# National Impact Survey of Microfinance in Egypt

**May 2008**

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PlaNet Finance - Egypt
22 Haroun Street
Dokki, Giza
Egypt

Ph: +20 (0) 2 333 50 640
Email: contactegypt@planetfinance.org

# Table of Contents

# Table of Charts

# Abbreviations and Acronyms

| | |
|---|---|
| ABA | Alexandria Businessmen Association |
| ABWA | Assiut Business Women Association |
| ADEW | The Association for the Development and Enhancement of Women |
| AKAM | Aga Khan Agency for Microfinance |
| ASBA | Assiut Businessmen Association |
| BDAS | Business Development and Advisory Services |
| CAPMAS | Central Agency for Public Mobilization and Statistics |
| CBE | Central Bank of Egypt |
| CDA | Community Development Associations |
| CIDA | Canadian International Development Agency |
| DBACD | Dakahleya Business Association for Community Development |
| EBI | Egyptian Banking Institute |
| EGP | Egyptian Pound |
| EDFF | Egyptian Development Family Foundation |
| EMFN | Egyptian Microfinance Network |
| ESED | Egyptian Small Enterprise Development Foundation |
| FHH | Female Heads of Household |
| FMF | First Microfinance Foundation |
| GTZ | The German Technical Cooperation |
| IDRC | The International Development Research Centre |
| IKM | The Impact-Knowledge-Market |
| KFW | Germany's government-owned German Development Bank |
| LEAD | Lead Foundation |
| MFI | Microfinance Institution |
| MSS | Ministry of Social Solidarity |
| NBD | National Bank for Development |
| NGO | Non Governmental Organization |
| NSBA | North Sinai Businessman Association |
| PBDAC | Principal Bank for Development and Agricultural Credit |
| PFP | Productive Families project |
| REDEC | Regional Development Enterprise Center |
| ROSCA | Rotating Savings and Credit Association |
| S-MFI | Single purpose Microfinance Institution |
| SBACD | Sharkiya Business Association for Community Development |
| SEDAP | Small Enterprise Development Association Of Port Said |
| SFD | Social Fund for Development |
| SME | Small and Micro Enterprise |
| SMEPol | Small and Medium Enterprise Policy Development Project |
| SRO | Self-Regulatory Organization |

| | |
|---|---|
| UNDP | United Nations Development Programme |
| UNICEF | United Nations Children's Fund |
| USAID | United States Agency for International Development |
| USD | United States Dollar (currency of the USA) |

# Foreword

Since the 1990's, a number of different studies have been carried out on the informal sector and on microenterprises in Egypt. They have made information available on the estimated number of microenterprises, their characteristics and those of their owners.

This Impact Survey focuses specifically on the impact of financial services provided to Egyptian microentrepreneurs.

The survey was conducted from September 2007 to January 2008.

| Calendar | |
|---|---|
| Research Preparation | September – October 2007 |
| Field research | November 2007 |
| Analysis of results | December 2007 |
| Report drafting | December – January 2008 |
| Presentation and dissemination of the results | February 2008 |

Forty people were involved in conducting the required research including data collection, analysis and report drafting.

| Research Team | |
|---|---|
| **Position** | **Name** |
| IKM Supervision | Daniel Sorrosal |
| IKM Research Analyst | François Cajot |
| IKM Research Junior Analyst | Haifaa Saad |
| Local Coordinator | Carole Servière |
| Local Coordinator | Benjamin Sellé |
| Local Consultant Egypt | Magdy Moussa |
| Local Consultant Egypt | Amal Refat |
| Local Consultant Egypt | Zeinab Kheir |
| Survey Team | 32 interviewers |

Appreciation is extended to all individuals and institutions whose efforts made it possible to conduct this survey over a short period of time. Noted are the contributions of the Small and Medium Enterprise Policy (SMEPol) Development Project, a partnership between the Egyptian Ministry of Finance, the Canadian International Development Agency (CIDA) and the International Development Research Centre (IDRC); the German Technical Cooperation (GTZ); the Social Fund for Development (SFD)/the United Nations Development Programme (UNDP); First Microfinance Foundation (FMF)/Aga Khan Agency for Microfinance (AKAM); and PlaNet Finance Egypt. These partners signed a Memorandum of Understanding (MoU) in September 2007 to jointly collaborate in and fund the study. The formation of this partnership was greatly facilitated through the SME Donors Sub-group, which aims to promote joint donor initiatives.

The execution of the Impact Survey also actively involved microfinance institutions (MFIs) as strategic partners, proportionally representing microfinance users over the geographical distribution of the sample. This participation was essential, and appreciated, in order to facilitate data collection activity and to ensure the assimilation of the study results by the MFIs.

The Egyptian Microfinance Network (EMFN) played a very supportive role during the launch and implementation of the study and will be a facilitator for the dissemination of the results.

Finally, the Central Agency for Public Mobilization and Statistics (CAPMAS) and the Ministry of Social Solidarity (MSS) are acknowledged for their cooperation and support and appreciation is expressed to the 2,500 owners of micro and small enterprises who took their time to share information and views on their microfinance experiences.

The study was directed by a Project Steering Committee, consisting of:

Lois Stevenson, IDRC/ SMEPol
Dr. Natalijia El Hage, GTZ
Ashraf Nassif, FMF/AKAM
Nevine Badr El-Din, SFD
Carole Servière, PlaNet Finance
Mohamed Abdel Aziz, Ministry of Finance/ SMEPol
Wael Sabry, GTZ
Al-Karim Khimji, FMF/AKAM
Hanan Abou El-Azm, SFD
Carole Escaravage, PlaNet Finance
Magdy Moussa, PlaNet Finance
Benjamin Sellé, PlaNet Finance
Ghada Waly, UNDP
Nerveen Osman, Ministry of Finance/ SMEPol (secretariat)
Heba Helmy, Ministry of Finance/ SMEPol (secretariat)

# 1 Executive Summary

From September 2007 to January 2008, PlaNet Finance carried out a national impact survey of the microfinance sector in Egypt. The main objective of the project was to assist microfinance stakeholders in Egypt to ensure a sustainable and effective expansion of the microfinance sector, and to guarantee that microfinance is fulfilling its mission in terms of poverty alleviation, economic development and empowerment.

The specific objectives of the survey were to:

- Quantifiably assess to what extent participation in a microfinance program has had a positive impact on micro-business development and poverty alleviation; how the characteristics of the financial services are related to better impact; and how non-financial services, and more specifically, Business Development and Advisory Services (BDAS), are related to a better impact.
- Serve as a basis to inform the development of new microfinance products and services, as well as market stratification, providing MFIs with valuable information on how to better serve their current clients and develop a competitive strategy for expansion.
- Provide policy makers and regulatory bodies in Egypt with useful insights related to the state of the microfinance sector and its needs in terms of industry-building.

As a result, the outcomes of the study were to provide:

- Details concerning the socioeconomic characteristics of microentrepreneurs' households and activities.
- Statistics related to the demand for financial and non-financial services, including new products and current practices related to the use of financial and non-financial products.
- Information related to the investment practices of microentrepreneurs in their businesses, including types of investment, frequency of investment, and the accumulation of assets.
- A quantifiable asset ownership index of microentrepreneurs.
- A measure of the end-user/borrower/client perception of the impact of microfinance on the enterprise, the household, and the individual, including the empowerment of women, and on the accumulation of assets.
- Reasons for client drop-out, as well as statistics on client satisfaction.

The study is in no way an evaluation of the performance of microfinance institutions of Egypt.

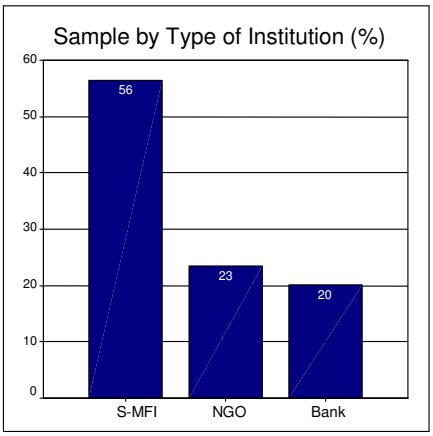
## 1.1. Methodology

This study has been accomplished using PlaNet Finance's **Impact-Knowledge-Market (IKM) methodology**. This methodology is a training and action-research program which uses qualitative and quantitative methods as part of a participative and multidisciplinary approach to identify client characteristics, research market demand, and assess impact.

PlaNet Finance carried out 2,470 interviews as well six focus group discussions with clients from Egyptian microfinance institutions. Participants were selected at random from the client base of these MFIs.

Given the total population of microfinance clients in the country (estimated to be around 900,000 microentrepreneurs), a sample of 2,500 provided a confidence level[1] of 95% and a confidence interval[2] of 2, which means that the sample size of 2,470 reflects the target population as precisely as required.

The sample is composed of **four types of clients**: New clients (those who have participated for less than 6 months in a microfinance program), Medium clients (those who have participated for between 6-36 months), Old clients (those who have participated for over 36 months), and Drop-Out clients (those who have left a microfinance program). The sample has been **proportionally distributed** to reflect the geographic distribution of microfinance as well as the market share of each type of microfinance institution.




## 1.2. Summary of Results

### Profile of the Average Microentrepreneur in Egypt

The sample collected for this study was designed to determine the profile of the average microentrepreneur and their household in Egypt. Although, of the survey respondents, 53% were men and 47% were women, the “average” microfinance client is a 39 year old, married man. His household is composed of two adults 18 years of age or older and two dependants under the age of 18. He has received less than preparatory school education but is able to read and write. He works as a trader, and does not have a second income-generating activity. He has been running an outdoor-based and non-registered activity for the past three to six years. His decision to take a loan in order to build a microenterprise is supported by his family.

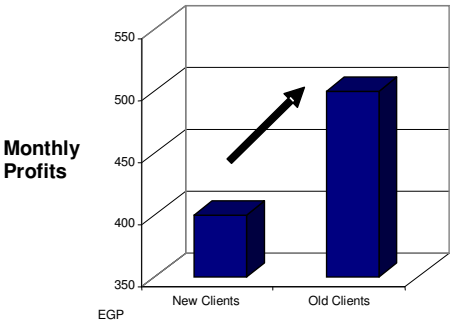
### Impact of Microfinance on Microenterprise Activities

Microfinance in Egypt has a positive impact on enterprise development. The results indicate that microfinance provides **one of the only external sources of finance for the economically active poor in Egypt**. Of the clients interviewed, 38% stated that their MFI is their primary source of financing. The only other main source of financing for microentrepreneurs is self-financing through savings (70%).

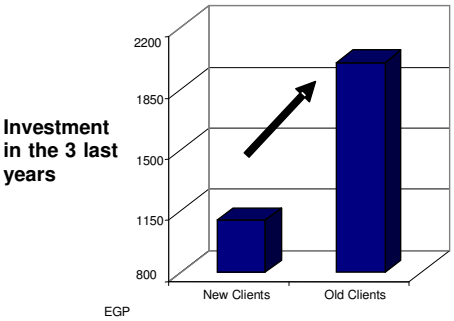
[1] The **confidence level** tells you how sure you can be. It is expressed as a percentage and represents how often the true percentage of the population who would pick an answer lies within the confidence interval. The 95% confidence level means you can be 95% certain; the 99% confidence level means you can be 99% certain. Most researchers use the 95% confidence level.

[2] The **confidence interval** is the plus-or-minus figure usually reported in newspaper or television opinion poll results. For example, if you use a confidence interval of 4 and 47% percent of your sample picks an answer you can be "sure" that if you had asked the question of the entire relevant population between 43% (47-4) and 51% (47+4) would have picked that answer. Source: http://www.surveysystem.com/sscalc.htm

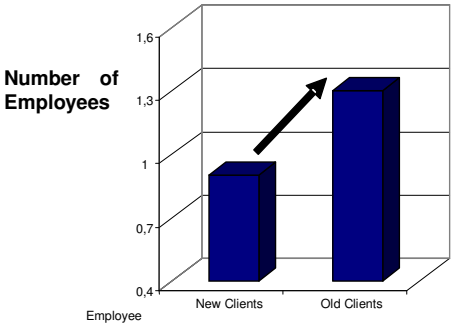
The survey results indicate that clients, who have been in a microfinance program for three years or more, on average earn 25% more in monthly profits than those clients who have just recently joined a program.



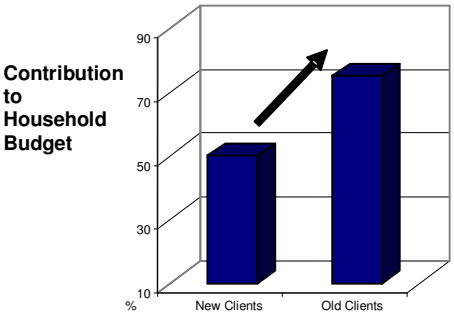

Those clients, who have been participating in a microfinance program for three years or more, have been able to invest more than twice as much in their business as clients who have just joined a microfinance program.




The longer the microentrepreneur has been in microfinance, the more employees he/she employs. In other words, the duration of participation in a microfinance program is related to an increase in the level of employment.




Contribution to the household budget is 20% greater for clients who have participated for three years or more, compared to clients who have just entered a microfinance program.




**Contribution of Microfinance to Business Start-Up**

Microfinance in Egypt has led to the creation of new businesses. Eleven percent (11%) of those surveyed used their microloan to start a new activity, and another 17% would be interested in taking another loan to start a new business. These results indicate that microfinance in Egypt does not exclusively support existing businesses, but can also contribute to the creation of new economic activities.

**Perception of Impact on Household Well-being and Poverty Levels**

Microentrepreneurs in Egypt perceive a positive impact of microfinance on their overall well-being and their quality of life:

- First of all, 76% of respondents declare a positive impact on their sense of autonomy as a result of participation in a microfinance program.
- Half of the borrowers have noticed a positive change in their quality or quantity of food since the start of their participation in the microfinance program.
- 40% of clients who have children perceive a positive change in their children's level of education thanks to their participation in microfinance programs.
- 40% of respondents state that their health condition has improved since the start of participation in a microfinance program.
- Finally, 46% of total respondents state that their economic activity through microenterprise contributes to improve the respect they receive from their spouse.

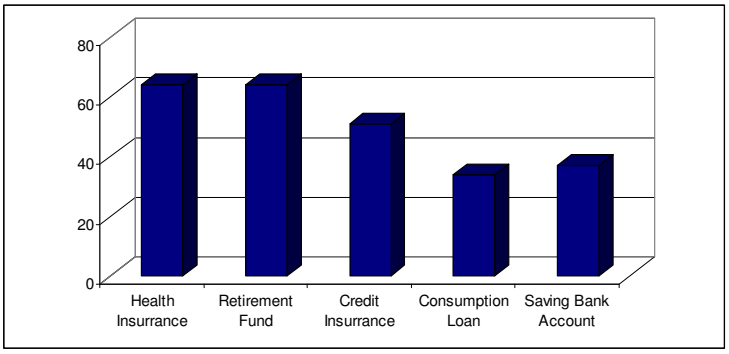
**Use of and Demand for Financial Services**

Results show that 72% of the microentrepreneurs used their loan primarily for business purposes. In terms of new microloans, virtually all those surveyed (82%) wish to renew their loan in order to improve their businesses and/or expand their activity.

- 82% of respondents stated that their first use of the loan would be to expand their existing microenterprise.
- 10% stated that the loan would be used primarily for working capital.

However, it is important to note that 8.5% of respondents did not have a microenterprise in their name nor a running activity. Loans to this group were predominantly to women, who made up 76% of these particular respondents.

The median loan size received is 2,000 EGP. The median loan size demanded is 4,750 EGP at an effective interest rate of 13%. Half of all microentrepreneurs surveyed would like a loan ranging from 2,000-10,000 EGP. Women desire smaller loan amounts than men and registered businesses desire larger loan amounts than informal activities.




**Other Products and Services in Demand**

The culture of savings is the same in Egypt as in other countries in the region. Of those surveyed, 31% save every month and only 10% use a formal savings account.

In terms of other products and services demanded by clients, 64% desire health insurance and a retirement fund, 51% desire credit insurance, 34% a consumption loan and 37% a savings bank account.

### Client Satisfaction and Client Drop-Out

Microfinance clients in Egypt are satisfied with their MFIs and with the services provided.

- Those surveyed listed the relationship with their MFI, in particular the relationship between client and loan officer/branch manager, as the most positive aspect of their MFI.
- Speed of loan disbursement was also listed as the most positive aspect of their MFI.

In terms of dislikes, the three largest problems cited by clients were the interest rate, the loan amount and lack of a grace period.

- 19% of those surveyed considered the interest rates bad and 8% very bad (however, it is important to underline that the majority of clients have a very vague idea of the effective interest rate they are actually paying).
- A quarter considered the loan amount bad and 9% very bad.
- Finally, 25% considered the system of grace period bad and 12% very bad.

Moreover, 44% of drop-out clients stated that the nature of MFI products and services was their primary reason for drop-out, specifying that the loan amounts were too low and not adapted to their needs.

### Training and Business Development and Advisory Services

Most of the respondents acquired the skills useful for their project on their own (54%) or from relatives (32%) without any specific organized training. Only 6% of the respondents received any advice or training from their microfinance providers.

MFIs' staff provided directly 82% of this training. This indicates the need, at the MFI level, to provide well-designed training opportunities for the field sales staff (loan officers) in the areas of business management skills, communications skills, simple cash flow analysis, and business planning in general.

Sixty-three percent of the respondents who already received training or Business Development and Advisory Services (BDAS) would be interested to participate in other trainings/workshops provided by their MFI. Almost half of them (48%) were even willing to pay for these services.

An overwhelming 82% of respondents who did not have access to BDAS through their MFI are actually not interested in receiving training or BDAS. This suggests that BDAS should be marketed to microfinance clients to increase awareness of its relevance to the development of their businesses.

Qualitative information gained through focus groups showed that BDAS was perceived to have a positive effect on a microenterprise; clients stated that they were all satisfied with the training they already received and were sure it had had a positive effect on their projects. However, the quantitative study did not allow confirmation of any significant differences with respect to the degree of impact of BDAS due to the lack of homogeneity between the group of microfinance clients who had accessed BDAS and those who had not. In addition, only 6% of the sample had accessed BDAS, making it difficult to draw definitive conclusions on its overall impact.

Although focus group respondents indicated general agreement that BDAS is useful, a specific study of non-financial business-related services is likely warranted. Then, packages that accurately meet the needs of microfinance clients could be designed.

## 1.3. Conclusions and Recommendations

Microfinance in Egypt succeeds in the role it is designed to play: MFIs represent nearly the only formal external source of financing available for the economically active poor. Microfinance has led to increased revenues and business investments for its clients, and has contributed to an overall positive feeling of well-being and positive self-esteem for microentrepreneurs. Moreover, in comparing the results of this impact study with similar studies in other Middle East and North African countries, the Egyptian microfinance sector displays similar, and in some cases, even better results.

Finally, the study shows that by helping clients build stronger microenterprises and by helping them move from subsistence activities to an active microenterprise level, the overall impact of microfinance will be more significant and clients will be able to move out of poverty and contribute tangibly to the economic development of Egypt.

The recommendations stemming from the survey are targeted towards three groups: MFIs, donors and governmental/regulatory authorities.

The major recommendations for MFIs are to: increase the depth and breadth of outreach, develop new products, and concentrate on developing existing products to be more client-focused in order to offer a wider range for clients to select from, including training and Business Development and Advisory Services.

The major role for donors and governmental/regulatory authorities is cross cutting and needs to support MFIs to implement product services expansion. Specific recommendations are to: support studies to quantify over-indebtedness among microfinance clients, and examine the design of BDAS to respond to the needs and desires of the microfinance clients; assist in expanding the availability of appropriate BDAS and its access; assist in equipping MFIs with relevant knowledge and skills; and finally, remove legal constraints preventing informal MFIs from expanding their role.

# 2 Introduction

## 2.1. Microfinance in Egypt: State of the Sector

According to the World Bank, 43.9% of Egyptians lived on less than $2 a day in 2004/05, which represents nearly 30 million persons. Although Egypt is improving with respect to certain social and economic indicators, progress still needs to be made in many areas.

Therefore, development of microfinance can be seen as a tool to fight against poverty, especially in a country where micro and small enterprises play a substantial role in economic life, representing 39.5% of the total Egyptian workforce[3]. In 2006, total employment in micro and small enterprises amounted to 6.43 million.[4] The country has at least 2.6 million microenterprises[5].

Given the weight of microenterprises in the Egyptian economy, microfinance should be viewed and planned for as a major vehicle for economic development on a national scale. This is the main premise underlying the need to monitor closely what has happened in the microfinance sector, learn from the experience, and better gear financial products to the needs of microentrepreneurs.

### 2.2.1. The Development of Microfinance in Egypt

**When did Microfinance Start in Egypt?**

Microfinance is not something new in Egypt. Indeed, Egypt experienced agricultural microlending in the 1950s through a government-owned bank, the Principal Bank for Development and Agricultural Credit (PDBAC), as well as through a non-banking initiative "the Productive Families Project (PF)" initiated in 1997 by the Ministry of Social Solidarity.

Egypt's commercial financial sector made little contribution to serving this market until the start-up of United States Agency for International Development (USAID) initiatives in 1988. While expanding the sector significantly, the USAID contribution initiated important changes. Different methodologies and targeting mechanisms emerged. It emphasized a *business enhancement* model vis-à-vis *the earlier poverty alleviation* model. The majority of the new target group was small businesses in urban locations - meaning the economically active poor segment - instead of rural home-based activities.[6]

The Social Fund for Development (SFD), a quasi-governmental entity, was established in 1991 to mitigate the negative impact of structural adjustment policies and to serve as a safety net. Today, SFD continues to help alleviate poverty and combat unemployment. In this capacity, the SFD, through its Microfinance Sector Program, acts as an APEX organization that supports the creation and/or development of successful MFIs in cooperation with many international donor agencies. In addition to this role, the SFD, under Law 141 of year 2004, is mandated to coordinate the micro and small enterprises sector in Egypt.

**Main Donors and Service Providers in Microfinance in Egypt**

Although USAID is the current major donor in the field of microfinance, there are numerous programs funded through other donors. The list includes, but is not limited to: the Canadian International Development Agency, UNICEF, Ford Foundation, United Nations Development Programme, the Egyptian Swiss Development Fund, Save the Children, German Agency for Technical Cooperation, Italian Fund of Egypt, and the European Commission MEDA program.

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[3] Presentation of Mona El Baradei and Dr. Alia El Mahdy on The Changing Economic Environment and the Development of the Micro and Small Enterprises in Egypt, Egypt Labor Market Panel Survey 2006 Conference

[4] Data from CAPMAS Economic Census of 2006

[5] A study conducted by The International Finance Corporation (IFC) entitled "*The SME Landscape in Egypt*" suggests that the number of M/SMEs in Egypt in 2003 accounted for 2,576,937 enterprises

[6] "Who gets Credit? The Gendered Division of Microfinance Programs in Egypt," Ghada Barsoum, *Canadian Journal of Development Studies*, 2006

The long list of donors is reflected in the diversity of microfinance service providers. These can be grouped into five main categories of microfinance institutions[7]:

**Specialized NGOs:** These are legal non-governmental organizations established under the Ministry of Social Solidarity. These microfinance providers are business associations that were founded by USAID where loan funds donated by USAID are maintained in an interest-earning deposit account and the business association receives a line of credit against which to disburse loans. In other words these associations could be viewed as intermediaries between individual borrowers and the lending banks. Two not-for-profit foundations were first established in 1988: Cairo Foundation and Alexandria Businessmen Association (ABA). The model was later replicated in six other governorates: Port Said (1995), Assiut (1996), Sharkiya (1997), Dakahleya (1998), and finally Kafr El Sheikh (1999).

**Public and Private Banks:** In 2007, five banks are engaged in micro-lending programs: three state-owned banks – Banque du Caire (which downscaled operations in 2001), Bank Misr (in 2004) and the PBDAC (in the 1950s) – and two private banks, the National Bank for Development (USAID bank model implemented in 2000) and the Bank of Alexandria (in 2007).

**Community Development NGOs:** Community NGOs provide a range of community-based social development services, of which micro-credit is one activity.

**Umbrella NGOs:** These NGOs serve as a nationwide network of community-based organizations and are often closely linked to the government and act on a national scale.

**Community Development Associations (CDAs):** These small, local, voluntary organizations tend to perform a "credit retailer" function for umbrella or social development NGOs. Activities are largely performed by volunteers.

**Outreach of Current Microfinance Services**

There is a lack of available reliable data about microfinance services in Egypt. Sometimes information is not available, like the exact number of the plethora of NGOs providing microfinance services, which is generally accepted as being between 250 and 300. When it is available, the information is often outdated, mainly due to the rapid growth of the sector and the ongoing entry of new service providers.

Furthermore, a characteristic of the microfinance market is the high level of informality of its potential clients, representing 80% of the total micro and small enterprise sector[8]. The figures derived from the Egyptian 2000/2001 Economic Census cover only "establishments". Street vendors, mobile units, and home based enterprises, which are mainly informal and not registered, are not covered[9].

Moreover, there is no unified definition which has been adopted nationally in Egypt of what is a micro enterprise and what is a small enterprise. However, the Law on Micro and Small Enterprises No. 141 for the year 2004 defines a microenterprise as an enterprise engaging in economic activity whose paid-up capital is less than 50,000 EGP (US$ 9,100); and a small enterprise as one whose paid-up capital is not less than 50,000 EGP (US$ 9,100) but not more than 1 million EGP (US$ 182,000), and which has no more than 50 employees[10].

Nevertheless, from data provided by the main stakeholders in the course of conducting this impact study, it is estimated that the cumulative number of active clients was just over one million in December 2007:[11]

- Business associations are the largest NGOs, with estimates crediting USAID with financing more than 50% of all activities in the sector. In December 2007, eight microfinance institutions together recorded almost 600,000 active clients (ASBA, LEAD, ESED, DBACD, SBACD, ABA, SEDAP and NSBA)[12].
- In July 2007, the Microfinance Sector Program in the SFD, which channels sizable amounts of its funds through Community Development NGOs, umbrella NGOs and CDAs, accounted for 160,000 active clients.

[7] *Regulation and Supervision of Microfinance in Egypt*, Magdy Moussa, Microfinance Regulation and Supervision Resource Center, January 2007
[8] Economic Research Forum
[9] As pointed by the Strategy framework document for "Mobilizing Egyptian Micro and Small Enterprises 2008- 2012", prepared by the SFD with Technical Assistance from CIDA, the Ministry of Finance/SMEPol Project and external consultants, July 2007
[10] Small Enterprises Law & Regulations
[11] *Microfinance Program Map*, USAID and Egyptian Micro Finance Network, April 2008, p8
[12] Ibid

- Banks comprise around 22% of the total Egyptian microfinance market with approximately 200,000 active borrowers.
- Other newcomer MFIs in the market represent the remaining portion, including the First Microfinance Foundation.

**Current Microfinance Products Provided**

Contrasting with the high number of active borrowers and the diversity of MFIs, financial services have been limited to traditional credit methodologies[13]:

- Credit Services are dominated by two types of products: individual loans that provide working capital for existing enterprises (operating for at least one year), predominantly in the retail and mercantile sectors in urban and semi-urban settings; and solidarity-group lending for income-generating activities of women, especially Female Heads of Household (FHHs) in the lowest income categories.
- Savings/Deposit Services: The National Postal Authority remains the dominant provider of micro-savings due to its extensive outreach, low-cost application procedures and the legal capital intensive requirements limiting MFIs to provide this service. However, low-income savings mechanisms are often informal due to the reluctance of entrepreneurs to deal with the banking system.
- Insurance Services: While some of their products are affordable for microenterprises and microconsumers, the state-owned companies follow supply-driven approaches – the products are neither designed nor marketed to meet the needs of microenterprises. Some microfinance programs, like the National Bank for Development (NBD), provide life insurance to their clients to cover part of the amount lent in case of default due to death. However, these insurance packages are only embedded in credit packages to reduce MFIs' risk of default, not offered as a stand-alone product specifically designed to target microentrepreneurs.

### 2.2.2. The National Microfinance Strategy

**Policy Framework for Microfinance in Egypt**

Microlending in Egypt is provided through two main channels. The first is through public and private banks, which are regulated by the Central Bank of Egypt (CBE). The second is through NGOs, which are regulated by the Ministry of Social Solidarity (MSS). NGOs are not allowed to capture savings or other deposits or provide any kind of official insurance.

- In 2002, the government adopted a law regulating the incorporation and operations of non-governmental organizations and foundations. All NGOs have to register with the MSS before providing services, and must also submit copies of Board meeting minutes to the MSS.
- A new law on micro and small enterprises was adopted in 2004[14]. It defines the role of the Social Fund for Development (SFD) as the body responsible for planning and coordinating between relevant stakeholders, and promoting the establishment of SMEs (Small and Micro Enterprises) and assisting them in obtaining financing and services. The SFD role is not supervisory, neither a registrar nor licensing body for MFIs/SME lenders.

**Institutional Framework**

"The National Strategy for Micro-Finance" was launched in 2006. It aims at developing a microfinance industry which provides sustainable financial services to small businesses. The strategy was released in the form of a report, funded by the United Nations Development Programme (UNDP), the United States Agency for International Development (USAID) and Germany's government-owned German Development Bank (KFW). The Central Bank of Egypt (CBE) was involved through its affiliate, the Egyptian Banking Institute (EBI).

[13] *Regulation and Supervision of Microfinance in Egypt*, Magdy Moussa, Microfinance Regulation and Supervision Resource Center, January 2007
[14] The Small Enterprise Development Law No. 141 of the year 2004, also referred to as the SME Law

The SFD was also represented in the steering committee, in recognition of its active participation in the development of the Strategy and its role as the entity designated for national coordination of all SME-related activities.

The strategy classified obstacles faced – and, accordingly, the required interventions – into three levels: Micro, Meso, and Macro. The Micro level refers to interventions at the level of the MFI; the Meso level refers to interventions at the level of institutions that serve financial service providers (apex and institutional support services); while the Macro level refers to policy- and legal-related interventions that contribute to a more conducive environment for improving service quality, diversification, and outreach. The objectives of each level are as follows:

- **The Micro Level**: To promote the development of a diverse range of sustainable MFIs that compete to offer various effective financial services to microenterprises and the poor, and that cater to evolving market demand.
- **The Meso Level:** To support the sound functioning of existing apex institutions and national guarantee mechanisms.
- **The Macro Level**: To develop a policy and regulatory environment conducive to an inclusive financial system that encourages the growth and development of microfinance.

Rough estimates indicate that the microfinance industry could potentially have between two and three million clients if the recommendations included in the Strategy were implemented[15]: Some of the major recommendations are:

- Encourage Adherence to Reporting Standards and Performance Benchmarks, potentially through Self-Regulatory Organization (SRO)
- Establish Clear and Unified Criteria for Financing MFIs
- Institute the Use of International Rating Agencies
- Establish a Non-Prudential Self-Regulatory Mechanism
- Recognize Specialized Credit NGOs
- Promote the Establishment of Non-Bank Commercial MFIs

**The National Network**

Some concrete actions have been recently taken following these recommendations. The creation of the Egyptian Microfinance Network (EMFN), with 12 MFIs and the Social Fund for Development stepping up as founding members, was the first concrete step in 2006: "the decision is taken by many associations and organizations to establish a network that includes associations working in the field of microfinance with the objective of supporting efforts, unifying terms, upgrading information management functions, reinforcing capabilities and improving the performance standards in order to improve the microfinance industry"[16].

Currently, the Network is in the process of developing its operational activities in light of its business plan and securing funding for those activities. The activities mainly consist of advocacy, technical and information services for MFIs, and establishment of an Information Sharing Center for Network members.

### 2.2.3. Current Trends in Microfinance in Egypt

**The Egyptian Microfinance Sector has Demonstrated Strong Performance:**

- Outreach has increased during the past few years (by more than 50% for the top 7 MFIs between 2004 and 2006).
- Currently, seven MFIs are fully oriented to sustainability, with a strong commercial orientation and committed management.

[15] *National Strategy for Microfinance in Egypt*, 2006
[16] Bylaws of The Egyptian Micro Finance Network, officially registered in Cairo in 2006

- Five MFIs have undergone external rating and have received outstanding marks, ranging from B+ to A -, with stable or positive trends.
- Twelve institutions report to the MIX Market with three to five diamonds; four institutions among those are represented in this study.
- But serious obstacles remain to achieve compliance with microfinance best practices and to be able to reach the vast majority of potential future beneficiaries:
    - Low Penetration: Despite the fact that Egypt has the second highest number of active microfinance borrowers and potentially constitutes the Arab region's largest loan portfolio, Egypt's market penetration rate is very low: 95% of the potential demand for microfinance was still not being met in 2005[17].
    - Regulatory Limits: There is a lack of clarity in government policies regarding microfinance, with the persistence of distortion practices.
        - Currently, specialized MFIs (such as microfinance banks, cooperative banks, or other non-bank commercial financial institutions) do not exist in Egypt.
        - In addition, NGO MFIs are not subject to microfinance-specific supervision (they receive the same supervision as other NGOs working in charity and community support), which affects their ability to develop policies and procedures that support sustainability and the potential to transform in the future[18].
        - Some microfinance services - like capturing savings, remittances, leasing, etc. - require specific regulations and/or supervision to either provide the service or continue in operation.
        - Finally, the new SME Law does not go as far as making the SFD a regulator or licensor of SME finance. However, it remains responsible for the planning and the organization for the sector in Egypt.
- Limited Services Available in the Market: Credit for microenterprise activities is the main product. Credit for consumption, payment services, money transfers, or insurance services are not readily available.

Regarding non-financial services, and namely Business Development and Advisory Services (BDAS), some initiatives exist and have been implemented by MFIs: associated services with veterinarian and agriculture, computers skills, services associated with fair trade, training institutes, women empowerment, employment facilitation, accounting skills, show rooms for the clients, etc.

Nevertheless, the main non-financial services are not specifically targeting microfinance clients, but are provided to the community in general. Indeed, BDAS are still very limited in terms of outreach to microentrepreneurs. Both sides of the market equation (demand and supply) need to be appraised in order to develop and finance sustainable BDAS products, while at the same time, targeting needs of the clients.

**New Trends for Enhancing Sector Opportunities are Notably Observed**

- Declining Donor Dependency: Since the USAID contribution to the sector, most of Egypt's microfinance initiatives have been driven by donor initiatives. However, a new direction characterized by diminishing reliance on donor funding (especially for the loan capital) has been opened with commercial banks playing an increasing role in bridging the gap between supply and demand for microfinance in Egypt. The Grameen-Jameel Initiative[19], announced in September 2006, has brokered the first investment by the country office of the International Commercial Bank in Egypt's microfinance industry[20].
- Organized Competition: As for one of its first crucial assignments for the sector, the Egyptian Microfinance Network decided in October 2007 to create a microfinance specific information

[17] According to United Nations Capital Development Fund (UNCDF)
[18] *Regulation and Supervision of Microfinance in Egypt*, Magdy Moussa, Microfinance Regulation and Supervision Resource Center, January 2007
[19] A collaboration between Grameen Foundation and the Abdul Latif Jameel Group to fight poverty in the Arab World through microfinance
[20] News from Grameen Foundation, September 2006: The $2 million guarantee to Dakahleya Businessmen Association for Community Development (DBACD), secured a local currency loan of $2.5 million from BNP Paribas

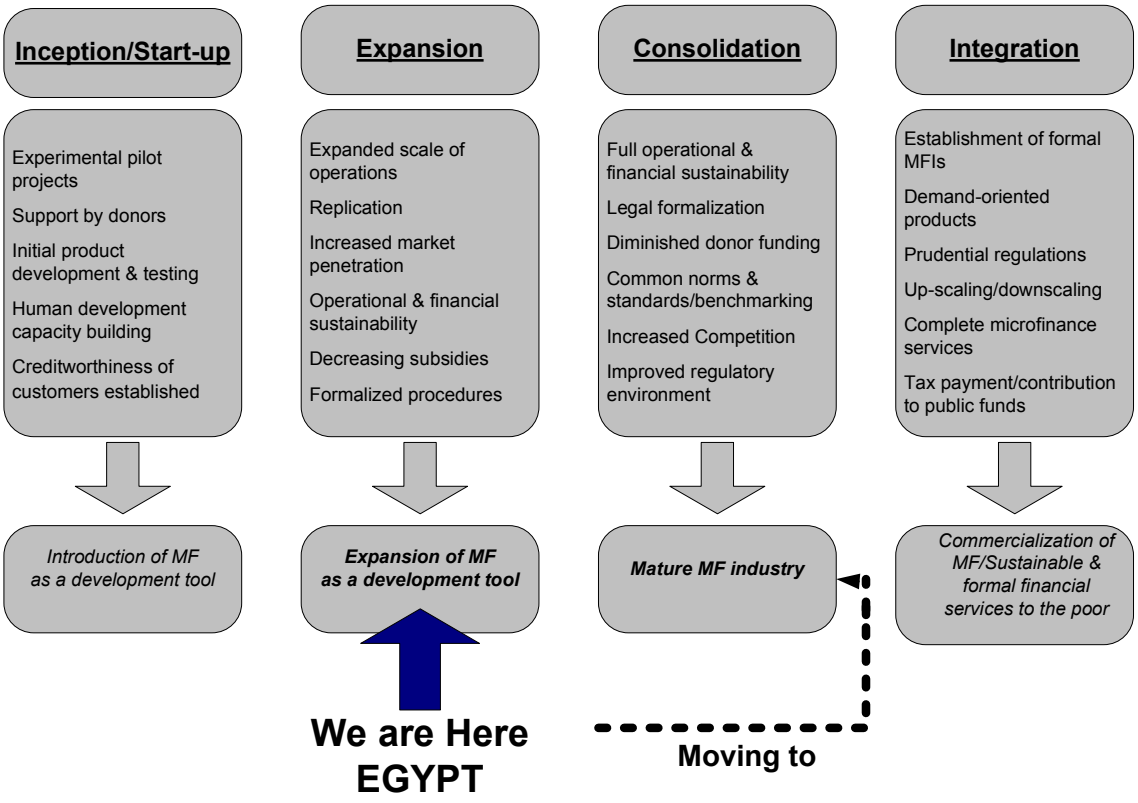
sharing system. The information sharing system[21] will provide Egyptian MFIs with the information to enable a better risk evaluation during the loan issuance process. By sharing information on borrowers, their debt levels and their credit history, MFIs would be in a position to better manage their credit risk and therefore minimize the chance of losses due to non-repayment of loans[22].

- Regulatory Opportunities: Efforts are being made by various stakeholders to lobby for a more conducive regulatory environment. In this regard, EMFN is working on promoting a healthy enabling environment for MFIs to work in, as well as disseminating information related to best practices.
- New Products: Some initiatives are contributing to the diversification of products. Indeed, some MFIs have started to diversify their portfolio such as offering housing loans (for housing renovation), educational loans and other specific programs according to their vision and/or the focus of the donors.

  Recently, PlaNet Finance has launched the first micro-insurance program of its kind in partnership with Allianz Insurance Company and two major Egyptian MFIs.[23]

## 2.3. Context of the National Impact Survey

The microfinance sector in Egypt has reached a significant development stage - active clients have more than doubled from 2004 to 2007 - and is now entering a period of restructuring and consolidation, all the more as the financial viability of most MFIs is yet to be achieved.




In 1991, the Microfinance sector witnessed the creation of sizeable MFIs that are performing according to widely accepted good standards; these are the MFIs that were supported by USAID. Since then, various donors have assisted in creating MFIs that adopt professionalism and good

[21] Developed with the PlaNet Finance's Technical Assistance
[22] *Improving MFI performance in competitive and saturated environment*, by Sébastien Duquet, Planet Library
[23] ASBA and FMF are providing their clients with a Death and Disability scheme which offers insurance for death due to disease or accident and permanent or irreversible disability due to accident on the whole MFI's portfolio, not on a client-by-client basis

practices in their operations. During this period, efforts were concentrated on equipping MFIs with the basic necessary knowledge and skills to operate a successful microfinance credit program, as well as to comply with international reporting and disclosure requirements for their operational and financial performance, being regularly audited, and sometimes rated by independent recognized microfinance rating institutions. Gradually, some MFIs have proven to be prudent and capable of expanding their capital base from the surplus earned on the credit they offer. The microfinance market in Egypt is now witnessing the increased interest of policy and decision makers, evidenced by preparation of the National Strategy for Microfinance in 2006, as well as the establishment of the national Egyptian Microfinance Network. Also, with the recent direct involvement of more banks in extending microcredit, the sector now is moving towards consolidating experiences gained, and widening its availability in order to fully integrate microfinance into the formal financial services industry.

However, the current outreach and service mix of microfinance does not necessarily meet all of the financial services needs of its clients. In that context, this study is trying to address the following issues/questions:

- What is the real impact of microfinance services on poverty reduction and economic opportunities of clients?
- Have the projects implemented by MFIs in Egypt reached their intended objectives in terms of changing living conditions for their targeted clientele, or not?
- What is the gap between the types of services provided and the needs expressed by clients?

Among efforts to further develop the microfinance sector in Egypt, various research and development activities have already been undertaken, including:

- Impact or market surveys undertaken by an individual MFI in a specific governorate[24].
- SFD Global Impact Assessment in 2003: the objective of the assessment was to measure the impact of sectoral project interventions of the SFD in key areas of intervention. One study focused on an assessment of economic and social impact of microcredit provision on the livelihood of beneficiaries (sample of 450 clients in governorates of Fayoum, Qalubeya and Qena)[25]. Another study conducted by the World Bank in 2006 for SFD projects, including microfinance, examined the positive impact of microfinance interventions.
- Specific studies about the impact of microcredit in empowering women and the consequences of gender division in existing microfinance programs in Egypt[26].
- Study on the Impacts of Microfinance Initiatives on Children prepared in 2007 for the Children's Rights and Protection Unit of the Human Rights and Participation Division, Policy Branch, at the Canadian International Development Agency[27].
- Studies related to the evolution of the sector and new practices for expanding access to sustainable microfinance for micro and small enterprises.
- Study mapping microfinance programs in Egypt.[28]

However, no sector-wide participative impact study has been done directly with the clients of Egyptian MFIs and used as a basis to measure the impact on the microentrepreneurs' household incomes, as input to inform the adaptation of products to their needs and to extend methodologies to serve the uncovered demand.

To ensure a sustainable and effective expansion of the microfinance sector in Egypt, and to ensure that microfinance is fulfilling its social mission in terms of poverty alleviation and economic development and empowerment, it was worthwhile to conduct a national impact study using a standard methodology in microfinance.

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[24] Such as ABA, DBACD and ASBA in their respective governorates (Alexandria, Dakahleya, Assiut)

[25] *SFD Impact Assessment Consolidated Report*, 2003

[26] "Who gets Credit? The Gendered Division of Microfinance Programs in Egypt", Ghada Barsoum, *Canadian Journal of Development Studies*, 2006

[27] The study was carried out by Partners in Technology Exchange Ltd. (PTE) and Mennonite Economic Development Associates (MEDA), in collaboration with the following partner agencies: Pro Mujer in Bolivia, Egyptian Association for Community Initiatives and Development in Egypt, The Concerned for Working Children in India, and Finca in Tanzania

[28] *Microfinance Program Map*, USAID and the Egyptian Micro Finance Network, April 2008

This type of study goes beyond a simple client satisfaction inquiry by seeking to quantifiably assess to what extent participation in a microfinance program has had a positive impact on microenterprise development and poverty alleviation. ***The study serves as a basis for new product and service development as well as market stratification, providing MFIs with valuable information on how to better serve their current clients and develop a competitive strategy for expansion. Moreover, the national impact study provides policy makers and regulatory bodies with useful information related to the state of the microfinance sector and its needs in terms of legal framework and industry-building***.

## 2.4. Organization of the Study

The National Impact Survey was carried out over a five-month period, from September 2007 – January 2008 and involved a number of different actors and participants, each with specific roles and responsibilities.

### 2.4.1. PlaNet Finance

The study was carried out by PlaNet Finance under the direction of a Steering Committee represented by the study funders: FMF/AKAM, GTZ, PlaNet Finance Egypt, SFD/UNDP, and the SMEPol Project (Ministry of Finance in partnership with IDRC and CIDA). The study benefited from PlaNet Finance's Impact-Knowledge-Market (IKM) methodology and prior experience in the Arab region in assessing impact and market demands of microfinance. PlaNet Finance was also responsible for the planning and coordination of every aspect of the population sampling and data collection. This included raising awareness among the 11 participating microfinance institutions on the methodology and goals of the impact study, adapting and testing the questionnaire, recruiting and training the data collection team on interviewing skills and the questionnaire to be used, ensuring an accurate and randomly-selected sample in terms of proportional distribution, and guaranteeing the quality of results. Finally, PlaNet Finance played an active role in coordination and information sharing with stakeholders throughout the course of the study. The participation and guidance of stakeholders' was key to the success of this effort.

### 2.4.2. Microfinance Institutions

Thanks to the participation of a large representative sample of MFI legal entities, the diversity of microfinance service providers and donors have been represented: the sample includes single purpose MFIs *(stated in the report as S-MFIs),* development oriented NGOs with microfinance component (*stated in the report as NGOs)*, as well as one bank.

An MoU was signed with 11 MFIs that agreed to be part of the sample: LEAD Foundation, Mobadara - Community Development and Small Enterprise Association, Dakahleya Business Association for Community Development (DBACD), Alexandria Business Association (ABA), Assiut Businessmen Association (ASBA), First Microfinance Foundation (FMF), Assiut Business Women Association (ABWA) through the umbrella of Catholic Relief Services (CRS), Regional Development Enterprise Center (REDEC), Egyptian Development Family Foundation (EDFF), Bank Misr, and Association for the Development & Enhancement of Women (ADEW).

### 2.4.3. Egyptian Data Collection Team

PlaNet Finance recruited, trained and managed the work of the data collection team, according to strict criteria, in order to carry out the data collection process:

- 28 surveyors were selected through major Cairo universities and specialized research centers, who were in charge of collecting quantitative data through the fulfillment of 2,500 questionnaires, during the month of November 2007.

- Four experienced supervisors managed the group of surveyors in the field; the group was distributed in four teams, working simultaneously in the different branches (53 branches in total) of each selected governorate.
- An officer in charge of the quality control on the 2,500 questionnaires.
- Data entry manager in charge of the coding and entering of the data from the questionnaires in the SPSS database format, which was then delivered to PlaNet Finance for analysis.

# 3 Objectives of the Survey

The National Impact Survey has a number of objectives related to expected outcomes and research and development activities.

## 3.1. Expected Outcomes

The expected outcome of the study was to measure the effects of participation in a microfinance program on a range of variables linked to the activity/business, the household and the individual. The approach accordingly focused on the end-user/borrower level.

Microfinance services were considered as the whole range of financial and non-financial services[29]. Given the wide area of non-financial services, the study focused on a set of non-financial BDAS directly linked to microenterprises. The integration of the BDAS component in the survey represents a pioneering approach for the microfinance sector: it allows for assessment of questions of efficiency and affordability from the client's perspective, raises the issue of financing sustainable BDAS, and provides better information for the decision-making process for donors.

Based on the above, 3 key test questions were selected:

1 – How are the characteristics of the financial services (transaction size, loan terms, duration, installment frequencies, and interest rate) related to better impact on the end-user at 3 distinct levels: activity, household and individual?

2 – How are the non-financial services related to a better impact? A specific section of the survey addressed this issue with a number of clients currently having access to BDAS, in order to understand their BDAS needs and their perception of the effectiveness of those services.

3 – Is there a greater impact when women borrow? The study examines the relation between type and magnitude of impact and gender.

## 3.2. Research and Development (R&D) Objectives

In terms of research and development, the project aims at providing concrete information on the current market, the quantifiable impact of microfinance on business development and quality of life, and information on demand and client satisfaction. More precisely, the study was designed to provide the following information:

- Details concerning the socioeconomic characteristics of microentrepreneur households and activities
- Statistics related to the demand for financial services, including new products; and current practices related to the use of financial products
- Information related to the investment practices of microentrepreneurs in their businesses, including types of investment, frequency of investment, and the accumulation of assets
- A quantifiable asset ownership index of microentrepreneurs
- A measure of the end-user/borrower/client perception of the impact of microfinance on the household, on women's empowerment, and on the accumulation of asset ownership
- Reasons and explanations for client drop-out as well as statistics on client satisfaction

The study seeks to provide microfinance institutions with information related to development of products and services in order to better respond to the needs and desires of their clients, especially

[29] The project considers as microfinance, the credit services provided up to 50,000 EGP (no minimum)

those needs that are not met by the current financial products offered. In addition, the study aims at providing various sector actors with information related to market stratification, and finally the positioning that each MFI could take within the boundaries of its market as a means for avoiding unproductive competition.

# 4 Methodology

As a general definition, an Impact Study *"measures the impact of services offered by a microfinance institution on the life of its clients within specific domains such as of employment, revenue, nutrition, education, health, or women's empowerment. It is the principal means by which the efficiency of microfinance as a tool to fight poverty is determined"*.

The various methodological tools used to measure the impact of microfinance can be grouped into two categories: quantitative approaches and qualitative approaches (which can in turn be subdivided into the participatory and non-participatory methodologies). The reader can refer to Annex 15.1 for more detailed information about accepted research methodologies.

## 4.1. Methodology Selected

The primary methodology selected for this impact study has been a quantitative approach based on a standardized questionnaire in which each response was assigned a numeric value that could then be counted and compared. This approach was selected in order to cover the largest and most nationally-representative possible sample. In addition, the quantitative approach was employed in order to simultaneously conduct an impact study, as well as a market study, thereby providing quantifiable information to microfinance institutions concerning new products and product characteristics. In addition, and in order to compliment the quantitative study and verifying results, six qualitative focus group discussions were conducted.

This study was conducted using a quasi-experimental, non-longitudinal approach which compares clients of microfinance programs with respect to their duration of participation in a program. The sample was divided into three groups of active clients: New clients (those who have been with a microfinance program for six months or less), Medium clients (those who have been with a program for a duration of 6–36 months), and Old clients (those with more than three years of participation in a program). In addition, the study included a fourth group, Drop-Out clients, who had left a microfinance program at least six months prior to the study.

The inclusion of Drop-Out clients in the sample has the positive effect of limiting bias relative to comparing clients only with respect to the duration of their participation in the program. It is presumed that clients who remain in a microfinance program will demonstrate different characteristics than those who drop-out: they could be either the best clients who no longer need a loan, or conversely those who benefited the least from a microfinance program. By including them in the study, potential biases related to the types of clients who remain in a microfinance program would be further reduced.

### 4.1.1. Sampling

The sample size for this study was set at 2,500 clients with an expected margin of error of 20%. In constructing the sample, three initial requirements were taken into consideration and used to create the sample distribution:

- The study would involve all three different kinds of microfinance institutions which are: Single purpose MFIs (*S-MFIs*), development oriented NGOs with microfinance component (*NGOs*), and formal financial institutions (*Bank*). Furthermore, the sample would be, as much as possible, proportional to the market share percentage of each type of institution in the microfinance market, thereby requiring a precise distribution of the sample.

- The study would be carried out nationally and proportionally representing Upper, Center, and Lower Egypt.

- The sample would consist of four groups of clients: New, Medium, Old, and Drop-Out.

Given these criteria, a distribution was established for the survey sample and respected during the data collection. Following one month of data collection, the initial sample of 2,500 was shown to have an accuracy rate of 98.8%, meaning that only 30 of the interview surveys displayed inaccuracies.

These were removed from the database and not included in the analysis. Charts 1, 2 and 3 represent the final distribution of the sample by governorates, types of institutions and types of clients.

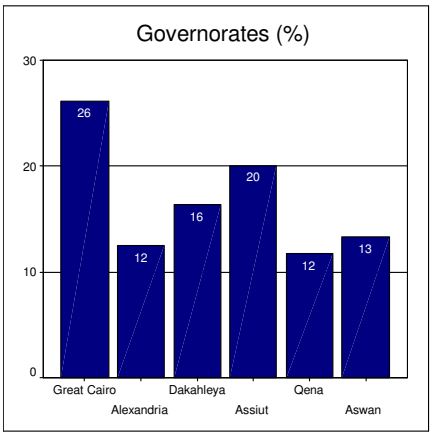



Chart 1: Governorates

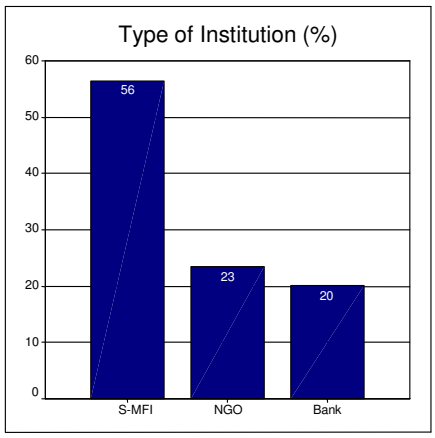



Chart 2: Type of Institution

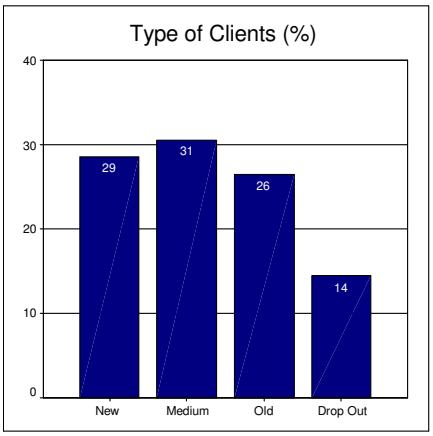
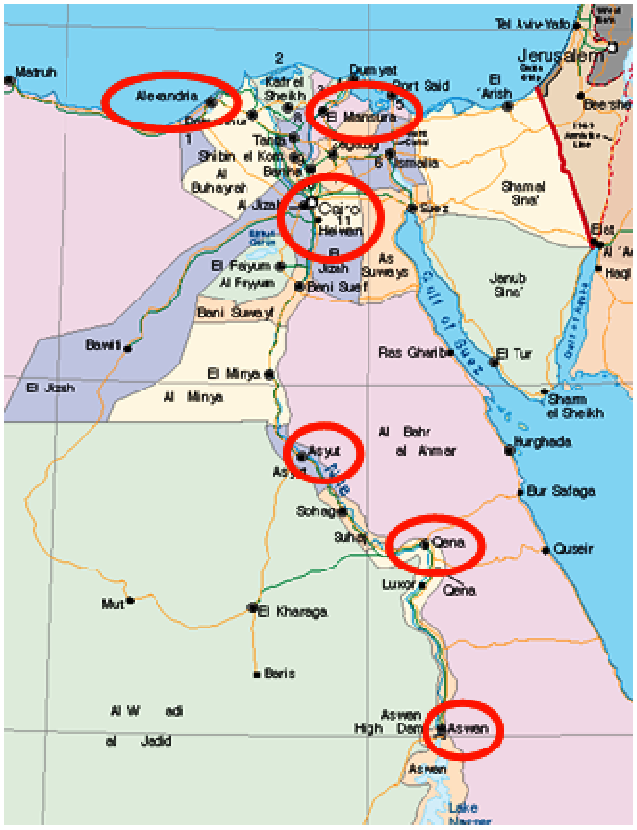



Chart 3: Type of Clients




Map of selected governorates: Great Cairo, Dakahleya, Alexandria, Aswan, Assiut and Qena.

### 4.1.2. Data Collection Methodology

The study used both quantitative and qualitative methods for collecting, qualifying and classifying data. The quantitative data was obtained from administration of a survey questionnaire divided into nine sections, including a large and diverse quantity of information: (1) demographic and household information, (2) economic activity, (3) evolution of the demand for financial services, (4) investments,

(5) perception of impact on the household and enterprise, (6) perception of impact on women's empowerment, (7) training, (8) perception of asset ownership, and (9) reasons for drop-out.

This questionnaire was reviewed with Egyptian study experts and microfinance stakeholders in order to adapt the questions to the local context and obtain results that were both pertinent and useful to the research and development activities of MFIs. A team of 28 interviewers and 4 supervisors were trained by PlaNet Finance and deployed in the field over a one month period, supervised throughout by the PlaNet Finance Egypt team.

The choice of clients to be interviewed was conducted via a random selection from automated and reliable databases of MFIs and according to the study's criteria. Interviewers were then provided with the list of interviewees to be contacted. In order to avoid delays in contacting MFI clients and to facilitate data collection, a decision was made to enlist the help of branch managers and loan officers in the process of locating clients. When a client either could not be contacted or did not want to participate in the study, the surveyors were provided with alternative clients with the same profile for the interviewers, thanks to the collaboration of branch managers' under the supervision of the project team.

The qualitative data was acquired through six focus group discussions held in Greater Cairo, each lasting approximately one hour and involving 5-8 microentrepreneurs. The discussion guide used the same basic framework as the questionnaire, although focused more on questions related to the economic situation, borrower financial strategy, savings and other services, non-financial services, employment creation, and the perception of impact on the business, household, and individual levels. The discussions were carried out by senior PlaNet Finance experts and an external consultant trained by PlaNet Finance.

## 4.2. General Framework for the Impact Evaluation

The impact evaluation was assessed on the basis of specific hypotheses, indicators and control variables.

### 4.2.1. Hypotheses

This structure for the study was based on a series of hypotheses that contributed to the methodological framework and approach to be used. The hypotheses are as follow:

- Participation in a microfinance program has a positive effect on a series of variables related to the economic activity and household poverty level. These positive effects increase with the duration of participation in a microfinance program (which generally implies a larger number of loans in increasingly larger amounts).
- The level of impact can vary based on external factors, such as the environment of the client, household size, and the capacity of the microentrepreneur to build and/or maintain an income-generating activity.
- The intensity of impact will vary according to the target clientele of the microfinance institution (meaning that different MFIs may target different types of clients, which will influence the results).
- The impact of participation in a microfinance program could be negative in cases of over-indebtedness of the client or poor use of the microcredit.
- There are likely gender differences in the use, application and impact of microfinance.
- The impact should be different for clients having access to BDAS.

### 4.2.2. Indicators for Measuring Impact

The assessment of the impact of microfinance is measured against a series of indicators related to the economic activity, the household, and the individual.

- **At the level of the economic activity,** the study considers indicators related to the microenterprise (sales, profits, investments, number of employees), access to markets, and diversification.
- **At the household level,** the study examines the impact on household income and consumption, the accumulation of assets, and the education of children.
- **At the individual level,** the impact is assessed as the contribution to household budget, perception of empowerment, overall feeling of financial security, and living conditions (home, nutrition, health).

### 4.2.3. Participation and Control Variables

The evaluation of impact with respect to participation in a microfinance program is assessed through a series of quantifiable variables: the number of loans obtained, the credit amounts, the accumulated loan amount, duration of participation in a microfinance program, etc.

It is important to note, however, that the degree of impact is affected by control variables related to the household, the activity and the environment. These include variables such as gender, degree of education, household size, type of activity, location, the MFI, etc.

## 4.3. Specific Framework for the Impact Evaluation

As previously stated, the principal objective of the impact study is to assess the effect of participation in a microfinance program on a series of economic, social, and poverty indicators (monthly profit, food consumption, etc…). The economic modeling used in analyzing survey data and the methodology are described in more detail in Annex 15.1.2.

It is necessary to mention here that it is difficult to isolate the effect of microfinance from other factors not related to financial services' access: the most difficult task of any impact evaluation is to separate out the causal role of the project (in this case, the injection of microfinance). It is especially true in a context like Egypt where the economic and macro-situation have changed a lot over the last three years (inflationary context namely).

Indeed, to know exactly the impact of a specific program, ideally two identical groups should be compared which differ only in one characteristic: a group receiving the program - the "treated" group, and a group not receiving the program - the "non-treated" group.

Nevertheless, experimental longitudinal comparisons require time and significant budget. The methodology described proposes a cost-effective approach to ensure the achievement of the desired objectives.

# 5 Socio-Economic Characteristics

This chapter provides a general overview of the profile of surveyed clients and highlights some of their socio-economic characteristics. The first part highlights general demographic information (age, formal education, household/family strcuture), while the second part evaluates the client's wealth according to the index of asset ownership developed through the study, as well as the level of household expenses, and the third part provides information about the microfinance clients' economic activities. The chapter closes with the demographic and activity mapping of microenterprise segments.

## 5.1. General Information

### 5.1.1. Demographics

The average age of respondents is 39 years old. Almost a third of the sample was 30 years of age or younger and more than half were less than 40 (Chart 4).

Over half (53%) of the respondents were male, 78% were married, and 95% have an ID.

Fifteen percent (15%) of respondents have completed higher education; 23% secondary education; 8% less than secondary schooling; 17% less than preparatory schooling, and 37% received no formal schooling.

When asked if they were able to read a letter, 35% of all respondents declared themselves as incapable.

The level of education has been further analyzed in terms of the following variables: gender, and type of MFI (S-MFI, NGO, and Bank).

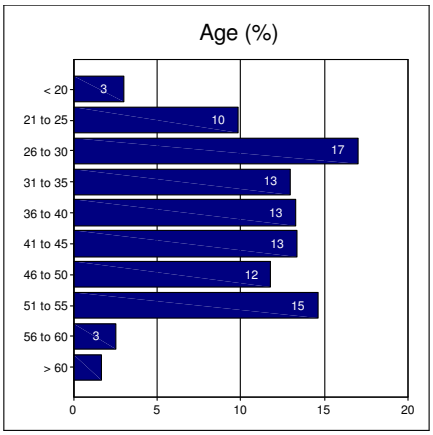


Chart 4 : Age

Significant gender differences were noted on the education dimension (Chart 5). While 56% of women have less than preparatory school education (32% without education), only 25% of men have not completed at least secondary school. Only 8% of the women have an education level higher than secondary school, versus 31% of the men.

Regarding the type of MFI, as depicted in Chart 6, the level of education of respondents is higher for bank clients: 60% have secondary education or higher, whereas 59% of S-MFI and NGO clients have less than preparatory school education.

This confirms the fact that informal financial services providers (S-MFIs and NGOs) are more successful in reaching the economically active poor with lower levels of education, primarily because of the informal nature of the institutions and their presence at the grass-roots community level.

This also gives a strong indication to banks and formal financial services providers to seriously consider creating institutional/operational linkages with informal MFIs if they decide to go for deeper and broader market outreach.

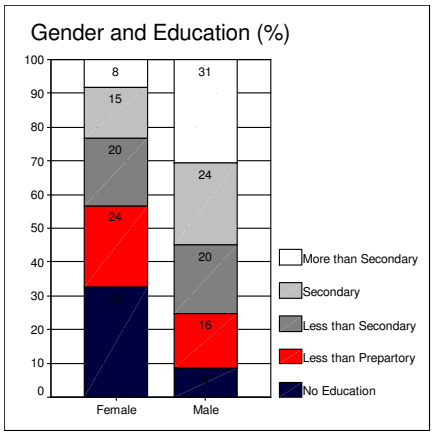



Chart 5: Gender and Education

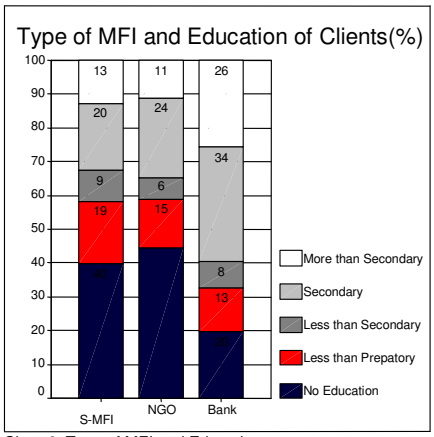



Chart 6: Type of MFI and Education

On average, in a microentrepreneur's household, there are 2.5 adults 18 years of age or older and 2 dependents under the age of 18, which represents a total of 4.5 members per household. A full quarter of the sample does not have children (26%) (Chart 7).

Sixty-two percent of the respondents do not pay rent on their homes, indicating that they are either home owners or have other living arrangements.

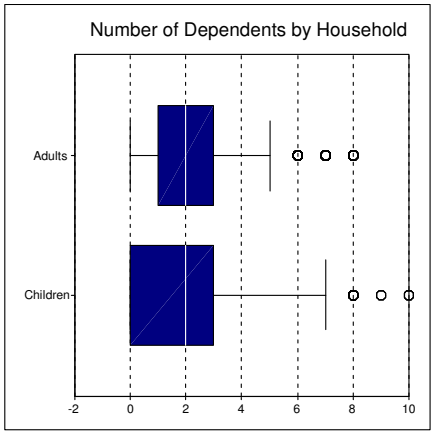



Chart 7: Number of Dependents by Household

### 5.1.2. Evaluation of Poverty and Comparative Index of Asset Ownership

In order to evaluate poverty, an asset ownership index was developed and used to subdivide the sample into five equal groups/quintiles with respect to their degree of asset ownership. For division into the five quintiles of equal size, each individual or household included in the sample was assigned a score based on the accumulation of eleven assets[30] owned by the household (see methodology explanation in Annex 15.2).

Chart 8 depicts this asset ownership index: Group 1 is the poorest asset quintile and Group 5 is the wealthiest asset quintile. These groups do not represent a poverty index for Egypt as a whole, but rather a poverty index for the survey sample representing microfinance users in Egypt.

The value of the average daily revenue of a person from Group 1 is approximately US$2.10, which logically means that the amount available for the household expenses is significantly lower than that figure, especially when legitimate business expenses are deducted and the net income is divided by the number of households. Meanwhile, a person from Group 2 has average daily revenue of US$3.00, a person from Group 3 has average daily revenue of US$4.20, a person from Group 4 has average daily revenue of US$5.40, and a person from Group 5 has average daily revenue of US$10.00. Therefore, it could be assumed that clients from Group 1 live under the poverty line[31].

[30] Tap water, electricity, sanitation, colored TV, fridge, cell phone, more than one cell phone, washing machine automatic, air conditioning, satellite dish and finally, car.

[31] World Bank poverty measurement (http://web.worldbank.org): *When estimating poverty worldwide, the same reference poverty line has to be used, and expressed in a common unit across countries. Therefore, for the purpose of global aggregation and comparison, the World Bank uses reference lines set at $1 and $2 per day (more precisely $1.08 and $2.15 in 1993 Purchasing Power Parity terms).*

In general, microentrepreneurs in Groups 1 and 2 have the most basic income-generating activities while Groups 4 and 5 have the most formal micro or small enterprises. These groups should be always kept in mind when attempting to analyze the survey findings. The objective is to determine the differences between the microenterprises of poorer asset clients and wealthier asset clients and to determine the relationship between level of asset ownership and impact on business development and improvement of quality of life.

**Distribution of Client's Asset Ownership by Male/Female**

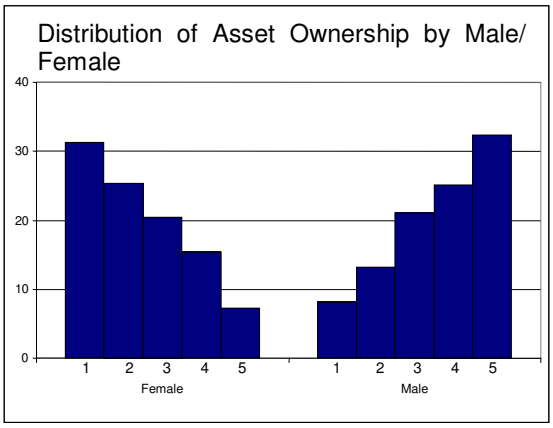



Chart 8 : Distribution of Asset Ownership by Male/Female

Chart 8 also shows gender dimensions of the asset ownership index (male and female). From left to right, bars represent the poorest asset quintile/group (Group 1) to the wealthiest asset quintile/group (Group 5).

The comparison between male and female respondents shows significant differences between the two groups in terms of asset ownership.

The majority of women are concentrated in groups 1, 2 and 3, which represent those with fewer assets (poorer). Inversely, in the case of men, the concentration is rather in groups 3 to 5, which have acquired more assets (they are wealthier).

The proportion of relatively wealthier microfinance clients is higher among men than among women in Egypt. This may indicate that stakeholders seeking poverty alleviation and/or reduction should pay extra attention to targeting enterprises owned by women.

**Distribution of Client's Asset Ownership by Type of MFI Provider**

Microfinance financial services providers in Egypt, on the whole, are not active in the same market (see Chart 9 where quintiles are represented from poorest to wealthiest asset groups).

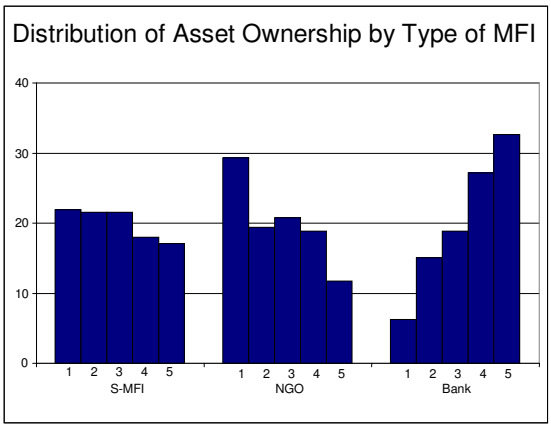



Chart 9: Distribution of Asset Ownership by Type of MFI

S-MFIs serve homogenously all types of client in terms of asset ownership. NGOs focus on the poorest asset ownership group, while banks clearly target primarily wealthier clients, with the majority of their clients falling into the highest asset ownership group. Yet, it is noted that banks do serve all five groups.

**Distribution of Client's Asset Ownership by Location**

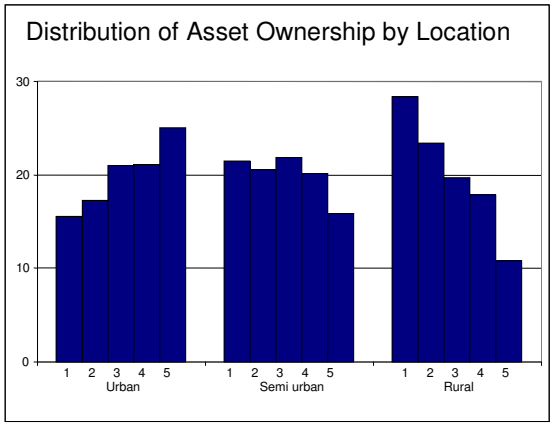



Chart 10: Distribution of Asset Ownership by Location

Asset ownership of microentrepreneurs varies by location in Egypt. The proportion of relatively wealthier respondents is higher in urban areas, while there is a higher concentration of respondents in the poorer quintiles in the rural areas of Egypt.

Moreover, the proportion of relatively wealthier respondents is higher in semi-urban areas than in rural areas, while there is a lower concentration of respondents in the poorer quintiles in semi-urban areas.

### 5.1.3. Household Expenses

Chart 11 depicts the average monthly household expenditures. Most respondents listed paying lending installments for the current loan as the primary concern or priority of their household in terms of expenditure (46%). Thirty-four percent of those surveyed stated that food was the primary priority for household expenditure, while less than 5% listed health services, educational services, or household general expenses (water, gas, electricity) as the top concern.

Food is the most significant household expense, at a median of 400 EGP per month. As depicted in Chart 12 (plot32), a majority of respondents spend between 300 and 600 EGP on average per month.

Lending installments for the current loan that respondents have with their MFI comes in as the second most significant monthly expense, at 180 EGP per month, with a range varying from 80 and 350 EGP (Chart 13).

Education is the third most significant monthly expense, with a median of 100 EGP per month. However, as depicted in Chart 14, 25% of the respondents do not have any educational expenses. The majority of respondents spend less than 100 EGP per month.

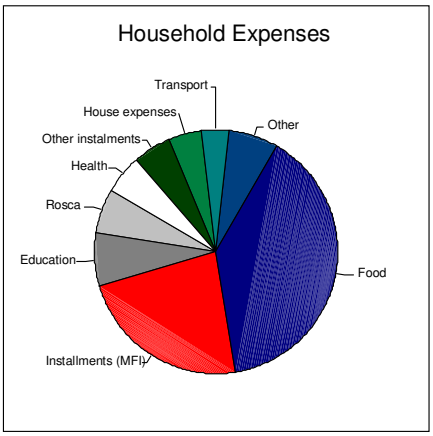



Chart 11: Household Expenses

The conclusion here is that educational expenses represent a material household expense which in some cases, could present a cash flow problem to the borrower, negatively affecting the clients' debt-service capacity. In this regard, some MFIs have been attempting to offer loans towards educational expenses in addition to its business loans. The issue of offering educational loans should be carefully designed and the product should be prudently developed not to overburden microfinance clients.

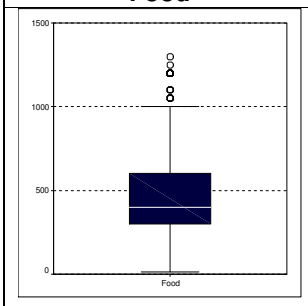
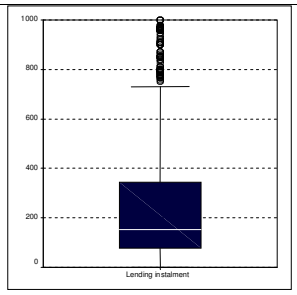
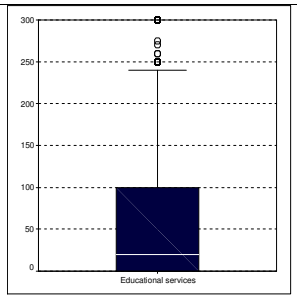
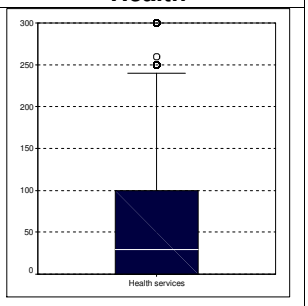
The last breakdown of monthly household expenses is health: 25% of the respondents do not spend any money on it (Chart 15). For health expenses, the median is 60 EGP with a majority of respondents spending less than 100 EGP.

The median average monthly expenditure on house-related expenses (electricity, water) is 50 EGP and 10 EGP for special events. The majority of respondents do not have monthly expenses for ROSCA, transport and other installments, as their median is 0. However, 27% of clients have to pay

[32] Charts 12-15 are called "Box plots". The coloured rectangle in blue represents where the majority of loan amounts are situated (50%), while the bubbles and marks above represent the extremities. A box plot provides an excellent visual summary of many important aspects of a distribution. The box stretches from the lower hinge (defined as the 25th percentile) to the upper hinge (the 75th percentile) and therefore contains the middle half of the scores in the distribution. The median is shown as a white line across the box. Therefore 1/4 of the distribution is between this line and the top of the box and 1/4 of the distribution is between this line and the bottom of the box.

117 EGP (median amount) for monthly installments other than the lending installments for the current loan they have with their MFI. *See section 10 in this report for further detail concerning overlapping*.

Furthermore, 22% of respondents have average monthly ROSCA expenditures of 150 EGP (median amount) every month. ROSCA is a Rotating Savings and Credit Association. A ROSCA can be an organizational means for its members to consolidate and control their financial resources. The selection of members of a ROSCA is based on mutual trust among the individual members. This trust is embedded in the socio-economic knowledge each member has of the other.

| Food | Installment | Education | Health |
|---|---|---|---|
|   |   |   |   |
| Chart 12: Food | Chart 13: Installment | Chart 14: Education | Chart 15: Health |
| Valid: 100% | Valid: 91% | Valid: 52% | Valid: 63% |
| Average: 520 EGP | Average: 340 EGP | Average: 93 EGP | Average: 120 EGP |
| Median: 400 EGP | Median: 180 EGP | Median: 20 EGP | Median: 60 EGP |

## 5.2. Information about Economic Activities

### 5.2.1. General Information

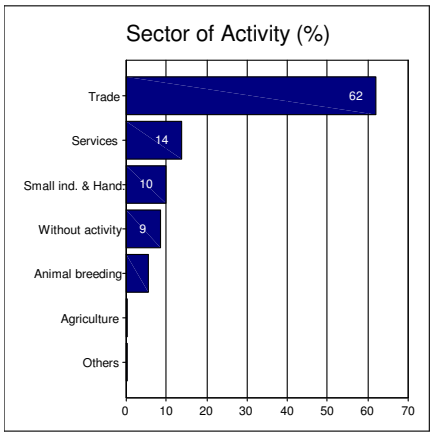



Chart 16: Sector of Activity

In all regions, the majority of interviewed clients were in the trade sector (62%), 10% in the production sector (handicraft and small industries), and 5% were working in animal husbandry and poultry.

However, it is important to note that 8.5% of respondents do not have an (enterprise) activity in their name or do not have a running activity. Seventy-six percent of these respondents are women. The interpretation is that 8.5% did not utilize their loans for business purposes; rather they used the loans for consumption or specific occasions, such as financing a wedding or the purchase of goods and/or services. Further analysis should be done in order to understand if consumption loans are considered as MFI products or done against the policy of MFIs. This would be an indication of the internal control capacity of the MFIs, or perhaps the need to develop consumption loans within the MFIs.

The trade sector includes both wholesale and retail, as well as those enterprises that combine wholesale and retail trade, such as grocery, vegetables/fruits, or stationary. Enterprises interviewed from the services sector covered activities such as plumbing, car maintenance, electrical appliances and mobile repairs, and the handicraft and small producing industry included enterprises such as metal welding shop, tailoring, leather or woodwork.

The classification of sectors outlined in Chart 16 should be analyzed carefully. Given that the demand for microfinance services is not adequately covered, this may lead MFIs in Egypt to do a “cherry picking” exercise among the targeted groups; especially when the MFIs want to limit their credit risk exposure by targeting enterprises with very high turnover (on a daily/weekly basis) normally found in the trade sector, more so than in others. This indicates the need for MFIs to better know the needs of non-trader microentrepreneurs, perhaps developing other types of credit products and thereby

deviating from a “one-size fits all” policy.

Chart 17 shows the sector distribution of respondents by gender. The proportion of women is higher than for men in most sectors of enterprise activity, except for services where an overwhelming 81% of respondent microfinance clients are men. People working in animal husbandry and poultry activities are mainly dominated by women (80%). Fifty-seven percent (57%) and 55% respectively of handicraft and small producing industry and trade microfinance entrepreneurs are women.

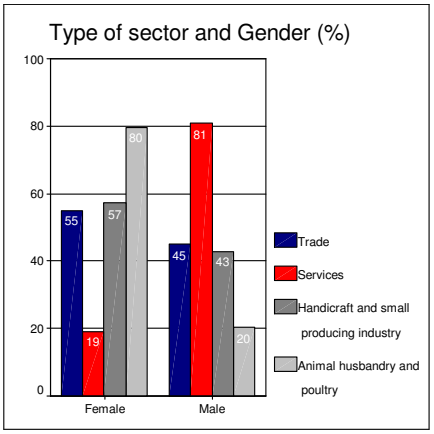



Chart 17: Type of sector and Gender

More than half of the microfinance clients have enterprises that are more than 5 years old – 26% of them are more than 10 years old and 26% are between 6 and 10 years old (Chart 18). A third of enterprises are between 3 and 5 years old, only 9% are 2 years old, and 8% are only one year old. This could be interpreted in light of the fact that MFIs usually do not target financing of new projects but rather existing ones.

Furthermore, only 5% of respondents have changed their activity/project or created another in the last 3 years.

Only 16% of those interviewed have a second activity (Chart 19). Of the whole sample, 7% have another owned business, 4% are government employees, 2% have paid jobs in the private sector and 1% have seasonal activities.

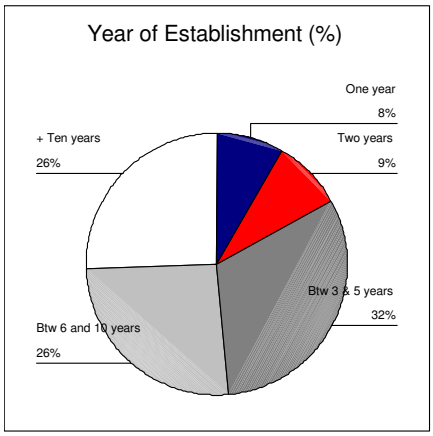



Chart 18: Year of Establishment

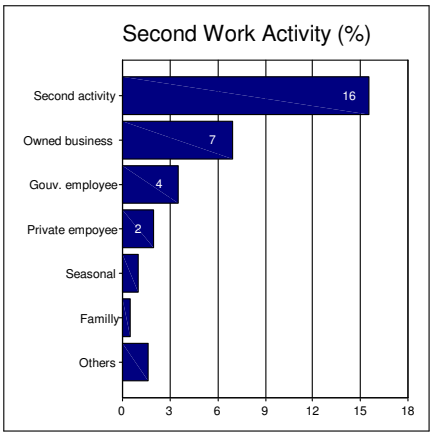



Chart 19: Second Work Activity

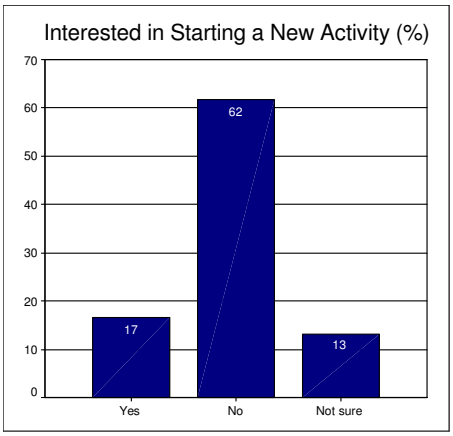



Chart 20: Interested in starting a New activity

An overwhelming 62% of microfinance clients are not interested in starting a new activity, while 17% are interested and 13% are uncertain (Chart 20).

Most MFIs do not favor working with start-up businesses; this could be reflected by their preference to provide working capital for existing enterprises (operating for at least one year), predominantly in the retail and mercantile sectors in urban and semi-urban settings.

Some Egyptian institutions, such as El Mobadara, have a specific program for start-up enterprises but this initiative is not representative of the sector. This could be linked to the lack of Business Development and Advisory Services to help clients start their businesses.

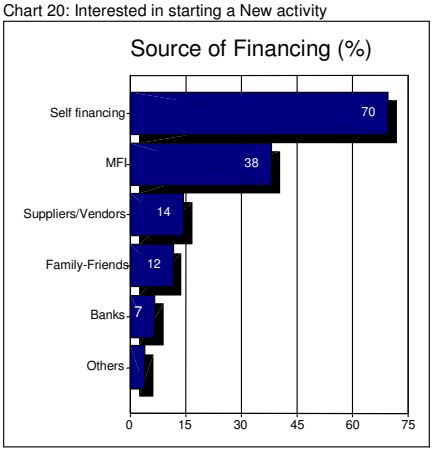



Chart 21: Source of Financing

In terms of the first source of financing, the majority of microentrepreneurs are self-financed (70%), followed by those that are MFI funded (38%) (Chart 21). Fourteen percent declared that they are financed by moneylenders as vendors or suppliers, followed by family or friends (12%). Finally, 7% reported banks as a source of financing.

This indicates that the MFIs are playing a vital role of providing needed access to financing for these microenterprises; being by far the largest source of financing other than money saved by the borrowers themselves. This places an urgent responsibility on the MFIs and sector stakeholders to design a set of financial services to cater to the needs and wants of targeted groups, as they will not be expected in the near future to access funding from formal external sources other than MFIs.

In this regard, MFIs should consider acting as agents to other formal financial institutions to extend other financial services in addition to credit (insurance, transfers, promotion of savings accounts). This will benefit microentrepreneurs, as well as increase client loyalty for MFIs and enhance the image of MFIs in the market.

*See section 10 for further details on sources of financing.*


Chart 22: Location of Sales

Chart 22 shows that the majority of microentrepreneurs sell their products and services in their own shop (48%) or from their house (26%), followed by in market places (14%). To be street vendors or to sell through intermediaries is not very common (5% and 3% respectively).

The level of assets of the microentrepreneur is related to the location of sales. For instance, people of the poorest asset group mainly sell in market places or at home. People in the second to the fourth quintiles sell from the home and in shops, while members of the wealthiest quintile mainly sell from shops.

In terms of gender, women sell mainly from the home and men mainly in markets and shops.

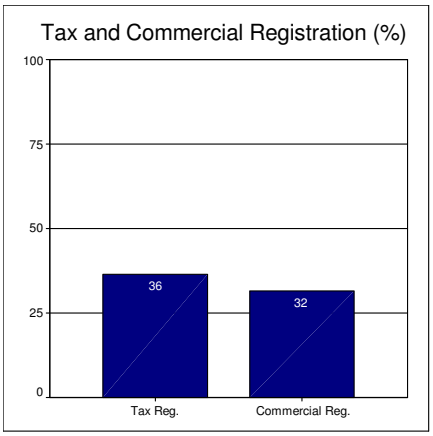



Chart 23: Tax and Commercial Registration

Thirty-six percent of microenterprises have formal tax cards and 32% are commercially registered[33] (Chart 23), while almost 65% are informal. All respondents who declared having a business answered this question.

The gender of the business owner affects registration status. Only 10% of businesses that are run by women are registered versus 64% for men.

These figures indicate, thus, that women micro-entrepreneurs are mostly present and dominant in the informal sector, while men microentrepreneurs tend to be more active in the formal economic system.

The conclusion here is that there is a need to provide home-based women entrepreneurs with relevant information on the benefits of being registered (i.e. being able to obtain social security and engage in transactions with formal market companies) and design a methodology to deliver the registration services and issue relevant licenses. It is expected that many MFIs would be willing to absorb the expenses related to the promotion and delivery of such services and could offer them as an additional non-financial service.

Registration status of the enterprise differs significantly by type of MFI used, location, and level of asset ownership.

Most clients of S-MFIs and NGOs do not have registered enterprises (69% and 78% respectively) while a majority of bank clients' enterprises are registered (70%).

In terms of location, in rural and semi-urban areas, only about 30% of the microenterprises are registered compared to 60% in urban areas. Again, 67% of bank clients are registered, but this drops to 31% and to 22% for S-MFIs and NGOs respectively.

Finally, the survey indicates that the proportion of respondents who have registered businesses increases significantly as their level of asset ownership increases. For instance, only 9% of the poorest quintile clients have a registered business compared to 73% of the wealthiest quintile, confirming that Group 1 microentrepreneurs run the most basic income-generating activities and Group 5 the most formal businesses.

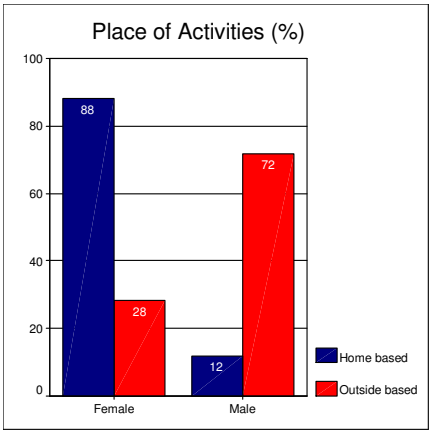



Chart 24: Place of Activities

Thirty-five per cent of the microfinance clients run home-based businesses (Chart 24).

As in other countries in the Middle East region, these businesses are mainly run by female respondents. Within the Egypt survey sample, 88% of the home-based enterprises were operated by women. In terms of non home-based businesses, women operated 28%. The implication is that women microentrepreneurs in Egypt, even though economically active, are still largely confined to the home environment.

The frequency of home-run businesses is also dependent on variables such as the level of asset ownership of the microentrepreneur. The proportion of respondents working at home increases significantly as their level of asset ownership decreases. Sixty percent of Group 1 microentrepreneurs work at home, while only 13% of Group 5 entrepreneurs run a home-based business.

Microfinance clients from NGOs (60%) and S-MFIs (40%) tend to work more at home than banks' clients (11%). Fifty-three percent of the microentrepreneurs working in small industries or handicraft work at home.

[33] A formal tax card is needed for commercial registration, which means that all of the commercially registered clients (32%) have tax cards.

### 5.2.2. Seasonality

The study also examined seasonal fluctuation in economic activity and credit needs of clients.

Respondents were asked to rate each month's level of activity according to the following criteria:
0: No activity; 1: Low activity; 2: Average activity; and 3: Strong activity.

During interviews, it was specified to respondents that although feasts are related to the lunar calendar, which changes from one year to the other, September would be considered as Ramadan/Fasting time and December as the Kurban Bairam "Eid El Kebir" period.

The seasonal variability of economic activities is high for the majority of respondents in all sectors. Chart 25 tracks activity level for four activities in particular: trade, services, handicraft and small producing industry, and animal husbandry and poultry.

Activities are higher during the summer season (from April to September) with a high spike in level of activities in September during Ramadan and at the beginning of winter (during November and December), particularly in December during Eid El Kebir. During this last period, higher levels are also noticed for animal husbandry and poultry activities. The lower levels of activities are during the winter months.

Concerning seasonality of credit needs, respondents were asked to rate each month's need according to the following criteria: 0: no need; and 1: need.

Analysis of the data collected show that credit needs are higher when the activity level is high, in particular during the summer months, with a high spike in need in September (Chart 26). This is a direct result of the need to purchase stock and equipment in order to meet the higher level of activity in the summer and during Ramadan. There is also a significant drop in the need for credit in March despite microentrepreneurs working in animal breeding who experience a spike in need at the same time, as well as in September and December.

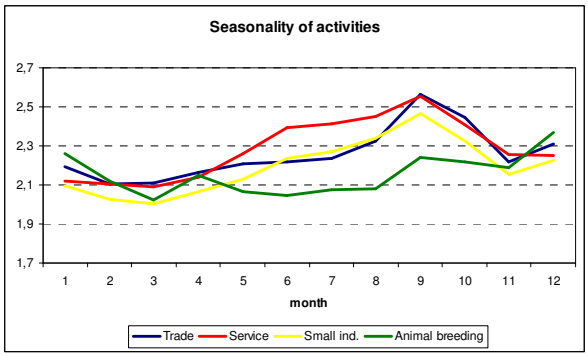



Chart 25: Seasonality of Activities

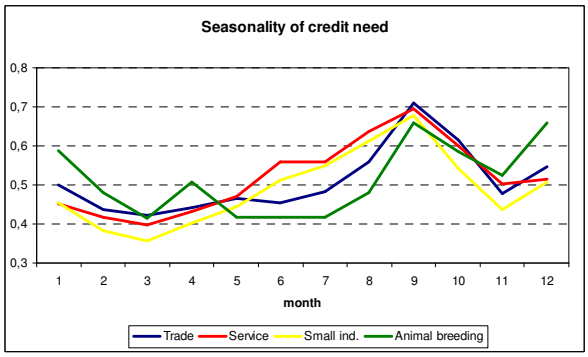



Chart 26: Seasonality of Credit Need

Chart 27 indicates that the seasonal variability of economic activities is high for the majority of respondents in all locations. It tracks activity for three locations in particular: urban, semi-urban and rural.

Activities are slightly higher during the summer season, from June to September with a peak in September during Ramadan, and lower in the winter months, except for the Eid El Kebir in December.

In all locations, credit needs are higher when the activity level is high, in particular during the summer months, with a high spike in need in September during Ramadan time with a significant drop in the need for credit in March and November. Finally, all microentrepreneurs experience a spike in need at the end of the year, which indicates that they may use loans for income-smoothing or the Eid El Kebir.

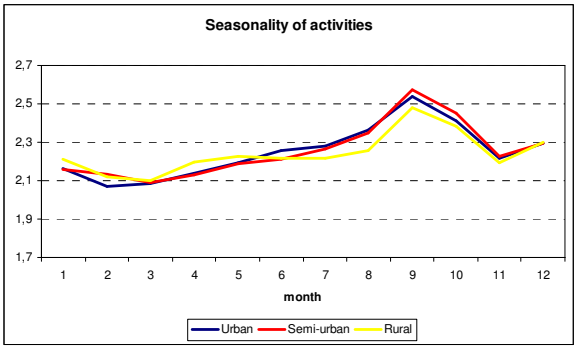



Chart 27: Seasonality of Activities

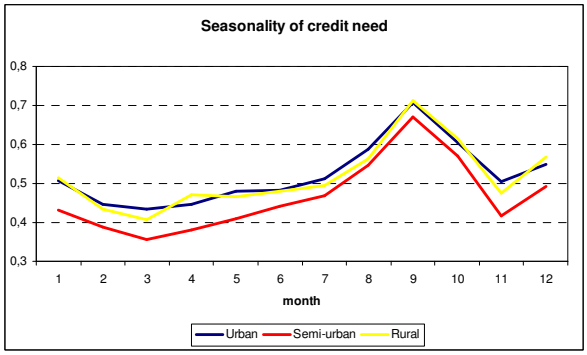



Chart 28: Seasonality of Credit Need

During focus group discussions, Seham who has been selling clothes to clients at her home for the last 5 years in Greater Cairo explained her situation: *"Economic environment is very weak these days. As all feasts have passed, I won't take a new loan now so I don't get stuck not being able to pay it back. I will have a break for a few months and I plan to renew later, in February."*

## 5.3. Mapping

### 5.3.1. Demographic Mapping

To produce a more focused profiling of the Egyptian microfinance client, a Principal Components Analysis technique was used to segment the sample and map it into several homogeneous groups according to a set of variables: gender, age, education and household composition.

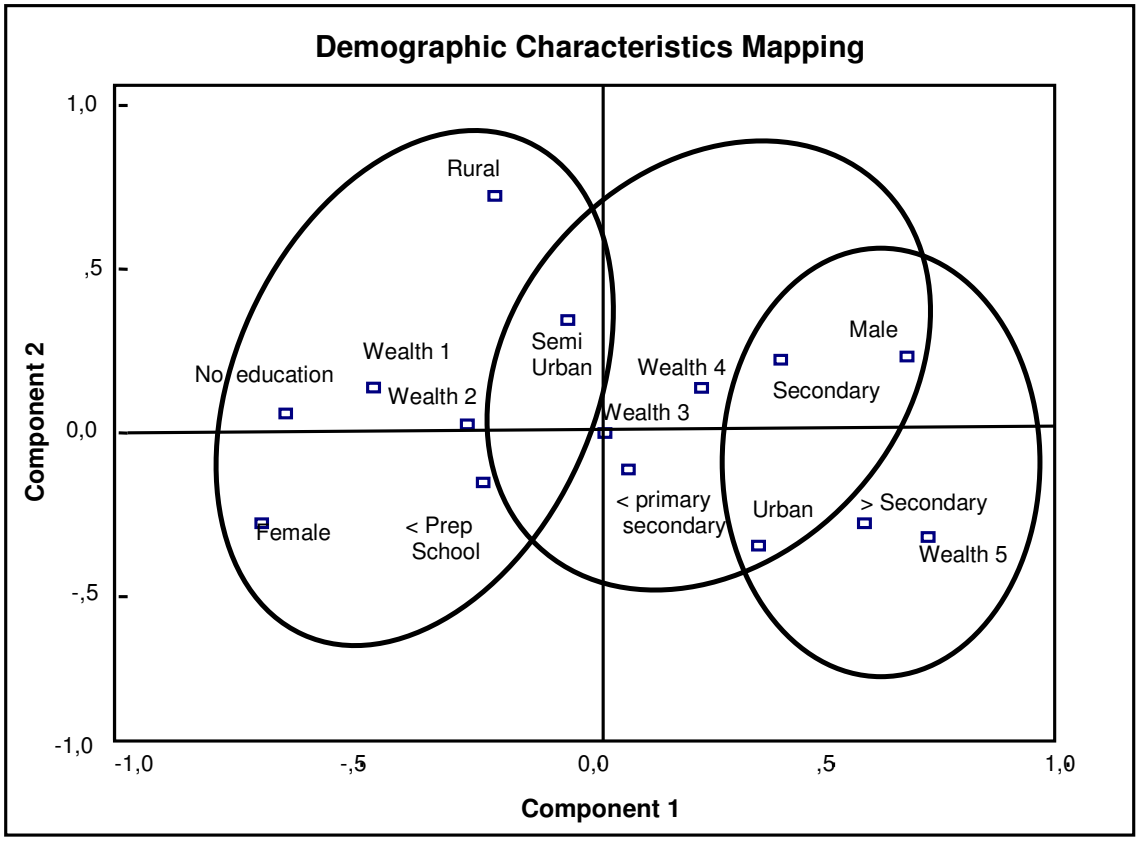



Chart 29: Demographic Characteristics Mapping

Three homogeneous clusters of individuals could be identified within the global sample:

- A cluster composed of women without any formal education or with formal education less than secondary school. This group is composed of Group 1 and Group 2 asset ownership groups located in rural and semi urban areas.
- A cluster of men with a level of formal education less than secondary school. This group is composed of clients enclosed in Group 3 and Group 4 concerning their level of asset ownership. They live in urban or semi-urban areas.
- A cluster of men with at least a high school education or a diploma. This group is composed of the wealthier quintile of clients (Group 5) and is located in urban zones.

### 5.3.2. Activity Mapping

The mapping of economic activities was undertaken using the same technique above and included the following variables: type of activities (trade, services, handicraft and agriculture), monthly profit, and age of enterprise.

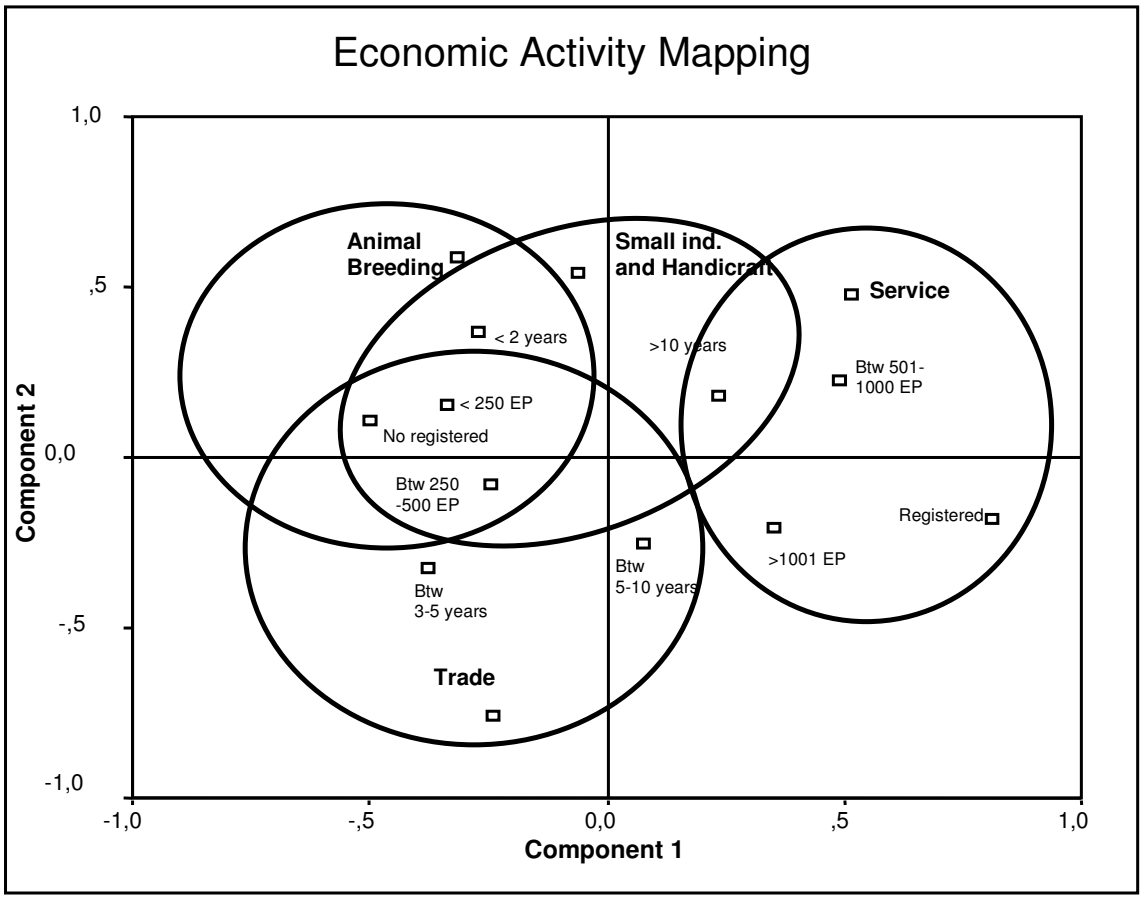



Chart 30: Economic Activity Mapping

Four homogeneous groups of economic activities were clearly identified within the sample:

- Clients whose main activity is trade. They earn monthly less than 250 EGP or between 250 and 500 EGP as profit. Their activity is 3-5 or 5-10 years old and is not registered.
- Clients in services. Their monthly profit is between 501 and 1,000 EGP or exceeds 1,001 EGP per month and their activity is registered and is more than 10 years old.
- Clients whose activity is small industries and handicrafts. They make less than 250 EGP monthly profit or profits between 250 and 500 EGP. Their activity is not registered and is less than 2 years or more than 10 years old.

- Finally, clients in animal breeding whose monthly profit range from 250-500 EGP or less than 250 EGP. Their activity is not registered and is less than 1 year old.

# 6 Impact Evaluation

## 6.1. Impact on Economic Activity

### 6.1.1. Impact on Profit

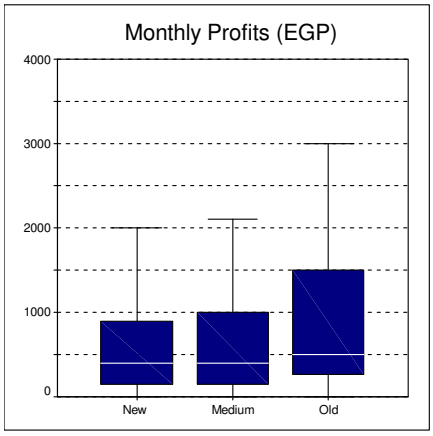



Chart 31: Monthly Profits

By comparing the median monthly profit of respondents with their duration of participation in a microfinance program, it is possible to establish a correlation between the two. The sample shows that Medium and New clients have median profits of 400 EGP per month. This median increases to 500 EGP per month for Old clients. In other words, Old clients have 25% higher monthly profits (Chart 31).

The fact that Old clients have higher monthly profits indicates that their microenterprises are better performing than those of New and Medium clients.

Chart 32 compares the level of monthly profits by the asset ownership index group. The graph shows that the clients in Group 1 and Group 2 have the smallest monthly profits (at 300 EGP) and that the wealthiest microentrepreneurs in Group 5 have the highest monthly profits (at 1,000 EGP).

As for Group 4 and Group 5, most clients generally run a formal microenterprise which received larger loan sizes; this indicates that currently offered microcredit has a greater impact on the monthly profits of microentrepreneurs running formal businesses than those running informal income-generating activities. This could be explained by the required “economic scale of activity” that enables achieving and sustaining profits.

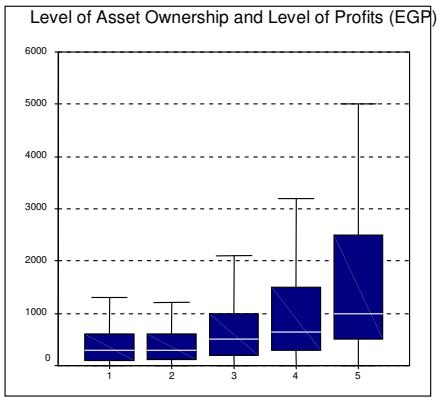



Chart 32: Level of Asset Ownership and Level of Profits

### 6.1.2. Impact on Investment

**Amount of Investment**

The investments made by clients in their economic activities are significantly correlated to the duration of their participation in a microfinance program. The global sample shows that Old clients have invested during the last three years a total median amount of about 2,000 EGP. This median amount decreases to 1,500 EGP for Medium clients and to 1,100 EGP for New clients.

In other words, Old clients have a median amount of investment that is equivalent to almost twice that of New clients.

Therefore, a positive and significant relationship between the duration of participation in a microfinance program and investment in business/microenterprise is established. This information is confirmed by the qualitative analysis, which indicates that 82% of respondents are satisfied with their level of investment in their microenterprises. Concerning investment in asset bases, the qualitative analysis is not statistically significant enough to make an assessment.

Moreover, investments were shown to have a certain impact on clients' activities. For 31% of respondents, investments have allowed clients to buy more input/stocks. Investments have also allowed 70% of respondents to increase their sales and 68.5% to increase their profits.

For 7% of the respondents, their investments had no impact on their activities.

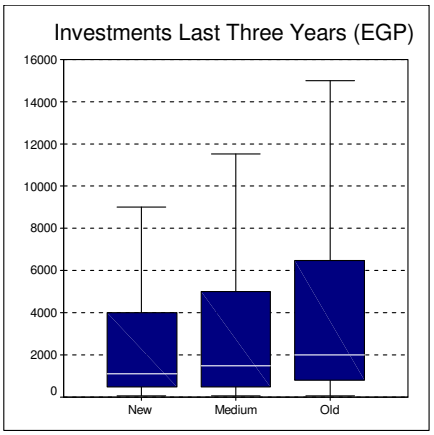


Chart 33: Investments Last Three Years

**Nature of Investment**

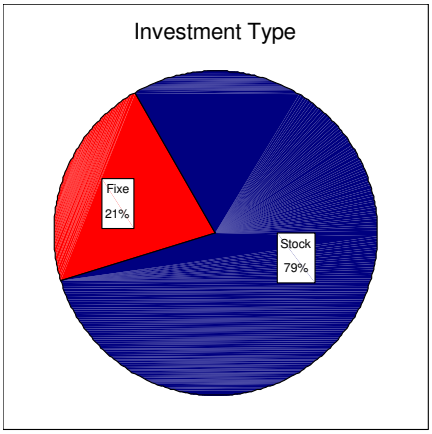


Chart 34: Investment Type

Chart 34 shows that microenterprises invest mainly to buy inventory/stock (79%). Investments in equipment and in shop premises are not as predominant (21%).

However, there is no significant correlation between the nature of investments and duration of participation in a microfinance program. In other words, no significant differences were observed in the types of investments made by Old, Medium, and New clients.

It can be concluded that: first, loans extended are directed towards their intended purposes (at least in the clients' own words), and second, that the MFIs may need to consider developing new terms for credit to cover business' needs extending beyond working capital finance to include asset acquisition, repairs, maintenance and infrastructure refurbishing.

### 6.1.3. Impact on Employment

Forty-two percent of these microfinance clients employ at least one worker, excluding the business owner; 19% of respondents employ full-time paid labor versus 7% part-time paid labor. Microenterprises that employ full-time and part-time unpaid labor represent respectively 10% and 5% of the sample. Chart 35 demonstrates that the average number of full-time employees fluctuates significantly depending on the duration of participation in a microfinance program.

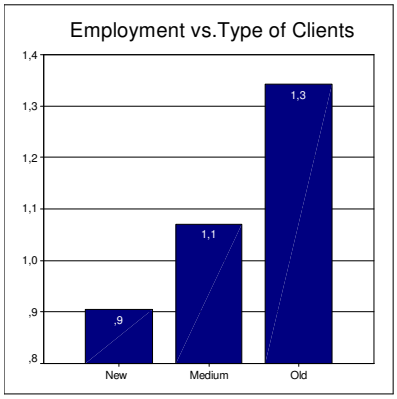



Chart 35: Employment vs. Type of Client

The average number of only full-time employees is significantly higher for Old clients (1.3 employees on average per microenterprise) than for Medium clients (1.1 employees) and New clients (0.9 employees).

By using the technique of multiple regression, it is possible to observe that the duration of participation in a microfinance program leads to an increase in the level of employment.

On average, there is an increase of about 0.2 employees between Medium clients and New clients. The increase is 0.4 employees between Old clients and New clients.

There is no correlation between the number of employees and the age of the microenterprise.

In terms of asset ownership groups, Group 1 micro-entrepreneurs have the least number of employees (0.4 per microenterprise) and Group 5 microentrepreneurs have the most (1.8 per microenterprise). These figures indicate that Group 4 and Group 5 microenterprises create more jobs (Chart 36).

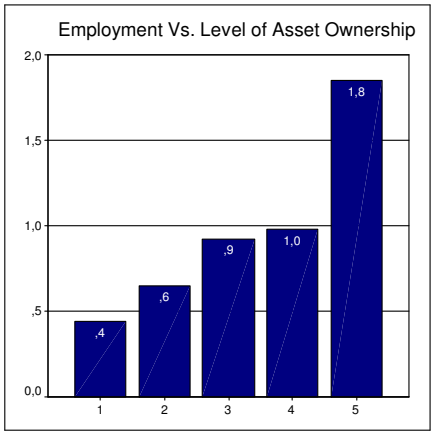



Chart 36: Employment vs. Level of Asset Ownership

In terms of type of business and employment level, the survey shows that microenterprises working in the domain of services have the highest employment level at 1.7 employees per microenterprise. This drops to 0.9 employees per microenterprise for trade.

The conclusion here is that stakeholders seeking job creation as a goal might well use more focused market segmentation and targeting techniques, placing priority on the services sector followed by other sectors.

Moreover, maybe a special study is needed to identify which sub-sectors (within the services sector) have relatively more potential to generate new jobs. It should also be emphasized here the need for a strong arm of non-financial vocational training and professional certification for microentrepreneurs providing these services, for example, household services such as plumbing and electrical maintenance, and for microentrepreneurs working in workshops and in traditional products.

Qualitative interviews pointed out that often most of the workers in microfinance client enterprises are relatives (spouse, sons, daughters, brothers and sisters) all permanent non-paid workers. As an example, Essam and Reda, clients of a microfinance institution, who are brothers and work together as carpenters.

Furthermore, the majority of microentrepreneurs in the focus group discussions stated that they need workers, but limited capital and inflation does not allow them to employ any workers. *"Workers are a necessity but the small capital and expensive labor doesn't allow us to employ workers. But if we get a bigger loan, we will invest it in our projects and then hire more workers."*

However, the loans are mostly targeting microenterprises existing for more than one year, only 11% of the interviewed clients stated that they have used their entire loan or part of their loan to start up a new activity. An overwhelming majority of this 11% are female microentrepreneurs. This suggests that microfinance services have contributed to create self-employment, especially for Female Heads of Households (FHH) initiating home based activities.

## 6.2. Impact on Household

### 6.2.1. Contribution to Monthly Expenses

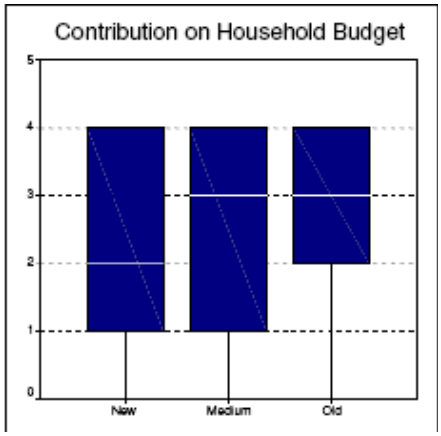



Chart 37: Contribution on Household Budget

Respondents were asked to estimate at what level they contribute currently to the household's budget commitments using the following scale: 0: none, 1: a quarter, 2: half, 3: three quarter, and 4: full contribution.

Old and Medium clients contribute more significantly to the budget of their household than New clients. New clients contribute half of the monthly household budget, and Medium clients and Old clients to three quarters of the total budget.

The data confirm a positive relationship between the duration of participation in a microfinance program and the contribution to household budget.

### 6.2.2. Consumption Expenditure

There are significant differences between the three types of clients concerning their total household expenses. Chart 38 shows an increase in total monthly household expenses, from 80 EGP for New clients to 90 EGP for Medium clients and to 110 EGP for Old clients.

However, between each type of client, the level of certain types of expenses fluctuates with different intensity.

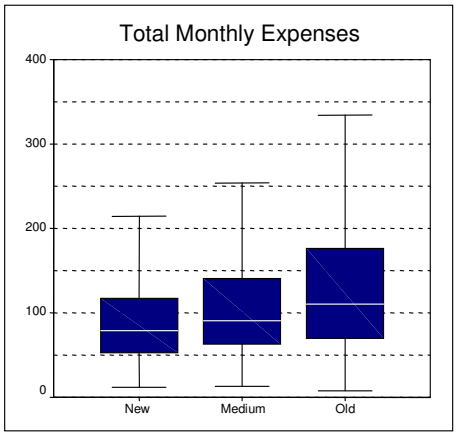



Chart 38: Total Monthly Expenses

It is possible to summarize that, in general, only Old and Medium clients provide for certain types of expenses such as transportation, education and special events.

Concerning the level of expenses for food, house expenses, health and installments for the loan, there is an increase in average monthly expenses depending on the duration of microfinance participation of the client.

For instance, the average level of expense for food per month is 28% higher for Old versus New clients. The survey indicates that New clients spend 350 EGP (median) on food, while Medium clients spend 400 EGP and Old clients 450 EGP.

### 6.2.3. Education of Children

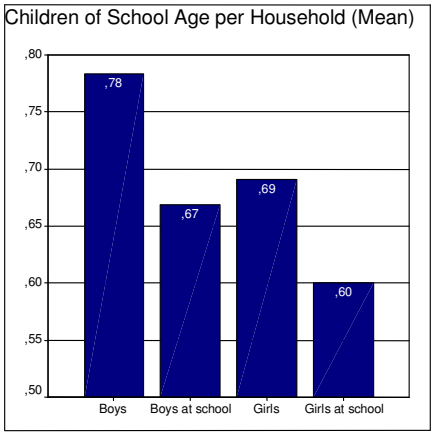



Chart 39: Children of School Age per Household

As mentioned in section 5.1.1, microentrepreneurs' households have an average of two dependents under the age of 18. Of the school age children, 0.78 are boys and 0.69 are girls. In reality, only 0.67 boys are going to school and 0.60 girls. This means that 14% of boys and 13% of girls of school age are not in school.

The results indicate a weak correlation between duration of participation in a microfinance program and increased schooling of children.

Old clients send on average 85.9% of their boys to school, while Medium and New clients send respectively 85.7% and 84.9% of them.

Old clients send on average 89.5% of their girls to school, while Medium and New clients send 87% and 85.4% respectively. These differences are not, however, statistically significant.

### 6.2.4. Accumulation of Assets

As discussed in section 5.1.2, an asset ownership index was developed and used to subdivide the sample into five equal groups with respect to their degree of asset ownership manifested by acquiring household assets.

A second asset ownership index has been developed in order to assess the situation of each respondent three years ago. It is particularly interesting to compare the asset ownership of Old clients three years ago with their level of asset ownership in 2007 (Chart 40).

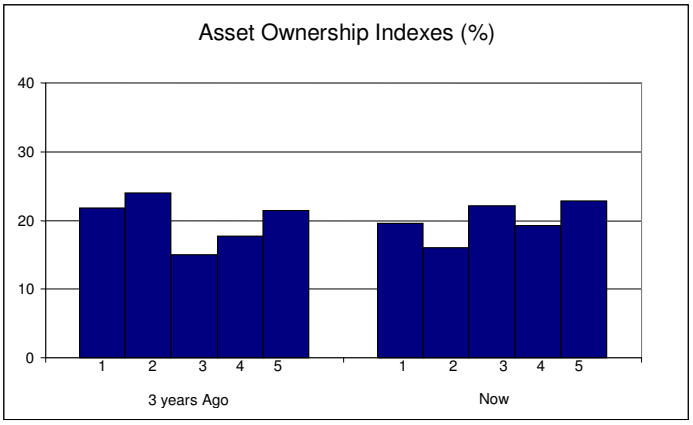



Chart 40: Asset Ownership Indexes for Old clients (1= poorest, 5= wealthiest quintile)

Old clients have increased their assets over the last three years and have thus changed asset ownership class (moving up for instance from Group 1 to Groups 2 and 3).

Over the years, the number of Old clients in the poorest quintile has decreased by 2.1% and in Group 2 by 8%. Likewise, the number of Group 3 Old clients has increased by 7.2%, Group 4 by 1.5% and Group 5 by 1.3%. The percentages related to Groups 1, 4 and 5 are statistically significant.

Chart 41 shows the result of crossing the current asset ownership index by different types of clients (New, Medium and Old).

The proportion of relatively poorer respondents is higher for New clients, while there is a higher concentration of Old client respondents in the richer quintile.

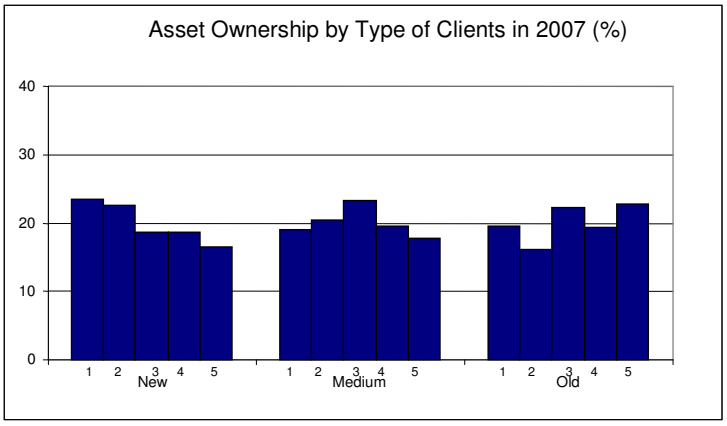



Chart 41 : Asset Ownership by Type of Clients

Moreover, the proportion of average level of asset ownership (Group 3) respondents is relatively higher for Medium clients than other type of clients.

The data confirm a positive relation between the duration of participation in a microfinance program and the level of asset ownership of the respondents.

# 7 Perception of Impact

## 7.1. Perception of Impact on Household

This section consists of analysis of client perceptions about and estimation of the impact of microfinance on a set of specific social indicators, which provides insight into the level of poverty and quality of life. The indicators are divided into two categories: tangible indicators related to household and lifestyle (food, children's education, health, leisure) and intangible indicators (autonomy, respect from partner, respect from children, stress, conflicts and tension in family).

### 7.1.1. Tangible Indicators by Gender

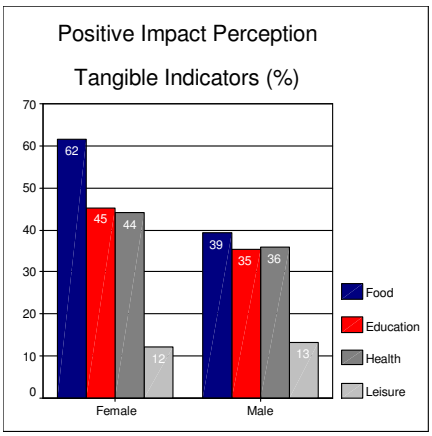



Chart 42: Positive Impact Perception – Tangible Indicators

The impact perceived by microentrepreneurs on tangible indicators reveals interesting gender differences.

Women microentrepreneurs largely perceive a greater impact than men in the quality and quantity of food eaten by the household (62% of women perceive a positive impact versus 39% of men). This indicates success in reaching out to poorer segments of clients, where the increase in revenues/profits reflects positively on their very basic need (food).

Chart 42 shows that approx 45% of women respondents versus 35% of men respondents have noticed a positive change in the education of their children and the level of health in the household since the start of participation in a microfinance program.

In terms of leisure, such as entertainment and/or trips, there is no difference between male and female respondents.

### 7.1.2. Intangible Indicators by Gender

In terms of intangible indicators, Chart 43 again shows that women and men perceive different levels of impact. Concerning autonomy at the personal level, high percentages of both groups perceive a positive impact, although this is higher among women (86%) than men (69%).

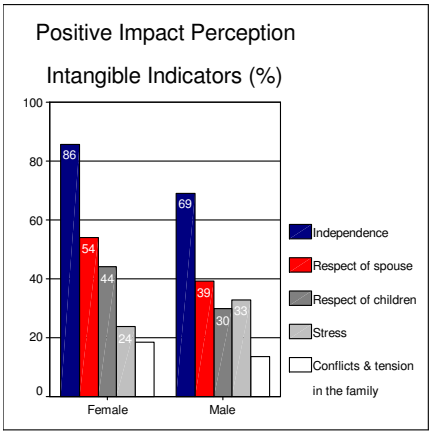



Chart 43: Positive Impact Perception – Intangible Indicators

Again, the perception of the impact of microfinance on the level of respect from the spouse and the respect of children are higher for women than men, 54% versus 39%, and 44% versus 30%, respectively.

Concerning the perception of impact on level of stress, the statistics are opposite: 33% of men versus 24% of women perceived a positive impact. This could be explained by the fact that women do not give away their home obligations when they are microentrepreneurs; thereby creating relatively more stress than for men.

Finally, the perception of impact of microfinance on conflicts and tension in the family is almost identical, with 18% of women and 13% of men indicating a positive impact.

## 7.2. Analysis of Factors Determining Change

As described in the methodology, the analysis provided below uses the technique of logistic regression in order to analyze the factors which determine change. This section analyzes four indicators in particular: food, health, autonomy in decision making, and education.

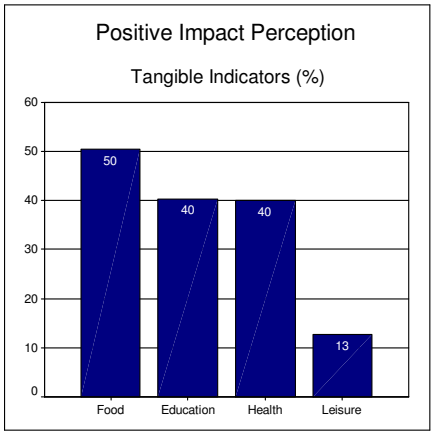



Chart 44: Positive Impact Perception - Tangible Indicators

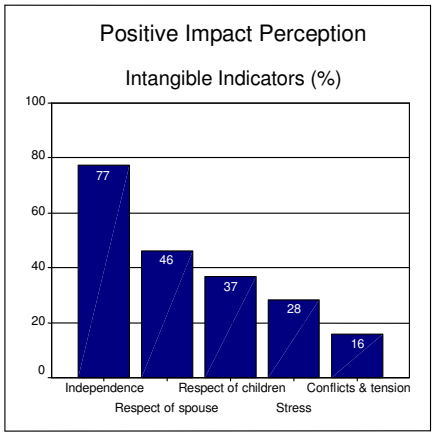



Chart 45: Positive Impact Perception – Intangible Indicators

### 7.2.1. Autonomy

An increase in and reinforcement of a sense of autonomy/independence is the domain in which Old clients perceive the greatest impact of their participation in a microfinance program. Seventy-seven percent of respondents declared a positive impact on their sense of autonomy/independence. This result was only taken into account for the Old clients as it was believed that they were the only ones to have a long enough history of microcredit to perceive an impact in this domain.

However, this positive correlation between duration in a microfinance program and increased sense of autonomy differs by gender. According to the results of data regression, the probability that a woman client will perceive positive change in her sense of autonomy is 86% lower than the probability for a man.

The same analysis by asset ownership groups shows that clients who fell into Groups 1 and 2 three years ago have a higher probability (80%) of perceiving a positive impact in their autonomy/ independence in comparison to clients falling in other groups. The variable related to Group 4 and 5 is not statistically significant and cannot thus be interpreted. The conclusion here could be linked to promoting active governance and active citizenship practices among MFIs' Old clients.

Finally, in terms of location, respondents in urban and rural areas have a higher probability of perceiving a positive impact than in semi-urban areas.

### 7.2.2. Food

Fifty percent of the respondents have noticed a positive change in their quantity/quality of food since the start of their participation in the microfinance program. (Chart 44)

The results of the probability regression show that the probability of perceiving a positive change in food for their family is higher for male Old clients than for female Old clients (see annex 15.3).

The analysis by asset ownership groups shows that Old clients who fall into Groups 3, 4 and 5 have a higher probability of perceiving a positive impact on food for the family in comparison to clients falling in Groups 1 and 2 (30% and 21% respectively). The variable related to Groups 1 and 2 is not statistically significant and cannot thus be interpreted.

Finally, in terms of location, Old clients in urban and rural areas have a higher probability (32%) of perceiving a positive impact than Old clients in urban and semi-urban areas.

### 7.2.3. Children's Education

Forty percent of clients who have children perceive a positive change in their level of education thanks to their participation in microfinance programs (Chart 44), while 59% have not noticed any change and the remaining 1% has noticed a negative change.

In the Old client segment of the sample, the analysis by asset ownership groups shows that clients who fell into Groups 2 and 3 have a higher probability of perceiving a positive impact on the level of education of their children compared to clients falling in Groups 1, 4 and 5.

However, there are no significant differences in change of perception between types of localities where clients live.

### 7.2.4. Health

When asked about their health status and access to services, 40% of respondents stated that it has improved since the start of participation in a microfinance program (Chart 44). However, 53% have not noticed any change while the remaining 7% have noticed a negative change.

Comparison of results by gender demonstrates once again that men are more likely than women to perceive a positive change in the health of their family.

The profit analysis by asset ownership groups shows that Old clients who fell into Groups 1, 2, 3 and 4 have a higher probability of perceiving a positive impact in comparison to clients falling in Group 5.

# 8 Empowerment

## 8.1. Daily Activities and Organization

Several indicators were chosen to understand the effects of the projects financed by microcredit on the planning of microentrepreneurs at the household level. First, clients were asked what kind of impact (positive, negative, or neutral) their participation in a microfinance program had on four dimensions: organization of daily life in terms of responsibilities and tasks, household duties (the question was adapted for the time they spend at home for men), time spent with their children and entertainment/trips. Second, time spent by the microentrepreneurs at work and at home[34] was measured. Finally, at the household level, an assessment was obtained regarding impact on how families organized themselves to adapt to the microfinance clients' professional investment.

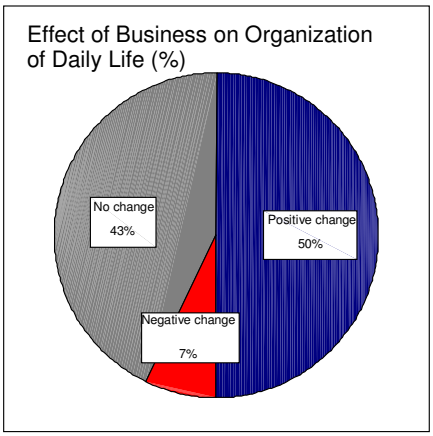



Chart 46: Effect of Business on Organization of Daily Life

Fifty percent of clients stated that their business has positively changed their daily life in terms of responsibilities and tasks. Forty-three percent of the respondents have not noticed any change in their daily organization.

In comparing these results by gender, 43% of women versus 57% of men noticed a positive change in their daily life.

On average, 42% of clients falling into Group 1 have noticed a positive change in their daily life. This increases to 52% for clients falling into the third group and goes up to 55% for clients falling into the wealthier group.

Regarding domestic tasks such as cleaning, laundry, cooking, or shopping, only 24% of the respondents have noticed a positive change. For more than half of them (55%), the perception of the impact of microfinance on domestic tasks has not changed.

The perception of impact of participation in a microfinance program on domestic tasks is more important for women clients as well as for clients falling in the two poorest asset ownership quintiles.

Twenty-five percent of women clients versus 23% of men clients have noticed that their businesses have a positive effect and 10% of women versus 30% of men have noticed a negative effect on their domestic tasks. This indicates that the sense of empowerment in this domain is stronger for women than men.

On average, 26% of poorer clients (versus 22% of wealthier clients) perceive positive effects of their business on their domestic tasks.

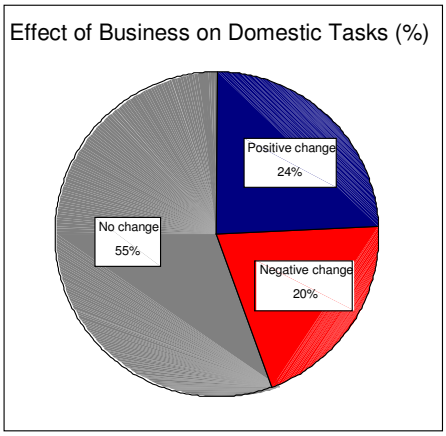



Chart 47: Effect of Business on Domestic Tasks

[34] The question about time spent at home was asked without going in details between gender task distribution, even if popular wisdom suggests that in Egypt men do not normally participate in cleaning, clothes washing, and such activities.

Charts 48 and 49 show the effects of the projects financed by a microcredit on increasing time for children and leisure. Twenty percent of respondents reported positive effects on increasing time for children, but only 12% for leisure. However, 9% of respondents noticed a negative effect of their business on their leisure and 15% of respondents stated that they do not have enough time for children since their participation in a microfinance program. Sixty-five percent and 79% of respondents have not noticed any change in time for children or leisure activities.

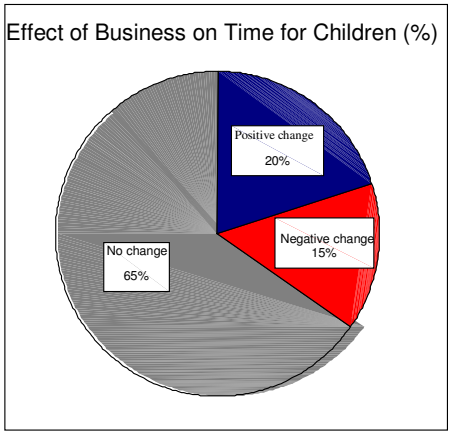



Chart 48: Effect of Business on Time for Children

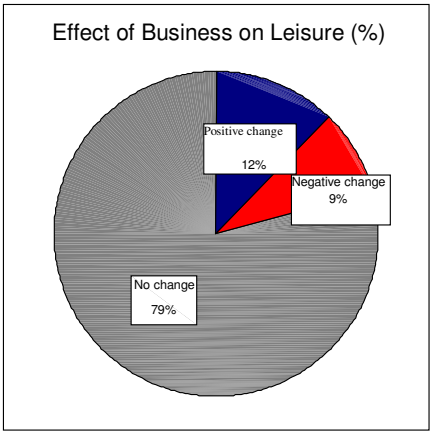



Chart 49: Effect of Business on Leisure

On average, men work eleven hours per day in their business while women work on average six hours and forty minutes a day (Chart 50). Regarding domestic tasks, women spend on average six hours per day doing housework while men average five hours per day (the question was adapted for men by asking them about the time they spend at home) (Chart 51).

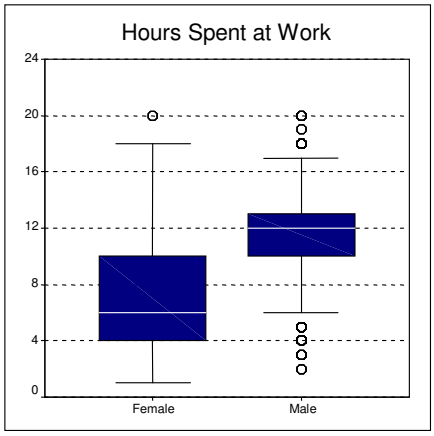



Chart 50: Hours Spent at Work

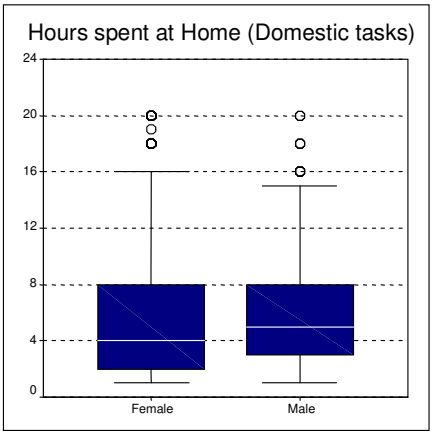



Chart 51: Hours Spent at Home (Domestic tasks)

Upon analyzing working hours for business by asset ownership groups, the data showed that the level of asset ownership is correlated to the number of hours spent at work. Clients from Group 1 spend 6 hours at work compared to respondents from Group 2 who spend 7 hours; Group 3 who spend 8 hours, Group 4 who spend 10 hours, and finally, Group 5 who spend 12 hours.

On the other hand, there is no difference between the groups concerning the time spent doing domestic work.

In terms of duration of participation in a microfinance program, there are no significant differences between the three types of clients.

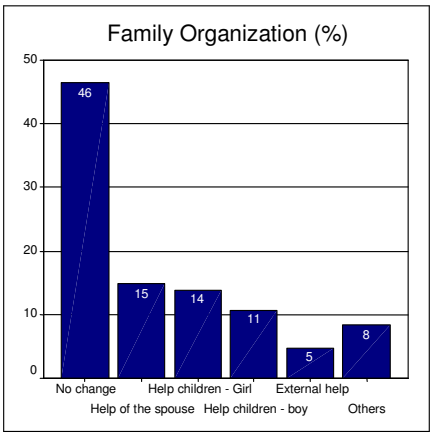



Chart 52: Family Organization

Forty-six percent have not noticed any change with respect to family adaptation to professional investment following participation in a microfinance program. However, thanks to the help of their spouses, 15% of clients were able to adapt their household to their professional life. Twenty-five percent of those interviewed evoked the help of children (14% from girls and 11% from boys) as the means by which they adapt their household to their professional investment (Chart 52).

## 8.2. Decision Making

Respondents were asked to rate the influence of their professional activity on decision-making within their couple, in their family, and in their community, using the following scale: 1: no influence; 2: a little bit of influence, 3: noticed influence, and 4: strong influence (a mean score has been calculated accordingly).

Professional activity gives women more influence in decision-making within their couple than it does for men (mean of 2.8 for women versus 2.6 for men) (Chart 53). Within their family, professional activity gives women less influence than men (average of 2.1 for women versus 2.3 for men). The trend is even stronger when considering microentrepreneurs' decision-making in the community in which they are living (average for women of 2.0 versus 2.3 for men).

As shown in Chart 54, the level of influence on decision-making within the couple decreases from New to Medium and from Medium to Old clients. The trends are the opposite concerning their influence on decision-making in the family and community.

Discussion during focus groups revealed a positive impact at the individual level, especially among women who can more afford their family needs and have increased their competencies, making a difference in the way that society looks at them, and as expressed in their own terms: *"A working woman is better than a woman that stays home."*

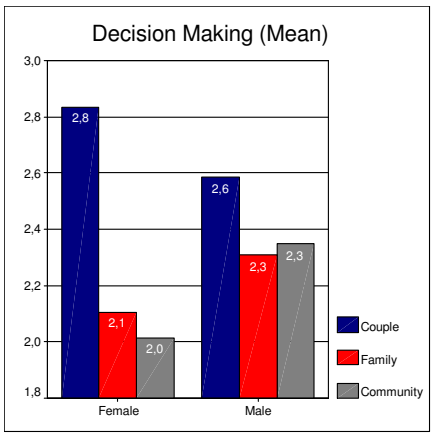



Chart 53: Decision Making by Gender

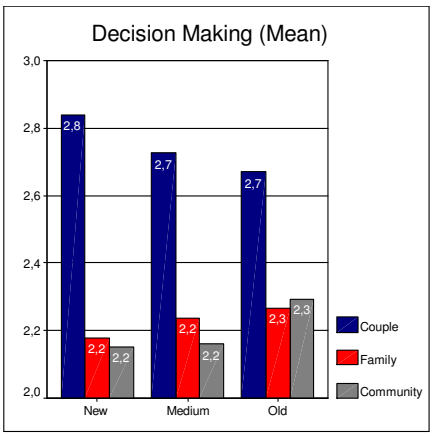



Chart 54: Decision Making by Duration

## 8.3. Support and Perception of Others

Seventy-nine percent of interviewed MFI clients stated that their families supported their decision to borrow from an MFI.

Borrowers in rural areas (87%), followed by borrowers in semi-urban areas (80%), are the most supported in comparison to those in urban areas (73%). This reflects the nature of family ties being greater in rural areas. It also indicates that new loan products may need to be designed for projects that are "family-operated" enterprises.

In addition, 87% of women clients are supported by their families when borrowing from an MFI, versus 70% of men clients. This figure is worth noting as there is a common notion that women clients must often hide from their families and husbands the fact that they are taking a loan. Eighty-seven percent of women clients stated that they were supported by their family during the process of borrowing money, which shows a positive trend in women's decision power to borrow.

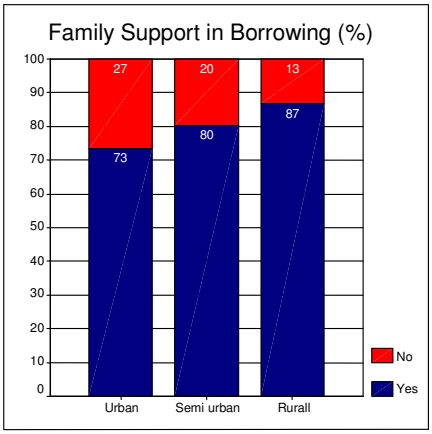


Chart 55: Family Support in Borrowing

During the focus group discussions, women unanimously stated that the loan has had a positive effect in terms of their image in their communities; they are also more self-confident and their children appreciate what they do. Their projects have allowed them to have a better life in general.

## 8.4. Asset Ownership and Perception of Wealth

On a scale from 0 to 9, microfinance clients were asked to rate their perception of personal asset ownership. Thirty percent of them consider themselves as neither rich nor poor. Chart 56 is interesting when compared to the real asset ownership index calculated from the information collected in the survey.

As illustrated by Chart 57, each bar represents a breakdown of the distribution between quintile of level of asset ownership (Group 1 as the poorest to Group 5 as the richest). For example, out of the 30% of borrowers who consider themselves as neither rich nor poor, 13% are from Group 1 clients, 17% from Group 2, 23% from Group 3, 23% from Group 4, and 24% from Group 5.

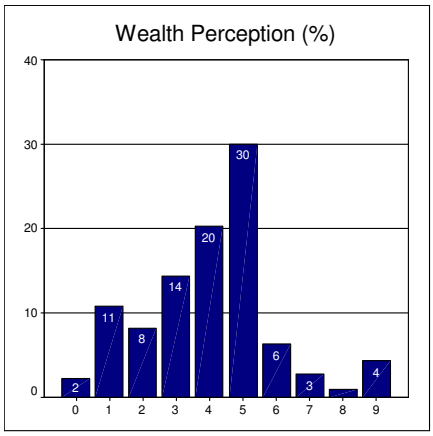


Chart 56: Wealth Perception

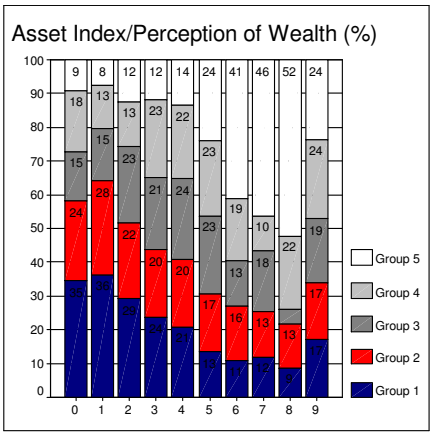


Chart 57: Asset Ownership/Perception of Wealth

# 9 Training and Business Development Services

This chapter addresses one of the three key test questions selected for the survey: “How are the non-financial services related to a better impact?” This specific section of the survey addressed the non-financial business-related services issue, analyzing responses from a number of clients currently accessing training and Business Development and Advices Services (BDAS) in order to understand their needs in terms of BDAS and their perception of the effectiveness of these services.

This chapter considers, in the second part, clients’ needs in terms of training and BDAS.

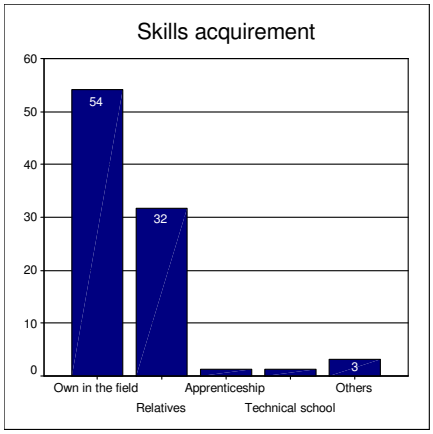



Chart 58: Skills Acquirement

Most of the respondents acquired skills useful for their project by working in the field (54%) or from relatives (32%), without any specific organized training. Only 2% gained experience through apprenticeship or technical school. There is no significant difference in terms of gender, registered and informal businesses.

Only 6% of the respondents (144 interviewed persons) received advice or training from their microfinance providers.

The following section describes what type of non-financial services they received, their needs, and their perception of the effectiveness.

## 9.1. Impact of Business Development and Advisory Services

In order to evaluate the impact of BDAS on MFI clients, clients from the Regional Development Enterprise Center (REDEC) were selected. The objectives were to compare clients who received training and BDAS with clients who did not receive it, in order to identify the impact of BDAS offered by their financial services provider.

Unfortunately, analysis of the quantitative data did not allow an evaluation of the impact of BDAS as planned. The quantitative data obtained was not robust enough to conclude on the impact of BDAS (lack of homogeneity between the two groups compared). Furthermore, socioeconomic characteristics of the REDEC sample (predominantly poor women) could explain any positive relationships found.

In order to obtain more valuable information, it is advisable to carry out a separate quantitative and qualitative study that analyzes such impact in more depth.

However, qualitative information through focus group discussions showed that BDAS is perceived to have a positive effect on microenterprise: clients stated that they were all satisfied with the training they already received and were sure it has had a positive effect on their projects.

While all the men stated that they do not need any form of training, as for them the main problem is financing the project, all the women agreed to get some training because they believe it is useful for them in order to increase their sales, to improve their work organization, and to increase their income. They were all satisfied with the training they already received and expressed confidence that it has had a positive effect on their projects.

They all recommended receiving computer course training.

On another aspect, most of them agreed on the importance of non-business related training in the domains of: “food, health, empowerment and decision making”, few agreed on “family planning”.

This information is confirmed in the following sections about Access and Use of Training and Business Advisory Services, and Demand for Training and BDAS.

## 9.2. Access and Use of Training and Business Advisory Services

A more detailed breakdown shows that only 2.3% of MFI clients and 1% of Bank clients had access to Training or Business Development and Advisory Services (BDAS) from their institution, compared to 18.5% of clients of NGOs.

Chart 59 depicts the type of training/BDAS provided.

Out of the 144 respondents who already received training or advice from their MFI, 44% mentioned training or advice on how to improve management (organizing the business better, planning to buy raw material), 40% on how to better sell products (how to increase sales), and 18% on how to improve products (learn new techniques, use new ingredients). Only 3% received vocational training or advice (for example, on how to do carpets).

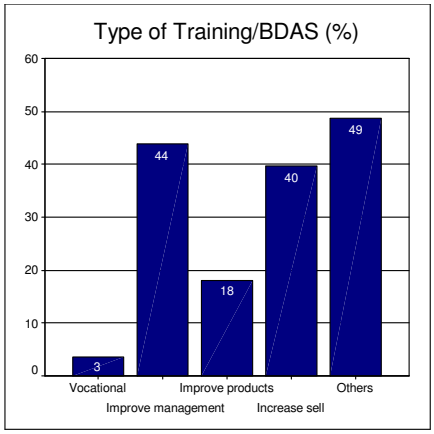



Chart 59: Type of Training/BDAS

Twenty-seven percent of the training is still ongoing and respondents have completed at least one training before (median).

An overwhelming 82% of training or BDAS was provided directly by MFI staff, 6% by technical schools, 5% by vocational training and 1% by formal professional training. This indicates the need at the MFI level to provide well-designed training opportunities for the field sales staff (loan officers) in the areas of business management skills, communications skills, simple cash flow analysis, and business planning in general. These courses should be designed and implemented to provide loan officers with practical skills to act as business management advisors to their clients. Having said that, caution must be taken so as not to create dependency on the loan officers for business decision-making. As the vast majority of clients receive their trusted advice from the loan officers, this suggests strongly adding another role for the loan officers to play, which is to be business management advisors to their clients.

Sixty-three percent of the respondents who already received training or BDAS would be interested in accessing more from of it from their MFI. Almost half of them (48%) are even ready to pay for it. In terms of duration, almost two-thirds (63%) would be ready to spend only a few hours for the training or BDAS. A more detailed breakdown shows that 7% prefer half a day, 12% one day, 8% two days and 7% more than 3 days.

Thirty-seven percent of respondents who do not want to have more training identified a negative experience from their last training or advice (Chart 60). Forty-two percent of them felt that the training/ BDAS was not relevant to their needs. For 26%, it did not help them to better manage their project or it was not offered during a convenient time, as it was organized during hours when it was difficult to attend. Finally, 6% thought the training was too long. All these data strongly indicate the need to have a specific study to analyze the non-financial business-related services needs and design packages that really tackle the needs and wants of microfinance clients.

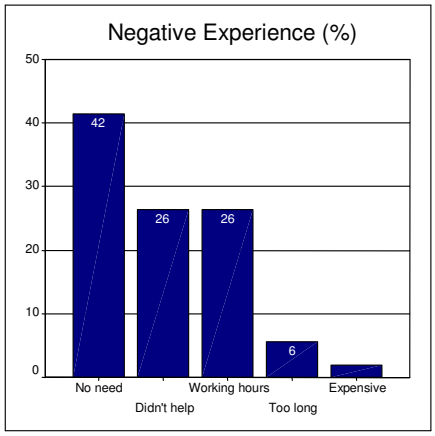



Chart 60: Negative Experience

Respondents were asked to rate what was most needed in terms of knowledge or skills to help them better manage their enterprises, using the following scale: 1: not needed ; 2: little needed, 3: needed; and 4: highly needed. An average score has been calculated accordingly.

Most training or BDAS needed by the respondents who already received training or advice, in terms of knowledge or skills to help better manage their operation, is on how to increase sales, followed by training on how to improve products and how to better manage their business (Chart 61). Vocational training needs did not receive a very high average score; almost two-thirds of respondents reported "no need" for vocational training (see Table 1).


Chart 61: Most Needed Business Related Training/BDAS

**Table 1: Most Needed Training/BDAS (%)**

| | Increase sales | Improve product | Improve organization | Vocational | Others |
|---|---|---|---|---|---|
| No need | 32 | 35 | 34 | 64 | 90 |
| Little needed | 8 | 10 | 10 | 12 | 1 |
| Needed | 42 | 38 | 41 | 17 | 4 |
| Highly needed | 18 | 17 | 15 | 7 | 5 |

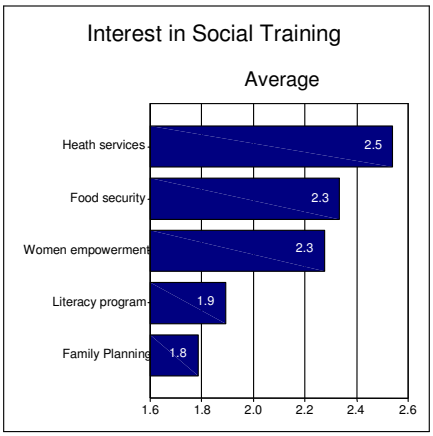



Chart 62: Interest in Social Training

Respondents who already received BDAS were also asked to rate their level of interest in several subjects such as social training: 1: not interested; 2: little interested, 3: interested; and 4: highly interested. An average score has been calculated accordingly.

To the respondents, the most interesting training among non-business related services is for health services followed, by food security advice and women's active participation in family and community (question was asked only to women). However, literacy programs and family planning did not receive much interest (Chart 62).

## 9.3. Demand for Training and Business Development and Advisory Services

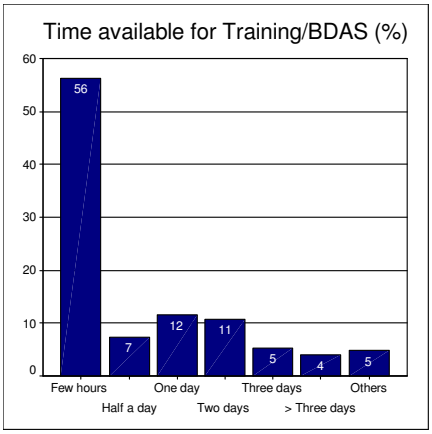



Chart 63: Time Available for Training/BDAS

This section concerns respondents who did not access BDAS through their MFI.

An overwhelming 82% of respondents who did not access BDAS through their MFI are actually not interested in training or a BDAS. If the needs identified by clients who received such services are considered, it might be concluded that awareness of the benefits of BDAS needs to be marketed to MFI clients in a way that proves its relevance to developing their businesses. If such a relationship could be clearly established with clients, maybe they would be more willing to spend time and money for it. Of the respondents who did not access BDAS through their MFI, 56% would be ready to spend a few hours in order the follow training or a BDAS (Chart 63).

Seven percent would spend half a day, 12% one day, 11% two days and 9% more than 3 days. This distribution corresponds to the time clients who already received training or BDAS would be ready to spend. Furthermore, 60% would be willing to pay for such services.

During focus group discussions, clients agreed that they would be ready to pay a symbolic amount (between 5 to 10 EGP) otherwise it will discourage people from coming. Some clients already received per diems from the MFI to attend the training. They agreed as well that training has to be short (1 to 3 days maximum).

Respondents who did not receive business development services were asked to rate what was most needed in terms of knowledge or skills to help them better manage their enterprise, using the following scale: 1: not needed; 2: little needed, 3: needed; and 4: highly needed. An average score has been calculated accordingly.

Once again, most training or BDAS needed by the respondents who had not received training or advice is on how to increase sales, followed by training on how to improve products and how to better manage their business (Chart 64 and Table 2). According to these respondents, vocational training is less materially needed.

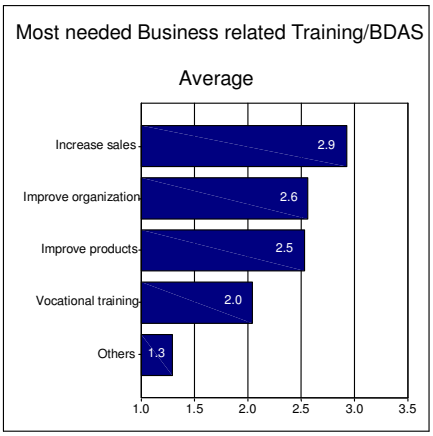



Chart 64: Most needed Business related Training/BDAS

**Table 2: Most needed Business related Training/BDAS (%)**

| | Increase sales | Improve product | Improve organization | Vocational | Others |
|---|---|---|---|---|---|
| No need | 17 | 29 | 27 | 48 | 87 |
| Little Needed | 3 | 6 | 8 | 10 | 2 |
| Needed | 50 | 48 | 47 | 32 | 7 |
| Highly needed | 30 | 17 | 18 | 10 | 4 |

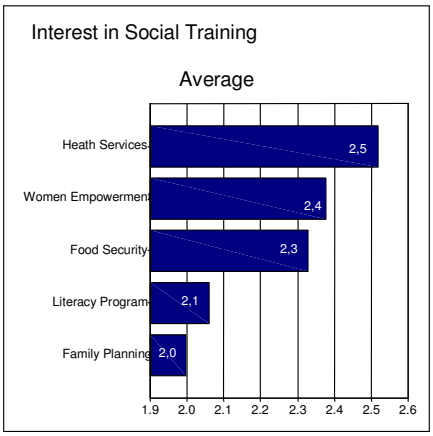



Chart 65: Interest in Social Training

Respondents who did not receive training were also asked to rate their level of interest in several social subjects training: 1: not interested; 2: little interested, 3: interested; and 4: highly interested. An average score has been calculated accordingly.

Most interesting training on non-business related services are health services, followed by women's active participation in family and community (question was asked only to women) and food security advice. Literacy programs and family planning raised only little interest (Chart 65).

# 10 Financial Services Use and Demand

This chapter provides a general overview of financial services use and access. This section focuses on financial services use (such as loan amount received, loan duration, installments…), the structure of credit demand, savings and other financial services, such as insurance or specialized loans.

## 10.1. Financial Services Use

Most clients learned of their microfinance providers through a relative/friend who was already a client (56%) or through a visit from a loan officer (42%) and only 4% through an advertisement or brochure (Chart 66).

This presents an interesting case since almost all active MFIs adopt "word of mouth" and "door-to-door" promotion techniques. As such, these findings may indicate that the methodology of outreach of MFIs is not the preferred method of communication for clients. MFIs, especially those targeting the wealthier microentrepreneurs, could think of testing other promotional tools for the services they provide and test the effect on the volume of demand.

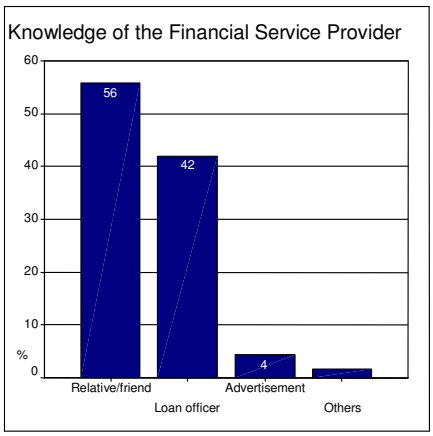



Chart 66. Knowledge of the Financial Service Provider

### 10.1.1. Loan Amount Received

Chart 67 depicts the loan amount received by clients from all type of MFIs.

As explained in section 5, the colored box in blue represents where the majority of loan amounts are situated, while the bubbles and marks above represent the outliers (in this case, the few high loan amounts are marked by circles).

The median loan amount is 2,000 EGP, meaning that half of those surveyed received more than 2,000 EGP and half received less.

Chart 68 depicts the loan amounts by type of client for New (Median: 1,000 EGP), Medium (Median: 1,500 EGP), Old (Median: 3,000 EGP) and drop-out clients (Median: 2,000 EGP) on their last loan received from their MFI.

This indicates that loan amounts increase significantly over time, reaching an almost 300% increase for Old clients over a three or more year period.

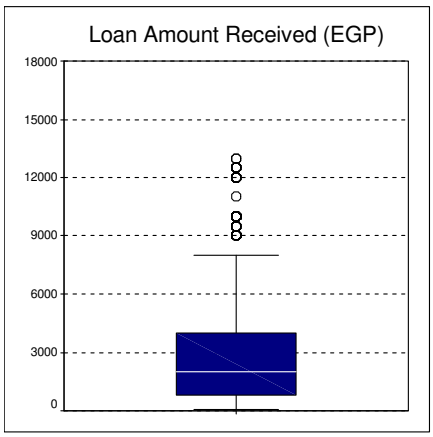



Chart 67: Loan Amount Received

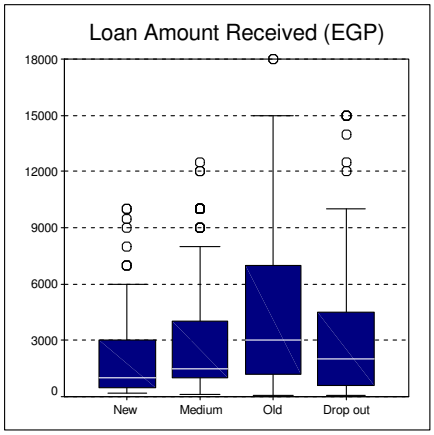



Chart 68: Loan Amount Received by Type of Client

Likewise, Charts 69 and 70 depict the loan amounts of the last loans received from MFIs by type of areas (urban, semi-urban and rural) and by type of institution (S-MFIs, development-oriented NGOs with microfinance component, and banks).

Looking at the breakdown of received loan amount by location (Chart 69), a general pattern can be observed. Respondents living in urban areas received the larger loan amounts (average of 4,000 EGP; median of 2,000 EGP) followed by respondents living in semi-urban areas (average of 2,900 EGP; median of 2,000 EGP) and finally by clients living in rural areas (average of 2,200 EGP; median of 1,250 EGP). This is a strong indication for multi-branch MFIs (operating in more than one area) to consider varying their loan policies, especially with regards to initial (entry) loan amounts, as well as increases in amounts from a specific loan cycle to the following one.

The breakdown of received loan amount by type of institution (Chart 70) reveals without surprise, that bank clients receive overwhelmingly larger loan amounts (average of 5,000 EGP; median of 4,500 EGP) than S-MFI clients (average of 2,300 EGP; median of 1,500 EGP) and NGO clients (average of 2,300 EGP; median of 1,500 EGP).

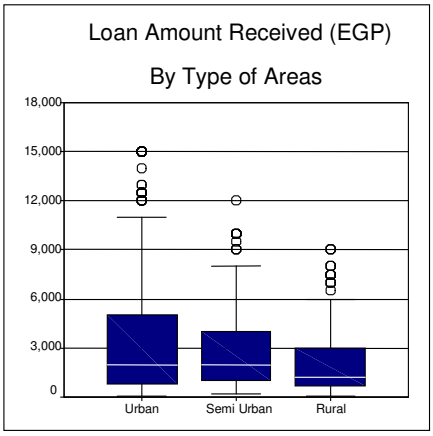



Chart 69: Loan Amount Received – by Type of Areas

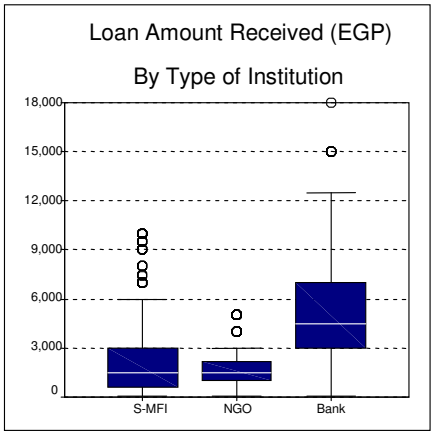



Chart 70: Loan Amount Received – by Type of Institution

## 10.1.2. Loan Terms and Installments

In terms of loan repayment, Chart 71 shows that the majority of respondents have a repayment period between 6 and 21 months with a 10 month median loan term.

In terms of installment period for loans, the majority of respondents (66%) have a monthly repayment period (Chart 72). The remaining respondents have weekly (21%) or bi-weekly repayment periods (12%). No significant difference has been identified between men and women or between location types.

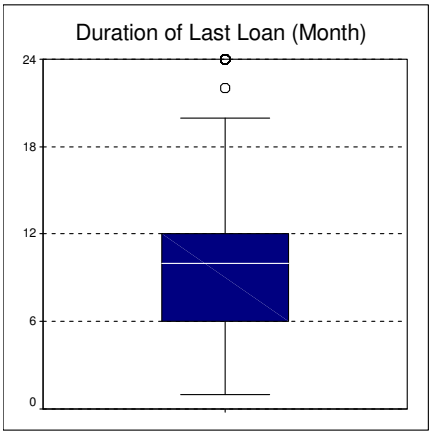



Chart 71: Duration of Last Loan

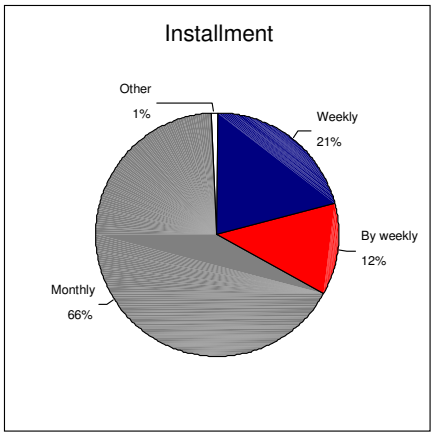



Chart 72: Installment Period

### 10.1.3. Loan Use

The majority of respondents (72%) stated that their loan was used to develop their economic activity (this element is not shown on the Chart 73 in order to have a better visualization of the other answers).

Likewise, 22% stated that working capital was the primary use of their loan. The lending policies of the MFIs may be reflected in these figures as most of the MFIs restrict their financing to working capital with a low percentage for asset acquisition, and only for good repetitive clients.

Eleven percent stated that they used their loan primarily for the start of a new activity, and 10% stated that their loan was used to purchase assets and/or equipment.

In terms of non-business related uses for a MFI loan, the reimbursement of a previous debt, personal consumption, and house improvement were cited as the primary uses of loans.

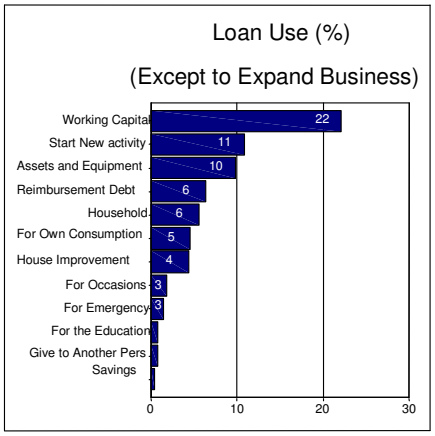


Chart 73: Loan Use – Except to Expand Business

The use of a microcredit from an MFI to start a new economic activity is worth noting, as microfinance is often seen as a tool for business consolidation but not business expansion. This fact has been shown in other impact studies of microfinance, such as the IKM study carried out in Morocco in 2004 and in Jordan in 2006. In this study, taking a closer look at the 11% who used the loan to start a new economic activity reveals that 80% are women, 51% are either in Group 1 or Group 2 in terms of level of asset ownership, and 64% work in the trade sector of activity.

Furthermore, when asked about the three most important factors that influenced the decision to apply for a loan, almost half of the microentrepreneurs (49.6%) stated that they were most influenced by the desire to ensure the success of their business by investing more in order to expand. Eleven percent stated that they were most influenced by the fact that they needed cash, while 8% stated that their decision to apply stemmed from a personal reason or special event.

### 10.1.4. Other Sources of Credit and Size

Thirty percent of respondents stated that they have received a loan from a bank, another MFI, a ROSCA, money lender, or family member over the past three years.

Chart 74 represents a breakdown of those other sources of financing. The larger sources are the informal group saving and lending schemes (ROSCA) with 45% of respondents, followed by family (31%) and another MFI (29%). In the last three years, only 12% have received a loan from a money lender or suppliers and 14% from a bank.

It is worth comparing median loan amounts as a means of situating MFI loans in the formal and informal financial landscape of Egypt.

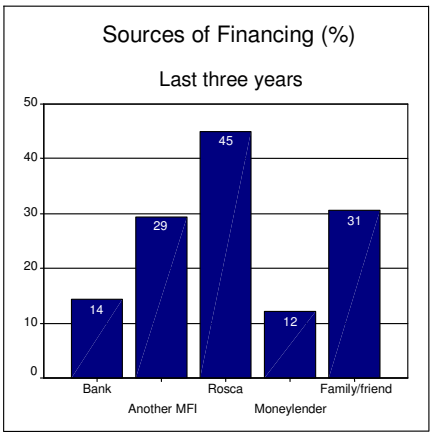


Chart 74: Sources of Financing – Last three years

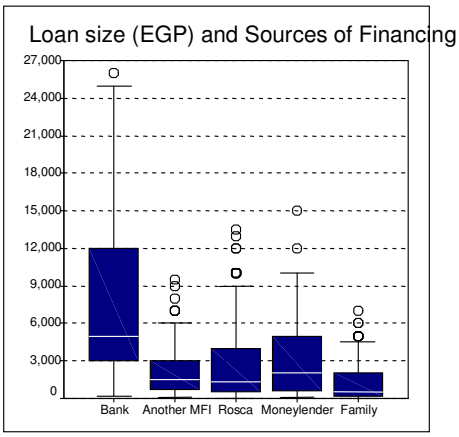



Chart 75: Loan Size and Sources of Financing

As Chart 75 shows, the median loan size from banks is the highest, followed by loan size from moneylenders, ROSCAs, another MFI and, finally, from family (with the lowest loan size received in the last three years). Median loan sizes from money lenders, ROSCA and MFI are nearly equal (with a slightly higher average for money lenders).

The median loan sizes for microentrepreneurs who received a loan from a bank is 5,000 EGP while the average loan size for microentrepreneurs who received a loan from an MFI is 1,500 EGP. The average loan size from a money lender is 2,000 EGP, from ROSCA 1,350 EGP and from family the median loan size is 500 EGP.

The next table depicts how the 30% of respondents who received loans from another MFI, ROSCA, money lender, and family member have utilized their loans. Respondents were asked if they have utilized their loans for the activity/enterprise (yes or no) or for their personal consumption (yes or no). They were then asked what percentage of the loan was used for the activity and what part (none, ¼, ½, ¾, or all) for personal use.

Table 3 shows that loans from family members and ROSCA are the least used for the economic activity, while loans from MFIs followed by loans from a money lender are the most used for business. In terms of personal consumption, loans from ROSCA are more used for personal use than loans from family.

**Table 3: Allocation of Money Received from the Loan**

| Type of Lender | Type of Expense | None | ¼ | ½ | ¾ | All |
|---|---|---|---|---|---|---|
| Another MFI | Project | 16% | 2% | 9% | 7% | 66% |
| | Household | 69% | 7% | 9% | 1% | 14% |
| ROSCA | Project | 39% | 4% | 14% | 1% | 42% |
| | Household | 43% | 6% | 15% | 4% | 32% |
| Moneylender | Project | 25% | 3% | 9% | 3% | 60% |
| | Household | 62% | 3% | 9% | 3% | 23% |
| Family | Project | 40% | 1% | 12% | 3% | 44% |
| | Household | 43% | 4% | 12% | 1% | 40% |

### 10.1.5. Over-Indebtedness

The impact of participation in a microfinance program could be negative in cases of over-indebtedness of the client or poor use of microcredit. However, until an information-sharing system or credit bureau is in place, it is difficult to assess the rate of over-indebtedness.

Nonetheless, in the qualitative study, the reimbursement of a previous debt was cited as one of the primary uses of loans for 6% of respondents.

Only 3% of respondents stated that a new loan would contribute to the reimbursement of a debt. While this figure is presumably higher in reality (as most clients would not admit such a fact), it still remains extremely low compared to other countries in the region (around 25% in Morocco and Jordan). This could be the result of the lack of concentration of the microfinance sector in the same geographical regions, but it is presumed that the level of client overlapping will increase with growing competition within the microfinance sector in Egypt.

Nonetheless, the qualitative study was able to reveal information on indebtedness of clients. Some clients borrowed from another MFI for their relatives (husband or sister) and they succeeded to obtain the loans and have almost finished paying them back. For instance, a client took a loan in his wife's name from another MFI*: "The positive aspect is that I took the exact amount of money I needed, which helped me to repay quickly my loan in order to take another bigger loan".*

It was not clear from the focus group discussions if clients realized the potential dangers of overlapping loans: one case in point is that a client in Jordan was quite proud to state that she had an

outstanding loan from every MFI in the country.

The Egyptian Microfinance Network decided in October 2007 to create as one of its first priorities an information sharing system as a start-up for a "credit bureau" answering to the perceived need among sector players to develop a microfinance specific client credit history.

The information sharing system will provide Egyptian MFIs with the information enabling a better risk evaluation during their loan issuance process. By sharing information on borrowers, their debt levels and their credit history, MFIs would be in a position to better manage their credit risk and therefore minimize the chances of losses related to non-repayment of loans.

Finally, and in order to obtain more valuable information on over-indebtedness in the microfinance sector in Egypt, it is advisable to carry out a separate quantitative study that measures not only the level of over-indebtedness but also the reasons for this, and especially to determine whether overlapping loans are actually a means for complementing credit needs or used to reimburse existing debts at large.

## 10.2. Structure of Credit Demand

This section describes some characteristics of future demand related to financial services and particularly concerning the microfinance borrowers' credit needs. This allows a better determination of the attributes of microfinance products that would be desired by microentrepreneurs in Egypt. The attributes considered include: type of credit, preference for a conventional versus unconventional "Islamic Sharia compliant" loan product, loan sizes, interest rates, modalities of loan disbursement (repayment terms, installment), collateral, savings products, and other financial services (such as insurance products or specialized loans).

### 10.2.1. Type of Credit Demand

When asked questions concerning the type of loan they would like to receive and what the loan would be used for, an overwhelming 82% of respondents stated that their first use of the loan would be to expand their existing microenterprise. Once again, this is not depicted in Chart 76 in order to derive conclusions from detailed answers.

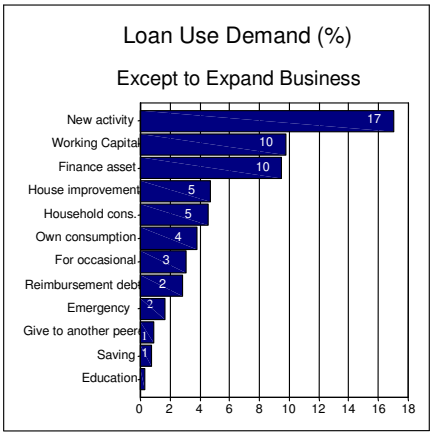



Chart 76: Loan Use Demand

As Chart 76 shows, 17% stated that the primary use of the loan would be to create a new activity. This figure is more or less confirmed, as 17% of respondents stated that they would be interested in starting a new activity if presented with the opportunity. About 20% stated working capital and asset finance or equipment to be the first use of the loan. These responses indicate that microloans are still primarily used for microenterprise development (about 37% of the responses).

Only 10% of respondents stated that the loan's first use would be to finance house improvement or household consumption. Likewise, only 3% of respondents stated that the loan would contribute to the reimbursement of a debt. As mentioned earlier, while this figure is presumably higher in reality (as most clients would not admit such a fact), it still remains low compared with other countries.

The table below compares what borrowers have done with their loan and what they would do if they could receive another loan. It is interesting to note that although loans related to their economic activity would increase (expand business +13%), only 10% would invest their loan in working capital (decrease of 54%). The percentage of people willing to start an activity would increase by 46%.

| Financing Activity | Past loan use (%) | Loan use if new credit (%) | Difference |
|---|---|---|---|
| Expand Business | 72 | 82 | +13% |
| Working Capital | 22 | 10 | -54% |
| Starting New Activity | 11 | 17 | +46% |
| Finance Assets And Equipment | 10 | 10 | - |
| Reimbursement Of Other Debt | 6 | 3 | -50% |
| Household Consumption | 6 | 5 | -17% |
| Own Consumption | 5 | 4 | -20% |
| House Improvement | 4 | 5 | +25% |
| For Special Occasion | 3 | 3 | - |

### 10.2.2. Preference for a Conventional or Islamic Loan Product

The basic principle of Islamic banking is the prohibition of Ribh (usury): Among Islamic financial products, one basic instrument that is used by Islamic banks is Murabaha. The word Murabaha is derived from the Arabic word Ribh which means profit. This is a contract sale between the lender/bank and its client for the sale of goods at a price which includes a profit margin agreed to by both parties, as well as the tenor for repayment. The fundamental condition here is that the lender and the client should know the mark-up and agree to it. As a financing technique, it involves the purchase of goods by the lender/bank as requested by its client. The goods are instantly sold to the client with a mark-up. Repayment is usually made in installments, as agreed-upon and specified in the contract.

In Egypt, some banks are offering Islamic Sharia compliant financial services through specified dedicated branches. Perhaps the related note is that Bank Misr, which is a microfinance service provider, has at the same time some branches dedicated to Islamic financial services. On the other hand, NGOs that are active in microcredit are almost entirely providing their services through conventional lending practices.

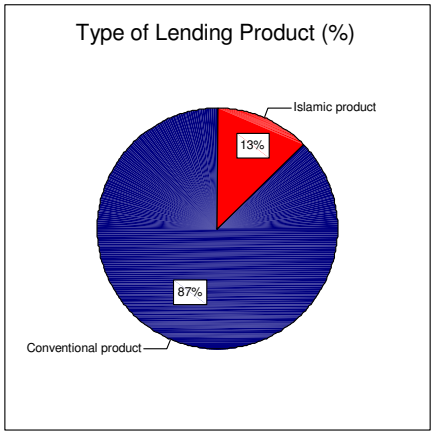



Chart 77: Type of Lending Product

Almost all of the survey respondents (87%) stated that they were not interested in borrowing an Islamic lending product (Chart 77). The figure drops to only 7% of respondents interested if the loan proved to be more costly than a conventional product.

The first reason for preferring conventional products stated by respondents was the liberty of expense (35%) and the second reason was because they need cash (8%).

It is important to note that the interviewed sample already has lower religious barriers related to accessing conventional lending, being active or previous clients of conventional lending MFIs.

The preference for a conventional loan or an Islamic loan does not differ much based on the location, the level of asset ownership or the gender of the microentrepreneur.

As shown in Chart 78, 14% of respondents living in urban areas prefer Islamic products compared to 11% of respondents living in rural areas.

The preference for conventional products is not significantly higher for men than women (Chart 79).

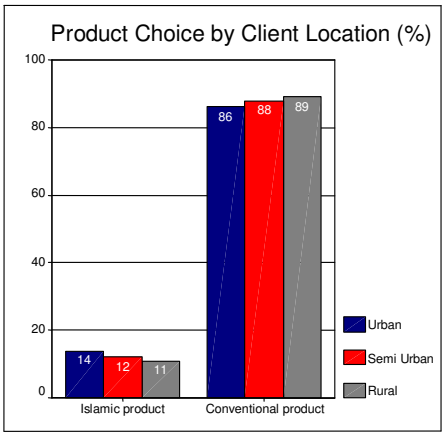



Chart 78: Product Choice by Client Location

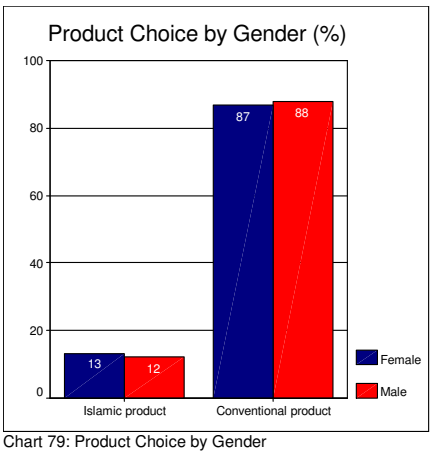



Chart 79: Product Choice by Gender

It is interesting to note that a part of the sample indicated a tendency towards not repeating the credit experience for religious reasons. For instance, some respondents stated that *Al-Nas*, a religious channel, broadcasted that credit is a form of usury "ribh" [earning through money lending at a pre-determined profit which is prohibited in Islam], and a mother stated that she was worried because her religious son believes that credits are forbidden.

### 10.2.3. Loan Size Demanded

Microentrepreneurs were asked to state the amount of a loan that they would ideally like to borrow. The quantitative study used a specific methodology in order to estimate how much they would be willing to borrow.

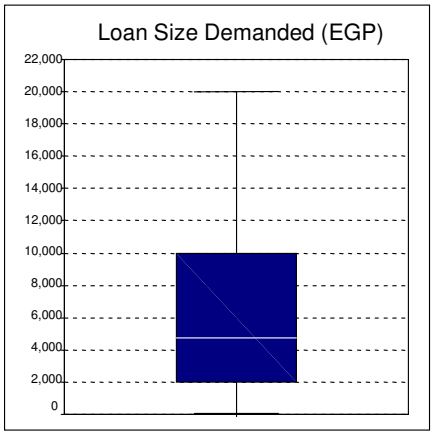



Chart 80: Loan Size Demanded

The amounts cited ranged from 100 EGP to 500,000 EGP, with 10% of the respondents stating that they do not need a loan.

The median loan size was 4,750 EGP. A quarter of respondents placed their desired loan amount between 100 and 2,000 EGP, 25% between 2,000 EGP and 4,750 EGP, 25% between 4,750 EGP and 10,000 EGP and the last 25% between 10,000 and 20,000 EGP (Chart 80).

In other words, loan products that vary from 2,000 EGP to 10,000 EGP loan amounts would cover the needs of half of the sample.

This average amount may be misleading since there are significant differences among respondents on the loan amounts needed.

In order to analyze this in further detail, demanded loan amounts were compared on a number of variables: type of institution, gender and level of asset ownership.

### Loan Size and Type of Institution

Regarding segmentation by type of institutions (Chart 81), the highest demand is from bank clients where the ideal loan size is 10,000 EGP. The lowest demand is from S-MFI and NGO clients where the desired loan size is 3,000 EGP. However, a breakdown of the box plot representing the amount demanded shows that 100% of clients from NGOs would want a loan of less than 10,000 EGP versus only 75% of clients from S-MFIs.

This could be interpreted as 25% of clients from S-MFIs are willing to borrow very high amounts compared to clients of NGOs.

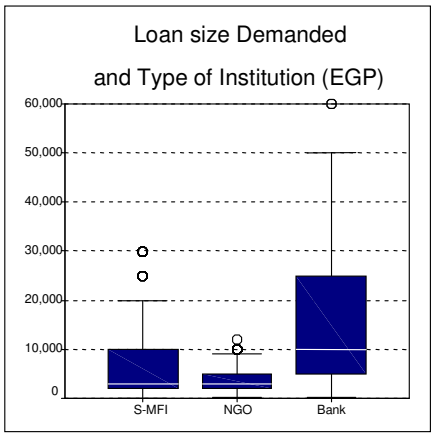



Chart 81: Loan size Demanded and Type of Institution

### Loan Size and Gender

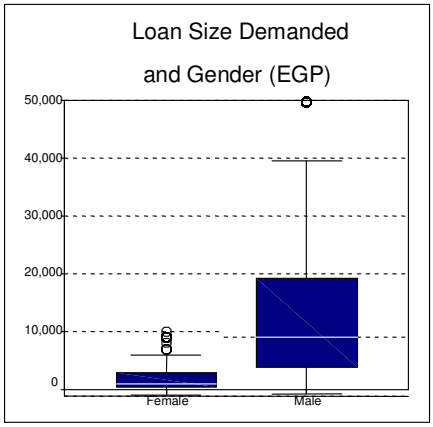



Chart 82: Loan Size Demanded and Gender

The size of loans demanded by women is five times lower than by men (2,000 EGP versus 10,000 EGP) (Chart 82).

### Loan Size and Legal Status

Looking at the breakdown of desired loan amount by legal status of the microenterprise demonstrates a clear correlation between the two: lower loan amounts are requested mostly by unregistered businesses, while higher loan amounts are almost exclusively requested by registered businesses (Chart 83).

Respondents with unregistered businesses desire loans of less than 10,000 EGP. Fifty percent of the registered clients want loans higher than 10,000 EGP. These figures indicate that registered businesses have higher loan needs than unregistered businesses and thus are likely larger or more developed. This is consistent with trends in informal enterprises throughout the region.

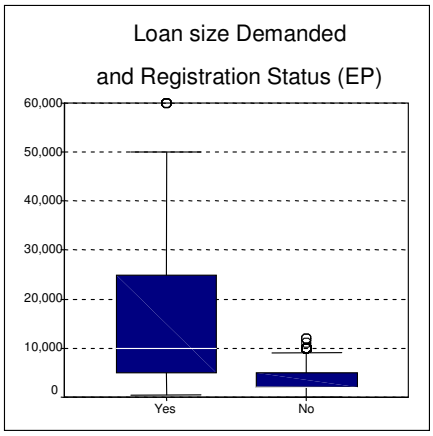



Chart 83: Loan Size Demanded and Registration Status

**Loan Size and Asset Ownership**

The comparison of desired loan amount by asset ownership index group (Chart 84) shows that Group 1 clients desire six times smaller loan amounts than Group 5 clients (Group 1: 2,000 EGP; Group 2: 2,500 EGP, Group 3: 4,000 EGP; Group 4: 5,000 EGP; Group 5: 12,000 EGP). This corroborates the fact that Group 5 clients are more likely to have formal businesses and more employees, meaning that their microenterprises have greater financing needs.

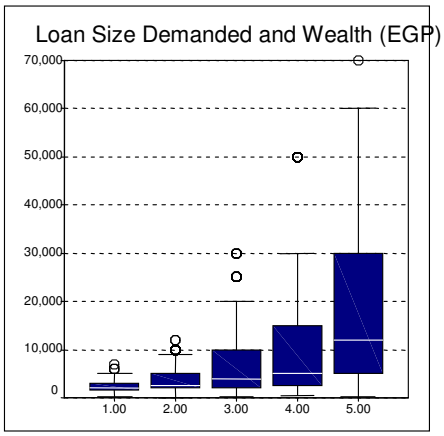



Chart 84: Loan Size Demanded and Asset Ownership

**Loan Size and Type of Clients**

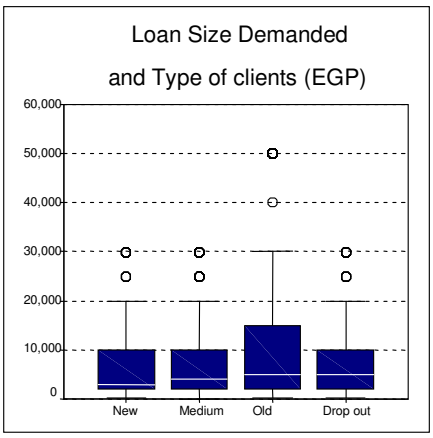



Chart 85: Loan Size Demanded and Type of Clients

Finally, the comparison of desired loan amount by type of clients (Chart 85) shows that the median loan amounts increase with the duration of microfinance program participation: New clients - 3,000 EGP, Medium clients - 4,000 EGP, Old and Drop-out clients - 5,000 EGP.

## 10.2.4. Interest Rate Demanded

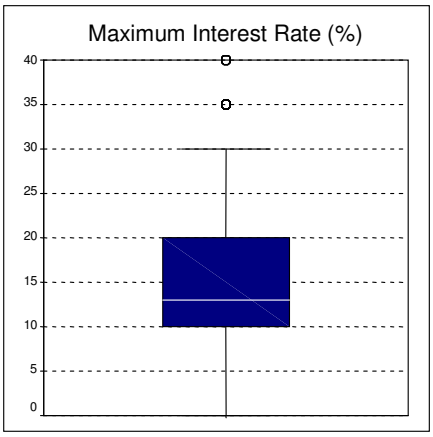



Chart 86: Maximum Interest Rate

A specific methodology within the quantitative study aimed to estimate how much microentrepreneurs would be willing to reimburse in order to measure the desired interest rate.

When asked what is the maximum that you would like to pay for specific loan amounts, clients indicated their willingness to pay the equivalent of 13% as a total mark-up on the loan, which corresponds to an average effective interest rate of 21% (Chart 86).

In other words, for a loan of 1,000 EGP, clients indicated they would be willing to reimburse a maximum of 1,130 EGP[35].

[35] To estimate the amount the client would like to borrow, the surveyor proposed him/her a specific amount (starting with the amount of 2,000 EGP). Depending on his/her answer, the client was proposed a lower or higher amount until he/she was satisfied. Then, the same question was asked about how

### 10.2.5. Loan Repayment Modalities Demanded

**Repayment Terms**

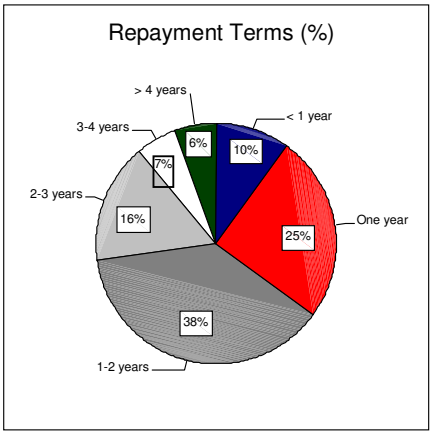



Chart 87: Repayment Terms

In terms of repayment, 38% of respondents would prefer a repayment period of 1-2 years, 25% would like a repayment period of one year, and 16% would prefer a repayment period of 2-3 years (Chart 87).

Only 10% of respondents prefer a very short repayment period (under one year). Likewise, only 6% prefer a very long repayment period (more than 4 to 6 years).

**Installment**

Nearly all those surveyed – 75% of respondents – stated that they prefer a monthly installment (Chart 88).

Some of the sample who are reimbursing on a weekly basis mentioned during qualitative interviews that they are not satisfied and that they prefer to reimburse their installments on a monthly basis. This was confirmed by analysis of the quantitative data which reveals a low number of borrowers who desire weekly and even bi-weekly installments.

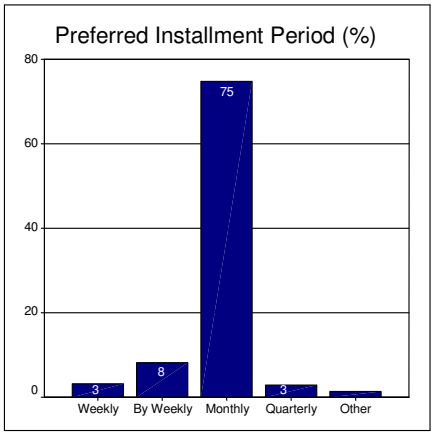



Chart 88: Preferred Installment Period

much he/she was ready to reimburse. For instance, for a 1,000 EGP loan, the client was asked if he/she would be ready to reimburse more or less than 1,300 EGP after one year. Finally, the average amount generally accepted (1,130 EGP) has been translated into an interest rate percentage (13%).

### 10.2.6. Collateral

Collateral is one of the most important factors in access to credit for microentrepreneurs.

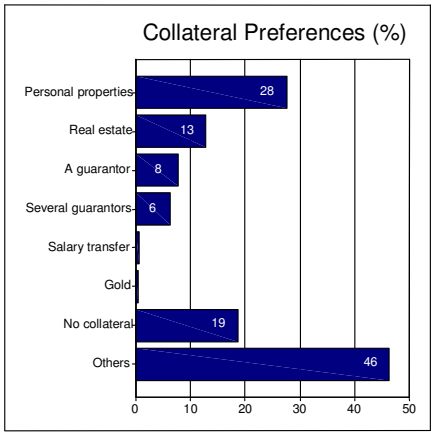



Chart 89: Collateral Preferences

Microentrepreneurs in Egypt are limited as to the types of collateral they can provide against a loan.

Assuming that clients would apply for the loan, 28% stated that they can provide personal properties (car, houses…), 13% real estate, 8% a solid guarantor (any salary), and 6% several guarantors (Chart 89).

Very few respondents stated that they can provide gold or a signed check.

Nineteen percent of those interviewed could not provide any form of collateral.

Nearly half of respondents (46%) stated they could provide other kinds of collateral, yet did not specify what kind.

Qualitative data stressed problems related to the presence of a guarantor. Indeed, some institutions require guarantees, such as a house contract or a phone bill, and two people to guarantee the loan (one from the family and the other a stranger). Many of the clients announced their objection to this condition because it is very hard to get a stranger to accept to guarantee them. It may happen that guarantors ask for a percentage of the credit's amount against the guarantee.

It may be even difficult for some people to furnish the latest electricity bill or (land-line) telephone bill as support for the guarantee.

While renewing a loan, it can be as well very frustrating to have to offer the same collateral again. For instance, a former client of an MFI wanted to renew his loan but the institution asked him to supply the same guarantor and to go through the whole process from the beginning. *"They wanted all the documents I had given them the first time, in addition to the latest electricity bill, so I decided not to take a loan again."*

## 10.3. Savings

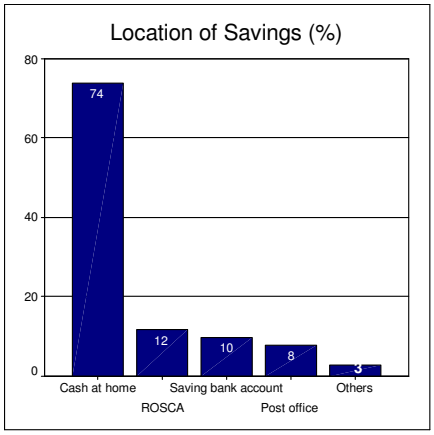



Chart 90: Location of Savings

Thirty-one percent of those surveyed stated that they save money every month. During qualitative interviews, the majority of borrowers stated that they do not save because of the weakness of their income; sometimes they even have to borrow to pay back the debt on time.

Others who do not save indicated that they have to buy merchandise as soon as they have cash flow. For instance Mohamed stated during a focus group: "*Money loses its value if I don't use it, I would rather get raw material because it's intended for my project and its prices appreciate normally.*"

Approximately three quarters (74%) of savings are kept at home. The rest is divided between informal group lending and saving scheme ROSCAs (12%), savings bank account (10%) and accounts at the Post Office (8%) (Chart 90).

Others participate in ROSCAs, which is the best from of saving from their point of view because: *"it has no interest rate and it covers the unusual expenses such as special occasions or emergencies".* Others found that ROSCAs are the best alternative to save for marrying their children or for health emergencies.

Looking at the breakdown between place of savings and the type of institution clients are from (S-MFI, NGO or Bank), it can be noticed that NGO clients are overwhelmingly using informal group lending/saving schemes (17%) and bank clients have the highest number of saving accounts (17%).

Looking at the breakdown between place of savings and level of asset ownership, it is possible to observe a correlation between level of asset ownership and use of informal versus formal savings systems.

For all groups, informal savings are more highly practiced than formal savings through banks or informal group lending. While those with a lower level of asset ownership prefer saving through cash at home or informal savings groups, savings bank accounts are preferred by those with higher asset ownership.

**Table 4: Place of Savings by Level of Asset Ownership**

| Type of savings | Group 1 | Group 2 | Group 3 | Group 4 | Group 5 |
|---|---|---|---|---|---|
| Cash at home | 87% | 84% | 80% | 73% | 52% |
| ROSCA | 8% | 7% | 14% | 14% | 13% |
| Saving Bank Account | 1% | 1% | 5% | 8% | 28% |
| Post office | 2% | 5% | 6% | 8% | 14% |

Compared to women, men are the much more likely to be users of savings in bank accounts and at the Post Office. Women represent the majority of respondents who reported that they keep their savings at home, in informal saving groups, or other non-formal mechanisms. This may indicate the need to design a specific saving scheme for female microentrepreneurs that would encompass informal practices but end up linking the savings to a formal institution for deposit that pays a market-based return.

**Table 5: Place of Savings by Gender**

| Type of savings | Female | Male |
|---|---|---|
| Cash at home | 80 % | 69 % |
| ROSCA | 13 % | 10 % |
| Saving Bank Account | 2 % | 17 % |
| Post office | 5 % | 10 % |

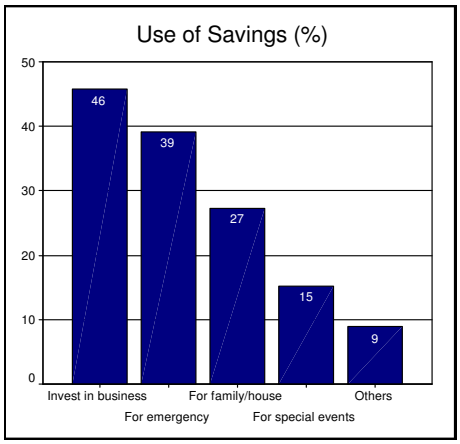



Chart 91: Use of Savings

Thirty-four percent of savers would be interested in savings accounts.

Forty-six percent of those who save, use their savings to invest in the business and 39% keep savings in order to be prepared in cases of emergency (Chart 91). Twenty-seven percent of savers dedicate their savings towards family expenses or home improvement.

Only 15% of respondents stated that their savings were used for special events. This statistic is somewhat surprising, as the financing of special events such as weddings or funerals, tends to be quite expensive and can represent a large portion of a family's annual budget. The question as to how microentrepreneurs and low-income families finance special events, although not addressed here, would be worth investigating further.

## 10.4. Other Financial Services - Insurance Products and Specialized Loans

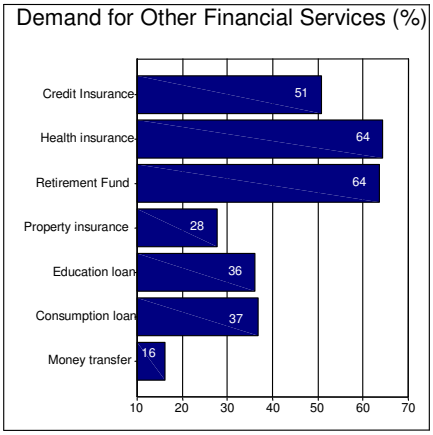



Chart 92: Demand for Other Financial Services

When asked which financial services they would be interested in, excluding loans, 64% of respondents stated that they would be interested in health insurance and a retirement security fund, followed by insurance on the reimbursement of a loan, with 51% of respondents expressing their interest in such a product (Chart 92).

In terms of specialized loans, 37% of respondents stated that they would be interested in consumption loans while 36% expressed their interest in education finance loans.

Focus groups raised concerns about education expenses for clients who have children, indicating that they often rely on ROSCAs, which they join before the academic year, to pay for private lessons.

Property insurance is shown to be less in demand, with only 28% of respondents expressing their interest in this option. Money transfers were the least popular product, with less than 20% of those surveyed interested.

As explained in the Introduction, some MFIs are already starting to offer diversified products by offering housing loans (for renovation and fixing), educational loans and other specific programs, according to the focus of the donors.

Regarding insurance, a new program has been launched by PlaNet Finance in partnership with Allianz Insurance company and two of the largest Egyptian MFIs. The results presented above show that a demand exists for these kinds of financial products.

# 11 Client Satisfaction

## 11.1. General Remarks

When asked open-ended questions about the positive and negative qualities or aspects of their microfinance institution, microentrepreneurs provided the following responses.

They were most satisfied with their relationship with their MFI, in particular the relationship between client and loan officer/branch manager. Forty-nine percent of those surveyed listed this as the most positive aspect of their MFI's performance and services. Eighteen percent of respondents listed the speed of disbursement and the installment frequency adapted to their needs as the most positive aspects of their MFI. Fourteen percent mentioned the lenient guarantee requirements needed to receive a loan. Only 8% stated that the loan amount received was the most appreciated dimension of their MFI.

In terms of dislikes, 62% of respondents were dissatisfied with the lack of diversity in products and inadequate services. For instance, 15% were mainly dissatisfied with the loan size, 11% reported that the interest rate was highly unacceptable and 10% disliked the repayment tenure. A number of the clients mentioned that they were not satisfied with the penalty imposed on installment delays especially in the case of *force majeur.*

However, 38% claimed to be fully satisfied with their MFI or could not cite a reason for dissatisfaction.

Following this exercise, participants were asked to rate their MFI on specific aspects related to the MFI-client relationship and to the financial conditions and services proposed. These responses provide more insight about client satisfaction, and especially dissatisfaction.

## 11.2. Relationship between MFIs and their Clients

Respondents were asked to rate their relationship with their MFI using the following scale: 1: excellent; 2: good; 3: average; 4: bad; and 5: very bad. An average score has been calculated accordingly.

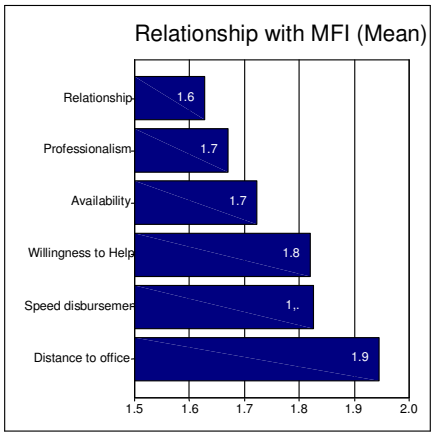



Chart 93: Relationship with MFI

On average, respondents rated their relationship with their MFI between excellent and good.

Higher scores applied to the relationship between the credit officer and the client followed by the professionalism of the institution, the availability of the organization when clients need to contact them, the willingness to offer better services to clients and understand their problems, the speed of disbursement, and finally, the distance between their house and the MFI's office (Chart 93).

Focus group discussions confirmed the excellent relationship between clients and their loan officer: "*The loan officer calls us to remind us of the deadlines and to ask about our problems. They are also very honest in their monetary dealings. We trust them."*

## 11.3. Appreciation of MFI Products and Services

Respondents were asked to rate their appreciation of MFI products and services, using the following scale: 1: excellent; 2: good; 3: average; 4: bad; and 5: very bad. (The average score was calculated accordingly.)

On average, respondents rated their appreciation of products and services of their MFIs as good to average, as illustrated in Chart 94, however, scores are in general lower than for the MFI-client relationship presented in the previous section.

The most positively rated aspects of products and services were the access conditions and the guarantee demanded, both rated just above good. However, many clients complained that obtaining required guarantees was too difficult, especially when the guarantor must be a stranger.

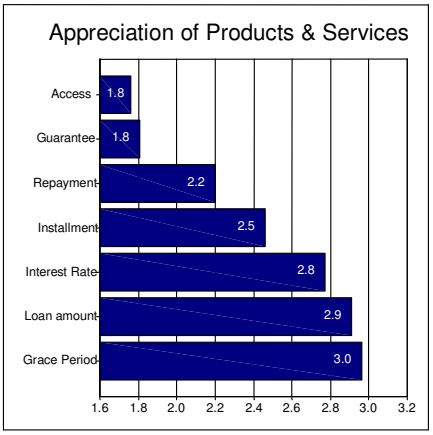


Chart 94: Appreciation of Products and Services

Repayment mechanism and installment frequency were less well rated, with a full 13% and 19% of the sample stating that the two services offered by their MFIs were bad.

Interest rate, loan amount and grace period all fell within the same range of appreciation, around average.

A breakdown illustrates the last three most poorly rated aspects by participants.

- Concerning the interest rates on loans: 19% of participants considered the interest rates bad and another 8% stated that they are very bad.
- Concerning the loan amount: 25% of participants considered it as bad and another 9% stated that it is very bad. For instance, during focus group discussions, two clients who stated that they always pay on time, asked that the loan size be suitable to the size of their project and also to their repayment commitments, and that the decisions about this not be purely dependent on the opinion of the loan officer or whoever is in charge of the size of the loans.
- Finally, the worst aspect is the grace period which is considered bad for 25% and very bad for another 12%.

Qualitative interviews revealed that clients do not agree with the absence of a grace period before they have to start paying back the loan: "*MFIs should be more flexible with dates and deadlines because sometimes we don't have the money at the right time and we don't like being penalized*".

### Situation without Receiving a Loan

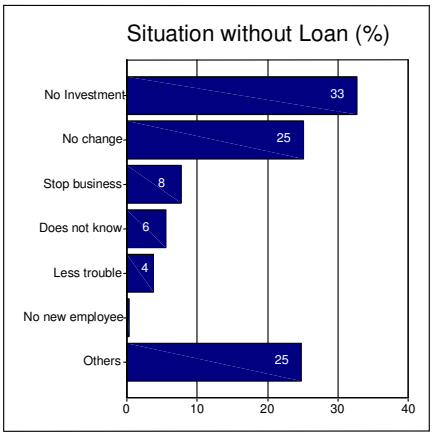


Chart 95: Situation without Loan

Twenty-five percent of the borrowers indicated that nothing would have changed in their business if they had not received a loan from their MFI, and 5% stated that their economic situation would be better had they not taken a loan (Chart 95).

However, 33% reported that they would not have invested if they had not obtained a loan and 8% estimated that their businesses would have stopped without the MFIs' services.

Very few clients would not have hired new employees.

**Facility of Borrowing**

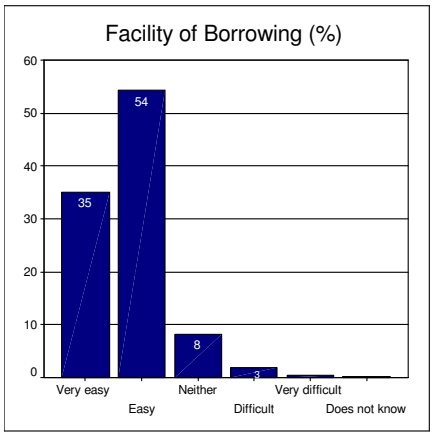



Chart 96: Facility of Borrowing

The majority of clients (89%) stated that it was easy or very easy to become a client of their MFI (Chart 96).

Only a very small percentage estimated that it is difficult to become a member.

Most of the microentrepreneurs during focus groups were content with the easy steps they needed to take to get a loan, though they had an objection regarding the loan size being too small to expand a project.

This may again indicate the need to revise the loan amounts offered to clients to reflect inflation and its affect on increases in prices of goods and raw materials procured by the clients. MFIs might consider linking loan amounts to a variable index (inflation) to allow for systematic adjustment of the loan amounts offered to clients.

# 12 Characteristics of the Female Microfinance Client

As a large number of MFIs and their products are directly targeting women, it was important to give a gender-oriented analysis of the results: 47% of the microentrepreneurs interviewed were women.

On the socio-economic characteristics of the sample compared to similar studies in Jordan and Morocco, Egyptian microentrepreneurs display similar characteristics, with the exception that there is a slight majority of male microfinance clients in Egypt compared to a majority of female clients in Morocco and Jordan.

The average female microfinance client in Egypt is a 40 year old, married woman. She has no formal education and she is not able to read a letter. She works as a trader, and does not have a second income-generating activity. She has been running a home-based activity for the past three to five years and has a monthly profit of 400 EGP.

## 12.1. General Characteristics

The distribution of wealth by gender shows a significant difference between male and female respondents. The proportion of relatively wealthier microfinance clients is higher among men than women in Egypt. Likewise, the lack of formal education is mainly present in the female population of clients (32% for women versus 9% for men).

The proportion of women is much higher in certain sector activities, except for services where 81% of respondents are men. Animal husbandry and poultry activities are mainly performed by women, accounting for 80% of all responding microfinance clients in this sector. Of handicraft and small producing industry and trade microentrepreneurs, 57% and 55% respectively are women.

However, it is important to note that of the 8.5% of respondents who reported not having an activity in their name or a running activity, women made up 76%.

Women are much less likely than men to have a registered business. Only 10% of businesses that are run by women are registered versus 64% of those run by men.

As in other countries in the Middle East region, women microfinance clients are also much more likely than men to run home-based businesses. Women operate 88% of the home-based businesses and only 28% of the non home-based businesses in the Egyptian sample. The implication is that women microentrepreneurs in Egypt, even though economically active, are still largely confined to the home environment.

## 12.2. Financial Needs

Women desire smaller loan amounts than men. The size of loans demanded by women is lower by 500% than loans demanded by men (2,000 EGP versus 10,000 EGP for men). Among the 10% of respondents who needed the loan to start a new economic activity, 80% were women.

The preference for conventional products is slightly higher for men respondents than women, while women represent the majority of respondents who save cash at home, within informal saving groups, or use other non-formal savings mechanisms.

## 12.3. Perception of Impact

The one domain in which women microentrepreneurs largely perceive a greater impact of microfinance than men is in the quality and quantity of food eaten by the household (62% of women perceived a positive impact on this versus 39% of men).

Around 45% of women versus 35% of men have noticed a positive change in their education of the children and the level of health in the household since the start of participation in a microfinance program.

In terms of intangible indicators, women and men perceive different levels of impact. Concerning autonomy at the personal level, 86% of women versus 69% of men perceived a positive impact.

The perception of impact of microfinance on the level of respect from the spouse and respect of children are higher for woman than men, at 54% for women and 39% for men and 44% for women and 30% for men respectively.

Concerning the perception of impact on level of stress, the statistics are opposite as 33% of men perceived a positive impact versus 24% of women. This could be explained by the fact that women do not give up their home obligations when they are microentrepreneurs; thereby creating relatively more stress for them than for men.

Finally, concerning the perception of impact of microfinance on conflicts and tension in the family, the perception is almost identical; 18% of women and 13% of men perceived a positive impact.

## 12.4. Empowerment

In comparing results on personal empowerment by gender, 43% of women versus 57% of men noticed a positive change in their daily life as a result of participating in a microfinance program.

Twenty-five percent of women clients versus 23% of men clients have noticed a positive effect on their businesses, while 10% of women versus 30% of men have noticed a negative effect on their domestic tasks. This indicates that the sense of empowerment in this domain is stronger for women that men.

On average, men work eleven hours per day in their business while women work on average six hours forty minutes a day. Regarding domestic tasks, women spend on average six hours per day doing housework while men average five hours per day (the question was adapted for men by asking them about the time they spend at home).

In decision-making within their couple, involvement in professional activity is perceived to give more influence to women than to men (average of 2.8 for women versus 2.6 for men). In their family, professional activity gives women less influence than men (average of 2.1 versus 2.3 for men). The trend is even stronger when considering microentrepreneurs' decision-making in the community in which they are living (average of 2.0 for women versus 2.3 for men).

In addition, 87% of women clients are supported by their families when borrowing from an MFI versus 70% of men clients. This figure is worth noting as there is a common notion that women clients must often hide the fact from their families and husbands that they are borrowing loans. The fact that such a high percentage of women are supported in their loan decisions shows a positive trend in women's power of decision in front of their families.

During the focus group discussions, women unanimously stated that the loan had had a positive effect in terms of their image in their communities; they are also more self-confident and their children appreciate what they do. Their projects have allowed them to have a better life in general.

# 13 Drop-Out Clients

Former clients provided several reasons for their departure from their microfinance program. This chapter describes these reasons in detail. Several possible answers were provided to the borrowers to explain the reasons why they left their microfinance program. Those broad categories related to the MFI products and services, personal reasons, business reasons, socio-economic environment reasons, and group reasons.

## 13.1. General Overview

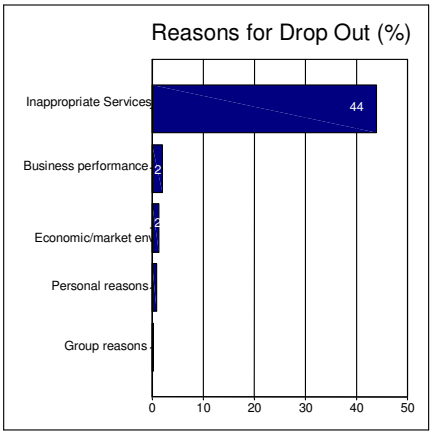



Chart 97: Reasons for Drop-out

In the quantitative interviews with clients who have dropped out of a microfinance program, they reported the major reason for dropping out as inappropriate products and services. For 44% of these respondents, MFI products and services were not adapted to their expectations.

Only 2% of former clients cited business reasons as their motivation to leave their MFI and less than 2% economic/market environment, personal reasons, or problems with their solidarity groups.

Others respondents did not give precise reasons why they left their microfinance program.

## 13.2. MFI Products and Services

Concerning the 44% of drop-outs who stated that they left their MFI because of the inappropriate products and services offered, the majority reported that the amount of their loans was not adapted to their needs. Almost all clients during focus group discussions stated that the loan amount was too small and did not really allow for their projects to develop. However, most of them stated they would come back if the loans were bigger.

Other reasons cited include the fact that the borrower did not repay his or her loan or was blocked from obtaining a loan renewal. For instance, a microentrepreneur had difficulties renewing the loan because he had to shut down the business due to bird flu and therefore found it difficult to repay his loan, which caused the MFI refuse to renew the loan.

Clients also encountered difficulty in repaying their loan because they were required to pay every fifteen days, with high interest rates and a lot of guarantees, especially in the case of bank clients.

In addition, some participants had actually received other loans but had to leave their MFI because of its distant location.

The alternative for most drop-outs is ROSCAs. For instance, clients in the focus group discussions insisted on the fact that they do not like being punished by having to pay a fee when they are one day late. This is the main reason why they prefer ROSCAs to MFIs. *"It's better for me to be part of an informal ROSCA with my neighbors. There is no interest rate and people accept being late, sometimes, when we have personal or family crisis",* said one microentrepreneur who works at home.

## 13.3. Appreciation of the MFI Program

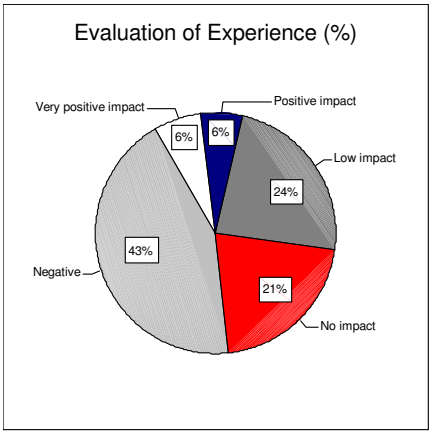



Chart 98: Evaluation of Experience with Microfinance Program

Only 12% of the former clients of microfinance programs found their participation in the program had a positive impact: 6% very positive and 6% positive.

For 21% of the respondents, their participation in the program was evaluated as neither positive nor negative.

Forty-three percent of drop-outs found their participation in a microfinance program negative. However, this was not confirmed during the focus group discussions where most of drop-out groups stated that the loan amount received was too small to have an impact.

An overwhelming 88% of respondents have not found that one MFI provides better products and services than another MFI.

This remarkably high proportion indicates that clients either do not distinguish between MFIs or simply no longer seek loans from microfinance programs. The interpretation here is for MFIs to make more efforts in areas of performance, such as branding and image distinction, better targeting and client segmentation, as well as routine and systematic client satisfaction surveys.

# 14 Conclusions and Recommendations

## 14.1. Comparison with Other Impact Studies

As this study shows, microfinance has clearly had a positive impact on the lives of clients, specifically in the development of their microenterprises and their own personal sense of security and improved living conditions. Unfortunately, there are no internationally accepted benchmarks with which to compare results; however, it is possible to compare the results of the Egyptian National Impact Survey with similar impact studies as a means by which to evaluate where Egyptian microfinance stands in terms of measured impact.

In order to carry out this comparison, it is necessary to draw upon studies which have used a similar methodology and framework for analysis. The studies most closely resembling this one in terms of research design and evaluation of results are the IKM studies carried out in Jordan in 2006[36] and in Morocco in 2004[37]. Those studies were conducted with all microfinance institutions of Jordan and Morocco. The total sample size of the impact studies was approximately 1,300 microentrepreneurs divided into the same four categories as those used in Egypt: Old clients, Medium clients, New clients, and Drop-Out clients.

### 14.1.1. Socio-Economic Characteristics

**Table 6: Socio-Economic Characteristics**

| Country | Women Clients | Illiteracy | Principal Activities |
|---|---|---|---|
| Egypt | 47% | 35% | Trade (62%), Handicrafts (10%), Services (15%), Agricultural (5%), Other (1%) |
| Jordan | 69% | 6% | Trade (59%), Handicrafts (15%), Services (14%), Agricultural (1%), Other (1%) |
| Morocco | 68% | 45% | Trade (44%), Handicrafts (39%), Services (10%), Agricultural (6%), Other (1%) |

- In comparing the socio-economic characteristics of the samples, the microentrepreneurs in Morocco and Jordan display similar characteristics to those in Egypt, with the exception that a lower majority of microentrepreneurs in Egypt is male compared to a majority of females in Morocco and Jordan.
- The level of basic education of microfinance clients is much higher among Jordanian microentrepreneurs than Egyptians and even more so than Moroccans.
- Egyptian and Jordanian microentrepreneurs are more limited in their types of activities than those in Morocco, especially in the domain of handicrafts/small producing industries.

[36] A copy of the study can be provided upon request by PlaNet Finance or can be accessed on the National Microfinance Gateway of Jordan : http://www.microfinance-jordan.com/

[37] A copy of the study can be provided upon request by PlaNet Finance or can be accessed on the National Microfinance Gateway of Morocco : http://www.microfinanceaumaroc.com/

### 14.1.2. Impact on Economic Activity

| Table 7: Impact on Economic Activity (Old Clients versus New Clients) | | | | | |
|---|---|---|---|---|---|
| **Country** | **Increase in Monthly Revenue** | **Increase in Investments** | **Level of Employment** | **Start of a New Activity** | **Contribution to Household Budget** |
| Egypt | 25% more | 81% more | 44% more | 11% more | 25% more |
| Jordan | 15% more | 133% more | 83% more | 28% more | 20% more |
| Morocco | 38% more | 36% more | 66% more | 5% more | 11% more |

In terms of impact on economic activity, the three studies show that microfinance has had an impact on the same set of indicators: monthly revenue, business investments, level of employment, and contribution to household budget (Table 7).

- In terms of increase in monthly revenue, microfinance has had a larger impact on clients in Morocco (38%) than in Egypt (25%) and Jordan (15%); however, in terms of business investments, microfinance in Jordan has led to a larger increase (133%) than in Egypt (81%) and much larger than in Morocco (36%).

- Considering the impact of microfinance on the level of employment, the results seem to be more significant in Jordan. However, these results are not necessarily conclusive as the percentage of clients with employees was too small to be statistically significant.

- Microfinance in Jordan has been much more important to the starting of new activities than in Egypt and Morocco (28% versus respectively 11% and 5%).

- Finally, in terms of contribution to household budget, microfinance in Egypt and in Jordan has had a larger impact than in Morocco (25% versus respectively 20% and 11%).

### 14.1.3. Impact on Household Poverty Level

| Table 8: Impact on Household Poverty Levels (Old Clients versus New Clients) | | | | |
|---|---|---|---|---|
| **Country** | **Monthly Spending** | **Education of Children** | **Accumulation of Assets** | **Improvement of Housing Conditions** |
| Egypt | 25% more | Inconclusive | Less than 10% | Insignificant |
| Jordan | Insignificant | Inconclusive | Less than 10% | Insignificant |
| Morocco | 33% more | Inconclusive | Less than 10% | Insignificant |

In terms of the impact of microfinance on household poverty levels, a comparison between the three studies shows that in each case the impact is marginal (Table 8).

The one domain in which an impact is observed concerns the level of household monthly spending, where Egyptian and Moroccan Old clients experience respectively a 25% and 33% increase in consumption.

The lack of significant observed impact on these indicators should not be attributed to poor performance of microfinance but rather to the higher costs related to such indicators. The increase in monthly salary through participation in a microfinance program can contribute to improved daily life in terms of quality of food, access to leisure activities, and access to over-the-counter medication.

However, increasing the level of education of one's children or improving housing conditions is much more costly and requires a much greater investment over a longer period. The impact of microfinance

is thus not insignificant, but not yet significant enough to have a measurable effect on these specific indicators.

### 14.1.4. Perception of Impact

| Table 9: Perception of Positive Impact | | | | |
|---|---|---|---|---|
| **Country** | **Food Consumption** | **Education of Children** | **Health** | **Sense of Autonomy** |
| Egypt | 50% | 40% | 40% | 76% |
| Jordan | 70% | 58 % | 48% | 87% |
| Morocco | 62% | 36% | 37% | 68% |

In terms of perception of impact, the three studies show that microfinance has had a positive impact on the same set of indicators: food consumption, education of children, health, and sense of autonomy (Table 9).

- The results in Jordan are higher across the board than those observed in Egypt and in Morocco.
- However, Egyptian microentrepreneurs perceived a higher positive impact of microfinance on the education of their children, their health, and their sense of autonomy than Moroccan microentrepreneurs (except for food consumption).

## 14.2. Future Trends in Poverty Impact and Recommendations for the Microfinance Sector

Some trends in poverty impact are visible and reveal important challenges. The recommendations stemming from the survey are targeted towards three groups: MFIs, donors and governmental/regulatory authorities.

### 14.2.1. Trends in Poverty Impact

The comparison made in this study between different household asset ownership groups of clients (where Group 1 represents the poorest in the sample and Group 5 represents the least poor) shows that as clients move into even slightly higher asset ownership groups, their overall economic well-being improves and they are able to contribute more concretely to the Egyptian economy. Clients in higher asset ownership groups have stronger businesses that tend to be formal; these businesses are generally not home-based and are registered. They have more employees and turn-in higher monthly profits. This shows an evident ability for microfinance to lift a number of clients out of poverty and generate economic added value at the macro level.

Furthermore, given that MFIs represent one of the major ***formal external*** sources of finance available for the economically active poor, microfinance has led, at the micro level, to increased revenues, business investments and job creation for clients. It has also led to improved nutrition and access to health and education services for clients, and contributed to an overall feeling of well-being and positive self-esteem for microentrepreneurs.

In order to further increase MFIs' impact on poverty alleviation, they need to focus on developing new products and services that fit the needs of every type of client, thus offering a wider range of services. By focusing on better services to clients at the upper end of the "asset accumulation" spectrum, MFIs will optimize their impact on job creation and the stimulation of the small enterprise sector. Likewise and equally important, by concentrating efforts and designing appropriate financial services focusing on graduating the poorest clients into higher asset ownership groups and increasing the size of their businesses, the impact of microfinance on key poverty indicators will be improved.

In more specific terms, the results of this study reveal several important challenges that need to be addressed by the microfinance sector in Egypt in order to optimize the impact of access to financial services, as well as to meet the wants and needs expressed by microentrepreneurs. Such issues are outreach, product development, adequacy of products, funding, guarantees and regulations.

A number of proposed recommendations have been formulated to address these issues. These recommendations concern MFIs, as well as donors and governmental/regulatory authorities.

### 14.2.2. Recommendations for Microfinance Providers

**Outreach**

Banks and Formal Financial services providers' Institutions (FFIs) should seriously consider creating institutional/operational linkages with informal MFIs. This direction would allow FFIs to achieve greater depth of outreach through the MFIs' branch network, as well as to acquire an overall greater market share, ultimately enabling FFIs to attract successful microentrepreneurs who may be bankable by that time.

Informal financial services providers (NGOs and non-bank specialized NGOs referred to as MFIs) are more successful in reaching the economically active poor with lower levels of education.

Furthermore, stakeholders seeking poverty alleviation and/or reduction should always pay extra attention to including women-owned enterprises in their programs.

There is a clear need for microfinance providers to increase their efforts in reaching out to clients through innovative marketing strategies (other than "word of mouth" and "door-to-door") and ensure better outreach, particularly those MFIs targeting the wealthier microentrepreneurs.

**Development of New Products**

To increase overall impact, MFIs in Egypt must offer the right products to the right clients. The results of this survey show that there is demand from microentrepreneurs for the development of new products such as life and health insurance, retirement funds, credit insurance, or consumption loans.

In addition, the need to conduct feasibility studies on the development of various types of insurance products has been clearly identified. In particular, partnerships between MFIs (formal and informal) and existing insurance and specialized institutions ought to be explored in order to offer insurance against a group of business and/or personal risks together with loans, or simply to provide health insurance to existing MFI clients. This would enhance the existing credit product offering and increase the marketing abilities of Egyptian MFIs while avoiding regulatory limitations, which may prohibit them from developing such products themselves.

Microfinance providers should also explore providing additional financial services (other than credit) required by their targeted clientele, and consider practical ways for acting as agents to other formal financial institutions in order to extend these new financial services in addition to credit (start up loans with specifically tailored tenors and grace periods, insurance, transfers, promotion of savings accounts).This will benefit both the microentrepreneurs, as well as MFIs by increasing client loyalty and enhancing the MFIs' image in the market.

Finally, microfinance services providers need to broaden their current product offering range with the development of new loan products such as debt-consolidation loans, education loans and consumer loans "*for family purposes*" (such as marriage or emergencies) or loans that are designed for projects that are "*family-operated*" enterprises.

**More Client-Focused Products**

Microfinance Institutions in Egypt offer a limited range of products and services, a fact that is mentioned in this study as a reason for both client dissatisfaction and client drop-out.

Microfinance providers need to review their current procedures in terms of access to loans (collateral), as well as current product characteristics (loan size, repayment period, and grace period) in order to better adapt the products to the demand identified in this survey. For instance, MFIs may need to

consider developing new terms for credit to cover business needs extending beyond working capital finance; that is to include asset acquisition, asset/machinery major repairs, asset maintenance and infrastructure refurbishing. Furthermore, MFIs might need to revise the loan amounts offered to clients to reflect real inflation in the economy and increases in the prices of goods and raw materials procured by the clients. MFIs may think of linking loan amounts to a variable index (inflation) to allow for systematic adjustment of the loan amounts offered to clients.

MFIs seem to limit their credit risk exposure by largely targeting existing enterprises with very high turn-over (on a daily/weekly basis) normally found in the trade sector more than other sectors such as industrial and services sectors. This direction could be justified for MFIs during their start-up phase to allow time to solidify their internal systems and practices. However, mature MFIs that have achieved solid financial positions should seriously consider expanding their credit services to include credit with *"friendlier features"* for microenterprises working in the sectors that fall within the eligibility criteria of the MFIs. One should note here that a limited number of Egyptian MFIs has embarked on developing and offering new credit products that cover higher business credit, as well as consumption needs. In summary, mature MFIs need to better know the needs of enterprises in the industrial and the service sector, perhaps developing other types of credit products thereby deviating from a "one-size fits all" policy. As indicated in this survey, it also seems important to conduct specific research on alternatives to the provision of guarantees from borrowers.

**Training and Business Development and Advisory Services**

Although less than a quarter of respondents stated that they are interested in Business Development and Advisory Services (BDAS), those who received BDAS would be willing to pay for it. This proves the existence of interest in business/advice training which could help upgrade the management of microenterprises and thus the profits earned by microentrepreneurs. MFIs interested in offering these types of services should first conduct a detailed needs analysis among their specific segment of target clients, in order to accurately determine what types of business skills are sought, and at the same time would have a direct positive return on the performance/sales of the microenterprise.

The importance of BDAS needs to be marketed by the MFI to its clients in a way that proves its relevance to developing their businesses. If such a link could be clearly established to clients, they may be more willing to spend time and money on BDAS.

Following the diagnostic, MFIs must determine whether or not they are financially and logistically capable of providing such services themselves. If this is not feasible, it is recommended that they establish partnerships with organizations specialized in this domain. It is always recommended in this regards to have the microentrepreneurs share a symbolic part of the cost of training and BDAS they receive, or even pay the full the cost of these services. Indeed, achieving financial break-even for the non-financial BDAS programs could be considered acceptable in cases where they are offered directly by the MFI, since it would not affect negatively the overall financial performance of the MFI and would contribute to building the MFIs' image.

Finally, the fact that the relation with the loan officer is one of the features valued by clients suggests the need for MFIs to provide well-designed training opportunities for the field sales staff (loan officers) in the areas of business management skills, communications skills, simple cash flow analysis, and business planning. These courses should be designed and implemented to provide loan officers with practical skills to act as business management advisors to their clients.

### 14.2.3. Recommendations for Microfinance Donors and Governmental/ Regulatory Authorities

The role of donors and governmental/regulatory authorities is normally essential in providing efficient support to the MFIs and enabling a legal and operational environment that is conducive to the development of the sector.

Recommendations are made for addressing four key issues.

**Over-Indebtedness**

Conducting a separate quantitative study on over-indebtedness would be strongly advised in order to measure not only the level of over-indebtednesses of microfinance clients, but also the reasons

behind it, especially to determine whether overlapping loans are actually a means for supplementing credit needs or used - largely - to pay existing debts.

**Business Development and Advisory Services**

Further research needs to be conducted to analyze non-financial business-related services needs and subsequently, design packages that accurately meet the needs and wants of microfinance clients.

**Equipping MFIs with Relevant Knowledge and Skills**

In order to implement the recommendations noted for the MFIs, the management of those MFIs will have to acquire state-of-art knowledge and skills to effectively undertake the required activities related to product diversification, risk management and other issues related to MFI operations. In more specific terms, MFIs need to have sufficient resident skills in order to undertake periodic market research activities, translate the results of research into more appropriate products, pilot these products and be able to properly apply costing and pricing techniques. At the same time, experienced technical assistance and training service providers are in most cases expensive for an individual MFI to handle. To that end, donors and related governmental and quasi-governmental institutions could think of devising a mechanism to assist MFIs in acquiring the services of experienced technical services providers and expand knowledge transfer activities from mature MFIs to start-up MFIs.

**Facilitating Operational Requirements for Informal MFIs to act as Agents for FFIs**

In general and as previously mentioned, informal MFIs cannot extend certain services to their clients, namely insurance and savings services, due to existing legal constraints. However, these MFIs could play an active role in expanding microfinance service outreach if they act as agents for specialized institutions in extending these services. This may require special arrangements between informal MFIs and FFIs that the informal MFIs may not be able to proceed with. An example of that is expanding the pool of loan funds through leverage agreements with banks. While some lawyers and government officials view that there are no legal impediments to such arrangements, some MFIs and banks are reluctant to enter into such arrangements and require some kind of declaration from the Ministry of Social Solidarity (MSS) to allow MFIs to pledge their portfolio as a guarantee for additional funding.

# 15 Annex

## 15.1. Framework for the Impact Evaluation

### 15.1.1. Measurements of Impact in Microfinance

The various methodological tools used to measure the impact of microfinance can be grouped into two categories: the quantitative approaches and the qualitative approaches (which can in turn be subdivided into the participatory and non-participatory methodologies).

Quantitative Approaches

As the name implies, the quantitative approaches used to measure impact in microfinance are concerned with numerical values and countable units (such as revenue, spending on consumption, salaries, etc…). Quantitative tools are useful in that they pose the same question to an entire sample and then measure the frequency of each response. As such, they can indicate tendencies and trends among the sample population. In addition, quantitative tools can provide general information related to an entire population, so long as the sample used is representative of the larger population under consideration.

Quantitative studies are generally based on well-structured questionnaires which allow for results to be counted and easily compared. This approach does not allow for interaction between the interviewer and interviewee. While the disadvantage of this approach is the lack of "verification" that the answers provided correspond to reality (for instance, the interviewer will not verify the monthly profits that the interviewee may claim to receive), the advantages of a quantitative approach include the ability to interview a large number of people, the standardization of responses, and the synthesis of information.

**Experimental Longitudinal Study**

By far the most ideal way to measure the impact of microfinance would be an experimental, longitudinal comparison between groups who have had access and groups who have not had access to microfinance products and services, with participants chosen through random selection. However, the reality of most microfinance sectors prevents the use of this method: most microfinance sectors do not have sufficient penetration rates among the population at large to be statistically relevant.

**Quasi-Experimental**

Given the above constraint, the most frequent methodology used among the quantitative approaches is the quasi-experimental method. This methodology compares the results achieved - in this case, the results of microfinance on selected indicators - with a simulation of what results could have been without microfinance. The quasi-experimental method can be carried out either through an econometric technique of multiple regression or through a comparison between statistically relevant groups, with the latter being by far more common among microfinance impact studies.

One of the more common methods of carrying out the quasi-experimental approach has been to create a sample comparing clients of microfinance institutions with eligible clients and non-eligible clients (with respect to the selection criteria of the participating MFIs) in regions where the MFIs are and are not present. This methodological framework has been used in studies in both Bangladesh (Pitt and Khandker 1997, Morduch 1998, Zaman 2000) and in Thailand (Coleman 2002, Kobasky and Townsend 2003). This method can provide more detailed and significant results in terms of impact assessment; however, it is a lengthier and more costly approach that is not always feasible.

A second method of the quasi-experimental approach compares active clients with new clients who have not yet received a loan. This method is simpler in terms of data collection as it draws exclusively on the MFIs' database of clients, thereby rationalizing costs and eliminating potential bias in the

selection of non-clients. This last point is particularly important, as the characteristics between clients and non-clients are often significant and have a greater influence on poverty levels and business development than participation in a microfinance program. Nonetheless, this approach can be faulty if the MFIs' recruitment policies or strategies have changed over time, causing a change in the socioeconomic characteristics of Old and New clients,

Qualitative Approaches

Qualitative approaches to measuring the impact of microfinance on a set population use the same techniques as those used in the social sciences. Such approaches require extensive knowledge of the local context as a means of placing observed results in their proper setting. There are three main tools for carrying out qualitative studies:

- Qualitative Interviews. These include posing open-ended questions, leading a semi-guided discussion, and focus group discussions (in which one person leads a guided discussion on a key set of topics and notes the frequency of responses).

- Direct Observation. This method involves observation of the target population in their environment. Direct observation techniques are largely concerned not with what information is stated but with the subtleties that can be observed by the interviewer. For example, in the case of microfinance, an interviewer may observe the relationship between the interviewee and her husband or the types of assets that are present in the interviewee's home. This information would then be compared against the norms of the local context in order to provide an assessment of impact.

- Case Studies. Case studies can be used in order to explore in detail complex issues or questions that cannot be treated through simple question – response techniques. While case studies cannot stand alone in an impact study, they can be useful compliments to other methodological tools or to provide individual examples.

While the qualitative approaches can be used to draw out information that cannot be obtained from questionnaires alone, there are two main disadvantages to these techniques. Firstly, they are largely dependent on the skill of the lead interviewer and his/ her ability to interpret results in a non-biased and scientific manner; without such skills, observations can be non-demonstrative and anecdotal in nature. Secondly, qualitative approaches in microfinance impact studies cannot determine whether or not results observed are directly related to microfinance or not. As such, these techniques assess causal links more than direct impact.

### 15.1.2. Specific Framework for the Impact Evaluation

As previously stated, the principal objective of the impact study is to assess the effect of participation in a microfinance program on a series of economic, social, and poverty indicators (monthly profit, food consumption, etc…). The study uses the following equation as the basis for evaluation:

$$Y_i = \alpha X_i + \beta R_i + \delta C_i + \varepsilon_i \quad (1)$$

With $Y_i$, standing for the indicator being studied; $X_i$ a demographic characteristic vector; $R_i$ a vector indicating the characteristics of the region or the sector; and $C_i$ indicating the level of participation.

Treating this specification alone is likely to produce biased results. In reality, the level of participation is potentially correlated to the characteristics of the population and the indicators. It is possible to control the observable characteristics (those of the household for example, represented here by "$X_i$") but the unobservable characteristics (such as "entrepreneurial" aptitudes or qualities) are likely to determine jointly C and Y. In the majority of cases, the degree of participation is not exogenous; therefore, to estimate correctly the impact, it is necessary to estimate the impact of C on Y by separating the correlation between X and C and by resolving the causality problem between Y and C.

### 15.1.3. The Impact of Duration of Participation in the Program

A first evaluation method is to compare the impact indicators in relation to the duration of participation in the program, from the date of the first credit until the moment of the investigation.

$$Y_i = \alpha X_i + \beta R_i + \Pi D_i + \varepsilon_i \quad (2)$$

$Y_i$ is the impact indicator to be studied; $X_i$ and $R_i$ are the demographic and regional characteristics of the vectors; $D_i$ represents the degree of participation in the program.

The analysis is more specified when we take into account the level of asset ownership of the clients at this moment and three years ago.

$$Y_i = \alpha X_i + \beta R + \delta_1 T_1 + \delta_2 T_2 + \delta_3 T_3 + \gamma_1 D_1 + \gamma_2 D_2 + \gamma_3 D_3 + \varepsilon_i \quad (3)$$

With $T_l$, $T_2$, and $T_3$ corresponding to the tiers of client asset ownership - poor, medium, rich – before participation in a microfinance program and $D_1$, $D_2$, and $D_3$ corresponding to their respective duration of participation in the program.

### 15.1.4. The Impact of Participation

An alternative approach consists of comparing the group of clients having received at least one credit (active clients) with new clients who have not yet received a credit (non-active clients), including drop-outs.

$$E\{Y \mid C = 1, X) - Y \mid C = 0, X\} \quad (4)$$

With C = 1 if the participation in a microfinance program is active and C = 0 if not. The impact equation is thus:

$$Y_i = aX_i + \beta V_i + \delta C_i + \varepsilon_i \quad (5)$$

This approach is more detailed when data can be treated in a chronological series:

$$E\{Yt \mid C = 1, X) - Yt \mid C = 1, X\} - \{Yt1 \mid C = 0, X) - Yt1 \mid C = 0, X\} \quad (6)$$

With t representing the current period and t1 representing the period passed.

The impact equation thus is:

$$dY_i = \alpha X_i + \beta V_i + \delta C_i + \varepsilon i \quad \text{with } C_i \ (0,1) \quad (7)$$

The effect of participation is evaluated by the interactions of two variables or the Difference in Differences (DID).

$$Y_i = \alpha_0 + \beta_0 dT + a_1 dC + \beta_1 dTdC + u \quad (8)$$

With dT acting as a dummy variable representing the current period; dC a dummy variable representing the group of active clients; and with the coefficient $\beta_1$ being linked to the interaction between the two variables.

### 15.1.5. Complementary Analysis of the Duration of Participation: The Instrumental Variable Regression Method

While the equations mentioned above allow for an evaluation of significant difference between clients with respect to the duration of their participation in a microfinance program, they do not solve the problems related to endogenous factors influencing impact. The moment in which a person decides to participate in a microfinance program may be dependant on certain variables that are not observable but that have an effect on the selected indicators. Such endogenous factors may include entrepreneurial capacity, for example, which could explain why certain microentrepreneurs join a microfinance program as soon as a new branch opens while others may wait for years before applying.

This point leads to the major problem in this type of impact evaluation: the central variable for analysis is not completely exogenous. For this reason, it is essential to add a second method of analysis to the measurement of impact. For the purposes of this study, two variables –that are exogenous to impact – will be utilized to evaluate the duration of participation in a microfinance program.

The objective of the instrumental variable regression method is to eliminate the biases linked to the endogenous aspect of the variable of duration of participation in a microfinance program. This method is divided into two steps. The first step consists of evaluating the duration of participation in a program using the following specification:

$$D_i = \alpha X_i + \beta R_i + \Pi Z_i + \varepsilon_i \quad (9)$$

Where $D_i$ represents the duration of participation in a program; $X_i$ represents a demographic and economic variable; $R_i$ is a dummy variable vector which represents the region; $Z_i$ is a characteristic vector that affects $D_i$ without affecting other characteristics and where $Z_i$ is an instrumental variable; and $\varepsilon_i$ is an error term.

The two instrumental variables that have been chosen to evaluate the duration of participation in a program are: the number of years of existence of the program (per branch) and the number of years spent in the micro business. These two instrumental variables are correlated to the variable of participation but not to the impact indicators or demographic characteristics. As such, they fit the criteria for instrumental variable regression.

The second step consists of integrating into the impact equation the “instrumental” duration of participation:

$$Y_i = \alpha X_i + \beta R_i + \Pi D_i + \varepsilon_i \quad (10)$$

Where $Y_i$ is the impact indicator to be measured; $X_i$ is the demographic characteristic vector; $R_i$ is the regional characteristic vector; and $D_i$ represents the instrumental duration of participation.

### 15.1.6. Perception of Impact of Participation

This perception of the impact of microfinance on clients is measured through a series of indicators, divided into two categories: material household indicators (nutrition, education, health, leisure) and immaterial indicators (autonomy and empowerment, consideration of children, consideration of partner, conflicts, serenity).

The perception of change is treated in the analysis as a discrete variable (1,0) in which clients either perceive a positive change or not. The objective is to evaluate the reasons for perception of change for each indicator. The probability is evaluated through logical regression:

$$Y_i = \alpha X_i + \beta R_i + \Pi D_i + \varepsilon_i \quad (11)$$

Where $Y_i$ is the perception indicator to be evaluated with $Y_i = 1$ if the change is positive and $Y_i = 0$ if otherwise; Xi is the demographic characteristic vector; Ei is an economic activity characteristic vector; and Di represents the time period since obtaining the first loan.

This specification can be further detailed by taking into account the degree of asset ownership of clients before participation in the program:

$$Y_i = \alpha X_i + \beta R_i + \delta_1 T_1 + \delta_2 T_2 + \delta_3 T_3 + Y_1 D_1 + Y_2 D_1 + Y_3 D_3 + \varepsilon_i \quad (12)$$

Where $T_1$, $T_2$, and $T_3$ correspond to the tiers of wealth of clients – poor, medium, rich – before participation in the microfinance program and where $D_1$, $D_2$, and $D_3$ correspond to their respective duration of participation.

### 15.1.7. Interpretation of Results

The different results are presented with their level of significance at 1%, 5% and 10%. Above these levels of significance, the results are not considered for the study if the variables are quantitative and not qualitative.

The results should be, however, interpreted with precaution because of the limited number of observations in this study and because of the non-quantifiable aspects (the political and economic situation, the managerial skills of the clients) that might affect noted results.

## 15.2. Asset ownership index

The specific index method, developed by Filmer and Pritchett (World Bank), is based on the following components:

$$Ai = f_1 \times (aj_1 - a_1)/(s_1) + fn \times (aj_n - a_n)/(s_n)$$

Where $f_1$ the factorial is score of the first asset, $aj_1$ is the value *j* of the first asset for the household (where 0= no asset, 1= has the asset) and $a_1$ is the mean and standard deviation of the first asset across the all sample and $s_1$ its standard deviation.

Each household receives a score relative to the number and nature of assets owned.

Each asset is assigned a weighted score (cf Factor Scoring table below).

The total scores are then divided into 5 quintiles (5 groups of equal size).

Asset ownership 1 is the poorest and Asset ownership 5 is the richest.

| Factor Scoring | |
|---|---|
| Tap water | 0,135925 |
| Electricity | 0,100376 |
| Sanitation | 0,130138 |
| Colored TV | 0,217807 |
| Cell phone | 0,222137 |
| More than cell phone | 0,166303 |
| Washing machine automatic | 0,214655 |
| Fridge | 0,217317 |
| Fan | 0,177613 |
| Satellite dish | 0,191924 |
| Car | 0,128365 |
| Extraction Method: Principal Component Analysis. | |

## 15.3. Examples of Regression

### Employment

| Dependent Variable: MOREWORKERS | | | | |
|---|---|---|---|---|
| Method: Least Squares | | | | |
| Date: 01/17/08 Time: 00:13 | | | | |
| Sample(adjusted): 6 2257 | | | | |
| Included observations: 940 | | | | |
| Excluded observations: 1312 after adjusting endpoints | | | | |
| MOREWORKERS=C(1)+C(2)*MEDIUM+C(3)*OLD | | | | |
| | Coefficient | Std. Error | t-Statistic | Prob. |
| C(1) | 0.090164 | 0.015377 | 5.863726 | 0.0000 |
| C(2) | 0.029577 | 0.022726 | 1.301442 | 0.1934 |
| C(3) | -0.014692 | 0.023727 | -0.619209 | 0.5359 |
| R-squared | 0.003665 | Mean dependent var | | 0.095745 |
| Adjusted R-squared | 0.001538 | S.D. dependent var | | 0.294397 |
| S.E. of regression | 0.294171 | Akaike info criterion | | 0.393875 |
| Sum squared resid | 81.08474 | Schwarz criterion | | 0.409340 |
| Log likelihood | -182.1212 | F-statistic | | 1.723221 |
| Durbin-Watson stat | 2.117238 | Prob(F-statistic) | | 0.179055 |

## Autonomy

| | | | | |
|---|---|---|---|---|
| Dependent Variable: AUTONOMY | | | | |
| Method: ML - Binary Logit | | | | |
| Date: 01/16/08 Time: 19:58 | | | | |
| Sample(adjusted): 1 2260 | | | | |
| Included observations: 2260 after adjusting endpoints | | | | |
| Convergence achieved after 3 iterations | | | | |
| Covariance matrix computed using second derivatives | | | | |
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| C | 0.979172 | 0.067491 | 14.50822 | 0.0000 |
| MALE | 0.869333 | 0.109211 | 7.960096 | 0.0000 |
| Mean dependent var | 0.796903 | S.D. dependent var | | 0.402393 |
| S.E. of regression | 0.396607 | Akaike info criterion | | 0.981765 |
| Sum squared resid | 355.1775 | Schwarz criterion | | 0.986830 |
| Log likelihood | -1107.395 | Hannan-Quinn criter. | | 0.983613 |
| Restr. log likelihood | -1140.546 | Avg. log likelihood | | -0.489998 |
| LR statistic (1 df) | 66.30274 | McFadden R-squared | | 0.029066 |
| Probability(LR stat) | 3.33E-16 | | | |
| Obs with Dep=0 | 459 | Total obs | | 2260 |
| Obs with Dep=1 | 1801 | | | |

| | | | | |
|---|---|---|---|---|
| Dependent Variable: AUTONOMY | | | | |
| Method: ML - Binary Probit | | | | |
| Date: 01/16/08 Time: 20:20 | | | | |
| Sample(adjusted): 1 2260 | | | | |
| Included observations: 2260 after adjusting endpoints | | | | |
| Convergence achieved after 3 iterations | | | | |
| Covariance matrix computed using second derivatives | | | | |
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| C | 0.802161 | 0.072985 | 10.99079 | 0.0000 |
| POORAGO | 0.103104 | 0.086739 | 1.188667 | 0.2346 |
| RICHAGO | -0.034600 | 0.086346 | -0.400715 | 0.6886 |
| Mean dependent var | 0.796903 | S.D. dependent var | | 0.402393 |
| S.E. of regression | 0.402167 | Akaike info criterion | | 1.009966 |
| Sum squared resid | 365.0426 | Schwarz criterion | | 1.017563 |
| Log likelihood | -1138.261 | Hannan-Quinn criter. | | 1.012738 |
| Restr. log likelihood | -1140.546 | Avg. log likelihood | | -0.503655 |
| LR statistic (2 df) | 4.569797 | McFadden R-squared | | 0.002003 |
| Probability(LR stat) | 0.101784 | | | |
| Obs with Dep=0 | 459 | Total obs | | 2260 |
| Obs with Dep=1 | 1801 | | | |

## Food

| | | | | |
|---|---|---|---|---|
| Dependent Variable: FOOD | | | | |
| Method: ML - Binary Probit | | | | |
| Date: 01/16/08 Time: 21:17 | | | | |
| Sample(adjusted): 1 2260 | | | | |
| Included observations: 2260 after adjusting endpoints | | | | |
| Convergence achieved after 3 iterations | | | | |
| Covariance matrix computed using second derivatives | | | | |
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| WEALTHBEF1 | 0.302980 | 0.060688 | 4.992443 | 0.0000 |
| WEALTHBEF2 | 0.212976 | 0.052158 | 4.083250 | 0.0000 |
| WEALTHBEF3 | -0.149251 | 0.066883 | -2.231510 | 0.0256 |
| WEALTHBEF4 | -0.171033 | 0.062610 | -2.731734 | 0.0063 |
| WEALTHBEF5 | -0.343129 | 0.058877 | -5.827868 | 0.0000 |
| Mean dependent var | 0.495575 | S.D. dependent var | | 0.500091 |
| S.E. of regression | 0.490684 | Akaike info criterion | | 1.351327 |
| Sum squared resid | 542.9379 | Schwarz criterion | | 1.363988 |
| Log likelihood | -1521.999 | Hannan-Quinn criter. | | 1.355947 |
| Avg. log likelihood | -0.673451 | | | |
| Obs with Dep=0 | 1140 | Total obs | | 2260 |
| Obs with Dep=1 | 1120 | | | |

| | | | | |
|---|---|---|---|---|
| Dependent Variable: FOOD | | | | |
| Method: ML - Binary Probit | | | | |
| Date: 01/16/08 Time: 21:22 | | | | |
| Sample(adjusted): 1 2260 | | | | |
| Included observations: 2260 after adjusting endpoints | | | | |
| Convergence achieved after 3 iterations | | | | |
| Covariance matrix computed using second derivatives | | | | |
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| MALE | 0.263678 | 0.037364 | 7.057021 | 0.0000 |
| FEMALE | -0.299028 | 0.038305 | -7.806518 | 0.0000 |
| Mean dependent var | 0.495575 | S.D. dependent var | | 0.500091 |
| S.E. of regression | 0.487779 | Akaike info criterion | | 1.338517 |
| Sum squared resid | 537.2414 | Schwarz criterion | | 1.343582 |
| Log likelihood | -1510.524 | Hannan-Quinn criter. | | 1.340365 |
| Avg. log likelihood | -0.668374 | | | |
| Obs with Dep=0 | 1140 | Total obs | | 2260 |
| Obs with Dep=1 | 1120 | | | |

## Education

| | | | | |
|---|---|---|---|---|
| Dependent Variable: EDUCATION | | | | |
| Method: ML - Binary Probit | | | | |
| Date: 01/16/08 Time: 21:49 | | | | |
| Sample(adjusted): 1 2260 | | | | |
| Included observations: 2260 after adjusting endpoints | | | | |
| Convergence achieved after 3 iterations | | | | |
| Covariance matrix computed using second derivatives | | | | |
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| WEALTHBEF1 | -0.620168 | 0.064046 | -9.683186 | 0.0000 |
| WEALTHBEF2 | -0.500540 | 0.054155 | -9.242712 | 0.0000 |
| WEALTHBEF3 | -0.643694 | 0.071879 | -8.955226 | 0.0000 |
| WEALTHBEF4 | -0.506728 | 0.065272 | -7.763292 | 0.0000 |
| WEALTHBEF5 | -0.696273 | 0.063003 | -11.05144 | 0.0000 |
| Mean dependent var | 0.278761 | S.D. dependent var | | 0.448489 |
| S.E. of regression | 0.448096 | Akaike info criterion | | 1.184455 |
| Sum squared resid | 452.7805 | Schwarz criterion | | 1.197117 |
| Log likelihood | -1333.435 | Hannan-Quinn criter. | | 1.189076 |
| Avg. log likelihood | -0.590015 | | | |
| Obs with Dep=0 | 1630 | Total obs | | 2260 |
| Obs with Dep=1 | 630 | | | |

| | | | | |
|---|---|---|---|---|
| Dependent Variable: EDUCATION | | | | |
| Method: ML - Binary Probit | | | | |
| Date: 01/17/08 Time: 01:33 | | | | |
| Sample(adjusted): 1 2260 | | | | |
| Included observations: 2260 after adjusting endpoints | | | | |
| Convergence achieved after 2 iterations | | | | |
| Covariance matrix computed using second derivatives | | | | |
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| RURAL | -0.551715 | 0.052097 | -10.59006 | 0.0000 |
| URBAN | -0.607503 | 0.039966 | -15.20055 | 0.0000 |
| SEMIURBAN | -0.585039 | 0.060470 | -9.674808 | 0.0000 |
| Mean dependent var | 0.278761 | S.D. dependent var | | 0.448489 |
| S.E. of regression | 0.448616 | Akaike info criterion | | 1.185894 |
| Sum squared resid | 454.2349 | Schwarz criterion | | 1.193491 |
| Log likelihood | -1337.061 | Hannan-Quinn criter. | | 1.188667 |
| Avg. log likelihood | -0.591620 | | | |
| Obs with Dep=0 | 1630 | Total obs | | 2260 |
| Obs with Dep=1 | 630 | | | |

## Health

| | | | | |
|---|---|---|---|---|
| Dependent Variable: HEALTH | | | | |
| Method: ML - Binary Probit | | | | |
| Date: 01/16/08 Time: 23:41 | | | | |
| Sample(adjusted): 1 2260 | | | | |
| Included observations: 2260 after adjusting endpoints | | | | |
| Convergence achieved after 3 iterations | | | | |
| Covariance matrix computed using second derivatives | | | | |
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| MALE | -0.351604 | 0.038545 | -9.121881 | 0.0000 |
| FEMALE | -0.194539 | 0.037149 | -5.236731 | 0.0000 |
| Mean dependent var | 0.393363 | S.D. dependent var | | 0.488604 |
| S.E. of regression | 0.487781 | Akaike info criterion | | 1.338414 |
| Sum squared resid | 537.2464 | Schwarz criterion | | 1.343479 |
| Log likelihood | -1510.408 | Hannan-Quinn criter. | | 1.340262 |
| Avg. log likelihood | -0.668322 | | | |
| Obs with Dep=0 | 1371 | Total obs | | 2260 |
| Obs with Dep=1 | 889 | | | |

| | | | | |
|---|---|---|---|---|
| Dependent Variable: HEALTH | | | | |
| Method: ML - Binary Probit | | | | |
| Date: 01/16/08 Time: 23:51 | | | | |
| Sample(adjusted): 1 2260 | | | | |
| Included observations: 2260 after adjusting endpoints | | | | |
| Convergence achieved after 3 iterations | | | | |
| Covariance matrix computed using second derivatives | | | | |
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| WEALTHBEF1 | -0.220609 | 0.060212 | -3.663849 | 0.0002 |
| WEALTHBEF2 | -0.283451 | 0.052492 | -5.399874 | 0.0000 |
| WEALTHBEF3 | -0.279761 | 0.067569 | -4.140380 | 0.0000 |
| WEALTHBEF4 | -0.215177 | 0.062804 | -3.426137 | 0.0006 |
| WEALTHBEF5 | -0.343129 | 0.058877 | -5.827868 | 0.0000 |
| Mean dependent var | 0.393363 | S.D. dependent var | | 0.488604 |
| S.E. of regression | 0.488706 | Akaike info criterion | | 1.343525 |
| Sum squared resid | 538.5698 | Schwarz criterion | | 1.356187 |
| Log likelihood | -1513.183 | Hannan-Quinn criter. | | 1.348145 |
| Avg. log likelihood | -0.669550 | | | |
| Obs with Dep=0 | 1371 | Total obs | | 2260 |
| Obs with Dep=1 | 889 | | | |