99%, indicating no evidence that one or all of these independent variables predict changes in the dependant variables.

However significant results can be obtained by a shorter list of variables after omitting variables: "branch life", "marital status", "age", "other sources of income". The overall model fit is significant at confidence level 95% (p= 0.05) as presentenced in table 4.19. Model (C) results show non-significant relationships between microcredit and tendency to reinvest in the businesses. However the only significant relationship was that with the location "Gamalyia" which represents the oldest location the institution work on, which indicates that loan holder from "Gamalyia" have higher tendency to reinvest than loan holder from other locations.

Table 4.19: Logistic regression results study the impact of microcredit on respondents' tendency to reinvest in their business.

	Logistic Regression
	Tendency to reinvest in the business (C)
Type of loan holder	-0.05(0.89)
Education	0.11(0.32)
Household size	0.21(0.07)*
Gender	-0.02(0.91)
Gamlyia	1.75 (0.00)****
Manshyia	1.39(0.08)*
constant	-3.3(0.00)****
Wald chi2	12
Pseudo r^2	0.07
Chi^2 probability	0.05**

NOTE: **** p<0.001, ***p<0.01, **p<0.05, *p<0.1; p values in parenthesis

Additionally it was found that there is even no significant relationship between microcredit and tendency to reinvest in the business as represented in Table 4.20 phi coefficient is non-significant(p>0.10).

Table 4.20: The relationship between type of loan holder and respondents' tendency to reinvest in their business

Tendency to reinvest	Type of loan holders		Total
	New	Old	
No tendency	57	49	106
Tendency to invest	32	21	53
Total	89	70	159

Pearson chi2(1) = 0.6253 Pr = 0.429
phi = Cohen's w = fourfold point correlation = 0.0627 phi-squared = 0.0039

This can be explained given that the majority of loan holders roughly 53% consider the loan as insufficient in financing their business and they depend on other sources like personal or family saving, borrowing from friends or joining a "gameiya"[7] .

When considering the impact of loan credit on employment the results indicate that only12% of those who reinvest their profit in the business use hired workers. In this sample workers are either rented from outside the family representing 48% of all hired workers, or from the family (10%) while 42% of the workers are from family without income. 72% of the rented workers took more than 300 Egyptian pounds per month and work more than 7 hour per day. Obviously there is no impact on employment at this level of microcredit, this is further verified using spearman' rho test where the correlation between being an old client and hiring workers is insignificant p>0.05.

[7] Gameiya is a form of group lending where each person in the group give a certain amount of money each month and only one of them take the whole amount of cash until the round is complete.

Chapter Five: Discussion

This chapter will summarise the main findings of this research and provide answers to the research main questions.

5.1 Microcredit management system in Egypt

There are three different kinds of institutions that provide microcredit to clients in Egypt: quasi governmental, banks (public& private) and non-governmental institutions. Although SFD is the formal body responsible to coordinate the micro and small enterprises sector in Egypt. I couldn't find a formal registry aggregating all institutions working in the microcredit business. As a result the findings generated in this research relied a lot on informal resources like the directory of development organisation and SANABEL - the Arabic microfinance institution networks.

As previously noted only three MFIs agreed to do the interviews: "AYB", the "LF" and the "FMF". These three organizations have mostly women clients and they give both micro- and small loans. The "LF" also however gives group lending. This research was primarily concerned with individual-level microcredit not group lending so the focus of the interviews was to explore the difference between these institutions with regards to individual microcredit in order to get the institutional perspective of these loans.

5.1.1 Characteristics and conditions for the micro loans

The amount of microcredit given to recipients starts from 350 L.E at "AYB", and 500 L.E at both the "LF" and "FMF" and can total up to 2000 at "AYB", 7000 at the "FMF" and 10000 at the "LF". Unlike "LF" and "FMF", "AYB" provides interest free credit; it is the only entity besides the national bank for development[8] that provides such kinds of interest-free loans. Participants however have to pay 90 L.E as an administration fee once per loan. In the "FMF" the maximum loan life time is 18 month at an interest rate of 21.5%, while at the "LF" the interest rate is 16% for a 12 month loan; however it can vary in both institutions depending on the loan value with smaller loans typically having higher interest rates. Surprisingly when asking loan recipients about their opinions on the interest rate at the "FMF", not many objected, whereas roughly 17% of those who are unsatisfied with the loan repayment procedure consider high interest rates as the main reason for their unhappiness. The majority of loan holders, 67% considered the non-existence of a grace period as the main reason for their dissatisfaction. Only 10% of clients who expressed that they would not renew their loan stated this fact because of high interest rates. However interest rates have another impact on microcredit demand although not high, where 7% of those who stated they would not renew the loan were because interests are prohibited in religion.
Unlike medium size loans, small sized loans do not require any business legal registration documents from the loan seekers. However the loan seeker should present some documents such as a proof of residence; an electricity bill or house rent bill and a guarantor. However at both the "AYB" and the "FMF" loan seekers should also sign trust receipts. Age is not a condition at the "FMF' while it is a condition at "LF' as one must be between 21to 60 years

[8] They have stopped giving these kinds of loans for almost 2 years

old in order to qualify. At the “AYB” a loan recipient should be older than 21 years. Also at “FMF” and “LF” the loan seeker should have an ongoing business in order to qualify for the loan whereas the loan can be given to finance the start of a new business in “AYB” but it should not cause any danger to the environment. For micro-credit being educated is not a condition except at “FMF” where the existence of at least a person who knows how to read and write is required.

Attending a training programme regarding the use of the loan and how to manage and repay it back is a condition at all the organizations except for “AYB”. At the latter this is a condition for only medium loans. Controversially 31% of the micro creditors sampled “FMF” did not state that they attended a training programme as a condition for obtaining the loan. However some of the interviewees stated that attending a training programme is a condition when they obtained their first loan not when renewing the loan. The same applied for the guarantees required. Strangely 47% of those who stated that they were not asked to attend a training programme were new micro creditors. When asked about the content of the training programme, it was determined that the training was more about the usage of the loan and how to repay the instalments. There were however other optional courses about marketing and book keeping if the client required. However at “AYB” training programmes about project management were available for high value loans holders only. No special programmes were conducted for small loan clients on how to manage the business. This may be since the business is typically very small and the institutions do not think that clients require any special courses. Moreover the interviewees from the three institutions stated that credit officers can give advice to loan holders in case the clients need. However how the loan holder manages his business and the type of his business is not a concern for the institutions. This was further verified from the survey where micro creditors stated that the type of their business is not a condition of any institution.

5.1.2 Follow up procedures and penalties system

All three institutions followed up with their clients on the usage of the loans. In the interview with Ms. Reham Hussein, the person responsible for microcredit programmes at “AYB” stated that “they regularly contact their clients to check if they need any advice concern their business management and help them solve any problems”. Also the other two institutions’ Mr. George Shihata at “LF” and Eng. Ahmed Kamal central operation manager and Hatem Hanafi Cairo Branch Manager at “FMF” stated that they conduct regular field visits to their clients in order to monitor their business and usage of the loans. However in the case of the “FMF” this was not very much verified when I interviewed representatives from that institution. In fact only two survey respondents stated that they have regular visits from the loan officer from “FMF”. However in other cases we find a respondent who took the loan under the name of her daughter and another who took the loan behind her families’ back and there is no business. Moreover when asking about the type of the business roughly 7% of the respondents indicates that they have no business.
At both “AYB” and “LF” the renewal of loans depended on the discipline of the clients in repaying the loan instalments. Moreover “AYB” make further incentives like providing financial aids to disciplined clients in case of emergencies likes sickness, marriage of one of the children and/or education expenses. However at the “LF” disciplined clients are eligible to take higher amounts of loans compared to non-disciplined ones or defaulters.

In the case of clients’ delay in repaying the loans instalments there are financial penalties. Only the “AYB” provides a grace period of three days or in cases where the client is called and provides a reasonable excuse for the delay, a new date is set for repaying. There are also legal penalties at “FMF” for late payments but this is usually a last resort after trying all other venues to get the repayments such as rescheduling the client loan and /or negotiating with the family or community leader to help the client repay his /her loan.

Usually there is no delay in repaying the loans at both “FMF” and “AYB” with both institutions exhibiting repayment rates of 97% except for the period following the 25th of January 2011 where the revolution cause the market to be stagnated and many clients’ businesses were affected. However as mentioned at both “LF” and “FMF”; even though not all clients business were badly affected some clients still wanted to use the bad conditions in the country as a way to evade payments of the loans instalments. However this evasion didn’t last for long.

Surprisingly not many clients at “FMF” stated that they had delayed in repaying the instalments during the last years. A point of contradiction arose while interviewing the clients of the institute and asking whether they faced any problems which have caused them to delay repayment during the last year. Roughly 87% stated they were not late in instalment repayment but the other 13% stated that they were late because of market instability after the 25th revolution.

5.1.3 Institutions financial sustainability

Financial sustainability is a main challenge for MFIs in Egypt. Unstable financial resources hinder outreaching policies for MFIs to locate the extreme poor (Pischke 1996; Cull et al. 2006; Hermes & Lensink 2007). The high cost of transactions and information make microcredit businesses very costly to run. In addition, the instability of existing financial resources is an issue since most of these institutions depend on donors and subsides as their main financial source (Hermes & Lensink, 2007). Financial sustainability is found to be a challenge also for the three institutions that are the subject of this research, donors and subsidies are the main source for their financial resources except for the “LF” where profits from microcredit are their financial resource.

5.2 Microcredit programmes targeting criteria

There are two main targeting criteria for microcredit programmes in general; the first is to target the real poor to help them enhance their livings. The second is to target the females, almost every institution work in the field of microfinance consider to have higher portion of females as their programmes participants based on the research that found females to be more efficient in managing the loans compared to men. The following represent the results when investigating these criteria in the Egyptian context.

5.2.1 Efficiency of Microfinance institutions in targeting the poor

Similar to prior research, the results from this research found no clear poverty measurement criteria in selecting the eligible clients for these loans. When asking Mr. George Shihata from “LF” for their targeting criteria and how they are sure that they really serve the poor he stated that the loans values are relatively small which most probably don’t attract wealthy clients. In “FMF” also credit officers enquire about the financial and social situation; however I got the impression that these questions were asked more to ensure the ability of the loan taker to pay back the loan rather than genuine concern about the wealth (or otherwise) of the credit taker. When asking about whether they consider the income status of the participant in comparison

to the poverty line, Ms. Riham Hussein from “AYB” said that they sometimes do not consider any person as a potential client if they earn more than $2per day, which is the international poverty line, but at the “FMF”, Eng Ahmed Kamal told me that “80% of our clients (which represent clients of microcredit programmes) their income don’t exceed 1$ per day”. At the “LF”, Mr. George said that “people who came to take such small loans should be very poor; however we are working on making some new indicators to measure poverty in order to identify the poor more efficiently”.
However when I asked microcredit recipients’ at “FMF” about whether their income level was a condition for getting the loan only 4% state that having a minimum wage was a condition for getting the loan. Further assets ownerships[9] of the respondents at “FMF” gave the impression that they are not very poor. When asking about their ownership of assets more than 99% of the sample have tapped water, electricity and sanitation before taking the loan, while between 95% - 96% of the sample owned a coloured Television and refrigerator, 92% have a mobile, 65% have more than one mobile and satellite dish and 44% have an automatic wash machine. Although this is not considered a coherent prospective for poverty status as it lack main indicators for health, education, security and others, it is considered a reference for poverty at least from the monetary perspective (Booysen et al., 2008).This finding provides support for the third perspective of the literature review which argued that positive impacts for microcredit programmes are for the affluent but not for the extreme poor (e.g Coleman 1999; Hulme & Mosley 1996).

5.2.2 Efficiency of Microfinance institutions in targeting females

Considering the gender dimension in the targeting criteria, almost all the institutions prefer females as their target audience. I cannot deduce any findings indicating that females are more efficient compared to males in managing the loan. Unlike other research (see Zaman, 1999; Pitt et al., 2003; Khandker, 1998, 2003) where females were found to be more efficient compared to males in managing the loan and spending on their children’s education, health and nutrition. In this research being a female had no significant impact on all variables. Further as verified by the empirical findings male loan holders can better manage the business financed by the loan and make profits unlike females who cause business profits to decrease. However this might be a reflection of the sample characteristics where the majority of old loan holders with established well going businesses were males while the majority of females were new clients. Moreover unlike females, males seem to be more dependent on the business financed by the loan. The majority of the males consider the business financed by the loan as their main source of household income (Table 4.7 in the empirical findings) whereas roughly 68% of the females respondents did not consider the business financed by the loan as the main source of household income, 40% of them stated that their husbands’ work is. In my opinion this result supports the conclusion of Barsoum (2006). She found that the targeting criteria of MFIs should not differentiate between females and males in order to have a more effective role in alleviating poverty in a society like in Egypt with a cultural perspective for male as the main family breadwinner.

[9] In (PlaNet 2008) they contrast an asset index to measure poverty this index is built upon measuring the people ownership of the following Tap water, electricity, sanitation, colored TV, fridge, cell phone, more than one cell phone, washing machine automatic, air conditioning, satellite dish and car. In this study I did not compute the index only use the items as a reference on the respondents assets ownership status

5.3 Microcredit programmes impact on alleviating poverty

The impact of microcredit can be seen at more than one dimension: the impact on household welfare (as reflected in better material and social wellbeing indicators), individual welfare (as reflected on loan holder finding more peace in the family and independence especially women), and the impact on economic level (as reflected on enabling these loan holders to have a sustainable business that have spill-over effects like enhancing investment and employment). The following shows the impact of microcredit programmes of "FMF" on different respondents according to these three dimensions:

5.3.1 Impact at the household welfare level

The results of this research show a significant impact of microcredit on respondents' income and average expenses. This supports the literature which identifies a positive impact of microcredit on alleviating poverty (e.g Hossain, 1988; Khandker, 1998; Pitt et al., 2003; PlaNet, 2008; Nader, 2008). However impact on expenditure per capita was found to be higher than that on income per capita which is a good indicator supporting the positive impact of microcredit on the recipients' welfare. Expenditure or consumption is considered as a better welfare indicator compared to income since it is not subject to seasonal fluctuations as income (World Bank, 2000).

Moreover microcredit enhances the probability of improvement in the quality and quantity of food bought in the household and children's educational level. However unlike this thread of literature, microcredit was found to have a no significant impact on enhancing spending on medication and health improvements. However this might return to the infrequency of expenditure on medication in comparison to food and education. People don't judge their ability to expend on medication and health unless in case of disease or sickness which is something not that frequent compared to food and education expenditures.

5.3.2 Impact at the individual welfare level

The impact of microcredit at the individual welfare level is captured by measuring the impact of microcredit on three main variables: respondents' perception about conflicts in their household, empowerment and independence, and the ability to meet family needs. In this part the focus was on the impact on female respondents.

Unlike Nader (2008) the results show that microcredit increases the probability that loan holders experience an improvement in harmony inside the household (as measured by the frequency of conflicts) while females are more likely than males to experience that. Similarly microcredit enhances loan holders' feelings of independence and the ability to meet their family needs. Surprisingly the regression results showed no significant relationship between gender and independence and ability to meet family needs. These results lie in stark contrast with previous literature where such kinds of loans often cause female respondents to gain feelings of independence and empowerment (e.g Zaman, 1999; Pitt et al., 2003; Khandker 1998, 2003). However it is supported with other similar research in Egypt where feelings of independence and respect from spouses cannot be improved in the majority of the cases (e.g Nader 2008).

Two explanations can be used to explain these findings: The first factor is related to the culture of Egyptian society (which may be the reason why women did not feel more independent or empowered by gaining a loan). On one side husbands rarely give credit to his wife in poor areas of Egypt because they do not agree with her working and contributing to the family. Actually being a female loan holder causes some women troubles, 10% of those who said they won't take another loan were women who are afraid to get into trouble with their husbands. An example in the field work already get divorced cause of the loan, another got assaulted by her husband when he discovered that she took the loan behind his back. More in-depth research is required however to investigate this cultural phenomenon.

On the other side sometimes loans are burdensome on women and do not empower them at all as argued by Barsoum (2006). This occurs because women either become just an unpaid worker in their husband businesses who are the actual end users of these loans or she bears all the expenses of their household. Nevertheless this might not be the case in this study given the data structure or sample characteristics. This leads to the second factor justifying the non significant impact of microcredit on females' independence and empowerment. As previously mentioned females represent the majority of new loan holders in this sample with less than one year loan duration, hence these kinds of loans did not take a sufficient time to have an impact if any.

5.3.3: The impact of microcredit loans on the economy

The majority of loan holders work in the trade sector. These types of workers typically go to people's homes or offices in order to sell their products; the second type of loan holders are people employed in the productivity industry like architecture, shoes or clothes and then the services sector. When looking at the probability of these programmes to enable the loan holders to have a sustainable business that contributes in the economy, the empirical findings revealed microcredit to have a positive and significant impact on a client' business' profits and capital yet this in not reflected on clients investment attitudes. Unlike PlaNet (2008) there is a non-significant relationship between the duration of participation in the microcredit programme and the tendency to invest in the business. Hence one cannot indicate for certain that microcredit programmes can enable loan holders to financially sustain their business. This is further revealed when asking whether the loan was sufficient to finance their business, 53% of the whole sample and 47% from the old loan holders indicated that the loan was insufficient to finance their business, and they depend on other sources of credit like borrowing from their relatives, taking another loan using individual or family savings or join a "gameiya"[10] to finance their business. During an interview with one of the long-time loan holders he said:

"The loan value is very small; to enlarge our business and it is not that effective to sense any enhancements on any level"

Unlike PlaNet (2008) where the duration of participation in a microfinance programme leads to an increase in the level of employment, "FMF" microcredit programmes don't have much impact on employment. In fact, only12% of those who reinvest their profit in the business use hired workers. And there is no significant relationship between the duration of participation in the programme and hiring workers. This finding is supported by the literature since the main purpose of microcredit programmes is to reduce poverty rather than having a notable impact on the whole economy through spill-over effects in employment and investment. Moreover, 94% of those surveyed have businesses that are not legally registered. This indicates that these kinds of loans encourage the informal sector which is considered one of main problems

[10] Gameiya is a form of group lending where each person in the group give a certain amount of money each month and only one of them take the whole amount of cash until the round is complete.

of the Egyptian economy (O’Regan, 2004). Yet this is not the problem for microcredit programmes as it for the government that needs to work on formalizing such sector.

5.4 Microcredit programme enhancements for better benefits to the poor

Based on the findings and interviews conducted with microcredit institutions and participants involved in such programmes, there are some points that need to be tackled to enhance the effectiveness of these programmes:

Respondents seemed to be satisfied in general as revealed when asking participants about their satisfaction with the loans conditions and repayment procedures where the majority of the sample (more than 90%) indicated that they were satisfied. Almost half of the respondents consider microcredit programmes and conditions, readiness of the institute to help, treatment of credit officer, speed of loan disbursement, and distance to the institute as either excellent or good that 74% of them would like to take another loan. Nevertheless loan values were found to be very small to enable the loan holders to expand their business. According to the “FMF” respondents’ survey roughly 53 % of the sample stated that the loan was not sufficient to finance their business and they depended on other resources to finance it. Moreover, among the 26% of the recipients who stated that they didn’t renew the loan, 22% state that the loan value is small and not that useful to take another one.

The institutions interviewed stated that there are monitoring procedures in place to check the loan holders business, this was not verified (nor witnessed) during our field work. Often loan holders took loans under the name of their children, others had no businesses at all to fund while others were the son or husband ran the business on behalf of the loan holder (who is often female). Moreover in only two or three instances did loan holders indicate that the micro credit officers visited them and in these instances the loan holder was long-time loan holder with well-established business. This gives the impression that follows up are done by the institutions only in instances were loan holders have big loans and just to ensure the ability of the loan holder to repay. In other words the motive for such institutions (and programmes) is profit making rather than trying to rid people of poverty and help them develop. However this can be related to the challenge of financial sustainability (mentioned earlier). MFIs face a real challenge to maintain the balance between saving their own credibility and financial stability whilst attempting to empower the poor and achieve the developmental impact required. However I got the impression that the institution was more into securing its financial existence. Based on the field work and interviews taken there is a notable lack of good management in “FMF” for having real developmental impacts: for example the databases were not updated with the names and correct addresses, this gives an indication that the credit officers don’t visit the loan holder to monitor the usage of the loan usage. In addition it was also observed that there is a lack of communication between the participants and institution with regard to the business itself. Even the monitoring process as indicated by the interviewees from the institution seems to be more to guarantee the repayment of the loans than the stability of the loan holders business yet further investigation is required to verify this point. Moreover there isn’t any kind of networking between institutions working in the microcredit industry; two institutions might work in the same area at the same time. Hence a participant can take a loan from more than one institution even if he is not disciplined or not using the loan in a business. There is not even a formal number of these institution and/or numbers of micro creditors. In general a new paradigm or regulatory body is required to make these institutions more linked and synchronized with each other and to be more attached to developmental needs of the poor and help them improve their quality of lives.

5.5 Limitations and research enhancements

5.5.1 Limitations

This research has a number of limitations.
First, getting permission for data extraction and collecting data in Egypt was a very time consuming process, especially under the unstable conditions which occurred after the revolution on the 25th of January 2011. The CAPMAS (which is the entity responsible for issuing research permits) at first insisted on getting the questionnaire signed by the Foreign affairs in Norway. It was also very difficult to attain a small team (four field researchers) from within the CAPMAS to help me with the field work. Another obstacle was with MFs themselves as they were sceptical to undertake the interview with me knowing that I am from a foreign University since coincidently the time I start contacting MFs for the interview was the same time of the accusation by the government to the NGOSs for their illegal and spying for foreign organisations.

Second, arranging for the interviews, with key informants in the MFs offering microcredit was time consuming since it was dependent on the interviewees being available and ready to be interviewed. Moreover arranging for the interviews with the participants depended on the credit officers being available and providing me with the data base from which I draw the sample. Further the data base was only available in paper format and I re-entered all the names on Excel to be able to randomly draw my sample.

Third, limitations that detained the progress of the field work, at the beginning it was the instability conditions of the country. The country witnesses two elections; the Parliament elections in April, and presidential elections in May. In addition to many protest movement and demonstrations. Moreover such instability conditions and lack of security cause my research team who consist from three girls and a boy to be afraid to conduct the interviews alone since the field work was in slums areas some of which are famous of drug dealers and guns trading. Eventually after the first questionnaire pilot test, the three girls left the research after one of them being threatened by a husband who knew his wife was taking the loan behind his back. This causes me to redo the training once again on the questionnaire with the new team that consist of only boys.

Additionally, the addresses provided by FMF was incomplete especially when the address is located in a slum area where reaching them through formal registries cannot be reached easily. So we have to go to the place and ask neighbours and people in the area, also some people are known by other names rather than the name registered at the institution, the institution itself was not known by its formal name “first foundation” rather by “moasaset elbatnya”. In addition, some participants are sceptical to answer us they even decline their participation in the program although we have their names in the list we got from the institution, however this may be because some of them were taking the loans behind their families or husbands back. Since in two or three cases the girls respondents were afraid to answer and ask us to meet away from their homes so that their families won’t know about the loan. Sadly one woman got beaten by her husband when he knew that she is taking a loan behind his back and he kick out the researcher and threaten her not to come back in the whole district.

Fourth there were some limitations caused by cultural difference. Although there was no language barrier but participants of these programmes often had very different cultural back ground which might have hindered mutual understanding of questions and answers and creates a "problem of meaning" (Bryman, 2008, p.211). In some instances, respondents misinterpreted the intended aim of the question. For example, in the question asking whether the loan holder was able to meet more his or her family needs, a number of respondents understood that as referring to the financial needs of the family so they answered "yes" whereas the real meaning was regarding the needs of the family like spending more time, and doing the house work.

Another misinterpretation was when asking about the main source of income; some respondents identified the project or the business financed by the loan as the main source of their income although later in a question asking about the sources of household income they identified it to be from other sources rather than the business. Also although some indicate that they invest all their profits in their business, in a later question they indicate that contribute with 100% of the business income in family budget.

In some other cases they answered that the institute didn't ask for any guarantee although the institute stated in the interview that it took guarantees from all loan holders. It turns out that it took these guarantees just once and if the people renew the loan they don't ask for further guarantees. So some loan holders who renewed the loan just state that they were not asked to present any guarantees. The same applies on training program; they just took it once when taking their first loan. Some other cases for female loaners state that she is a household wife not working although she is the loan holder and do a project. It is not clear if she is the main business owner or her husband and she didn't want to state that.

However as mentioned by Kress (1982) inconsistent or contradictory replies can be adjusted to the more precise information , accordingly these points mentioned before were adjusted while entering the data by entering the most likely correct answer meant by the respondent if he or she have correctly understand the question so that the answers overall will be consistent.

5.5.2 Research enhancements

These research results can be further enhanced by organizing in depth interviews and focus groups with the respondents, especially females to get more details. It was not that clear from the survey results whether the loan itself was not that good for the women to feel more independent, or it is the nature of their husband and cultural issues that are to blame. Also to investigate more about how to make these loans more effective for them.

Conclusion

Microcredit programmes are often seen as an efficient tool for alleviating poverty and a bottom up development engine. In addition microcredit programmes have an efficient contribution in development through empowering women that almost all institution working in the field target women as their main audience. However its ability to fuel development and empower women has been widely questioned in the literature. Additionally these institutions' targeting criteria was also debated as they are often criticised for failing to reach the extreme poor and that the more affluent benefit more from such programmes. Accordingly the main objectives of this study was to investigate such premises in Cairo of Egypt where microcredit programmes are widely adopted by the government and almost every institution working in the field of poverty alleviation. This study has three main objectives, first to investigate the impact of microcredit programme on enhancing recipients' material and social welfare status in general and to investigate the impact on empowering female recipients in particular. Furthermore to investigate the targeting criteria for microcredit programmes and lastly to come out with some insights on how to make these programmes more effective in alleviating poverty.

Based on the literature the impact of microcredit programmes on poverty alleviation varies widely according to the research methods used. On one side these programmes have positive impacts on the material welfare of the participants as reflected in their income and consumption, social welfare as reflected on other aspects like education of children, nutrition, health and on empowering women as reflected in them feeling more independence and contributes in the decision making in the household. Further positive impacts reach the whole economy through spill over effects on investment and employment. On the other side these programmes were found to have a negative on the extreme poor. In this study I used a quasi experimental control group method which is the most applicable method given the time and resources constraints of the research. The survey sample includes two groups of participants taking microcredit from FMF; a treatment group which includes old loan holders who have been taking loans from more than a year and a control group which includes new loan holders who have been taking loans from less than a year. The impact of microcredit programme was assessed using a regression framework similar to that in Coleman (1999); Montgomery (2005); and Kondo (2007) taking into account self selection, program placement and drop out bias. The impact of microcredit was tested on three different levels, the household welfare as reflected in the household income per capita, expenditure per capita and perceptions on the quality and quantity of food, education of children and spending on health. The individual welfare level as reflected on participants' especially women perceptions on independence, harmony inside the household, and ability to meet family needs. The last level was the impact on economy level as reflected on recipients' business profits, capital, tendency to reinvest and employment.

On the household welfare level the results shows that microcredit enhances household income per capita, expenditure per capita , perceptions of quality and quantity of food and education of the children but it did not enhance their perception on their ability to spend more on health.

On the individual welfare level the results show that microcredit enhance respondents' perceptions of independence, harmony inside the household and ability to meet family needs However these results don't hold for females respondents who only perceive more harmony inside their households while they don't feel more empowered or independent and don't have better ability to meet their families needs. This might be caused by two factors; the data structure of the sample where almost the majority of the female participants were new loan holders. The other factor might be the cultural aspects in eastern countries like Egypt were on one side usually husband don't show much credit to their wives and don't like the fact that they work. On the other side given the culture of these societies for men as breadwinners of the household, when women work she either bears all the responsibilities of the household instead of her husband or became an unpaid worker in husband business. However this point required further investigation to be verified.

On the economy level although there were significant positive relationship between microcredit and loan holders' business profits and capital, microcredit was found to have no impact on their tendency to reinvest and hire workers. However these results are normal given the main purpose of microcredit programmes which is to reduce poverty rather than having a notable impact on the whole economy through spill-over effects in employment and investment. Moreover the business of the respondents in this sample were small scale business and the majority are formally not registered and counted as part of the increasing informal sector in Egypt.

Concerning the targeting criteria of MFIs, it was widely debated in the literature that MFIs do not reach the extreme poor and that the more affluent people are the more beneficial group from such programmes. This argument was tested in the interviews with three MFIs in Cairo, "LF', "AYB" and "FMF". Both "AYB" and "FMF" mentioned that they consider the household income status from poverty line when judging the social conditions while "LF" just assumes that those who ask access to such small loans should be normally very poor. Yet the survey results from "FMF" only 4% of the sample indicated having a minimum level of wage as a condition for getting their loans from the institution. In addition it was found that the majority of loan holders own assets that are not usually attainable by the extreme poor like coloured televisions, refrigerators, mobiles and in some cases automatic wash machines. This supports the argument that these micro loans go often to the more affluent not the extreme poor. Another aspect of the targeting criteria is the criteria to target females rather than males since they are often considered more efficient in managing such loans as indicated in the literature. However the results of this study do not support this argument where being a female does not have a significant impact on different variables further males were found to be more efficient than females in making business profits. This might be on one side a reflection of the sample characteristics where the majority of old loan holders with established well going businesses were males while the majority of females were new clients with business not considered as a main source of household income. On the other side this might be a reflection for the nature of the society given the cultural perspective for male as the main family breadwinner. Females are usually not that committed to finance the households since they depend on their husbands. Sometimes they took such loans just to enhance their livings standards and it is not that obligatory for them. On the contrary females in such societies prefer to be dependent on their husbands rather than bear the responsibility of the household. However this point rightness needs further investigation to proof. In general for microcredit programmes to have more effective role in alleviating poverty in a society like Egypt the targeting policy of MFIs should consider not to differentiate between females and males before investigating such cultural perspective.

Finally enhancing the effectiveness of Microcredit programmes requires an in-depth consideration for the dual objective of MFIs. As argued in the literature the focus of MFIs is two-fold: a *business orientation* to generate sustainable financial resources instead of depending on unsustainable source of finance (donors) and a *poverty alleviation* orientation to reach the poor and help them overcome their poverty. Based on the field work and interviews conducted one gets the impression that MFIs are more into business orientation. This can be verified in some points: many of the addresses of the loan holders given by the institution were not correct which can be an indicator that the credit officers don't visit these loan holders and check their business and usage of the loans. Some of the loans were not used in a business and other is taken under different name than the actual loan holder. These indicate a lack in the monitoring process from the institution to the loan usage. Finally there is no networking between MFIs; two institutions might work in the same area at the same time. Hence a participant can take a loan from more than one institution even if he is not disciplined or not using the loan in a business. There are not even a formal number of these institutions and/or numbers of loan holders, distributions and usage of the loans. In general for these programmes to contribute more efficiently in poverty alleviation in Egypt, a new paradigm or regulatory body is required to link these institutions with each other and synchronize their efforts to be more attached to developmental needs of the poor.

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Appendix (1): Microfinance institutions questionnaire

The Effectiveness of Microcredit Programs on Reducing Poverty in Cairo of Egypt

Study background and aims

Egypt has adopted microcredit programs in its strategies for alleviating poverty. Microcredit programs have been outlined as an efficient tool not only for alleviating poverty but also for empowering women and fostering equality in society (UNDP, 2008). This research has two aims: first, I intend to examine the efficiency of these programs in targeting the poor and, second, I intend to examine the impact that microcredit programs have had on recipients' income and living standards. Special consideration will be given for women recipients in order to study the impact these loans have had on their empowerment and social welfare.

Research method

This research is built based on two questionnaires: the first is a questionnaire for microcredit institutions to collect data on features of microcredit programs. The data collected from the first questionnaire will help in preparing the borrowers questionnaire to collect data on their opinions about the impact of microcredit on their economic and social status. Based on these data a "two-stages least squares (2SLS) regression" will be used to detect the impacts of microcredit on people income and welfare.

The importance of your answers

Although you may find some of the questions strange or difficult, the results of the research will be of great value and I believe that you will find the questions interesting. Please do not discuss the questions with anybody before you have answered all of them. You are also requested to follow the instructions closely when you complete the questionnaire. It is very important that you give true and accurate answers to the written questions. Your answers will provide valuable contribution to the study.

Anonymity and confidentiality

Please note that you **do not have to provide your name** for the questionnaire. All your answers will therefore be anonymous. You may therefore rest assured that this investigation will be conducted free from prejudice and as objectively as possible. Neither you nor any other respondent will suffer any harmful consequences as a result of this research.

Thank you for being willing to participate in this study.

Please ensure also that you have answered all the questions before you hand in the questionnaire.

Thank you once again for helping with the research

Questionnaire No.(1)

Section A: Features of microcredit programmes

A.1 Institutions name : ____

A.2 Date of the institution establishment: ______________________________

A.3 Type of the institution?

- Government
- NGO
- International
- Private Bank
- Governmental Banks
- Other

A.4 What kind of loans do you provide?

- Individual
- Group lending
- Other

Individual loans only :

A.5 What is the estimated number of borrowers?

- % of men? …………….
- % of women? …………….

A.6 what is the estimated number of dropouts annually? ………………..

A.7 what is the current interest rate for such loans? …………….

A.8 what is the max loan limit? …………….. And the min loan limit? …………….

A.9 What is the loans repayment rate? …………………………..

A.10 What is the grace period for defaults? ………………………

Section B: Eligibility criteria

B.1 Are there conditions for a person to be eligible to borrow?(Yes/No) (If No move to question B.2)

- Yes
- No

B.2 What are these eligibility conditions? Please circle the answer/s.
The person must: -(You can choose more than one choice)

- be a women
- know how to read and write
- have income no more than 134 LE per month
- have income no more than 185 LE per month
- have a family
- be at least 18 years old
- have a pre-existing business
- attend a qualifying or training course
- Others (Please mention)………………..

B.3 Is the eligibility criteria differ depending on the kind of the loans? (Yes/No) (If No move to question C.1)

- Yes
- No

B.4 Please briefly describe how the loan criteria differ?

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Section C: Loan usage restriction and insurance arrangements

C.1 Are there any restrictions on the usages of the loans? (Yes/No) (If No move to question C.3)

- Yes
- No

C.2 Can you mention these restrictions?

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C.3 Are there any insurance arrangements to guarantee loans repayment? (Yes/No) (If No move to question C.5)

- Yes
- No

C.4 Please identify these insurance arrangements?

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C.5 Are there any technical supports or training given to the borrowers to help them using the loans? (Yes/No) (If No move to question11)

- Yes
- No

C.6 What kind of technical support is provided?

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C.7 Are there any incentives for the borrowers to repay the loans in time? (Yes/No) (If No move to question C.9)

- Yes
- No

C.8 What are these incentives? Please circle your answer/s.

- Progressive lending to those who repay in time
- Financial fines in case of repayment delay
- Legal penalties in case of repayment delay
- Those who are delayed in repaying will be prohibited from having further loans in the future
- Those who delay repayments faces the possibility of losing their savings in the institution taken as an insurance guarantee
- Others to be mentioned ……………

Section D: Monitoring procedures

D.1 Are there any procedures to monitor the usage of these loans? (Yes/No) (If No move to question E.1)

- Yes
- No

D.2 what are the monitoring procedures?

- Regular visits to the borrowers in their places to monitor the usage of the loans and provide assistance in case needed
- Revising documents presented by the borrowers on their projects activities
- Monitoring clients satisfactions and opinions on their loan repayment procedures
- Regular measurement to clients satisfaction about the loans amount and repayment procedures
- Others (Please mention) ………………..

Section E: Performance and sustainability

E.1 What are the performance indicators used to assess the effectiveness of your microcredit programs?(You can choose more than one indicator)

- Number of borrowers
- Repayment rate
- Jobs created in the market
- Enhancements in borrowers income
- Enhancements in borrowers welfare
- Others (Please mention) ………………..

E.2 What are your main sources of finance for microcredit programs?(You can choose more than one choice)

- Grants and donations from donors
- Grants from the government
- Savings
- Profits
- Loans from banks
- Others (Please mention)………………

Section F: NOTES

If you have any comments concerning this questionnaire, or would like to make suggestions regarding the research, please write your input on the space provided below:

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THANKS YOU FOR YOUR CO-OPERATION AND WILLINGNESS TO ANSWER THIS QUESTIONNAIRE

Appendix (2): Borrowers questionnaire

Section one: Borrower profile

what is your name ?

(1) ❑ __________

Location of the borrower?

(1) ❑ el darb el ahmar
(2) ❑ el gamalyia
(3) ❑ manshyeit naser

What is your job?

(1) ❑ dress maker
(2) ❑ (Dalalah)
(3) ❑ carpanter
(4) ❑ driver
(5) ❑ trader
(6) ❑ crafter
(7) ❑ restaurant/ cafe owner
(8) ❑ bean car owner
(9) ❑ not working
(10) ❑ factory owner
(11) ❑ other

What is your gender?

(1) ❑ male
(2) ❑ female

Age?

(1) ❑ less than 20
(2) ❑ 20-30
(3) ❑ 31-40
(4) ❑ 41-50
(5) ❑ more than 50

Martial status?

(1) ❑ not married
(2) ❑ married
(3) ❑ divorced
(4) ❑ widow
(5) ❑ seperated

What is your last educational stage?

(1) ❑ Not educated
(2) ❑ less than primary
(3) ❑ Primary
(4) ❑ Preparatory
(5) ❑ Medium-technical education
(6) ❑ Above Medium-technical education
(7) ❑ University

Do you know how to read?

Ability to read
(1) ❑ Yes
(2) ❑ No

How many people are there in your household?

____

How many people have income in the household?

(1) ❑ 1
(2) ❑ 2
(3) ❑ 3
(4) ❑ 4
(5) ❑ More than4
(6) ❑ 0

How many under 18 years?

(1) ❑ 1
(2) ❑ 2
(3) ❑ 3
(4) ❑ 4
(5) ❑ 5
(6) ❑ More than 5
(7) ❑ 0

Do you renew the loan from First foundation?

(1) ❑ Yes
(2) ❑ NO

Why you didn’t renew the loan?

(1) ❑ No need
(2) ❑ Interest is high
(3) ❑ Interest are forbidden in Islam
(4) ❑ Conditions are aggressive
(5) ❑ Fear not to be able to pay back the loan and be jailed
(6) ❑ Other

Have you been working before getting the loan?

(1) ❑ Yes
(2) ❑ No

What was your last job?

(1) ❑ Maid
(2) ❑ Government worker
(3) ❑ Private sector job
(4) ❑ Dalalah
(5) ❑ Trader
(6) ❑ Carpenter
(7) ❑ Crafter
(8) ❑ Farmer
(9) ❑ Dress maker
(10) ❑ Other

Is this your first time to take a loan?

(1) ❑ Yes
(2) ❑ No

How many times you took a loan before this one?

(1) ❑ 1
(2) ❑ 2
(3) ❑ 3
(4) ❑ 4
(5) ❑ 5
(6) ❑ 6
(7) ❑ More than 6
(8) ❑ 0

What is the value of all loans taken before?

____

When you first took the first loan?

(1) ❑ Less than 1 year
(2) ❑ 1 year
(3) ❑ 2 years
(4) ❑ 3 years
(5) ❑ 4 years
(6) ❑ 5 years
(7) ❑ 6 years and more

When you took the last loan?

(1) ❑ Less than 1 year
(2) ❑ 1 year

(3) ❑ 2 years
(4) ❑ 3 years
(5) ❑ 4 years
(6) ❑ 5 years
(7) ❑ 6 years and more

Why did you take this loan?

(1) ❑ Expanding an ongoing business
(2) ❑ Financial needs
(3) ❑ Starting a new business
(4) ❑ Others

Are there any loans you didn't repay yet?

(1) ❑ Yes
(2) ❑ No

Why you didn't repay other loans?

(1) ❑ Business loss
(2) ❑ Natural disaster
(3) ❑ Financial needs of the family
(4) ❑ Market recession
(5) ❑ Other

For how long are you taking loans from this institution?

(1) ❑ Less than 1 year
(2) ❑ 1 year
(3) ❑ 2 years
(4) ❑ 3 years
(5) ❑ 4 years
(6) ❑ 5 years
(7) ❑ More than 5 years

Section Two: Loan features

From where have you heard about this institution?

(1) ❑ Neighbors
(2) ❑ Friends
(3) ❑ Relatives
(4) ❑ Advertisement
(5) ❑ Staff of the institution
(6) ❑ Other

What is the value of your loan?

____

When did you take this loan?

(1) ❑ Less than 1 year
(2) ❑ 1 year
(3) ❑ 2 years
(4) ❑ 3 years
(5) ❑ More than 3 years

Did you repay the loan?

(1) ❑ Yes
(2) ❑ No

When you should repay this loan?

(1) ❑ 6 month
(2) ❑ 12 month
(3) ❑ 18 month
(4) ❑ 24 month
(5) ❑ More than 24 month
(6) ❑ 10 month
(7) ❑ 14 month
(8) ❑ 16 month

How much do you repay in the installment?

____

When is the installment due?

(1) ❑ 1 month
(2) ❑ 2month
(3) ❑ 3 month
(4) ❑ 4 month
(5) ❑ 5 month
(6) ❑ 6 month

What is the interest rate?

____

Is there a grace period

(1) ❑ Yes
(2) ❑ No

How long is the grace period?

(1) ❑ Less than 6 month
(2) ❑ 6 month
(3) ❑ 6- 12 month
(4) ❑ More than 12 month

Have you been late in repaying the loans?

(1) ❑ Yes
(2) ❑ No

What are the reasons for not repaying the installments?

(1) ❑ Financial needs of the family
(2) ❑ Market recession
(3) ❑ Natural disaster
(4) ❑ Business loss
(5) ❑ Other

Have you faced any problems in repaying the installments during the last year?

(1) ❑ Yes
(2) ❑ No

What are the reasons for such problems?

(1) ❑ Business loss
(2) ❑ Financial needs of the family
(3) ❑ Market instability cause of the revolution
(4) ❑ Natural disaster
(5) ❑ Others

Do you have to present any guarantee for taking the loan?

(1) ❑ Yes
(2) ❑ No

What are these guarantees required?

(1) ❑ Savings
(2) ❑ Assets
(3) ❑ Salary
(4) ❑ Another person
(5) ❑ ID and electricity bill
(6) ❑ Signing trust receipts
(7) ❑ Others

Are there any conditions for getting the loan?

(1) ❑ Yes
(2) ❑ No

What are these conditions?

(1) ❑ Responsible for a family
(2) ❑ Wage min limit
(3) ❑ Age
(4) ❑ Having a project
(5) ❑ Starting a project

(6) ❑ Attending a training program
(7) ❑ Other

Have you been asked to attend a training program?

(1) ❑ Yes
(2) ❑ No

What kind of training program have you attended?

(1) ❑ Lectures on marketing
(2) ❑ Lectures on usage of the loans
(3) ❑ Lectures on investment
(4) ❑ Others
(5) ❑ Don't know

Do you feel the training program was beneficial for you?

(1) ❑ Yes
(2) ❑ No

From where do you repay the loan installments?

(1) ❑ Project revenues
(2) ❑ Salary
(3) ❑ Borrowing
(4) ❑ Another loan
(5) ❑ Other household income
(6) ❑ Gameya
(7) ❑ Other

Have you make any saving after taking such loan?

(1) ❑ I couldn't make any savings
(2) ❑ I became indebt
(3) ❑ I saved less than 5000 LE
(4) ❑ I saved between 5000- 10000 LE
(5) ❑ I saved more than 10000

What was the main reason for taking the loan?

(1) ❑ Starting a new business
(2) ❑ Expanding current business
(3) ❑ Repaying debt
(4) ❑ Meeting family expenses
(5) ❑ Educating children
(6) ❑ Marrying children
(7) ❑ Buying a new car
(8) ❑ Amending the house
(9) ❑ Others

What is the type of your business?

(1) ❑ Trade
(2) ❑ Industry
(3) ❑ Services
(4) ❑ Birds breeding
(5) ❑ Animals breeding
(6) ❑ Agriculture
(7) ❑ No business
(8) ❑ Other

Did the institute condition the type of your business?

(1) ❑ Yes
(2) ❑ No

Have you been asked to present a visibility study?

(1) ❑ Yes
(2) ❑ No

Was the loan enough to finance the business?

(1) ❑ Yes
(2) ❑ No

What other sources you depend on to finance your business?

(1) ❑ Another project
(2) ❑ Governmental job
(3) ❑ Private sector job
(4) ❑ Rent
(5) ❑ Pension
(6) ❑ Personal savings
(7) ❑ Family savings
(8) ❑ Gameyia
(9) ❑ Another loan
(10) ❑ Borrowing from friends or family
(11) ❑ Other

Is your project the main source for family income?

(1) ❑ Yes
(2) ❑ No

What other sources for family income?

(1) ❑ Another project
(2) ❑ Government job
(3) ❑ Private sector job
(4) ❑ Rent
(5) ❑ Pension

(6) ❑ Husband work

(7) ❑ Other

When did you start your business?

(1) ❑ Less than 1 year

(2) ❑ 1 year

(3) ❑ 2 years

(4) ❑ 3 years

(5) ❑ 4 years

(6) ❑ 5 years

(7) ❑ more than 5 years

How much was your capital when you started the business?

____

How much is your business capital now?

____

Who is the owner of the business?

(1) ❑ The same person

(2) ❑ The father

(3) ❑ The mother

(4) ❑ husband/wife

(5) ❑ brother/sister

(6) ❑ children

(7) ❑ other

Section three: the impact on economy

Is your business in the same place as your home?

(1) ❑ Yes

(2) ❑ No

Where do you market your products?

(1) ❑ Shop

(2) ❑ Car

(3) ❑ Enterprise

(4) ❑ Market

(5) ❑ Mediators

(6) ❑ Streets

(7) ❑ Other

Is your business legally registered?

(1) ❑ Yes

(2) ❑ No

Does your business make profits?

(1) ❑ No profits
(2) ❑ Lose
(3) ❑ Make profits

In average how much is your business profits?

____

What do you do with business profits?

(1) ❑ Use in daily expenses
(2) ❑ Save it
(3) ❑ Reinvest it all in my business
(4) ❑ Reinvest part of it in my business
(5) ❑ Other

What kind of investment you make from the profits?

(1) ❑ Buying new equipments or materials
(2) ❑ Hiring workers
(3) ❑ Other

Do you work in your business?

(1) ❑ Yes
(2) ❑ No

How many people are working with you?

(1) ❑ 1
(2) ❑ 2
(3) ❑ 3
(4) ❑ 4
(5) ❑ 5 and more
(6) ❑ 0

Who work with you?

(1) ❑ Family with wage
(2) ❑ Family without wage
(3) ❑ Rented workers
(4) ❑ Others

How much you pay per workers?

(1) ❑ Less than 100
(2) ❑ 100-200
(3) ❑ 201-300
(4) ❑ More than 300

(5) ❑ 0

How many hours does a worker spend daily?

(1) ❑ Less than 5 hours
(2) ❑ 5
(3) ❑ 6
(4) ❑ 7
(5) ❑ More than 7 hour

Section four: the Impact on the household

Are you the head of the household?

(1) ❑ Yes
(2) ❑ No

Who is the head of the household?

(1) ❑ Father
(2) ❑ Mother
(3) ❑ Husband
(4) ❑ Wife
(5) ❑ One of my children
(6) ❑ Uncle
(7) ❑ Other

What is the source of income for the household?

(1) ❑ People in the household working in business
(2) ❑ People in the household working outside the business
(3) ❑ Interests
(4) ❑ Rents
(5) ❑ Pensions
(6) ❑ Other

On average what is the monthly income of the household?

____

How many persons in your household depend on you financially?

(1) ❑ 0
(2) ❑ 1
(3) ❑ 2
(4) ❑ 3
(5) ❑ 4
(6) ❑ More than 4

How many persons outside your household depend on you financially?

(1) ❑ 0
(2) ❑ 1
(3) ❑ 2
(4) ❑ 3
(5) ❑ 4
(6) ❑ More than 4

By how much do you share in the family budget?

____

How much do you spend on the following items?

food and breverage	___________
house rent	___________
transportation	___________
medicine	___________
education	___________
clothes	___________
electricity bill	___________
gas bill	___________
telephone /mobile bill	___________
loans installments	___________
house installments	___________
other expenses	___________
total	___________

what is the assets owned by you now and 3years before?

	2009		2012	
	yes	**no**	**yes**	**no**
taped water	(1) ❑	(2) ❑	(1) ❑	(2) ❑
electricity	(1) ❑	(2) ❑	(1) ❑	(2) ❑
sanitation	(1) ❑	(2) ❑	(1) ❑	(2) ❑
Colored TV	(1) ❑	(2) ❑	(1) ❑	(2) ❑
refrigerator	(1) ❑	(2) ❑	(1) ❑	(2) ❑

	2009		2012	
	yes	**no**	**yes**	**no**
mobile	(1) ❑	(2) ❑	(1) ❑	(2) ❑
More than one mobile	(1) ❑	(2) ❑	(1) ❑	(2) ❑
Automatic wash machine	(1) ❑	(2) ❑	(1) ❑	(2) ❑
air-condition	(1) ❑	(2) ❑	(1) ❑	(2) ❑
car	(1) ❑	(2) ❑	(1) ❑	(2) ❑
dish	(1) ❑	(2) ❑	(1) ❑	(2) ❑

Do you think the followings are better or the same or worse?

	better	**the same**	**worst**
Quantity and quality of food	(1) ❑	(2) ❑	(3) ❑
Spending on medicine	(1) ❑	(2) ❑	(3) ❑
Educational Level of the kids	(1) ❑	(2) ❑	(3) ❑
Leisure time	(1) ❑	(2) ❑	(3) ❑
Feeling independent	(1) ❑	(2) ❑	(3) ❑
Respect from the spouse	(1) ❑	(2) ❑	(3) ❑
Respect of kids	(1) ❑	(2) ❑	(3) ❑
Conflict inside the family	(1) ❑	(2) ❑	(3) ❑
Relation with the neighbours	(1) ❑	(2) ❑	(3) ❑
Meeting the household needs	(1) ❑	(2) ❑	(3) ❑
Stress	(1) ❑	(2) ❑	(3) ❑

Do you feel you have influence on the decision making with?

	no influence	**slight**	**noted**	**strong**
Husband	(1) ❑	(2) ❑	(3) ❑	(4) ❑
family	(1) ❑	(2) ❑	(3) ❑	(4) ❑
Local community	(1) ❑	(2) ❑	(3) ❑	(4) ❑

Did any one spouse or kids object your decision of taking the loan?

(1) ❑ Yes
(2) ❑ No

Why they object taking a loan?

(1) ❑ Interests are prohibited in religion
(2) ❑ Inability to repay the loan
(3) ❑ Husband don’t like loans
(4) ❑ Other

Section5: Satisfaction with the program

Are you satisfied with the loan value?

(1) ❑ Yes
(2) ❑ No

Why you are not satisfied?

(1) ❑ High interest rates
(2) ❑ No grace periods
(3) ❑ Hard loan conditions
(4) ❑ Treatment of the loan officer is not good
(5) ❑ The value of the loan was so small
(6) ❑ Other

Are you satisfied with the repayment procedures?

(1) ❑ Yes
(2) ❑ No

Why you are not satisfied with the loan repayments procedures?

(1) ❑ No grace periods
(2) ❑ Short grace periods
(3) ❑ High interest rates
(4) ❑ Others

Are you satisfied with the loan conditions?

(1) ❑ Yes
(2) ❑ No

Why you are not satisfied with the loan conditions?

(1) ❑ Can’t be attained
(2) ❑ Hard to get the papers needed
(3) ❑ High penalties fees
(4) ❑ Other

What do you think about the following items?

	Excellent	**good**	**fair**	**bad**	**very bad**
the loan program	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

	Excellent	good	fair	bad	very bad
Treatment of the credit officer	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
contacting the institution	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
Readiness of the institution to help	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
The distance between your house and the MFI's office	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
The speed of the loan disbursement	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑
the condition imposed to get the loan	(1) ❑	(2) ❑	(3) ❑	(4) ❑	(5) ❑

Do you like to have another loan?

(1) ❑ Yes
(2) ❑ No

What are you going to do with it?

(1) ❑ Expand my business
(2) ❑ Start a new business
(3) ❑ Meeting family needs
(4) ❑ Other

Why don't you want to take another loan?

(1) ❑ Interest are prohibited in religion
(2) ❑ Inability to pay the loan with interest and be subject to jail
(3) ❑ The loan is not that useful
(4) ❑ Conditions is not good
(5) ❑ Country conditions are bad and the business don't make much profits to repay the installments with interests
(6) ❑ In order not to have troubles with the husband as he dont agree
(7) ❑ Interest is high
(8) ❑ Unsatisfied with the institute employee treatment
(9) ❑ Other

Do you like to say anything else?

(1) ❑ Yes
(2) ❑ No

What do you like to say?

____

The data in this questionnaire is confidential and will not be used except for the purpose of scientific research