Addis Ababa University

School of Graduate Studies

College of Social Science

The role of income generating activities for livelihood improvement of women and youth in Addis Ababa:the case of Yeka-subcity

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The Role of Income Generating Activities for livelihood Improvement of Women and Youth in Addis Ababa: the case of Yeka-subcity

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Approval

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Acronyms

CSA-Central Statistics Authority

DA- Development Alternatives

DFID - Department for International Development

IGA- Income Generate Activities

IGP-Income Generating Programme

LDC-Least Developed Countries

MDGS – Millennium Development Goals

MSEs-Micro and Small Scale Enterprises

MOTI-Ministry of Trade and Industry

NGOs-Non-governmental Organizations

PASDEP- A plan for Accelerated and Sustained Development to End Poverty

PSM-Propensity Score Matching

UN-United Nations

UNDP-United Nation’s Development Programme

UNECE-United Nation’s Economic Commission of Europe

WB-World Bank

Abstract

Ethiopia is one of the poorest countries in the world with high rate of unemployment of women and youth. This rate is higher in urban than rural areas. In order to minimize the economic and social costs of high urban unemployment rate and raise the income of people living under poverty, the government has adopted income generating schemes through promoting MSEs. The study examined the role of such IGA for improving the income (via expenditure approach), saving, and decision-making of participants in Addis Ababa by taking Woreda 11 as a case and using quantitative and qualitative methods. The quantitative method employs propensity score matching and multiple regression analysis to assess financial asset improvement of participants. On the other hand, the qualitative method uses descriptive statistics, key informant interviews, and FGDs to assess the IGA profiles by gender and education of participants and beneficiaries' psycho-social change brought by the program. Findings show that the major types of IGA are construction, manufacturing (metal work, woodwork, and food preparation), service, and trade. Of those who are engaged in food preparation, 96% are women whereas 85% of those engaged in construction are men. This shows that women are more into IGAs that perpetuate their traditional roles as food providers, which is reported to be mainly due to lack of skills for other activities. Also, findings show that program participation is increasing among graduates of higher learning institutions as shown by the growth in participation from 9% at the current IGA implementation stage to 20% at the training stage .findings further show that participation in has brought significant improvement in participant households' total monthly expenditure (1%), saving (5%), and equb contribution (5%). IGA has also contributed to improving participants' decision-making and self-esteem.

Keywords

IGA, Addis Ababa, financial asset, Women, Youth

CHAPTER ONE

INTRODUCTION

1.1. Background

Poverty alleviation is recently recognized as the primary objective that a development process shall pursue, especially in developing countries. A renewed global focus towards reducing poverty has been demonstrated following the UN MDGs aspiration to reduce poverty by half by the year 2015.

As a result of series reforms undertaken since 1992, Ethiopia has been making progress in reducing poverty and improving human development index by 32%(Human Development Report 2011). It has also achieved and maintained double digit growth in recent years, positioning itself as one of fastest growing, non-oil economies in the world. However, being the third most populous in Africa, and second largest in sub-Saharan Africa, Ethiopia remains one of the poorest countries in the world, and ranks 174th out of 187 countries in Human Development Index (UNDP 2012).

Recently, Ethiopia has designed and implemented development strategy called The Plan for Accelerated and Sustained Development to End Poverty (PASDEP), which is an improved updated version of the earlier PRSP, to attain the goals and targets set in the MDGs at a minimum.(MOFED 2010) The main objective of the PASDEP is to lay out the directions for accelerated, sustained, and people-centered economic development as well as to pave the groundwork for the attainment of the MDGs by 2015.The strategies under PASDEP include promoting women & youth empowerment and equitable benefit, sustaining faster & equitable

economic growth and enhancing of social development. To achieve these, various activities including promotion of income generating activities were designed and implemented.

Some of anti poverty and income generating programs carried out by non-governmental organizations pay attention to using community owned resources that are built on the talents and skills of the community members by targeting various segments of the society and women in particular.

1.2 Statement of the problem

Ethiopia is one of the world's poorest countries with per capita income of US$370 which is substantially lower than the regional average of US$1,257.Despite the recent double digit growth the economy registered, 29.6% of the population lives in extreme poverty. According to the national household surveys 30% of the population still lives on less than US$0.6 per day in 2010-2011 (WB 2013).

The degree of poverty and food insecurity situations in Ethiopia tends to vary by degree of urbanization, gender and age groups. Urban areas of Ethiopia exhibit rapid rise in trends of inequality and food insecurity. Gender disparity has also been observed in poverty and food insecurity situations with a disproportionate burden shared by female headed households (UFP Urban Food Security report 2009). Urban unemployment rate among youth, who constitute 51% of the population, is estimated at 23.7% (CSA 2011) whereas it is as high as 30.3% among females and 16.5% among males (CSA 2011)

In order to alleviate problems associated with unemployment and acute poverty, the government of Ethiopia and nongovernmental organizations have designed and implemented various programs. One of the programs involves promotion and expansion of income generating activity.

The program involves provision of trainings to prepare the people with technical and entrepreneurial skills thereby building the capacity of unemployed to generate income as well as provision of credit to help them participate in micro and small scale enterprises.

A large number of studies have been conducted in various regions identifying various types of income generating activities in rural and urban areas and revealing the direct impact of these activities on improving the livelihoods of individuals and households. For example, research conducted by Wogari Wakjira (2010) found based on the study in Woliso town that micro enterprises have contributed for sustainable livelihood of participants by providing sufficient income. However, previous studies lack to show how individuals are selected to participate in income generating activities. It is difficult to identify the impact of interventions on individuals or household without controlling for potential sample selection bias.

Therefore, the present study is to examine the effect of income generating activities while controlling for sample selection bias emanating from self selections within the framework of sustainable livelihood approach. It also looks in to the gender dimensions of IGA intervention outcomes. The study is conducted in Woreda11 of Addis Ababa in the context of cooperative based IGA.

1.3 Objective

In general, the study is aimed at assessing the role of income generating activities (IGA) for improving the livelihood of women and youth in Addis Ababa city within the framework of Sustainable Livelihoods Approach.

Specifically, the study:

I. Identifies the main types cooperative IGAs', gender and educational profiles of participants

II. Assesses the improvement of financial asset component of sustainable livelihood for those participating in income generating activities;

III. Examines the role of IGA in empowering participants.

1.4 Significance of the study

The results of the study could have the following implications:

The results of the study add to the knowledge about the current role that income generating activity is playing in changing participants' lives and particularly women and youth after controlling for the potential selection bias as well as the effect of other variables. It gives information on whether participants of income generating activity have achieved improvement in financial assets (taking income and saving indicators) as well as in psycho-social empowerment (taking self-esteem and participation in decision making as indicators).

Based on the analysis of the impacts of such programs on the livelihood of women and youth participants, the concerned bodies will be able to take necessary measures to improve the effectiveness of such programs and their services. It also serves as a useful reference material for further studies that will be conducted in related subject.

1.5 Limitations of the study

Due to paucity of time and other resources, the study is limited in terms of site and targets. The study is conducted in one Woreda in Addis Ababa and with specific focus on women and youth. The generalization of findings is made based on the information collected from the sample.

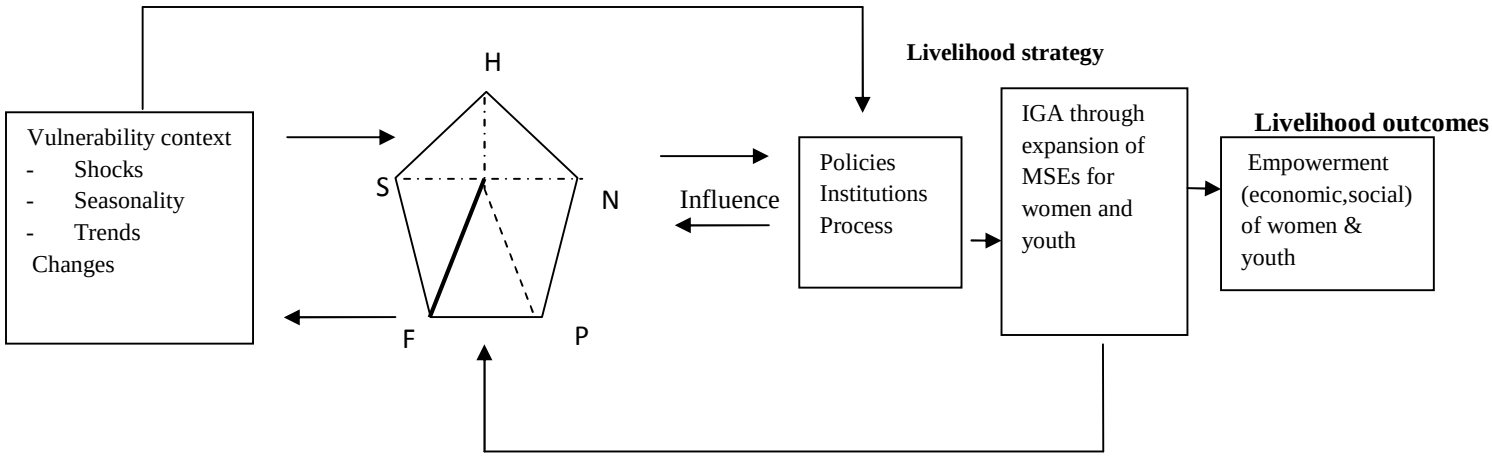
While focusing on governments based cooperative income generating activities, the study did not include income generating activities run by non-governmental organizations and individuals. In addition the study focused only on financial asset component of sustainable livelihood framework as an indicator for economic empowerment.

1.6 Conceptual framework

1.6.1 Conceptualizing the role of IGA for improving livelihoods

The aim for using sustainable livelihood framework is to have a clear image about the intermediate factors that affect the relationship between the role that income generating activities could play in economically empowering women and youth through provision of credit, training which is expected to bring direct improvement in their financial asset holding.

Vulnerability context shapes the external environment in which people exist. It has three elements. These are: shocks, trends and seasonality. They affect the wider availability of assets and policies. Due to this, people have limited or no control over components of livelihood. The expansion of micro and small scale enterprises is expected to economically empower unemployed women and youth.



Keyterms

H –Human capital P-Physical capital

S-Social capital F-Financial capital

N-Natural capital

Figure 1.Conceptual framework for analyzing the role of IGA within the sustainable livelihood framework (adapted from DFDI, 1998).

As depicted in Figure 1, vulnerability context is understood as insecurity in the well-being of individuals, households, and communities in the face of changes in their external environment. People move in and out of poverty and the concept of vulnerability captures the processes of the change. In this essence, shocks can be sudden changes in the external environment on which all people can live and exist. Seasonality can be of prices, production, and employment opportunities. Trends may include resource trends, (including conflict), national/international economic trends, and technological trends. Moreover**,** livelihood consists of the capabilities, material and social resources and activities required for a means of living. Livelihoods include all of the activities that people obtain their food and income from, including different kinds of employment and business activities and it is said to be sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets.

Financial capital can be held in several forms such as cash, bank deposits, liquid assets such as jeweler or resources obtained through credit providing institutions; and regular inflows of money, including earned income, pensions, other transfers from the state and remittances. Financial capital can be measured through household income, property value and employment.

1.6.2 Some useful concepts

(i) Income generation and income generating activities

Income generation simply means gaining or increasing income which may not necessarily mean the immediate getting of money. Income can be generated by self-employment, by working for others or by adding to personal resources through investment (UNESCO 1993).

Donor agencies such as DFID, Oxfam, Care and World Bank development agencies come with two approaches to address poverty. The first approach was through investment in housing improvements and basic services, such as education, water and sanitation and health and infrastructural development and the second approach was through income generation (Kadozo 2006).

Confusion arises because many people associate income generation programs with particular development ideology (Hurley 1990). In many cases, those involved in income generation intervention view poverty as consequence of individuals lack of capital or training and equates achieving better income with 'development.' This approach emphasizes the deficiencies of poor people rather than the social and political system under which they live. On the other hand, those who see the poor as the extreme system of political economy based on unfair exploitation often reject strategies which try to increase income at individual level without paying attention to the powerful process causing poverty. It is therefore important that those working on poverty reduction should be aware of the fundamental assumptions or beliefs affecting the income generating projects they adopt, and their relationship and dialogue with the participants (Hurley 1990). Also, the issue of ownership and control of capital are always central to debates

concerning approaches to development. In many cases, IGA interventions may include the provision of capital through grants, 'Savings and credit schemes' and training or advice in skills or business management and other support services for small businesses, such as assistance with marketing and provision of temporary trained staff (Chigudu 1991:2).

In line with this, the Ethiopian government is implementing income generating program through the expansion of micro and small scale enterprises.

Although there is no uniform definition of MSE at the national level, in the Ethiopian context, microenterprises are business activities that are independently owned and operated, have small share of the market, are managed by the owner and employ five or less employees. This has recently been revised to include employment until 10 workers and capital reaching up to Birr 20,000. On the other hand, small businesses are those enterprises that employ 6 to 49 employees while sharing the same characteristics with microenterprises in other aspects. Also, medium scale enterprises are those enterprises which have a relatively higher share of the market, are independently or jointly owned or managed by the owner or by appointed executives and employ 50 to 99 persons.

(ii) Empowerment conceptualizations

While there is no consensus about its definition, empowerment broadly construed refers to the process of enhancing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes (World Bank 2012). Empowering people is enabling them to make their own decisions rather than be passive objects of choice made on their behalf but also to claim their right to opportunities and services (Benet 2002). Therefore, empowerment is more than participation in decision making as it must also include the process

that leads people to perceive themselves as able and entitled to make decisions (Rowlands 1997). Women's "decision-making power" deals with how much influence women have over external actions that matter to their welfare. In the empowerment context it refers to the process whereby women become able to organize themselves to increase their own self-reliance, to assert their independent right to make choices, and to control resources which will assist in challenging and eliminating their relatively disadvantaged status when compared to men (UNECE 2012).

Economic empowerment, on the other hand, enables marginalized people to think beyond immediate daily survival and assert greater control over their resources and life choices, especially decisions on investments in health, housing and education. Through improving participation in economic activity and promoting productive employment in decent work. Economic empowerment facilitates poverty reduction and social integration (UN 2012). On the other hand, social empowerment refers to the capacity of individuals and groups through developing a sense of autonomy and self-confidence to foster the relationships and institutional interactions necessary for their well-being and productivity (World Bank 2012). It is closely related to social integration and poverty eradication, and is strongly influenced by individual assets (e.g. housing, livestock, savings) and human (good health and education), social, (e.g. social belonging, sense of identity, leadership relations), and psychological (e.g. self-esteem, self confidence, aspirations for a better future) capabilities (GSD undated).

In recognition of the role of the social and political context and the structural inequalities that affect whole social groups empowerment therefore involves addressing underlying structures that lead to marginalization of certain individuals or groups (Helen 2011). There is recognition of the role of normative conditions within which choice is exercised (or not) i.e. the terms on which

people gain access to resources are as important as the resources themselves when the issue of empowerment is being considered (Kabeer 2001: 21). Access may be conditional on highly client list forms of dependency relationships or extremely exploitative conditions of work or it may be achieved in ways which offer dignity and a sense of self-worth. Empowerment is now seen as having two components: one that deals with the expansion of agency which is the ability to act on behalf of what you value and have reason to value and another that focuses on the institutional environment which offers people the opportunity to exert agency fruitfully by focusing on opportunity structure that provides what might be considered preconditions for effective agency.

Despite differences concerning empowerment conceptualizations, the perception of empowerment as a process of gaining power over decisions and resources is a common feature amongst them. Overall, empowered people and groups have freedom of choice and action which enables them to better influence the course of their lives and the decisions which affect them (World Bank 2012)

1.7 Organization of the Thesis

The remainder of the thesis is organized as follows. Chapter two provides a brief review of the literature pertaining to MSEs and their theoretical and empirical roles in the economy by acknowledging the diverse perspectives. Chapter three deals with the methodology employed to carry out the research. In chapter four, the analysis, results, and discussions are portrayed and in chapter six the conclusion and recommendation drawn from the study are presented.

CHAPTER TWO

LITERATURE REVIEW

Various arguments have been put forward concerning the role of MSEs (IGA) on economic development and livelihood of the participants. These are majorly categorized into advocates and opponents.

2.1 Arguments for MSEs' (IGA) role in economic growth and poverty alleviation

Since the 1980's international aid agencies and the World Bank have been giving direct or indirect supports to MSEs to accelerate economic growth and to reduce poverty in LDCs (World Bank 2002; 2004). Also many non-government organizations (NGOs) from donor countries that have regional offices in many LDCs have been actively involved in assisting MSEs in these countries.

The World Bank gives three core arguments for supporting MSEs in LDCs, which is in line with the arguments of the 'modern' paradigm on the importance of MSEs in the economy (World Bank 2002; 2004). First, MSEs enhance competition and entrepreneurship and hence have external benefits on economy-wide efficiency, innovation, and aggregate productivity growth. Second, MSEs are generally more productive than large enterprises given conducive financial market and other institutional and macroeconomic environment. Third, MSEs expansion boosts employment more than large enterprises growth because MSEs are more labor intensive. In other words, the World Bank believes that direct government support for MSEs in LDCs help these

countries exploit the social benefits from their greater competition and entrepreneurship and their MSEs can boost economic growth and development.

In particular, the commercial nature of the urban economy, which requires its residents to pay for basic goods and services, means that many of the challenges in urban poverty relate to lack of income (Mitlin 2000:205). Hence, authors on urban livelihoods accentuate that cash is very important in everyday life especially for urban dwellers (Farrington *et al*. 2002; Meikle *et al*. 2001) Because the urban poor lack income, their diet is insufficient for good health and it becomes difficult for such families to invest in education. It also means that they find it difficult to save and secure assets rendering households particularly vulnerable to crises.

Urbanization, characterized by rapid population growth and widespread poverty, has led to a heavy reliance on informal sector in most built up areas in the developing world (Rakodi 2002:27). The inability for most households to survive on one person's income, which is often the case, is compounded by the scarcity of jobs in the formal sector. Therefore, income generating programs (IGP) are introduced to address the issue through providing a source of income for the poor and unskilled segments of the society.

The most direct form of poverty reduction in many urban areas is through raising incomes and supporting new employment opportunities (Sattertnwaitc 2006:6). Because higher productivity and incomes allow previously low income households to meet their consumption needs, increase their assets, and afford better quality housing and basic services, income generating projects seek to address poverty through increasing labor productivity and employment opportunities. In line with this, the role of diversifying income, building income generating skills, and increasing savings has been recognized for reducing individual and household vulnerability (Fernando 2003:9). It is, however, noted that income is not the only desirable goal, even for the very poor,

as security and supportive social relationships within families, households and communities are among the other goals that people strive for (Hurley 1990). A related issue is that of empowerment of people which is one of the core elements in the process of development (William *et al*. 1994).

It is believed that micro- and small-scale enterprises play a vital role in countries where medium and large scale industries and enterprises are at their infant stages. They are of paramount importance in terms of rendering a broad range of benefit to the economic development of such countries (WB 2002). In developing economies like Ethiopia, where the public or formal sector proves to be incompetent to avail job opportunities to the ever increasing labor force, the MSEs are proven to be effective spheres of the means of survival particularly for the low-income, poor, and women's groups (Gebrehiwot and Wolday 2006). Considering the high living costs in major urban areas of Ethiopia, most urban residents resort to informal sources to acquire additional income (UN 2011). The informal sector, therefore, has been an important source of supplemental income not only for the unemployed and destitute but also for the urban wage earners who found their salaries depressed as a result of the fall in real incomes.

This, however, does not mean that the larger enterprises are not important and MSEs can fully substitute the role of large enterprises in the economy. There are also skeptical views concerning the World Bank's pro-MSE policy.

2.2 Arguments against MSEs' (IGA) role in economic growth

In discussing industrial systems and the role of MSEs within the systems and their pattern of overall development in LDCs, the influential articles by Hoselitz (1959), Staley and Morse

(1965), and Anderson (1982), among others, come to focus. Their works are often classified as the 'classical' theories on MSEs' development. These 'classical' theories predict that the advantages of MSEs will diminish over time and large enterprises will eventually predominate in the course of economic development marked by the increase in income. Proponents of such notion stress the advantage of large enterprises and challenge the assumptions underlying the pro-MSE policies. Specifically, they argue that large enterprises may exploit economies of scale and more easily undertake the fixed cost associated with research and development (R & D).

The positive productivity effect arguments against pro-MSE efforts also come from emerging empirical evidences which support the view that firm size responds to national institutional condition. Beck *et al*. (2002), for instance, found that countries with good banking systems or well-developed financial institutions tend to have more large enterprises than MSEs, because successful firms face no financial constraints and so they can grow to their efficient sizes. In the same vein, it is argued that countries with better legal institutions, as measured by judicial system efficiency, tend to have more large enterprises than MSEs (Kumar *et al.* 2001). Also, based on a study in Cote d'Ivoire, Sleuwaegen and Goedhuys (2002) found that restrained access to inputs, especially credit, results in a bi-modal firms size distribution in the 'missing middle' with MSEs on one tail of the size distribution growing less and large enterprises on the other tail growing faster than in developed economies. The proceeding arguments suggest that institutional development is associated with countries having more large enterprises than MSEs. However, the 'classical' theories seem to get less support from many international aid agencies, including the World Bank that have been engaged in supporting MSEs. This gave rise to the modern thinking which seeks to identify the situations under which varied scales of enterprises including MSEs might be relevant rather than the all-or-nothing perspective.

2.3 Middle of the road argument: flexibility in scale of enterprises

The 'modern' theories on the role of MSEs include the works of Berry and Mazumdar (1991) and Levy (1991) based on the newly industrializing countries in East Asia e.g. Taiwan and South Korea and the literature on flexible specialization thesis based on many experiences from MSEs in Western European countries. These theories explicitly place emphasis on the importance of subcontracting networks and the economic benefits of agglomeration and clustering for the development of MSEs. A related argument looks into the validity of considering firm size as an exogenous determinant of economic growth. For example, Kumar *et al*. (2001) posit that natural resource endowments, technology, policies, and institutions help determine a nation's industrial composition and optimal firm size. Similarly, it is indicated that whether a good can be manufactured most economically in MSEs or in large enterprises, would depend on type of goods produced, kinds of raw materials and other endowments used, and methods of production adopted (You 1995). From a country's perspective, it means that different countries with different endowments have different comparative advantages in the production of goods. That is, in some countries goods can be produced efficiently in large enterprises while in other countries they could be economically produced in small scale enterprises. It is also argued that the volume of external trade of a country determines the optimal firm size in the country i.e. countries that are open to international trade may have a larger optimal firm size than those that are less integrated internationally (Caves *et al*. 1980). Thus, to the extent that international economic integration is constrained by trade barriers of various sources and forms, some of which may be externally imposed, there seems to be a role for MSEs.

2.4 The role of MSEs (IGA): evidences from developing countries

Poverty reduction has been a longstanding agenda for governments of developing economies. Earlier efforts to address poverty reduction focused on enhancing economic growth. However,in many instances, economic growth does not seem to effectively address the issues of the poor. For instance, in 1960 countries such as Korea, Malaysia and Thailand achieved rapid economic growth, but their average living standards were below the average living standards in major industrialized countries (Mohr *et al.* 2008:78). Poor people do not usually get access to the resources made available, such as credit or business advice.

Numerous governments and NGOs have attempted to foster economic growth through, targeted interventions involving micro and small scale enterprises development for the urban poor (Hurley 1990:28). Such interventions are sometimes called 'policies for the informal sector' or 'small business development schemes'. Since these interventions are supposedly targeted at the poor, they are called poverty alleviation programs (Tambunan 2006). Modernization theory also asserts that encouraging these growing economic activities will benefit the poor in 'trickle down' fashion by creating jobs.

In many developing countries the government has departments that specifically target these enterprises. In Ethiopia Ministry of Trade and Industry (MoTI) and Micro and Small Scale Enterprise Agency have various schemes for enhancing private and cooperatives/group based enterprises.

2.4.1 Access to credit in reducing poverty and empowering the youth and women

The global youth population is very large and deprived of the basic means of sustenance. Based on UN estimates, of the worlds more than 3 billion people under the age of 25, approximately 1.3 billion are between the ages of 15 and 24 and just under half of these young people live on less than two dollars a day (Youth save 2010).

One of the crucial factors for poverty among youth is the high rate of youth unemployment which causes social ailments such as crime, drugs, spread of HIV/AIDS (Wright 2005). Moreover, in many cultures of developing countries the employed have to look after the unemployed extended family members, thereby reducing their ability to save and opportunities to create wealth that is needed to reduce poverty. Also, the weak role of women's participation in decision making within the household is a result of their financial dependency rooted in the traditional gender division of labor which constrains women's engagement in market based income earning activities (Boserup 1971; Manser and Brown 1980; Sen 1990; Kabeer 1997).

In a bid to address the issue, efforts have been made throughout the developing world including in the provision of a wide range of financial services, which has proved valuable to poor people, especially the youth and women (Wright 2005). Access to financial services has allowed many families in such economies to make significant progress in their own efforts to escape poverty.

Provision of credit has increasingly been regarded as an important instrument to raise the income of youths by mobilizing resources in to more productive uses (ILO 2009). As development takes place one question that arises is the extent to which credit can be offered to the youth to facilitate their taking advantage of the developing entrepreneurial activities. The generation of self-

employment requires investment in working capital, which becomes difficult to secure at low levels of income. Provision of credit service to youth and women has been considered as innovative and sustainable approach to youth and women's financial and microenterprise activities and empowerment leading to generate income so as to improve their livelihoods an d contribute to economic growth (Anand 1982). However, credit alone cannot serve youths and take them out of poverty, as Parker and Parces (2001) have noted, it is only one of many elements on a menu of possible interventions to generate income and possibly alleviate poverty.

Numerous studies have revealed the positive impacts of improving women's access to credit for facilitating their entry into paid work (for example Kabeer 1998, 2001, 2005a; UN-INSTRAW 2006; UNFPA 2006). Earning an income can increase women's autonomy and enhance their economic and social status. It can also shift power relations between women and men, including at the household level – for example by increasing women's control over how household budgets are spent.

The improvement in women's income earning power brought about by the increase in use of microcredit helps them to enjoy greater empowerment in two ways. The first one is as they earn cash their self-esteem as well as the attitude of others towards them will improve which both have empowering effects (Kabeer 2001). The second one is that the engagement of women in activities other than household chores gives them the chance to form networks with other women which contributes in building the self-confidence and courage they need (Puhazhendi 1999). Also, the provision of credit helps to increase income earning and asset building opportunities, which make households less reliant on a single asset type and consequently dealing with disasters (Moseley 2000; Anand *et al*. 2005).

2.4.2 Income generating programs in income diversification, asset building and reducing vulnerability for participants

Income generation programs are particularly effective when they address the root causes of poverty rather than the symptoms in an integrated manner through building human and financial capital and enhancing and diversifying livelihood strategies.

Vocational training and availability of credit in Yemen, through the community revolving fund has led to the creation of numerous small businesses, which have helped diversify household income sources thereby reducing vulnerability to economic shocks (Neely, Sutherland, and Johnson 2004). As a result of such businesses, the average household income has shown a rise of 26% which was allocated to higher-quality food (22.6%), healthcare (15.7%), children's education (12.8%), Goat (12.2%), savings (10.3%), household assets (9.1%), expansion of existing business (6.5%), creation of a new business (4.5%), repayment of debts (3.5%), and others (2.8%). The study also showed that women are more likely to allocate their incomes towards household wellbeing by increasing spending on food, health and education.

A study of the impact of dairy farming on livelihood of participating women under Grameen Bank in a selected area revealed an increase in average family income (87.5%) as well as an increase in land rented-in by the household (113.3%) due to membership in GB with a diary cow (Raiset *et al*. 2007). A study of impact of self-employment program on dairy farming in Fatehgarh Sahib District of Punjab showed a significant increase in total income, dairy income, and herd size of the farmers after participation in the program (Maviet *et al*. 2006).

Similarly, a case study on impact of dairy cooperatives on income, employment and creation of assets of marginal and small farmers revealed an increase in annual income among marginal

farmers (25.5%) and small farmers (22.9%) (Jayachandra and Naidu 2006). Not only that women in both categories of farmers have taken up dairying as a part-time and fulltime employment but also that the value of assets has increased for both the marginal (15%) and small (12.5%) farmers. Also a study of buffalo rearing activity under SGSY program in Jhunjhunu (Rajasthan) helped to increase overall income (108%) and employment both for small farmers (52.79%) and marginal farmers (46.15%) (Hari and Kumawat 2006). Similarly, an additional employment generation, amounting to 172 man days per member, has been reported through SHG lending on 45% of the group members, through undertaking animal husbandry, poultry and petty trading activities (Puhazhendi and Jayaraman 2000).

Related evidence emanates from RubaLomine Integrated Rural Development Program (IDRP) which is undertaken by Oxfam Canada in partnership with the Relief Society of Tigray in Ethiopia. The program involved formation of local groups to encourage local ownership of interventions and ensure sustainability, provision of training in improved agricultural production techniques and in a range of income-generating activities, and establishing community credit fund (Neely, Sutherland, and Johnson 2004). It contributed to households' ability to withstand drought related shocks in both the immediate and distant future as it allowed them to continue production despite poor rains, and to diversify livelihoods away from a full dependence on agriculture. Households were also able to use the income gained from these other activities to purchase additional food to supplement subsistence production.

Also, a study conducted in Nekemt town reveals that MSE based income generating activities significantly contribute to livelihood improvement in particular and to poverty alleviation and local economic development in general (Daniel 2007). This is possible through raising income to

help participants finance their consumption expenditure on food, water, assets, housing, education, and health thereby reducing vulnerability and empowering of women entrepreneurs.

On the basis of the aforementioned, it is reasonable to believe that for poor economies like Ethiopia where large scale enterprises are at their infancy and conventional financial institutions are neither well developed nor accessible to the majority of the poor, MSE could play an important role in addressing poverty and fostering growth. However, the fact that the institutions operate under complex poor economy environments with diverse constraints and stages of growth makes generalizations of their impacts difficult. This justifies the need to examine their impacts and challenges on a case by case basis.

CHAPTER THREE

Methodology

3.1 Study context

Addis Ababa is the capital city of Ethiopia consisting of ten sub-cities. With a total area of 82.3 square Kilometers, Yeka makes the third largest of all sub-cities in Addis Ababa next to Akaki Kaliti and Bole. With an estimated population size of 346,484, the sub-city is the second most populous next to Kolfe Keranio (CSA 2010). Woreda 11 of Yeka sub-city, which was randomly selected for the study, consists of ten clusters and forty localities (villages).

Income generating activities (IGA) in the Woreda are implemented by both the government and non-governmental organizations with six main categories. These are urban agriculture, manufacturing, construction, service, trade, and municipal activities. This study focuses on government IGA promoted through micro and small scale enterprises development. Participants are allowed to engage in each category of IGA either individually or by organizing themselves in cooperatives. A total of 278 micro and small scale enterprises are established under cooperatives. The government supports the cooperatives through the provision of market opportunities, trainings, working space, and credit services.

3.2 Sampling procedure

The study used both qualitative and quantitative methods. Quantitative method is used to measure financial asset improvement of IGA of participants due to participating in IGA and to identify gender composition in different types of IGA. Qualitative method is used to assess if the

income generating activities have brought changes in terms of decision making and self-esteem among the participants.

The study used two groups of samples namely, IGA participants who stayed in the program for a minimum of three years and non-participants. Sample IGA participants were randomly selected from the total population of IGA participants in the Woreda, which is 1020 individuals consisting of 580 males and 440 females. Similarly, sample non-participants were randomly selected from the list of people in the training phase, who have not yet started generating income. A total of 850 individuals consisting of 510 males and 340 females were found to be on the training stage.

As suggested by Gay (1983; cited in Kumar 1999), 10 to 20% of the accessible population is a sufficient sample size for descriptive studies. Accordingly, in this study 10% from each of the IGA participant and non-participant population groups were selected by using stratified sampling technique which resulted in a total sample size of 187 individuals. In addition, participants of key informant interview and focused group discussions were purposively selected based on participation in IGA for at least three years and their current status. This makes the total sample size selected by using both random and non-random sampling methods from each population groups of the study to be 205.

3.3 Types of data, indicators, and data collection

This study made use of primary (cross-sectional) data in order to address the specific research objectives. Primary data was gathered from the current IGA participants and non-participants through survey questionnaires, key informant interviews, and focused group discussions

Survey questionnaires were administered on randomly selected respondents. The questionnaire was initially prepared in the English language and was translated in to Amharic to make the questions understandable for both enumerators and respondents. This has been conducted face-to-face in order to increase the probability of response and flexibility in extracting information. Two enumerators were involved in conducting the survey who were given a half day training on the objective of the study, detailed contents of the questionnaire, approaching respondents, and recording responses. The training involved pretesting of questionnaires to enhance data quality.

Key informant Interview was carried out with four IGA participants and two IGA implementing personnel of the study area. The interviews with IGA implementing personnel were conducted to obtain general information on implementation of the IGA program in the Woreda. Focused group discussions were conducted, with the current IGA participants, in order to find out psychological and social changes due to participation in IGA. A total of three focused group discussions were conducted each group consisting of 4 members. The first group had only female members, the second had only male members and the third group had 2 female and 2 male members.

The role of IGA in changing participants' financial asset is measured by using monthly household expenditure (total and food), and total amount of savings and monthly Equb contribution as indicators (see Table 3.1). Total monthly household expenditure (in Birr) includes sum of spending on different goods and services like expenditure for food, education, clothing, health, water, cleaning & personal care, fuel and electricity and social occasions and festivals. Total saving measures the sum of money (in Birr) saved in personal saving account of respondents. Monthly Equb contribution measures the amount of money allocated to Equb on monthly basis. Decision making and self-esteem are considered as indicators for empowerment.

The use of secondary data in the study involves review of literature on theoretical background of IGA, the concept of sustainable framework, and empirical evidence on the impact of MSEs and IGA in general. Secondary data sources used include journal articles, books, organizational websites and documents.

Table 3.1 Links between specific objectives, indicators, instruments and methods

Specific objectives	Indicators	Instruments	Method of data analysis
Main types of IGAs' and gender and education profile of participants	IGA types Gender (male, female) Education categories	Survey questionnaire	Descriptive statistics
Changes in the financial asset component of sustainable livelihood due to participation in IGA	- Monthly household expenditure - Monthly food expenditure - total personal saving - Monthly Equb contribution	Survey questionnaire	- Propensity score matching - Multiple regression - Descriptive statistics
Role of IGA in empowering participants'.	- Participation in decision making - Perceived self-esteem	- Survey questionnaire - Focused group discussions - Interviews	- Descriptive statistics -Synthesis of interview and FGD results

3.4 The Model

3.4.1 Propensity Score Matching (PSM)

An important problem of causal inference is how to estimate treatment effects in observational studies, state of affairs (like an experiment) in which a group of units is exposed to a well-defined treatment, but (unlike an experiment) no systematic methods of experimental design are used to maintain a control group (Rajeev, Dehejia, and Sadek 2002).

The estimate of a causal effect obtained by comparing a treatment group with a non-experimental comparison group could be biased because of problems such as self-selection or some systematic judgment by the researchers in selecting units to be assigned to the treatment. In other words, the sample selection problem may crop up from (1) self-selection where the households themselves decide whether or not to participate in programs (IGA), which depends on observable and unobservable household/individual characteristics, and/or (2) endogenous program placement where those who implement IGA programs select (a group of) households/individuals with specific characteristics (e.g. high poverty rates or unemployment depending on the programme specifications). Conventionally, in assessing the impact of an intervention using with and without approach method has essentially been impeded by a problem of missing data. On top of this downside, the impact of an intervention cannot be accurately estimated by simply comparing the outcome of the treatment group with the outcome of the control group (Heckman *et al*. 1998).

Statistical matching[1], such as PSM, endogenous models (2SLS) or sample selection models (Heckman: two-step), are commonly used to compensate for sample selection bias or the endogeneity associated with household access to intervention (e.g. IGA). In effect, matching has become an increasingly popular method of causal inference in many fields where the dose response of individuals is analyzed in various fields as reviewed by (Sekhon 2011). These include statistics (Rubin 2006; Rosenbaum 2002), medicine (Christakis and Iwashyna 2003; Rubin 1997), economics (Abadie and Imbens 2006; Galiani, Gertler, and Schargrodsky 2005; Dehejia and Wahba 2002, 1999), political science (Bowers and Hansen 2005; Herron and Wand forthcoming; Imai 2005) sociology (Morgan and Harding 2006; Diprete and Engelhardt 2004; Winship and Morgan 1999; Smith 1997) and law (Rubin 2001).

[1] *Matching involves pairing treatment and comparison units that are similar in terms of their observable characteristics.*

The procedure involves first specifying a function matching the proximity of one household/ individuals to another in terms of household characteristics and then grouping households so as to minimize the distance between matched cases. The merits of using statistical matching over instrumental variable (IV) estimation include; the former does not impose functional restrictions, i.e. it is valid even though distributions of explanatory variables of treatment and control groups overlap relatively little, and it does not require a valid instrument (Becker 2002). Rosenbaum and Rubin (1983) proposed statistical matching using the propensity score, the predicted probability that an individual receives the treatment of interest (e.g. financial services, such as loans or savings) to make comparisons between individuals with the treatment and those without. When using matching methods to estimate causal effects, a central problem relates to deciding how best to perform the matching. Two common approaches are propensity score matching (Rosenbaum and Rubin 1983) and multivariate matching based on Mahalanobis distance (Cochran and Rubin 1973; Rubin 1979, 1980). Matching methods based on the propensity score (estimated by logistic regression), Mahalanobis distance or a combination of the two have appealing theoretical properties if covariates have ellipsoidal distributions (such as the normal or t).

Sample selection bias is expected in this study because joining IGA program could be driven by the participants' self-interest, entrepreneurial ability or program implementers' purposive selection of participants. In order to control for such potential selection bias, propensity score matching is chosen over multivariate Mahalanobis method because Mahalanobis matching has the limitation in controlling bias as more than one continuous variable exist in covariates (Xs'). Given that there are continuous covariates, the matching estimate contains a bias term which does not asymptotically go to zero.

The estimation procedures for propensity score matching starts with a parsimonious logistic function with linear covariates to estimate the score and ranking all observations by the estimated propensity score (from lowest to highest) (Becker and Ichino 2002). This is followed by dividing the observations into strata such that within each stratum the difference in propensity score for treated and comparison observations are insignificant. Within each stratum the distribution of the covariates should be approximately the same across the treated and comparison groups, once the propensity score is controlled for. Within each stratum, one can test for statistically significant differences between the distribution of covariates for treated and comparison units; operationally, *t*-tests on differences in the first moments are often sufficient, but a joint test for the difference in means for all the variables within each stratum could also be performed. When the covariates are not balanced within a particular stratum, the stratum may be too coarsely defined. The solution adopted is to divide the stratum into finer strata and test again for no difference in the distribution of the covariates within the finer strata. If, however, some covariates remain unbalanced for many strata, the score may be poorly estimated, which suggests that additional terms (interaction or higher-order terms) of the unbalanced covariates should be added to the logistic specification to control better for these characteristics. This procedure[2] is repeated for each given stratum until the covariates are balanced (Becker and Ichino 2002). Empirically, the propensity score is the conditional probability of receiving a treatment given pre-treatment characteristics, X (individual or household level characteristics) such that

$$P(X) = Pr\{D = 1/ X\} = E\{D/ X\} \quad (3.3.1a)$$

Where D = {0, 1} is the binary variable indicating whether a household/individual is subject to IGA (1) or not (0) and X is the multidimensional vector of pre-treatment characteristics i.e.,

[2] See appendix 5 : PSM algorithm

time-invariant or relatively stable household/individual characteristics in our context. It is shown that if exposure to intervention (in present case, IGA) is random within cells defined by X, it is also random within cells defined by p(X) or the propensity score Rosenbaun and Rubin (1983). In this study individuals who participate in IGA are considered as the treatment group and those who do not participate but eligible to participate to the IGA are considered as untreated or control individuals; this group is a comparison group used to evaluate the impact of IGA on the treated groups. The aim is to compare the level of financial outcome indicator(s) of individuals participating in IGA with that of (similar) non-participants of IGA by using the state of art of PSM estimation. The control groups are meant to capture unobserved data for participants if they had not participated in IGA.

Let W_{1i} and W_{0i} be the amount of outcome when a household (individual), *i*, is exposed to IGA treatment and the outcome when the household (or individual) is not exposed to treatment, respectively. The difference between treated and control groups can be expressed as:

$$\Delta_i = W_{1i} - W_{0i} \quad \text{(3.3.1b)}$$

Let equation 3.3.1b be expressed in casual effect notational form, by assigning D_i as a treatment variable taking the value 1 if individual *i* receives the treatment (IGA) and 0 otherwise. Then the Average Treatment Effect (ATE), which is the effect of treatment on outcome indicators, of an individual *i* can be written as (Ravallion, 2005):

$$ATE = E(W_{1i} | D = 1) - E(W_{0i} | D = 0) \quad \text{(3.3.1c)}$$

Where,

$E(W_{1i}|D=1)$ is the average outcome for individual, with treatment, if the individual would participate in IGA ($D=1$).

$E(W_{0i}|D=0)$ is the average outcome of untreated, when household would not participate in IGA, or absence of the treatment ($D=0$)

In order to measure the Average Effect of Treatment on the Treated (ATT) for the sample population of the survey, which is used for this study, equation 3.3.1c can be rewritten as:

$$ATE = E(W_{1i} - W_{0i}|D=1) = E(W_{1i}|D=1) - E(W_{0i}|D=1) \quad \text{(3.3.1d)}$$

The fundamental evaluation problem in estimating 3.3.1d, the impact, is that it is impossible to observe a person's outcome for with and without treatment at the same time.

While the post-intervention outcome is possible to observe, the counterfactual $E(W_{0i}|D=1)$ outcome i.e. the outcome the i^{th} participant would have experienced, on average, had she/he not participated is not observable in the data (Rosenbaum and Rubin 1983). This makes the evaluation problem one of missing data. Thus, estimation of ATE using equation (3.3.1c) by comparing simply between $E(W_{1i}|D=1)$ and $E(W_{0i}|D=0)$ can give a seriously biased result, due to the fact that the population of treated household differs from the comparison group, not only in terms of treatment status, but even in terms of other characteristics: this problem is often referred to as the "fundamental problem of casual inferences". Thus, simple mean comparison between the treated and non-treated can be misleading, yet taking the mean outcome of non-participant as an approximation is not advisable, since participants and non-participants usually differ even in the absence of treatment (Holland, 1986, Macro and Sabine 2008). A solution to

this problem is to construct the unobserved outcome which is called the counterfactual outcome $E(W_{0i}|D=1)$, and this is the central idea of matching. Based on Rosenbaum and Rubin (1983), the effectiveness of matching estimators as a feasible estimator for impact evaluation depends on two fundamental assumptions, namely:

Assumption 1: Conditional Independence Assumption (CIA)

Under the CIA, treatment assignment, D_i, conditional on attributes, X_i, is independent of the post program outcome, i.e., $(W_{1i}, W_{0i}) \perp D|X_i$ by assuming statistical independence of (W_{1i}, W_{0i}) and D conditional on X_i. The assumption means that given X_i, one can use the counterfactual outcome in the treated groups as the observed outcomes for the non-treated group. This implies that non-participants' outcomes (counterfactual) approximate the outcome level of participants had they not participated. This is achieved by grouping individuals from the sample users of the treated individuals and non-treated individuals which show a high degree of similarity in their variables (X_i). Individuals representing one matched pair are the same as each other except for their use of the treatment variable (IGA). As a consequence, this approach isolates the impacts of IGA on the outcome of individuals by reducing observed heterogeneity between individuals of a matched pair. However, the CIA also considers that the set of variables $X's$ should contain all the variables that simultaneously influence the outcome and decision to participate. This assumption imposes a restriction that choice to participate in a programme is purely random for similar individuals. As a consequence, this assumption excludes the familiar dependence between outcomes and participation that lead to a self-selection problem (Heckman *et al*. 1998). Thus, the conditional average treatment effect of treatment on the treated can be expressed as follows:

$$ATE = E\left(W_{1i} - W_{0i} \middle| D = 1, X\right) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (3.3.1e)$$

The ATE in equation (5) can then be written as

$$ATE = E\left(W_{1i} - W_{0i} \middle| D = 1, X\right) = E(W_{1i} \middle| D = 1, X) - E(W_{0i} \middle| D = 1)$$ [3]

The problem in equation (5) is that the number of conditioning variables ($X's$) is high, and thus the degree of complexity for finding identical households both from treated and control groups becomes difficult. To reduce the dimensionality problem in computing the conditional expectation, Rosenbaum and Rubin (1983) showed that instead of matching on the basis of X's one can equivalently match treated and comparison units on the basis of the "propensity scores" defined as the conditional probability of receiving the treatment given the value of X's, (see equation 1). In this study, propensity score matching is used to predict programme participation in IGA by using a logit model to estimate the propensity score P(X). Thus, the average treatment effect on those treated conditional on propensity score P(X) can then be written as:

$$ATT = E(W_{1i} \middle| P(X), D = 1) - E(W_{0i} \middle| P(X), D = 1) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (3.3.1f)$$

[3] Taking into consideration

$E(W_{1i} \middle| D = 1) - E(W_{0i} \middle| D = 0)$ by adding and subtracting $E(W_{0i} \middle| D = 1)$ we can obtain

$$= \{E(W_{1i} \middle| D = 1, X) - E(W_{i0} \middle| D = 1, X)\} + \{E(W_{i0} \middle| D = 1, X) - E(W_{i0} \middle| D = 0, X)$$

If $E(W_{0i} \middle| D = 1, X)$ *is equal to* $E(W_{0i} \middle| D = 0, X)$, $E(W_{0i} \middle| D = 0, X)$ can be taken as the counterfactual to the treatment, since $E(W_{0i} \middle| D = 1, X)$ = $E(W_{0i} \middle| D = 0, X)$ (see Ravallion, 2005)

Assumption 2: Common Support Region $0 \prec P(X) \prec 1$

The assumption that $P(X)$ lies between 0 and 1 implies that the test of balancing property is performed only on the observations whose propensity score belongs to the common support region of the propensity score of treated and control groups (Becker and Ichino 2002). Individuals that fall outside the common support region would be excluded in the treatment effect estimation. This is an important condition to guarantee improving the quality of the matching used to estimate the ATT. Moreover, implementing the common support condition ensures that persons with the same values of X's (explanatory variables) have a positive probability of being both participant and non-participant (Heckman *et al*. 1999). This implies that a match may not be found for every individual sample. Rosenbaum and Rubin (1983) describe assumptions one and two together as 'strong ignoreability'.

Upon estimation of the propensity scores, a matching algorithm must then be defined in order to estimate the missing counterfactual outcome for each treated observation. In this respect, there are different matching estimators; the most commonly used being the Nearest Neighbor Matching, Kernel Matching, Stratification Matching and Radius Matching. Each matching estimator varies depending on the definition of a closeness criterion used.

If the above assumptions are satisfied, the policy effect can be estimated by the procedures described in Becker and Ichino (2002) and Smith and Todd (2005). Each procedure involves estimating a probit or logit model:

$$\Pr\{ D_i = 1 / X_i \} = \Phi (h (X_i)) \quad \ldots\ldots\ldots\

Where, Φ denotes the logistic (or normal) cumulative distribution function (cdf) and $h(X_i)$ is a starting specification. The present study uses the logit model whereby whether an individual has access to IGA is estimated by the individual's and socio-economic characteristics. Brief description is given for the most common matching methods as follows:

i) Nearest Neighbor matching: in this method, each treated individual is matched with the control individual(s) whose propensity score is/are closest in absolute value, provided that the magnitude of the difference in the two propensity scores lies within the common support area (Rosenbaum and Rubin 1985). It involves taking each treated unit and searching for the control unit with the closest propensity score. If the difference is outside the common support area, the participant is excluded from the matching as there is no complete control individual that can be found. This process is repeated until attempts to match all IGA participants are made. Due to the common support restriction, the number of matched participants from IGA user and non-user groups are lower than the initial sample size for each group. The matching estimate could be done with replacement or without replacement. In the context of replacement, an untreated individual can be used more than once as a match, whereas in the case of without replacement it is considered only once.

ii) Radius matching: the risk of bad match correlation, if the closest neighbor is far away in the case of NNM, can be avoided by imposing a tolerance level on the maximum propensity scores distance by using for e.g. radius matching (Rosenbaum and Rubin 1985). Radius matching is one form of imposing a common support condition to avoid bad matches and increase matching qualities. However, if fewer matches can be performed, then variance of the estimate increases. Radius matching means that an individual from the comparison group is chosen as a matching partner for a treated individual that lies within the radius, and is closest in terms of propensity

score. A benefit of this approach is that it uses as many comparison units as are available within the given radius and thus allows extra units when good matches are not available (Macro *et al*. 2008).

iii) Stratification matching: another possible procedure for statistical matching is stratification matching whereby the sample is split into k equally spaced intervals of the propensity score to ensure that within each interval the average propensity scores of treated and control households do not differ (Rosenbaum and Rubin 1985). The idea of stratified matching is to partition the common support of the propensity score into a set of intervals and to calculate the impact within each interval, by taking the mean difference in outcome between treated and the control observation. Stratification matching requires observations to be discarded when either treated or control units are absent.

iv) Kernel matching: in Kernel matching, all those treated are matched with a weighted average of all controls with weights that are inversely proportional to the distance between the propensity scores of treated and controls (Rosenbaum and Rubin 1985). Weights used are inversely proportional to the distance between the propensity scores of treated and comparison groups. The Kernel matching estimator identifies, for the individual or household, the closest propensity score from the control groups, then it subsequently computes the impact of IGA as the mean difference of households (e.g. expenditure) of treated and control matched households. This technique is, however, dependent on having the right data as it relies on over sampling program beneficiaries during the fielding of a larger survey and then "matching" them to a comparison group selected from the larger core sample of the overall effort, often a national household survey. In recent years, there have been substantial advances in propensity score matching

techniques (Rosenbaum and Rubin 1985; Jalan and Ravallion 1998; cited in World Bank 1999)[4]. This method is very appealing to evaluators with time constraints and working without the benefit of baseline data given that it can be used with a single cross-section of data.

In this study, Nearest Neighbor Matching with replacement, Kernel Matching, Stratification Matching and Radius Matching estimator approaches are adopted to match IGA participants with counterfactual individuals from non-participants. This is done with replacement, which implied that each control individual in the sample is allowed to be used more than once, to minimize the propensity score distance between the matched control units and the treatment unit (Smith and Todd 2005). For the implementation of different matching estimates, PSMATCH2 programme in STATA (12) software, developed by Leuven and Sianesi (2003), is used. Finally, t-statistics are estimated based on bootstrapped standard errors with 200 replications. A significant shortcoming of the common matching methods such as propensity score matching and Mahalanobis distance is that they may make balance worse across measured potential confounders (Sekhon 2004).

3.4.2 Regression Analysis

In addition to the PSM procedure, multiple regression analysis is conducted to see the magnitude of effect of participation in IGA on selected financial asset indicators i.e.; total monthly expenditure and total personal saving after controlling for the effect of other relevant variables in the regression. Two explained variables are analyzed which are total personal saving and total monthly expenditure. Other variables potentially explaining expenditure and savings were identified; age, sex, family size, marital status, level of education, participation in IGA and

[4] Handbook for practitioners prepared for evaluating the poverty impact of projects.

borrowing from bank in order to find out to what extent the change in total personal saving or total expenditure could be explained by each of independent variables.

$y_{i=\beta_0+\beta_1 X_1+\beta_2 X_2+\cdots+U_i}$

β_0 – *intercept*

$x_1, x_2, \cdots x_n$ *- independent variables*

$\beta_1, \beta_2, \beta_3, \cdots, \beta_n$ *–- parameters*

u_i - error term

The estimation results have been complemented by descriptive analysis of the variables included in the estimation and qualitative results particularly relating to perceived changes in participation in decision making and self-esteem due to participation in the IGA.

CHAPTER FOUR

Results and Discussion

4.1 Description of respondents' profile

A total of 187 respondents participated in the survey of which 42% were female and 58% were male (see Table 4.1.1). Females constitute on 43% of IGA participants and 40% of non-participants whereas males account for 57% of IGA participants and 60% of non-participants .

Table 4.1.1 Distributions of respondents by sex.

Sex	**Participants**		**Non- participants**		**Total**	
	Frequency	**%**	**Frequency**	**%**	**Frequency**	**%**
Female	44	43	34	40	78	42
Male	58	57	51	60	109	58
Total	102	100	85	100	187	100

Majority (60%) of sample respondents fall under the age of 25-29 mainly due to the nature of the sample, whereas only 15% of respondents fall in the age group above 30 as shown in (Table 4.1.2). This shows that more than 95% of the respondents are in the productive age group (20-45 years old).

Table 4.1.2 Distributions of respondents by age category.

Age	Participants			Non- participants			Total	%
	Female	Male	Total	Female	Male	Total		
20-24	5	11	16	15	15	30	46	25
25-29	17	47	64	12	36	48	112	60
30-34	6		6	1		1	7	4
35-39	10		10	2		2	12	6
40 & above	6		6	4		4	10	5
Total	44	58	102	34	51	85	187	100

Majority of the sample IGA participants (53%) and non-participants (56%) were single followed by married ones which account for 43% of participants and 35% of non-participants (see Table 4.1.3). Widows make the least proportion (2%) of the total sample size.

Table 4.1.3 Distribution of the sample by marital status.

Marital Status	Participants		Non-Participants		Total Number	%
	frequency	%	frequency	%		
Married	44	43	30	35	74	40
Single	54	53	48	56	102	55
Divorced	2	2	4	5	6	3
Widow/er	2	2	3	4	5	2
Total	102	100	85	100	187	100

4.2 Type of group IGA and gender and education profile of members

Gender elements of the IGAs: the main types of IGAs promoted through MSEs include construction, manufacturing (i.e. woodwork, metal work, food processing), service and trade. 49% of IGA participants are engaged in manufacturing activity followed by construction (33%), trade (12%) and service (6%) (Table4.2.1). Of those who participated in construction, 85% are

males whereas 96% of those who participated in food processing are females. Focused group discussion results also show that lack of skills in other activities restricts women from participating in activities other than food processing. It can also be seen that no females are engaged in service provision as an IGA, although the area seems to be not very common at the moment for the group as a whole.

Table 4.2.1 Livelihood activity for respondents of IGA participants

Type of activity		**Number of female**	**%**	**Number of male**	**%**	**Total number**	**Total percent**
Manufacturing	Wood work	1	17	5	83	6	49
	Metal work	10	56	8	44	18	
	Food	25	96	1	4	26	
Construction		5	15	29	85	34	33
Service				6	100	6	6
Trade		3	25	9	75	12	12
Total		44	43	58	57	102	100

Education profiles of respondents: As far as education is concerned, 3% of the sample IGA participants are illiterate whereas the rest have completed some level of education ranging from first cycle (10%), primary (21%), secondary (30%), technical and vocational (27%) to higher learning institution (9%) (see Table 4.2.2). On the other hand, 1% of non-participants sample are illiterate whereas those who completed first cycle, primary, secondary, technical and vocational and higher learning institution make up 15.2, 22.4, 21.2, 20 and 20% respectively. It is further shown that the percentage share of higher institution graduates is increasing in IGA participation through MSEs (20%), This is shown by the substantial increase in the percentage of non-participants (i.e. participants-to-be) of higher institution graduates as compared to the current

IGA participants (9%). On the other hand, the percentage of illiterates seems to be decreasing.

Table 4.2.2 Distribution of sample by educational status

Education (completed level)	Participants		Non-Participants		Total	
	Frequency	%	frequency	%	frequency	%
Illiterate	3	3	1	1.2	4	2.1
First cycle (grades 1-4)	10	10	13	15.2	23	12.3
Primary	21	21	19	22.4	40	21.4
Secondary	31	30	18	21.2	49	26.2
Technical & vocational	28	27	17	20	45	24
Higher institution	9	9	17	20	26	14
Total	102	100	85	100	187	100

4.3 Role of IGA for financial asset building

4.3.1 Participation rates: Monthly expenditure and savings

i) Monthly expenditure:

The mean monthly total expenditure for the overall sample is estimated at Birr 1420, the minimum and maximum being Birr 160 and Birr 5930 respectively (see Table 4.3.1)

Table 4.3.1 Description of variables included in estimation

Variables	Unit of measurement	Descriptive statistics (N=187)					
		freq.	%	Max.	Min.	Mean	std.dev
Monthly expense	Birr	-		5930	160	1420.294	1110.849
Total personal Savings	Birr	-	-	121,000	0	3611.39	16306.07
Age	Number of years	-	-	55	19	27.73797	5.690097
Sex	1-male	109	58%	-	-	-	-
	0-female	78	42%	-	-	-	-
Marital status	1-single	99	53%	-	-	-	-
	0-others	88	47%	-	-	-	-
Education	1-secondary level graduates and above	120	64%	-	-	-	-
	0-others	67	36%	-	-	-	-
Family size	Number of Family members			12	1	3.919753	2.135112
Participation in IGA	1-Participants	102	55%	-	-	-	-
	0-non participants	85	45%	-	-	-	-
Loan source	1-Bank	24	13%	-	-	-	-
	0-other sources	163	87%	-	-	-	-

Participants of IGA (MSE) allocate 54% of total expenditure for food, 7% for education, 10% for clothes, 12% for fuel and electricity, and 8% for social occasions (see Table 4.3.2). On the other hand, non-participants allocate 67% of total expenditure for food, 3% for education, 5% for cloth, 4% for medical service, 2% for water, and 3% for cleaning, 11% for fuel and electricity, and the rest 5% for social occasions. It shows that non-participant respondents spend larger share of their income for food than participants whereas participants spend higher share of their income for education and clothing as compared to that of non-participants. On the other hand, the expenditure share of health, water and cleaning is similar for both participant and non-participant respondents. Whether this difference is significant will be tested in section 4.3.2

Table 4.3.2 Total and percentage distribution of respondents' total monthly expenditure

Expenditure category	Participants		Non-participants		Average
	Total amount(Birr)	%	Total amount(Birr)	%	
Food	98,520	54	55,890	67	825.7
Education	11,951	7	2,885	3	285
Clothing	17,873	10	4,304	5	264
Medical	7,532	4	3,590	4	182
Water	4,371	2	1,793	2	36.9
Cleaning	6,294	3	2,150	3	55
Fuel & electricity	21,063	12	9,068	11	165.5
Social occasion	14,620	8	4,136	5	170.5
Total	181,784	100	83,811	100	1420

For the above expenditure pattern Engel's law gives brief explanation of consumer spending pattern of different income levels. It states the percentage share of income families spend on food declines as their income level increases and the percentage that will be spend on education, recreation, luxuries and saving programs will increase (Varian 2005). From this, the lower expenditure share of food and higher expenditure share of education among IGA participants may be explained by the higher income among them as compared to the non-participants.

ii. Saving: informal and formal institutions

More than half of IGA participant respondents (55%) are involved in informal financial institution (Equb) .women and men Equb(is traditional form of cooperation involves community members with common objectives of mobilizing resources voluntarily by pooling financial resource and distribute it to members on rotating basis) members make up 70% and 43% respectively from total number of IGA participants (see Table 4.3.3). Of the sample households, 55% of IGA participants and only 29% of non participants are members of Equb. Whereas only

28% of IGA participants who have no Equb membership are females, 72% of them are males. Participation in Equb enhances social relationships and access to short term saving and interest free lending services to meet immediate financial need. As far as saving in formal financial institution concerned, mean total personal saving for the overall sample is estimated at Birr 3611 with minimum and maximum saving of zero and Birr 121,000 respectively (see Table 4.3.1). Again, 42% of IGA participant and only 21% of non-participant respondents own personal saving account in banks. It is further shown that only 37% of IGA participants who are reported to have bank accounts are females whereas 63% are males. On the other hand, 83% of IGA participant respondents have enterprise saving account and the remaining 17% do not have. Unlike the case of banks, large share of the females have enterprise saving account (89%) and males (79%). This shows that the MSEs are doing a good job in increasing women's access to financial services.

Table 4.3.3 Percentage of participation in informal and formal financial institutions

Institutional engagement	**Status**	**IGA Participants**						**Non –participants**					
		Female	**%**	**Male**	**%**	**Total**	**Percent**	**Female**	**%**	**Male**	**%**	**Total**	**Percent**
Equb membership	No	13	30	33	57	46	45	19	56	41	80	60	71
	Yes	31	70	25	43	56	55	15	44	10	20	25	29
	Total	44	100	58	100	102	100	34	100	51	100	85	100
	No	28	64	31	53	59	58	26	76	41	80	67	79
Bank account	Yes	16	36	27	47	43	42	8	24	10	20	18	21
ownership	Total	44	100	58	100	102	100	34	100	51	100	85	100
Enterprise saving	No	5	11	12	21	17	17	-		-		-	
account	Yes	39	89	46	79	79	83	-		-		-	
	Total	44	100	58	100	102	100	-		-		-	

NB: enterprise saving account does not apply for non-participants.

Since saving is considered as investment, it pays interest and serves as a source of financial capital for future investment. Saving is also one way of reducing vulnerability associated with income fluctuation (Fernando, 2003). Due to higher tendency to save, participants of IGA are expected to be more able to reduce their vulnerability to future risks associated with income instability.

As far as loan is concerned, family and friends constitute the major source individual loan for IGA participants (85%) and non-participants (78%) (see Table 4.3.4). Given that bank loans are accessed by only 4% of IGA participants and 7% of non-participants, it can be said that the IGA through MSE is addressing those excluded from the formal financial sector.

Table 4.3.4 Source of loan for respondents

Source of loan	IGA Participants			Non-Participant			Total respondents	
	Female	Male	%	Female	Male	%	Frequency	%
Friends	24	34	57	10	22	38	90	48
Family	15	14	28	15	19	40	63	34
Bank	1	3	4	2	4	7	10	5
Microfinance institutions	4	7	11	7	6	15	24	13
Total	44	58	100	34	51	100	187	100

4.3.2 Propensity score estimation and matching (PSM)

In this section the first step of propensity score matching approach is to estimate households' propensity scores from their basic characteristics (characteristics that are not affected by the choice of participation in IGA program). Propensity score matching involves matching each treated unit to the nearest control unit on the one-dimensional matrix of the propensity score vector. Matching on the linear predictor avoids compression of propensity scores near zero and one.

In this study, the propensity score of each household measures his/her chance to join the IGA program. The magnitude of a propensity score is between 0 and 1; the larger the score, the more likely the household would be to join the IGA program. After households' propensity scores are estimated, the second step is to use the most commonly used matching methods such as the nearest neighbor, kernel, stratification and radius matching depending on the designation of a closeness criterion used to identify the impact of interventions. In this paper, four of the most common matching methods are used to identify the effect of participation in IGA on selected livelihood improvement indicators. If all or part of comparison approaches indicates that IGA participant households have on average higher and positive outcomes (ATT) than non-participant households and the differences are statistically significant, tone can conclude that IGA participation is one of the significant means to improve household livelihood. Put differently, conditional on IGA participation if households earn higher income and invest on assets, then it is possible outcome of interest to indicate participation impact. If all approaches indicate that IGA participating households have in average higher outcomes relative to controls, and the difference is statistically significant under one approach but not under the other, a conclusion that IGA programme participating improves household livelihood would still be sound but less robust (Becker and Ichino 2002).

Table 4.3.5 ATT estimation based on PSM

Propensity Score Matching	N=Treated	N=Control	ATT	t-value
Total HH expenditure:				
Kernel (attk)	102	85	536.587	3.339
Nearest Neighbor(attnw)	102	40	355.348	1.504
Stratified (atts)	89	98	751.628	3.877
Radius(attr)	102	85	536.587	3.339
Equb monthly contribution				
Kernel (attk)	102	85	1015.046	3.612
Nearest Neighbor(attnw)	102	85	1292.403	4.219
Stratified(atts)	89	98	1356.819	3.259
Radius(attr)	102	85	1292.403	4.219
Food expenditure				
Kernel (attk)	102	85	114.516	0.892
Nearest Neighbor(attnw)	102	40	-16.716	-0.105
Stratified (atts)	89	98	244.819	1.990
Radius(attr)	102	85	268.778	2.991
Total personal saving				
Kernel (attk)	102	85	5968.492	3.247
Nearest Neighbor(attnw)	102	40	5979.216	2.741
Stratified (atts)	89	98	6800.578	2.406
Radius(attr)	102	85	5970.506	2.770

Note: ATT-Average Treatment on Treated; t-value=>3.0, considered as statistically significant; N-Treated=households engaged in IGA; N-Control=households not engaged in IGA, but identical to participants except in participation; Participation in IGA is predicted with household head age and its square; household head sex; household head educational attainment; household marital status; family size and its square at 95%; 5% level of significant; Matching(Kernel, Nearest Neighbor, Stratifies and Radius) for outcome variables(Monthly total household expenditure, Monthly household contribution for equb, Monthly household food expenditure; and Bank balance in current saving account) is conducted based on Propensity Score(PSM).

Here, the centre of attention is to discuss results (ATT) from propensity score based matching for outcome indicators. In all comparisons, IGA participants have higher average *Total Household Expenditure*, *Household Monthly Contribution to Equb*, *Household Current Saving Account* than non-participant households and the difference is statistically significant in at least one of the four matching approaches (see Table 4.3.5).

The positive and statistically significant ATT values means that as compared to eligible non-participants, participants are more likely to have positive total expenditures, contribution to monthly Equb and saving on current bank accounts. This is not, however, the case for household monthly expenditure on food consumption.

The finding of no significant effect of participation in IGA on household food expenditure This may reflect the very low income elasticity of demand for food as a necessity good. The next discussion further undertakes multiple regression analysis in order to identify the effect of participation in IGA on total expenditure and savings after controlling for all the potential variables affecting the same. It also helps to examine the effect of other variables such as age, sex, marital status, level of education, IGA participation and borrowing from bank on household total monthly expense and personal saving account.

4.3.3 Regression Estimates

Table 4.3.6 Regression for total monthly expenditure (in Birr)

Variables	*Exp(β)*	SE
Sex	-7.210749	160
Age	38.59132	15.21862**
Education	172.7871	162.4429
Marriage	150.3258	163.1342
Participation in IGA	614.5012	154.2646***
Family size	91.33915	35.2026**
Loan source	-13.5369	222.4588
Constant	492.2299	478.4045

Note: multiple regression analysis:N=187, Prob > F = 0.0000; R-squared = 0.2118; Adj R-squared = 0.1810; Root MSE = 1005.3
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity; Ho: Constant variance; Variables: fitted values of totalexpense $chi^2(1) = 49.30$; Prob > chi^2 = 0.0000; Mean VIF=1.16 *,**,*** means significant at 10%, 5%, & 1% levels respectively

Participation in IGA positively affects total monthly household expenditure (at 1% level of significance) implying that individuals that participate in IGA on average spend more (have higher total expenditure), which is consistent with the results of the PSM in section 4.3.2. A

person who participates in IGA has higher average total expenditure than a person who does not. The higher house hold expenditure among IGA participants may have been brought about by the increase in current and expected income due to participating in IGA. This coupled with the finding of no significant difference on food expenditure among IGA participants and non-participants means the increase in total household expenditure due to participation in IGA is caused by the increase in other expenditure components (e.g. clothing, education, health, social matters).

The finding of a positive effect of increase in family size on household expenditure (at 5% level of significance) is consistent with the expectation that individuals supporting larger family size will have higher total monthly expenditure than others. Also, age is found to have a significant positive effect on total monthly expenditure (at 5% level).This may be because as a person gets older his/her family size, social ties, and health issues are more likely to increase and as a result total expenses are likely to increase.

Table 4.3.7 Regression of total personal saving (in Birr)

Variables	$Exp(\beta)$	SE
Sex	4845.702	2559.257*
Age	63.16307	243.3881
Education	2092.939	2597.915
Marriage	-1252.67	2608.971
Participation in IGA	5410.675	2467.121**
Family size	380.017	562.9876
Loan source	-3408.505	3557.735
Constant	-5500.067	7651.021

Note: multiple regression estimation N=187 F(7, 179) = 1.76; Prob > F = 0.0000; R-squared = 0.0644; Adj R-squared = 0.0278; Root MSE = 16078 Breusch-Pagan / Cook-Weisberg test for heteroskedasticity; Ho: Constant variance; Variables: fitted values of totalsaved chi2(1) = 175.19; Prob > chi^2 = 0.0000; Mean VIF=1.16 *,**,*** means significant at 10%,5% & 1% levels respectively

Participation in IGA positively affects total saving (at the 5% level of significance) implying that those who participate in IGA save more than those who do not participate, which is also consistent with the finding in the PSM. As expected, the higher total saving among the IGA participants is brought about by the increase in current and expected income due to participation in IGA.

Sex is found to have a significantly positive effect on total saving (at 10% level of significance) showing that male respondents have more total savings than females. This finding is consistent that of Boomgard and Angella (1994) that women's income is spent to support health and nutritional status of the family which reduces their capacity to save.

4.4 The role of IGA for Decision-making and self-esteem and overall improvement in living condition

Improvement in participation in household decision making has been reported by 91% of the sample IGA participants after they started to participate in IGA and 9% reported lack of improvement (see Table 4.4.1). 98% of female and 86.2% male respondents indicated that their participation in decision making has improved. FGD results also show that participation in decisions has improved concerning MSE businesses such as on loan spending, employment, and reinvestment of profit. All of the female interviewees indicated that they started to participate in decisions making in their household especially on financial expenditure. They attribute such improvement in decision-making power in the household to their increased contribution to household income brought about by the participation in IGA.

Table 4.4.1 Distribution of IGA participant responses on empowerment indicators

Participation in decision making	Female	%	Male	%	Total	%
Improved	43	98	50	86.2	93	91
Not improved	1	2	8	13.8	9	9
Total	45	100	58	100	102	100

Also, majority of the FGD and key informant participants mentioned, they have become confident to express their ideas and beliefs in public. This result has been confirmed by focused group discussions held with IGA participant respondents which point to improvement in self-esteem due to financial independence and job satisfaction. This is also partly due to experience shared in working as a group as well as in enterprise meetings which helped in building their confidence. All FGD participants mentioned that they are capable of running their own businesses as long as they have the financial capital.

The above finding is also supported by the result of the key informant interview. A 29 years old key informant mentions: '*Before I started to participate in the group IGA, I had no source of income so I used to take money from my family. I felt as if I was a burden to them, so I was not happy with myself. But since joining the IGA, I have started to give my parents some money each month. Contributing for the wellbeing of my family made me to realize that I can perform any activity and support myself. In addition, the attitude of my family members has changed towards me, which helped in boosting my self-esteem.*'

This indicates that the participation in IGA has brought psychological empowerment to the participants.

Overall Participation in IGA is reported to have brought improvement in living condition for 86% of IGA the participants but not for the rest 14% (see Figure 2). On the other hand, only 38% of non-participants reported improvement in living conditions due to membership in the MSEs whereas the remaining 62% reported otherwise. This is not surprising given that the non-participants are only on the training stage and have not yet started generating income. On the other end, it shows that the perceived improvement in living condition is more associated with participation in income generation and less with the trainings offered before starting the IGA.

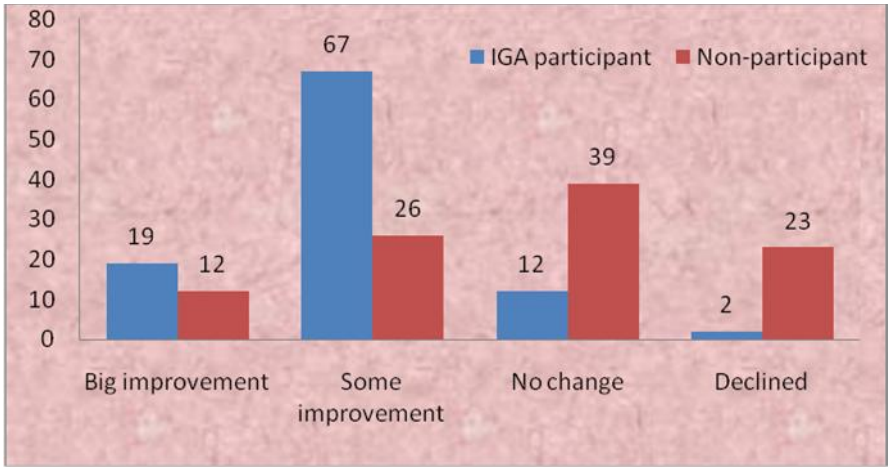


Figure 2 Percentage responses of improvement in living conditions over the last three years

A female key informant interviewee explained the change in her living condition for the past four years as follows:

"I was a housewife and my husband had no permanent job so there were times when we could not even feed ourselves. Even when he had work, the money he used to earn was not enough to cover our monthly expenses so I used to borrow money from my neighbors. Some of them even stopped talking to me because I could not pay back the money I borrowed from them. But now, I

am free of debts. The money that I get from working the IGA is more than enough to cover our household expenditure. We even have started saving money. My social relationship has also improved."

4.5 Challenges facing MSE/IGA participant

Despite their role in improving the living conditions for participants, MSEs have been facing some challenges. A 29 years old male key informant interviewee mentions:

"In the early days of establishment of our cooperative three years ago, we used to benefit from the market opportunity provided by the government as part of the IGA support. But after a year, we were asked to use a cash register machine to be eligible for the market opportunity provided. In order to solve this problem, fifty enterprises engaged in activities related to the installation of electricity and sanitation in Addis Ababa appealed but we have not been given any solution. Even if we agreed to buy the machine by taking credit, we do not have the capacity to employ an accountant and to rent an office. It shows that we are expected to fulfill the requirement of high income tax payers which is contrary to our capital size. As a result, we are not actually benefiting from the job opportunity provided although we have the license of MSEs which we are not currently working with."

This shows that there is lack of coordination between those that provide market opportunity and the one organizing and licensing the cooperative IGAs, Micro and Small Scale Enterprises Agency. More importantly, the information gap and working procedures that does not take into account the financial strength of enterprises could discourage beneficiaries and retards the further flourishing of IGAs.

Moreover, participants of the program also mentioned the high rate of interest charged by the microfinance as another challenge. One of the IGA participant key informant, who is engaged in construction describes the challenge as follows:

"I borrow money from my friends whenever I need but I do not use other institutions like microfinance service that is available for us because the interest rate they charge, about 10%, is high."

In line with this, some issues have been raised concerning the group collateral system and unequal contribution of efforts. FGD participants describe the issue as follows:

"We have not started sharing dividend because we are still paying our debt that we had taken from MFI. Our cashier had stolen all the money, more than Birr 20,000, we borrowed from the institution. As a result we are still spending almost all the profit we make from the IGA to finance our debt."

As the FGD result shows that acquaintance and trust between group members is one essential factor that could affect performance of MSEs established under cooperatives. The group also indicated that working as a group has the disadvantage relating to unequal sharing of work burden, due to possible free-riding, among members which leads to unequal claim over income and benefits.

In addition to these, FGD result shows that lack of access to electricity at some working areas (shades) is one of the problems faced by participants. Since power is a basic input for most enterprises, lack of it severely affects the production capacity of the enterprises. As a result, it is common to see such enterprises operating below their capacity.

CHAPTER FIVE

Conclusion and Recommendation

5.1 Conclusion

Based on the results of the analysis, the following major conclusions can be drawn. The main types of IGA cooperatives include construction, manufacturing (metal work, woodwork, and food preparation), service, and trade. Majority of female IGA participants seem to have been engaged in food preparation activities whereas majority of the male are engaged in construction activities. This shows that female are mainly engaged in activities which perpetuate their traditional role as providers of the ultimate food. The qualitative studies indicate that female are concentrated in food preparation activities due to lack of skills in other activities.

Findings suggest that, on average, IGA program has positive effect on participants' total monthly expenditure. This indicates that IGA participants' financial capital has improved due to the intervention. On the other hand, no significant differences have been observed in food expenditure among IGA participants and non-participants. The average improvement in total expenditure without any significant change in food expenditure indicates that IGA participants were able to diversify their spending on other goods and services than food. Such increase in non-food expenditure, for e.g. on services like education and assets, is expected to bring a positive future return.

Total saving and monthly Equb are also found to be higher among the IGA participants as compared to non-participants. Total personal saving and Equb contributions could serve as one

coping mechanism to reduce vulnerability. As what is saved currently will be either spend for future investment or as a buffer to income fluctuations. However, it is found that male participants tend to save significantly more than female participants. This may be an indication that females are more committed to household consumption expenditure e.g. food and clothing than males which is consistent with Boomgrand and Angelas' finding.

Findings further show considerable program participation among graduates of higher learning institutions. Moreover, their number seems to be increasing over time as shown by the higher participation rate (20%) among the current program beneficiaries at the training stage as compared to 9% among those who are already engaged in IGA. This shows that the income generating program is also engaging educated segment of the society which is important to reduce youth unemployment rate and promote entrepreneurial development which can be scaled-up.

As descriptive findings show, participation in IGA improves participation in decision making and self-esteem for participants'. This resulted from the financial capital improvement they registered due to participation in IGA. Overall, engagement in IGA, and particularly those run through MSEs, is found to have significant contribution to improve the living conditions of participants. However, the sector seems to be facing various constraints in realizing its objectives of reducing unemployment and improving the living condition of the participants. These include lack of coordination between the offices responsible for implementations at various levels e.g. Agency and Woreda levels, high interest rates, and inadequate access to infrastructure and services.

5.2 Recommendation

In order to increase participation of women in different types of income generating activities, the relevant intervention area would be to increase vocational and technical trainings. These trainings should also be available for new entrants of the program. The availability of these trainings will help incoming participants to engage in any activity without any skill restrictions.

Considering the role that participation in IGA plays in improving the living conditions of participants, it is advisable for unemployed people and for those who receive meager wage to engage in this program. In this respect, there is a role for the government to enhance Income generating activities by creating favorable condition for existing enterprises (e.g. grace period for cash registration, reasonable tax estimation, review interest rates or repayment terms). Moreover, the promotion of IGAs should be done to attract more people particularly youth and women to join the program. In addition, access to physical infrastructure and services, such as electricity and water, should be available on a regular basis at IGA working sites.

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Appendices

Appendix 1 Checklist for Focus Group Discussion

1. What was a means of living for your family before you start to participate in IGA?
2. Who is the head of your family? How do you view your participation towards your contribution to the household before and after you join Income Generating Programme?
3. Describe your participation in household decision making both before and after you start this work?
4. Do you think the attitude of your spouse has changed towards you after participating in IGA? What is the reason behind?
5. How would you describe your self-confidence before and after taking part in IGP?
6. Do you feel that you are contributing to the income and wellbeing of your family?
7. What is the attitude of the local community towards your engagement in this activity?
8. Is there improvement in your social relation after you participate in this programme?
9. Do you think your self-esteem has improved after you join in income generating activities? How do you explain this?
10. What are the benefits that you get by working as a group?

Appendix 2: Checklist for Interview 1

1. Has your social position changed after joining in IGA?

    1.1 Do people respect you more?

    1.2 Do they listen more to what you say?

    1.3 Do they invite you more?

2. Do you help others than before? If so, does this have anything to do with your engagement in IGA?

3. Are you more willing to speak at meetings than before if so, what are its relations with your IGA participation?

4. Who makes most of the decisions in the cooperative that you are working on?

5. Who is responsible to make a decision on issue like how to use the loan?

6. Do you participate on most of the decisions made on how to run the enterprise?

7. Is there any improvement in your asset ownership right after your participation?

Appendix 3:Checklist for Interview 2

1. What are the criteria's for people to participate in income generating activity?

2. How are MSEs' groups formed? Is there any department that coordinates this?

3. What are the types of income generating activities available for participants to engage in?

4. What are the types of support provided for IGA members?

5. Are there any especial supports for those who work as group in IGA relative to those who work individually? If there are please explain why?

6. Could you describe if there are especial supports provided for women IGA groups?

7. What is the minimum and maximum number of people to participate in IGA as a group?

8. How many of IGA group's are managed by men, women and by both?

9. What is your feeling about the way women and men participation in IGA based on their utilization of IGA support?

Appendix4: Checklist for Household Questionnaire

Household Questionnaire

The purpose of this study is to assess the role of IGA on livelihood improvement of women and youth in Addis Ababa. You have been identified as a useful informant to assist & achieve this mission.

Your participation is voluntary and you are assured that the information you provide will be treated with confidentiality and used for the sole purpose of research. Kindly respond to the queries below.

Section A: General Information

Questionnaire serial number

A.1 Sub city

A.2 District

A.3 Enumerator name

A.4 Date of interview

A.5 Name of the household head

Household and Demographic data

1. Sex Female □ Male □
2. Age …….

3. Marital status

Married □ Single □ Divorced □ Widow/Widower □

4. If you are married, who is the head of the family?

Husband □ Wife □

5. What is your level of education

a. from grade 1-4 □

b. Primary level □

c.. Secondary level graduate □

d. Technical and Vocational school graduate □

e. Higher institution graduate □

f. Never attended □

6. Religion

Orthodox □ Protestant □ Muslim □ Other Christian □ Catholic □

Traditional □ Other □

7. What is your family size ……..?

Expenditure/income data

8. In what kind of activities are you engaged in to earn a living?

a. Self employment □

b. Casual employment □

c. Unemployed □

d. I work under micro and small scale enterprises □

e. Other □

9. What is the source of your income?

a. Wages and salaries □

b. Profits □

c. Rents, interest & dividend □

d. Others □

10. Can you afford to go to hospital whenever you and your family member get sick?

Yes □ No □

11. Please, would you estimate your monthly expenditure on average:

a. Food consumption in a month _____ Birr

b. Education expenditure _____Birr

c. Expenses on clothing _____Birr

d. Medical expense _____ Birr

e. Expenditure on water _____ Birr

f. Cleaning and personal care items _____ Birr

g. Fuel and electricity _____Birr

h. Social occasions and festivals _____Birr

i. Total monthly expenditure on food and non-food _____ Birr for a month in average.

Saving and asset holding data

12. Do you have access to clean water at your home?

Yes □ No □

13. If your answer is 'yes' for question number 12, since when ……?

14. Do you have electricity (Power Supply) at your home?

Yes □ No □

15. If your answer is 'yes' for question number 14, since when ……?

16. Do you have telephone in your house?

Yes □ No □

17. If your answer is 'yes' for question number 16, since when ……..?

18. Which one of the following assets do you have? Mark on the box of the item you have

Chairs and table	
Shelf	
Bed	
Sofa	
Refrigerator	
Radio	
Television	

19. Do you have your own house?

Yes □ No □

20. If your answer for question number 19 is 'yes',

a.since when do you own the house? …….

b.who holds the title of the house? Me □ my spouse □

mychild □

21. Where do you currently live in (mark one)

a. my Own house □

b. Rental House □

c. Relative's or Friend's house for free □

22. Do you have land? Yes □ No □

23. If your answer is ‘yes’ for question number 22, who has the title?

Me □ my spouse □

mychild □

24. Are you currently a member of Ekub?

Yes □ No □

25. If your answer for question number 24 is ‘Yes’, how much do you contribute per month and how much is your expected earning?

a. Contribution _____ per month

b. Expected income _____ per month

26. Do you have a saving account?

Yes □ No □

27. If your answer is ‘yes’ for question number 26,

a. Since when do you start to use the bank……?

b. how much do you save each month on average? _____

c. how much money do you have in your saving account……..

28. Where do you borrow money from when you need?

a. Friends □

b. Family □

c. Bank □

d. microfinance □

29. Is there any change in your house hold living conditions for the last three years

a. big improvement □

b. small improvement □

c. Remained the same (no change) □

d. Worsening (going bad to worse) □

IGA related data

30. For how long do you participated in IGA program?

a. 3 years □

b. 4 - 6 years □

c. More than 7 years □

31. In what type of IGA are you participating?.....

32. How many members are there in the IGA group you participate?

a. less than 5 people □

b. 5 – 15 people □

c. More than 15 people □

33. Does your IGA group own a saving account?

Yes □ No □

34. If your answer is yes for question number 33, how much money is saved in the group account?

a. Less than 25,000birr □

b. 25,000-50,000birr □

c. 50,000-100,000birr□

d. More than 100,000birr □

35. Have you ever shared dividend from the group income?

Yes □ No□

36. If your answer is yes for question number 35,

a. since when?.....

b. how often do you share dividend?

Monthly □ every six month □

Once a year □ more than yearly □

Whenever there is more profit □

37. How did your husband /wife view your contribution to the household prior to your participation in Income generating activity?

a. Appreciation □

b. Keeps quite (as normal) □

c. Less important (no appreciation) □

38. How does your husband /wife view your contribution to the house hold after you start to participate in IGA?

a. Appreciation □

b.Keeps quite (as normal) □

c.Less important (no appreciation) □

39. How do you compare your decision making power before and after your participation in IGA program?

a. Has improved □ c. There is no change □

b.Has decline □

40. Do you feel that participating in IGA has increased your power and status in your family?

a. Yes, very much □

b. Yes, slightly □

c. No change □

d. I just live alone □

41. What effect does your participation in IGA have on your acceptance, status and power within in your community?

a. Increased very much □

b. Slightly increase □

c. No change □

d. Decreased □

42. If the change has been positive /in your family and community/, how do you explain it?

_____

_____

_____

43. What can you say about the impact of IGA support has on your household's life?

a. Very big impact (i.e., long-term and permanent positive impact) □

b. Good Impact (mainly temporary benefit, but some permanent impact) □

c. Very small impact (small temporary benefit) □

d. Partly positive, partly negative (i.e., mixed with the overall impact being almost zero) □

e. Negative impact (I got into problem as a result) □

44.who do you think benefited (improve their life) men or women participants of IGA ?

_____

_____

_____

45. What is your plan for the future?

a. To work in a group □ b. To work individually □

Appendix 5: *The algorithm in estimating the Propensity Score is summarized as follows:*

1. *Start with a parsimonious logit specification to estimate the score.*
2. *Sort data according to estimated propensity score (ranking from lowest to highest).*
3. *Stratify all observations such that estimated propensity scores within a stratum for treated and comparison units are close (no signicant difference); for example, start by dividing observations into strata of equal score range (0–0.2, . . . , 0.8–1).*
4. *Statistical test: for all covariates, differences in means across treated and comparison units within each stratum are not signicantly different from zero.*
   a. *If covariates are balanced between treated and comparison observations for all strata, stop.*
   b. *If covariates are not balanced for some stratum, divide the stratum into finer strata and reevaluate.*

   If a covariate is not balanced for many strata, modify the logit by adding interaction terms and/or higher-order terms of the covariate and reevaluate.

DECLARATION

I declare that the thesis entitled: The role of income generating activities for livelihood improvement of women and youth in Addis Ababa: the case of Yeka-sub city is my own work, it is a record of my research work and has not been presented to any institution or to publication. All sources used or cited have been duly acknowledged as complete references.

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