ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

THE IMPACT OF MICROCREDIT ON CAPITAL ACCUMULATION AND CREATION OF EMPLOYMENT OPPORTUNITY AT ENTERPRISE LEVEL THE CASE OF ADDIS CREDIT AND SAVING INSTITUTION S.C

BY

ETSEGENET MISGINA

JULY, 2024

ADDIS ABABA, ETHIOPIA

THE IMPACT OF MICROCREDIT ON CAPITAL ACCUMULATION AND CREATION OF EMPLOYMENT OPPORTUNITY AT ENTERPRISE LEVEL THE CASE OF ADDIS CREDIT AND SAVING INSTITUTION S.C

BY

ETSEGENET MISGINA

A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN DEVELOPMENT ECONOMICS

JULY, 2024

ADDIS ABABA, ETHIOPIA

APPROVED BY BOARD OF EXAMINERS

As member of the board of examiners of the MSC thesis open Defense Examination, we certify that we have read and evaluated the thesis prepared by Etsegenet Misgina Hailesilassie and examined the candidate, we recommend that this thesis be accepted as fulfilling the thesis requirement for Degree of Master of Science in Development Economics.

______________________ ______________________

Dean, Graduate Studies **Signature**

______________________ ______________________

Advisor **Signature**

______________________ ______________________

External Examiner **Signature**

______________________ ______________________

Internal Examiner **Signature**

July, 2024

Addis Ababa, Ethiopia

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

____________________________ ____________________________

Advisor Signature

St. Mary's University,

Addis Ababa, June 2024

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance by Etsegenet Misgina Hailesilassie entitled "THE IMPACT OF MICROCREDIT ON CAPITAL ACCUMULATION AND CREATION OF EMPLOYMENT OPPORTUNITY AT ENTERPRISE LEVEL. THE CASE OF ADDIS CREDIT AND SAVING INSTITUTION S.C";

All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

__________________________ ________________________

Name *Signature*

St. Mary's University,

Addis Ababa July 2024

ACKNOWLEDGEMENT

First and foremost, I would like to thank the Almighty God with his mother St. Mary, without whom this work would not have been successful.

I would like to thank my Advisors Dr. advisors Dr. Maru & Dr. Paulos for their constructive comments and overall guidance.

Special thanks go to the staff of Addis Credit and Saving Institution (ADSCI), Akaki-Kality Branch for their assistance with the data collection work. My appreciation and thanks also go to all my family members for their support and encouragement during my post-graduate study.

TABLE OF CONTENTS

Contents **Pages**

LIST OF TABLES

LIST OF ABBREVIATIONS AND ACRONYMS

NEPSE……………………….. National Employment Policy and Strategy of Ethiopia

MSEs………………………….Medium and Small Enterprises

MFIs ...…………….…………Microfinance Institutions

UNDP ……………………..…United Nation development Program

CLES…………………..…….Centre for Local Economic Strategies

CGAP………………………Consultative Group to Assist the Poor

NONIE……………..………The Network of Networks on Impact Evaluation

ABSTRACT

The purpose of microcredit is provision of financial service to the poorest section of the society; which are not the favorite target for provision of credit in the formal banking sector, to alleviate them from the position they existed on. Currently in Ethiopia Microcredit institutions are getting much emphasis based on their benefit in addressing the broad range of society with low income and no job, through provision of credit to finance small business for creation jobs and employment opportunities. And this study intends to test if microcredit's with the service they are giving are effective in creating impact on enterprise capital accumulation and employment opportunity that leads the country to sustainable economic growth. Thus it is worth studying the impact so it's possible to see how microcredit's institutions foster economic growth through creation of capital and employment opportunities. The underlying reason for this study is there is a lot of articles and studies conducted on the impact microfinance has on poverty alleviation and on related issues with the social status of the clients, yet as the microfinance sector continues to expand and gives except for the few institutions, a focus on enterprise credit (as opposed to multiple financial services), (Helms, 2006), some have asked whether this phenomenon could in fact be associated with economic growth. Access to finance can promote new-firm entry, growth, innovation, whereas limited access stunts firms' growth,

The target population which is selected for this study is was two sided, control and treated groups. On one side was the microfinance institutions credit service as the independent variable and the dependent variable is amount of capital formed by beneficiaries of this service after receiving the credit and employment opportunity it has created. Data Analysis Model Used to assess the data is PSM (Propensity score matching). And the total impact based on PSM Design method was positive ON the impact of microcredit's has on capital accumulation and employment. The Credit Which Is Dispersed For The Enterprises Has Positive Impact On Capital Accumulation Of The Enterprises And The Impact It Has Created Was More Or Less Varies Among Economic Sectors However It Has Positive Impact Overall.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Inadequate supply of credit has been an important constraint on production in many developing countries where majority of the population lack access to financial services from formal institutions, either for credit or for savings, (Bein & Ebosetale, 2017). Financial sector development may contribute to economic growth by facilitating capital accumulation and by improving productivity. (Xun Lu*, Dietrich Fausten†, Russell Smyth 04 June 2014.) Country government, NGO's, and others have devised programs to build more inclusive financial systems; though none seems to have been as successful as microfinance. The term microfinance refers to a range of financial services for low-income people, including credit, saving, insurance, and money transfers. Today, the microfinance sector accounts for a large share of economic activity in developing countries (Mathurin, Joseph &Berger, 2015). Microfinance was expanded enormously in the 1990s,(ledgerwood, 1999). Microfinance loans are recognized as a key form of production and organization in all countries, which contribute greatly to income and employment opportunities,(Armendáriz de Aghion and Morduch, 2010). In a much narrower sense though, microfinance is often referred to as microcredit for tiny informal businesses of micro entrepreneurs, (Christen, Lyman & Rosenberg 2003).

Microcredit is the provision of small loans to micro entrepreneurs and poor households with or without guarantee, (Duressa, 2009). Limited access to finance is a key barrier to economic growth, limiting start-up capital and business expansion. The very definition of the term capital has been widely debated on,besides its contribution as a factor of production, (Smita, 2009). Economists have seen capital both as capital goods and as the money value embodied in the capital goods, the pre-classical approach generally viewed capital as the 'fund' required for the initial procurement of means of production and smooth running of the production process,(Smita, 2009). However the concept of capital accumulation has more or less the same understanding.

Capital accumulation is the dynamic that motivates the pursuit of profit, involving the investment of money or any financial asset with the goal of increasing the initial monetary value of said asset as a financial return whether in the form of profit, rent, interest, royalties or capital gains with the aim of creating new fixed and working capitals broaden and modernize the existing ones, grow the material basis of social-cultural activities, as well as constituting the necessary resource for reserve and insurance,(Caves, 2004).

Ethiopia the second populous country in Africa next to Nigeria has overwhelming labor market which characterized by rapid growth of labor supply. Ethiopia's population is predominantly young, due to mainly the result of rapid population and labor force growth (on the supply side) and limited employment generation capacity of the modern industrial sector of the economy (on the demand side) unemployment (mainly as an urban phenomenon) continues to be serious social problems despite some improvements in recent years, (NEPSE, 2009). According to the World Bank's Enterprise Surveys, in Ethiopia access to finance is perceived as the main business environment constraint by micro (41%), small (36%) and medium (29%) enterprises in Ethiopia, compared to a Sub-Saharan average of 24%, 20% and 16% respectively, (Oshora, Fekete-Farkas,&Zeman,2020).Among the major instruments identified in the Country's Five Year Development Plan (PASDEP), to support the informal sector and/or micro and small enterprises (MSEs) is the promotion of Micro-Finance Institutions (MFIs), (NEPSE 2009)

Microfinance services in Ethiopia were introduced around 1983E.C following the policy of economic liberalization. Microfinance is taken as a shift from government- and NGO -subsidized credit programs to finance service run by specialized financial institution. A regulatory framework was put in place to license and supervise the institutions {proclamation No. 40/1996} under the country's central bank, (Duressa, 2009). Currently there are 44 licensed microfinance institutions {MFIs} operating in Ethiopia (NBE**).**Among the Microfinance institutions Addis Credit and Savings Institution S.C (ADCSI) is a region-based micro finance institution which is established in the City of Addis Ababa in January 27th 2000 operating and giving full support to micro and small scale business operators in Addis Ababa & Oromia region surrounding Addis Ababa, Burayu & Sululta. It was legally registered by the National Bank of Ethiopia, according to Proclamation No.40/1996,(Duressa, 2009).Therefore this study is about finding the impact ADCSI Micro-credit has on capital accumulation of his enterprise clients and the employment opportunity it has created.

1.2. Statement of the Problem

As a general rule, MFIs work towards a double bottom-line—financial and social—unlike the typical formal financial institution which works solely towards a financial bottom-line. Despite the difficulty and cost inherent in assessing social impact, interest in the social impact of microfinance has led to a number of impact studies published in scholarly journals (Brau & Waller, 2004). There are a lot of articles and studies conducted on the impact microfinance has on poverty alleviation and on related issues with the social status of the clients, yet as the microfinance sector continues to expand and gives except for the few institutions, a focus on enterprise credit (as opposed to multiple financial services), (Helms, 2006), some have asked whether this phenomenon could in fact be associated with economic growth. Access to finance can promote new-firm entry, growth, innovation, whereas limited access stunts firms' growth, (World Bank, 2008). Yet in my search for a study performed on the financial impact of ADCSI in capital accumulation of its client and the employment opportunities it has created, I couldn't find a study conducted. Most of the studies choose to focus on issues related to the social impact of microfinance [poverty reduction, women empowerment, etc...]

In a Study conducted by Oshora, Fekete-farkas, &Zeman(2020) using PCA over the last decade, MFIs are highly engaged in accessing micro credit service to the MSEs but the PCA and the secondary data of loan trend and job created shows that there is no correlation between access to credit and the number of job created despite increase in the amount of loan. However this result contradicts with the result of other studies for example ADA (2017); ITC (2019); FDRE (2016) and other empirical evidence across the globe shows the reverse result, (Oshora, Fekete-Farkas, & Zeman, 2020).

Also in a study conducted by Joseph & Berger, (2015) concerning microfinance and capital growth the finding shows that better than average microfinance development and better quality institutions have a significantly higher capital growth response to microfinance revolution than the countries with a "low" level of the characteristic. The study conducted by Bein & Ebosetale, (2017) using OLS multiple regression analysis the case for Nigeria revealed that microfinance activities have a significant impact on economic growth and development. Therefore this study tries to fill the gap and assess the impact ADCSI microcredit service has on its enterprise's capital accumulation and the employment opportunity it has created.

1.3 Research Questions

1. What is the magnitude of new employment opportunities created by ADCSI via its enterprise clients?
2. Is there a positive difference over time in income generating ability of business after they get financed by ADCSI?
3. What is the extent by which ADCSI Clients stock of capital has changed after taking the credit service?

1.4. Objectives of the study

1.4.1 General Objective

The general objective of the study is to assess the Impact of ADCSI microcredit service in capital accumulation of its enterprise client and the employment opportunity it has created.

1.4.2 Specific Objectives

The specific objectives of this research paper are:

1. To assess the magnitude of new employment opportunities created by ADCSI credit service after taken by clients.
2. To assess whether there is a positive difference in income generating ability of enterprises and change in expense after they get financed by ADCSI.
3. To assess the extent by which ADCSI enterprise Clients stock of capital increased after taking the credit service.

1.5. Significance of the study

There are many Microfinance Institutions in Ethiopia. Their potential to create endogenous growth by stimulating local producers in different areas and their ability to create employment opportunities makes them crucial economic instrument especially in developing countries.

Hence, the result of the research was to provide additional information to policy makers and local development planners working on the development of favorable environment for Microfinance institutions. Furthermore, the study was to provide additional information about the impact of ADCSI in Capital accumulation of its client in Addis Ababa and the employment opportunity it has able to generate for interested researchers.

1.6 Scope and Limitation of the Study

The study was conducted in ADCSI in its Addis Ababa Akaki kality Wereda 13 branch office and the unit of analysis systematically includes those that are involved in manufacturing, service, trade and agriculture sectors (enterprises) since the concept of capital accumulation is mostly related to those engaged in production of marketable goods. Therefore it has singled out the credit service which is microcredit and the clients who have taken the credit service for starting up enterprises and\or running already established business. However as literatures, articles &, studies conducted in this area are goes by the broad name of microfinance so this study is, only it tries to trace the impact microcredit has on the capital accumulation of enterprises and the employment opportunity it has created. Thus the units of analysis in this study are enterprises that receive credit from the microfinance.

1.7. Organization of the Paper

The research paper has been prepared in five chapters. The first chapter is introduction; which includes statement of the problem, objectives, significance of the study, scope and limitation of the study. Literature review is second chapter and the third chapter deals with brief description of research methodology. Results obtained are discussed in chapter four and finally chapter five presents the summary, conclusion and recommendation of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Frame Work

Capital accumulation refers to an increase in assets from investments or profits. The goal is to increase the value of an initial investment as a return on investment. Measuring capital accumulation can be seen through the increased value of assets through investments and savings.

Investment is defined as the commitment of current financial resources in order to achieve higher gains in the future. Whereas saving is the portion of income not spent on current expenditures. In other words, it is the money set aside for future use and not spent immediately.

2.2 Theoretical Review

2.2.1 Microcredit's and Micro Financial Services

A serious problem confronting many developing countries is the savings gap, which essentially means that these countries find it difficult to finance investments needed for growth from domestic saving, (Walker, 1999). The need for financial service for the poor emerged from the belief that lack of saving and capital made it difficult for many poor people to become self-employed and undertake productive income-generating activities. Provision of credit could help generate self-employment, (Khandker, 1998). MFIs provide similar products and services to their customers as formal financial sector institutions. The scale and method of delivery differ, but the fundamental services of credit, savings, and insurance are the same, (Brau & Waller, 2004).

MFs. is generally an umbrella term that refers to the provision of a broad range of financial services such as loans, deposits, payment services, money transfers and insurance to poor and low-income households and their micro-enterprises. Microcredit is most often extended without traditional collateral, (Sharma, 2001). Before early 1990s, the term "Microcredit" which was used to refer to the narrower version of Microfinance, which is the provision of a small credit has broadened to "Microfinance" and rather it has included a range of other financial services other than credit and begun to be refer to a financial services for the poor, including credit, savings, insurance, and money transfers, (Helms, 2006).

The loans offered by MFIs (slow turn around, inflexible terms, repayment periods measured in months or a year, and regular small payments at relatively low interest rates) are generally suitable as a source of enterprise financing, (Brau & Waller, 2004). Robinson (2001) defines microfinance as a small-scale financial service primarily credit and savings- provided to people who operate small enterprise or micro enterprise where goods are produced, recycled or sold; who provide service; who work for wages or commissions.

Duressa (2009), states that the main aspect that makes microfinance different from conventional financial service is not the financial service provided and not even in only serving the poor, but in how the service is rendered.It must be emphasized too that even though the animating motivation behind the microfinance movement was poverty alleviation the term finance in microfinance and the fact that the basic products offered by microfinance institutions (MFIs)—namely lending (credit services), investing (savings), and insurance (risk management)—are all well-established topics of mainstream finance research, (Brau& Waller, 2004). Notwithstanding, to date most efforts to formalize microfinance have focused on enterprise lending (loans for enterprise formation and development) which remain by far today the dominant product offered by MFIs, (Nourse (2001), Woller (2002a), cited in (Brau & Waller, 2004).True that, the core elements of microfinance are those of the finance discipline it has introduced and developed innovative financial intermediation to sectors of the society, namely the poor and low income, who would otherwise have little or no access to financial services, (Khawari, 2004).

There is growing recognition that microfinance loans are a key form of production and organization in all countries, which contribute greatly to income and employment opportunities, (Armendáriz de Aghion & Morduch, 2010). If microfinance is the provision of financial services to micro entrepreneurs and poor households, (Helms, 2006), "microenterprises hold the potential for income growth which will be spurred by capital investment" (De Melet al., 2008).

This process of micro financing began in earnest around the early to mid-1980s and has since gathered an impressive momentum. What began as a grass-roots ―movement motivated largely by a development paradigm is evolving into a global industry informed increasingly by a commercial/finance paradigm, (Brau& Waller, 2004).

It has overturned established ideas of the poor as consumers of financial services, shattered stereotypes of the poor as not bankable, spawned a variety of lending methodologies demonstrating that it is possible to provide cost-effective financial services to the poor, and mobilized millions of dollars of social investment for the poor, (Mutua et al., 1996), cited at (Brau& Waller, 2004).

2.2.2 Capital Accumulation and Microcredit

2.2.3 Capital

The word Capital comes from the Latin caput, a word whose origin goes back to the 'Fertile Crescent. In both Rome and Mesopotamia capital had a similar, unambiguous economic meaning: it was a monetary magnitude. The Physiocrats were the first to give 'capital' a productive role,(Jonathan &Shimshon, 2000).

In the real world, capital was usually associated with numerous capital goods. Unlike labor and land, however, these were heteroglmeous, and therefore could not be aggregated in terms of their own 'natural' units,(Jonathan & Shimshon, 2000).

Kuznets (1955) defines capital as tools employed in the economic process of production under business and even public auspices. Historically, there are two different perceptions of capital: one as an income generating fund, or 'financial wealth', the other as a stock of physical instruments, or 'capital goods', (pasinetti and Scazzieri, 1987). Mainstream economics has generally tried to show that capital goods were indeed productive, and that this 'positive' attribute is what made capital as a 'fund' valuable cited in (Jonathan &Shimshon, 2000). Capital is what capital does: it raises the capacity for economic production,(Kuznets, 1955).

2.2.4 Capital Accumulation

Capital Accumulation (also termed the accumulation of capital) is the dynamic that motivates the pursuit of profit, involving the investment of money or any financial asset with the goal of increasing the initial monetary value of said asset as a financial return whether in the form of profit, rent, interest, royalties or capital gains. The aim of capital accumulation is to create new fixed and working capitals broaden and modernize the existing ones, grow the material basis of social-cultural activities, as well as constituting the necessary resource for reserve and insurance (Caves, 2004).Without doubt, every country in the world today still lays tremendous emphasis on capital accumulation by making conducive environment to raise the level of investment relation to output, (Gemechuet al., 2021).

According to Wright (1977) the conversion of surplus value into new constant and variable capital is the basis of capital accumulation. Since profits (surplus value) were assumed to be largely saved and invested the share of profits in income determines the share of investment in total production, and the rate of accumulation of capital. The rate of accumulation of capital in turn determines the rate of increase in the employment of labor (since employment was assumed to increase at the same rate as capital), (Kaldor, 1963).

In developing countries capital accumulation is often proposed as the way to speed up their long-term growth rates. Here in Ethiopia, capital is scarce and most of the production is labor intensive like, in other developing countries, (Gemechuet al., 2021). Increasing capital accumulation requires to: increase savings ratios, maintain good financial system and system of loans, (Gemechuet al.,2021). From the standpoint of development economists, it is generally believed that capital accumulation is the springboard for the escape of low level equilibrium trap involving a vicious cycle of poverty, (Christian & Deodat, 2009). The experience from emerging economies in East Asia suggests that capital accumulation is more important than total factor productivity (TFP) gains in the economic take-off process,(Berthélemy & Söderling, 1999).

Capital accumulation through investment activities brings employment opportunities, revenue for government, efficient use of domestic resources and large scale production for LDCs (Solow, 1956). In the Marxists view capital changes its skin from money, to commodities, to more moneyin a production process which is a socio-material transformation, (Jonathan & shimshon, 2000).(Saad-Filho, 2001), as a totality engaged in self-expansion through the employment of wage labor, capital in general can be represented by the circuit of industrial capital, M-C-M’, where M and M’ are sums of money-capital and C represents the inputs, including labor power and means of production; the difference between M’ and M is the surplus value. The circuit of industrial capital represents the essence of capital, valorization through the production of commodities by wage labor. However, capital produces not only surplus value; at the social level, the outcome of the circuit is the expanded reproduction of capital.

In a Saad-Filho (2001) article titled “Capital Accumulation And The Composition Of Capital” growth of output, money capital advanced, labor productivity or means of production in use (either more or better machines), or the growth of labor productivity or employment leads to accumulation.

The term capital appreciation is coined for growth in the value of existing wealth either through investments or from profits over a period of time as against the original amount of investment. The concept aims to enhance the value of the amount of initial investment by way of earning returns on the investment which could be in the form of capital appreciation, rentals, and interest. It focuses on increasing the existing wealth by way of investing in the amounts of profits as well as savings. Investment can be made in tangible assets used for the production of goods or services in a business, other tangible assets such as real estate or financial assets such as stocks if they are capable of enhancing in value (Gupta, Explanation section).

2.2.5 Main Determinants of Capital Accumulation

The process of capital formation involves three distinct, if interdependent, activities. One is saving, the activity by which claims to resources, which might be exercised in favor of current consumption, are set aside and so become available for other purposes. A second is finance, the activity by which claims to resources are either assembled from among those released by domestic saving, or obtained from abroad, or specially created, usually as bank deposits or notes, and then placed in the hands of investors. The third is investment itself, the activity by which resources are actually committed to the production of capital goods. The volume of capital formation depends on the intensity and efficiency with which these activities are carried on,(Abramowitz, 1955).Pre-Keynesian economists were of the view that savings and investment are made by two different classes of people. While investment is undertaken by entrepreneurial class of the society, saving is done by the general public. Secondly, saving and investment depend upon different factors and are made for different purposes and motives.

2.2.6 Theories of Saving

Since economics started emerging as an independent discipline during the era of mercantilists and Adam smith, accumulation of wealth, (which is nothing but saving) has been identified as a key variable for growth. Saving, with the necessary enabling environment is easily converted into investment or capital and enables labor and other resources to be effectively mobilized for the growth of overall level of output in an economy, (Gebeyehu, 2011).

However, the relationship between income level and saving rate in poor countries might be influenced by considerations of subsistence consumption, which is more than inter-temporal consumption smoothing (Easterly, 1994 and Ogaki et.al., 1996) cited on, (Gebeyehu, 2011).Though the accumulation of fixed capital can only be possible through sufficient savings developing countries are always constrained by inadequate savings and investment, for instance economic development in Sub-Saharan Africa has been constrained by inadequate savings and investment, (Wollasa. L.Kumo, 2011) cited in,(Jagadeesh, 2015).

Conventional views regardless of differences in the weight attached to saving by different schools, gives value for saving as a source of financing current investment or settling debts spent for past investments stemming either from foreign or domestic sources (Gebeyehu, 2011).Thus, the relationship between saving and investment, and thus, the relationship between saving and economic growth (through the medium of investment) has been an empirical issue(Gebeyehu, 2011).

At a lower level of income, less will be saved

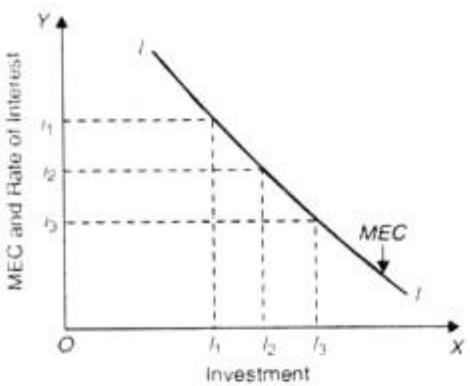


Fig. 8.3. *Investment Demand Curve*

SS is the saving curve which slopes upward indicating thereby that with the rise in income, saving also increases. II is the investment curve. Investment curve II is drawn as horizontal straight line because, following Keynes, it has been assumed that investment is independent of the level of income i.e., it depends upon factors other than the current level of income

Savings have always been figured prominently in both theoretical analysis and policy design in both developed and developing economies. Via its link to levels of consumption it assumed direct theoretical link to future economic growth and current expenditure. Early theories of economic growth emphasized the role of savings as a source of capital accumulation and, hence, growth, (Beshir, 2017). With regard to the determinants of the supply of saving the difference between income and "necessary expenses," which affords the power to save, is the chief determinant of the level of saving. On the other hand, by saving we mean the part of the income which has not been spent on consumer goods and services. In other words, saving is the difference between income and consumption expenditure.

It considers the over-all ratio to be a combination of those ruling for two groups of individuals: the rich few, who are "automatic" savers, and the poor masses, whose saving is effortful. Kuznets considers that, in a progressive society, the incomes of the former group are prevented from cumulating by the economic mobility associated with progress itself. This, together with the down drift of returns on property, prevents "automatic" saving from becoming ever larger. Individual saving is the typical activity by which resources are released for capital formation in capitalist countries. It is, however, but one extreme in a continuum. Even in capitalist countries the growth in the scale of investment projects has led to institutionalized saving by business enterprises out of profits and by the state out of revenues. (Abramowitz 1955)

We assume that here are two (direct through saving and indirect by loans) channels through which microfinance movement can affect growth. Which however the study focuses is on the loan:

First, the flow of saving from informal finance sector to formal finance sector lowers the real interest rate, increases capital and investment, and spurs growth (Mathurin, Joseph & Berger, 2015).

Second, the finance literature suggests that open credit markets reduce the borrow risk premium. As the cost of capital decreases, more investment and recruitment projects should have positive net present value. This should spur investment that is financed either locally or by foreign capital. The increased investment leads to increased output growth.

From the perspective of the neoclassical model, this improved risk sharing and entrepreneurship presence in domestic capital markets is bound to raise the steady state level of GDP, (Mathurin, Joseph & Berger, 2015). Also a simple mechanism for microfinance institutions to affect productivity is that it improves domestic allocative efficiency. For example, in (Batbekh and Blackburn's (2008)) model cited on (Joseph & Berger, 2015), microfinance allows agents to more efficiently share risk and invest in the higher return, riskier projects, (Mathurin, Joseph & Berger, 2015). Cited on Beshir, (2017) study as Schmidt-Hbbel et al. (1996) noted, “Saving is automatically translated into capital accumulation and, hence, growth, and that this translation is simply the mechanism underlying the positive correlation between saving and growth that is observed in practice." And yet to achieve this, it is a requirement to facilitate the development of sound domestic financial systems, especially in the countries that are less advanced in their economic transformation. Improving financial intermediation can be a key factor to raise the level of domestic savings and to efficiently channel them into growth-enhancing investment.

2.2.7 Theories of Finance

A second is finance, the activity by which claims to resources are either assembled from among those released by domestic saving, or obtained from abroad, or specially created, usually as bank deposits or notes, and then placed in the hands of investors.

2.2.7.1 Microcredit and Finance

The term "microfinance" refers to a range of financial services for low-income people, including credit, saving, insurance, and money transfers. Today, as the microfinance sector accounts for a large share of economic activity in developing countries, it has become one of the boom sectors in development cooperation over the past years, (Mathurin, Joseph & Berger, 2015).With less economically developed countries sufficient incomes to enable high rates of saving, from which the fund required for investment is found is not available and therefore accumulation of the capital stock through investment is low(Jagadeesh,2015). And this is where the role of microfinance as a financial entity is played through which it makes credit for investment available by mobilizing funds from government or donors. An important achievement of microfinance is its success in providing uncollateralized loans with relatively low default rates.

Microloans are, almost by definition, small and relatively short-term (i.e., one year or shorter), and have high repayment rates, (Mathurin N., Joseph & Berger, 2015).From the major service provided by microfinance institutions the major one is providing initial finance to start a new business which is investment,(Andres Solimano& Mario Gutierrez, 2008).First, microfinance loans improve traditional financial markets liquidity, as measured by the financial returns (assets/equity) for small and medium size enterprises, (Mathurin, Joseph & Berger, 2015).However in developing countries the supply of external financing is restricted so retained profits are the main source of investment financing in developing countries giving the constraints and imperfections of capital markets, (Solimano& Gutierrez, 2008).

An important achievement of microfinance is its success in providing uncollateralized loans with relatively low default rates. Microloans are, almost by definition, small and relatively short-term (i.e., one year or shorter), and have high repayment rates, (Mathurin, Joseph &Berger, 2015).

2.2.8 Theories of Investment

Investment is the third activity involved in capital formation. In the Keynesian and post-Keynesian traditions investment plays a critical role as a vehicle of creation of productive capacity on the supply side. (Andrés Solimano Mario Gutierrez January 2008). In the "endogenous" growth theory developed since the mid-1980s a new role was recreated for investment to affect long run growth by making the rate of technical change and productivity growth linked either to the accumulation of physical capital or the accumulation of human capital (Andrés Solimano Mario Gutierrez January 2008).The starting point of conventional capital accumulation theorization is the Keynesian, or accelerator, theory of investment (1947), according to which investment is a linear proportion to changes in output. A more general form of the accelerator model is the flexible accelerator model. The basic notion behind this is that the larger the gap between the existing capital stock and the desired capital stock, the greater the firm's investment,(Zaaruka, 2012).It is worth mentioning here that by investment we do not mean the stock of capital but the net addition to the stock of capital i.e., investment is a flow concept. Of course, addition to the stock of capital is made through the flow of investment. In every year stock of capital expands through net investment.

It made the profitability of employing additional capital depend on the existing proportions of the factors of production—land, labor, and capital. Since the theory generally extended the operation of a law of diminishing returns from the case of changing proportions of factors to that of increasing scale of production, the inference was drawn that the demand for additional capital would tend to be high where labor and land were plentiful relative to the existing stock of capital goods (Abramowitz, 1955).The quality of investment matters alongside the quantity. Poorly targeted subsidies have the capacity to hamper growth by redirecting capital away from where it is most productive (DFID department for international (Andrés Solimano Mario Gutierrez, January 2008).

We maintain that if TFP gains are predominantly of the former kind, growth is not sustainable without an increase in savings and investment rates. On the other hand, TFP gains through structural change are not likely to occur in the absence of significant investments, (Berthélemy&Söderling, 1999). For the conditions of capital productivity usually emphasized in economic theory, natural resources, population, the stock of existing capital, and the state of the arts serve only to define a set of potentialities, of unknown character and scope, for making advantageous use of additional equipment. But when these potentialities will be seized, and the extent to which they will be seized, are matters that turn on the vigor and efficiency with which human energy is applied to finding and exploiting economic opportunities,(Abramowitz, 1955).

As we have discussed above, capital accumulation can occur in a number of ways:

Since profits were assumed to be largely saved and invested, whilst wages are consumed, the share of profits in income also determines the share of investment in total production, and the rate of accumulation of capital, (Kaldor, 1963).

- Investment in tangible assets that are used in the production of goods or services such as machinery and equipment.
- Investment in other tangible assets such as real estate.
- Investment in financial assets such as stocks, bonds, mutual funds, etc.
- Other activities that could enhance the wealth of a business such as increasing the output level by improving efficiency without incurring additional expenses.

2.2.9 Microcredit leads to Capital Accumulation

Galindo, Schiantarelli and Weiss (2007) demonstrate that domestic financial liberalization improves the efficiency of investment allocation. Our results suggest that investment is more sensitive to global growth opportunities in countries that are open to all investors. We are able to generalize the results in, for instance, Hermes, Lensink and Meesters (2009), and Ahlin, Lin and Maio (2011), who show that firm-specific investment in a representative sample of institutions is correlated with changes in growth opportunities after microfinance intervention (Mathurin, Joseph &Berger, 2015).

2.2.10 Microfinance and Employment

2.2.10.1 Employment

Ethiopia is the second populous country in Africa next to Nigeria. The overwhelming fact of the labor market in Ethiopia is the rapid growth of labor supply. The labor force is growing much more rapidly than the population as a whole because of the young dominated demographic profile. Ethiopia's population is predominantly young. Unemployment (mainly as an urban phenomenon) continues to be serious social problems in Ethiopia despite some improvements in recent years. This is mainly a result of rapid population and labor force growth (on the supply side) and limited employment generation capacity of the modern industrial sector of the economy (on the demand side), (NEPSE, 2009)

The unemployment statistical data shows that more than 70% of Ethiopians are under 30 years of age, with urban youth unemployment at 22% compared to 17% for all ages. Moreover, more than a quarter of all urban jobs are informal (UNDP, 2018). Similarly, the most recent report by job creation commission shows that unemployment rate in urban areas, meanwhile, reached a level of 19.1% in 2018(oshoraet al., 2020).

Micro and Small Enterprises (MSEs) are considered as a crucial tool for the global economic development in reducing unemployment and poverty and understood as a means to attain the United Nations 2030 agenda particularly in its contribution in reducing the massive unemployment and deep-rooted poverty (oshoraet al., 2020).

For instance, the contribution of formal and informal MSEs account for 90% of all firms and on average for 60 to 70% of total employment worldwide and 50% of GDP (ITC, 2019; World Bank, 2019). However, despite all this contribution to the economy, the most recent report by World Bank (2019) reveals that, 40% of formal MSEs in developing countries have an unmet financing need of $5.2 trillion every year, which is equivalent to 1.4 times the current level of the global MSEslending. Different empirical evidences across the world such as (ADA, 2017; ITC, 2019; FDRE, 2016; Gebreeyesus, Ambachew, Getahun, Assefa, Abebe, Hassen&Medhin, 2018; Fowowe, 2017; Dinh, Mavridis& Nguyen, 2010; Cherkos, Zegeye, Tilahun&Avvari, 2018; Ključnikov, Majková, Schwendemann&Knogler, 2016; ITC, 2016) also founds that lack of access to credit is the main constraints for the success of MSEs.

Considering the huge contribution in creating job opportunity with relatively low capital, MSEs are identified as one of the priority areas of action among the programs addressing African development (Drbie&Tilaye, 2013). Notwithstanding, to date most efforts to formalize microfinance have focused on enterprise lending (loans for enterprise formation and development) which remain by far today the dominant product offered by MFIs (Nourse (2001), Woller (2002a).

2.2.10.2 Microfinance and Employment

Lack of access to finance is a major problem for micro entrepreneurs to start up or to scale up the enterprises. Micro finance refers to small scale financial services provided to the people who operate small or micro enterprises, who farm or herb where goods and services are produced, recycled, repaired or traded. The prime objective of people to participate on the microfinance program is to get access to credit fund so that they could start micro-business and create employment for themselves. One of the major objectives for microfinance program is to create self-employment at local level. In the developing countries micro enterprises play the vital role in employment generation (Hari Prasad PathakPrithvi, 2012)

2.3 Empirical Review

2.3.1 Microcredit and Capital Accumulation

In a study conducted by, (Jagadeesh, 2015) for The Impact savings has on economic Growth of Botswana using time series data for the period of 1980 to 2013 based on Auto Regressive Distributed Lagged (ARDL) model, The model shows mathematically that growth is directly related to savings. Botswana Savings has long been considered as an engine for economic growth. Additionally, it is notable that the slow rate of development in third world countries are usually attributed to the low levels of national savings, that constraint their capacity to invest in capital formation. Also in a study conducted in China (Chow, 1993) cited on (Jagadeesh, 2015) evidenced that countries that had made sustained accumulation of fixed capital have been able to achieve higher and sustained economic growth and development than other countries.

The accumulation of fixed capital can only be possible through sufficient savings. In a study conducted by, (Mathurin, Joseph &Berger, 2015) using regression framework the results show that the impact of microfinance on factor productivity growth is more important than the effect on capital growth.In this paper, we study the relation between microfinance institutions, productivity and economic growth. Two channels of growth are distinguished: capital stock growth and TFP growth. We have presented some empirical evidence consistent with the predictions. We find that microfinance sector positively impacts both of these channels, but has a greater impact on factor productivity than investment.

Hence, we are able to reconcile the relatively large GDP growth response to microfinance sector and the relatively modest increase in investment. The estimations shows that both temporary and permanent effects both in the growth of the capital stock and TFP. We provide some insights into the channels of these permanent effects, showing that microfinance sector is associated with future improvements in finance development, institutional quality and macroeconomic policies. Specifically, it explains why the growth effects of microfinance revolution appear to be largely permanent, not temporary.

This permanent microfinance expansion effect can be attributed to the role microfinance sector plays in capital market and banking sector development, and to the change in the quality of institution environment.

2.3.2 Micro Credit and Employment

In a Study conducted by Oshora, Fekete-farkas, &Zeman,(2020) using PCA over the last decade, MFIs are highly engaged in accessing micro credit service to the MSEs but the PCA and the secondary data of loan trend and job created shows that there is no correlation between access to credit and the number of job created despite increase in the amount of loan. However this result contradicts with the result of other studies for example ADA (2017); ITC (2019); FDRE (2016) and other empirical evidence across the globe shows the reverse result,(Oshora, Fekete-Farkas, &Zeman, 2020).

Also in a study conducted by Joseph &Berger, (2015) concerning microfinance and capital growth the finding shows that better than average microfinance development and better quality institutions have a significantly higher capital growth response to microfinance revolution than the countries with a “low” level of the characteristic. The study conducted by Bein & Ebosetale, (2017) using OLS multiple regression analysis the case for Nigeria revealed that microfinance activities have a significant impact on economic growth and development. Therefore this study tries to fill the gap and assess the impact ADCSI microcredit service has on its client's capital accumulation and the employment opportunity it has created.

Iocovoiu (2012) examined the relationship between the net capital investment and employment in Romania. He concluded that net capital formation positively and significantly affects employment.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

“Social research may be defined as a scientific undertaking which by means of logical and systematized techniques aims to discover new facts or verify and test old facts,analyze their sequences, interrelationships and casual explanation which were derived within an appropriate theoretical frame of reference. P.V. Younge from (Dr. PrabhatPandey Dr. Meenu Mishra Pandey 2015). A research design is simply the framework or plan for a study that is used as a guide in collecting and analyzing the data. It is a blueprint that is followed in completing a study. Research design is the blue print for collection measurement and analysis of data. Actually it is a map that is usually developed to guide the research. (Dr. PrabhatPandey Dr. Meenu Mishra Pandey 2015).

The purpose of this chapter is to provide an overview of the research methodology. It includes the research approach and design, the data source and data collection method, Definition and Measurement of Variables, population and sampling, and methods of data analysis, in meeting the objectives of the research.

A Research Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques, (Irny and Rose, 2005). This paper is about the impact microcredit has on capital accumulation and in success generating employment opportunities. In international development, impact evaluation is principally concerned with final results of interventions (programs, projects, policy measures, reforms) on the welfare of communities, households, and individuals, including taxpayers and voters. Impact evaluation is one tool within the larger toolkit of monitoring and evaluation (including broad program evaluations, process evaluations, ex ante studies, etc.), (NONIE, 2009).

3.2 Research Approach

The two main types of research approaches used in social sciences are: quantitative and qualitative research approaches. Quantitative research approach is an inquiry into an identified problem, based on testing a theory, measured with numbers, and analyzed using statistical techniques. It is an inquiry into an identified problem, based on testing a theory composed of variables, the goal of quantitative methods is to determine whether the predictive generalizations of a theory hold true.

Quantitative research designs are often used to look at causal relationships, but they can also be used to look at associations or relationship between variables. Quantitative research studies can be placed into one of five categories, although some categories do vary a bit from book to book. First are Experimental designs with an intervention, control group, and randomization of participants into groups. Next are Quasi-experimental designs with an intervention but no randomization. Descriptive designs do not have an intervention or treatment and are considered non experimental. They usually aim to provide information about relevant variables but do not test hypotheses. Two Additional categories are epidemiology and predictive correlation design (© Jones & Bartlett Learning, LLC. NOT FOR SALE OR DISTRIBUTION)

Qualitative research is a process of naturalistic inquiry that seeks an in-depth understanding of social phenomena within their natural setting. It focuses on the "why" rather than the "what" of social phenomena and relies on the direct experiences of human beings as meaning-making agents in their everyday lives. Rather than by logical and statistical procedures, qualitative researchers use multiple systems of inquiry (Ahmad, Wasim, Irfan, Gogoi, Srivastava &, Farheen, 2019).Qualitative research involves the collection and analysis of narratives and/or open-ended observations through methodologies such as interviews, focus groups or ethnographies (Ahmad, Wasim, Irfan, Gogoi, Srivastava&, Farheen, 2019). In this paper Quantitative research approach with Quasi-experimental designs are used however qualitative researchapproachalso was used to add.

3.2 Data Sources and Data Collection Method

The research usedboth primary and secondary sources of data. Primary data collected to attain the research objectives regarding the impact Addis saving and Credit service has on the capital accumulation status of clients, ability to generate employment opportunity, its contribution on enhancing business management skill, and build up their asset. In order to address the objective of assessing Addis saving and credit Micro financeimpact on enterprises capital accumulation primary data source was used and collect information from beneficiaries and non-beneficiaries of

Addis saving and credit through Questionnaires/Survey. For this purpose structured questionnaires are developed and it administrated that obtaining quantitative data on issues regarding the impact of micro-financial services on capital accumulation and generating employment opportunity based on selected indicators.

Data from Addis saving and credit was collected through Documentation,(involves collecting information and data from existing surveys, reports and documents of Addis Credit and Association of Ethiopian Microfinance Institution's (AEMFIs) as well as any relevant Publications and Key Informants Interviews. Key informants are selected based on their knowledge about related issue to micro finance and clients prior economic as well as social conditions. Key informants interviews are prepared for Addis Credit officials, Branch Mangers', and some of the beneficiaries of microfinance services.

3.3 Population and Sampling design

3.3.1. Population

Population refers to the set or group of all the units on which the findings of the research are to be applied. In other words, population is a set of all the units which possess variable characteristic under study and for which findings of research can be generalized (Shukla, 2020, p. 6). The study population for this research is covered mainly the clients from Addis saving Credit institutions who are the beneficiary of the credit service and clients who are not received the services from Addis saving and Credit microfinance institutions.

In analyzing the impact of microfinance institutions on capital accumulation and generating employment opportunity, focus has been given to the enterprise clients who have access to and using microfinance services from Addis Credit for more than two years.

3.3.2. Sampling

A sample design is a definite plan determined before any data is actually collected for obtaining a sample from a given population.in census inquiry we involve a great deal of time, money and energy so it is not possible in practice under many circumstances. Sample designs can be either probability or non-probability. With probability samples each element has a known probability of being included in the sample but the non-probability samples do not allow the researchers to determine this probability (Dr. PrabhatPandey Dr. Meenu Mishra Pandey 2015). Thus determining the appropriate sample size is important in research undertaking. sample size depends on the total number of population, the level of confidence and the maximum deviation from true population that can be tolerated in the study. The study has used two groups of samples namely, treatment group and control group. Control group are used to avoid the problem of intervening variables (variables that are affecting the output of the research other than the independent variables).The researcher applied a simplified formula provided by (Yamane, 1967) cited onYilmaMuluken to determine the minimum required treatment group sample size at 95% confidence level, degree of variability= 0.5 and level of precision (e) = 10%. 25

n = N.

1+ N(e)^2

Where:

n is sample size,

N is the total number of study population

e is the level of precision

Using the total population and level of precision of 10%, the sample size is calculated as follows.

$$n = \frac{N}{1 + N(e^2)}$$

Treatment groups are enterprises who are regular customers of Addis saving and credit institution and are beneficiaries of the services for at least two years; whereas the control groups are enterprises which did not involve in Addis saving and Credit. Once in which the control or comparison groups were created using random assignment procedures. This helps to ensure that the groups were essentially equivalent on most significant variables, including demographic features, problem severity, the possession of strengths, and any personal or social assets that may impact how a treatment could improve someone’s situation. (Bruce A. Thyer 2012) p. 16

On the other hand, the participants of Key informant interview are selected purposively which meansa non-probability sampling techniques in which units are selected because they have characteristics that is needed in the sample. In other words, units are selected "on purpose" in purposive sampling.

3.4 Methods of Data Analysis

3.4.1 Quasi-Experimental Research design

A research method refers to the review of existing information, and in the quantitative context may involve the manipulation of statistical data**. (**Those that involve comparing the outcomes of one group receiving a treatment that is the focus of evaluation to one or more groups of clients who receive either nothing or an alternative real treatment, have been called quasi-experimental designs) (Bruce A. Thyer 2012) p 16. Testing the effects of an Intervention is the hallmark of quasi-experimental research. Quasi- experimental designs are used to test a hypothesis and does not have the advantage of randomization of participants to groups.

In this study Quasi-experimental Research design was adopted: the type of data analysis involves a direct assessment of how one variable influences another and this allows the establishment of causality and all extraneous variables must be held constant while a single variable is manipulated, and the effect measuredand percentages were used to assess the capital status of sample respondents.

In the context of this study as the confounding variables can't be controlled, propensity score matching (PSM) was used in order for the treated and control entities to have the same probability of receiving the treatment. From the statistical tools, Chi Square test was used for dummy variables to investigate the difference between the treatment and control groups.

3.4.2 Propensity score

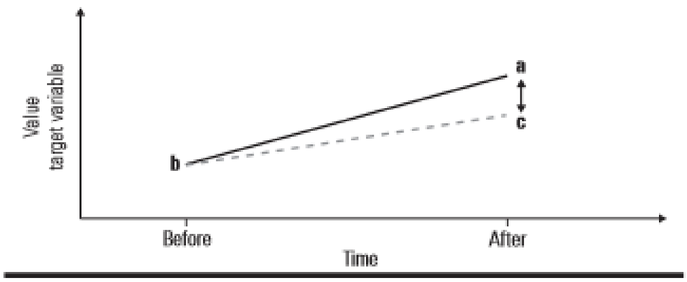
In observational studies for causal effects, treatments are assigned to experimental units without the benefits of randomization. As a result, treatment groups may differ systematically with respect to relevant characteristics and, therefore, may not be directly comparable. One commonly used method of controlling for systematic differences involves grouping units into subclasses based on observed characteristics, and then directly comparing only treated and control units who fall in the same sub- class, (Rosenbaum R. & Rubin B. 1983, P. 516).

Some researchers match participants at the group level based on demographic or other possible confounding variables. The more similar the groups are, the closer the design approximates an experimental study. Researchers confirm whether two groups are comparable (especially on the dependent variable) at baseline by collecting and analyzing pertinent data (© Jones & Bartlett Learning, LLC. NOT FOR SALE OR DISTRIBUTION)

However, as the number of covariates increases, the number of sub- classes grows exponentially; making it impossible to form directly adjusted estimates for the entire population (Rosenbaum R. &Rubin B. 1983, P. 516). And without accounting for this we cannot infer that the observed difference in outcomes was really due to treatment—it may be due to the underlying factors that contributed to group membership in the first place (Austin, 2011). With this there will be a bias in the effect of the treatment condition (i.e., grouping variable) on the outcome that results from imbalances between treatment and control groups.

Fortunately, after the original publication in 1983 by Paul R. Rosenbaum and Donald Rubin the use of a scalar function of the covariates, namely the propensity score, that summarizes the information required to balance the distribution of the covariates, it has become a popular approach to estimate causal treatment effects (Rosenbaum R. & Rubin B. 1983).

Propensity score matching (PSM) is a quasi-experimental method in which it uses statistical techniques to construct an artificial control group by matching each treated unit with a non-treated unit of similar characteristics. It is a non-experimental causal inference technique that attempts to balance the treatment groups on confounding factors to make them comparable so that we can draw conclusions about the causal impact of a treatment on the outcome using observational data, (ZolzayaLuvsandorj 2023). Propensity scores offer an alternative to account for confounding,(asituation where the effect or association between an exposure (a predictor or risk factor) and outcome is distorted by the presence of another variable; (and when this factor is not under investigation) and random assignment to condition is not feasible (Sarah J. Beal & and Kevin A. Kupzyk 2013). When propensity scores are used, all variables on which the treatment and control groups might differ and that occur prior to or concurrent with the independent variable in the hypothesized causal pathway, other than theindependent variable, are included in the calculation of a propensity score. The end result is a probability estimate for membership to a particular treatment given a vector of observed covariates(Beal J. & and KupzykA. 2013).



In the above graph it shows that "with" an intervention to what would have happened in the absence of an intervention, the "without" situation the counterfactual, the impact is notmeasured by either the value of a target variable (point a) or even the difference between the before and after situation (a–b, measured on the vertical axis). The net impact is the difference between the target variable's value after the intervention and the value the variable would have had in case the intervention had not taken place (a–c), (NONIE, 2009)

The propensity score is the conditional probability that a unit with vector x of observed covariates is assigned to treatment 1, e(x) = Pr(z = 1Ix). Sub-classification on the population propensity score will balance x,in the sense that within subclasses that are homogeneous in e(x), the distribution of x is the same for treated and control units;

The propensity score model is expressed as

$$e(\mathbf{x}_i) = \Pr(z_i = 1 \mid \mathbf{x}_i) \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.. \quad 1$$

Where:

Z_i = 1, for treatment, 0, for control

Xi, the vector of observed covariates for the i^{th} subject

Where Z = (1, 0) the indicators ofreceiving loan, it is the binary variable whether a client participate in microcredit (improvement in income, 1= yes, 0 = otherwise)

Xi= is a vector of pretreatment covariate

The propensity scores indicate how enterprises are at the same level to one another in every way except the independent variable. Two enterprises with the same propensity score would be considered to have the same chance of involving in microcredit given the observed set of variables included in the analysis, whether they were actually customers of the microfinance.

Generally, if a treated subject and a control subject have the same propensity score, the observed covariates are automatically controlled for. Therefore, any differences between the treatment and control groups are accounted for and will not be as a result of the observed covariates (Thavaneswaran, 2008, p. 2).

Propensity scores are generally calculated using one of two methods: a) Logistic regression or b) Classification and Regression Tree Analysis.Logistic regression is the most commonly used method for estimating propensity scores. It is a model used to predict the probability that an event occurs anda logistic regressionmodel was applied to estimate propensity scores using a composite of predictor's characteristics of the sampled clients (Rosenbaum and Robin, 1983) and adjustment for the estimated propensity scoresis accomplished usingMatching. In estimating the logistic regression model, the dependent variable is participation in microfinance services, which takes the value of 1 if an enterprise participates in microfinance service and 0 otherwise.

The mathematical formulation of logistic regression model is as follows:

$$e(\mathbf{x}_i) = \Pr(T_i = 1 \mid x_{1i}, x_{2i}, \ldots x_{ki})$$

$$\hat{e}(\mathbf{x}_i) = \frac{1}{1 + e^{-(\hat{a} + S\,\hat{b}_k x_{ik})}}$$

$$e(X_i) = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \ldots + b_iX_i$$

Where

e(Xi)	is the probability of clients to receive microcredit
b_0	is the intercept
b_i	is the regression
X_i	the treatment variables and covariates (random variables)

3.4.2.1 Matching estimators

There are four main applications of propensity scores in practice: matching, stratification, regression adjustment, and weighting. In each application, propensity scores are estimated, typically with a logistic regression model (Rosenbaum & Rubin, 1983). Cited on (Beal J. &Kupzyk, A., 2013).

Propensity score matching involves finding a control subject with a propensity score that is equal or nearly equal to the propensity score for each treatment subject. The second application, stratification, involves dividing the entire sample into a set number of layers, or strata, based on rank-ordered propensity scores. Analyses are then performed within each stratum. The third application, regression adjustment, refers to simply including the propensity scores as a covariate in the regression model that is used to estimate the treatment effect.

Finally, weighting observations based on the inverse of estimated propensity scores, or inverse probability weighting (IPW), can also be done, (Sarah J. Beal & Kevin A. Kupzyk, 2013, p. 68). Of the four methods of adjustment, propensity score matching has been considered the most statistically efficient method of integrating propensity scores.

Stratification and matching on the estimated propensity score are both successful at achieving balance in the covariates between the control and treatment subjects. However, matching has been proven to be more effective in reducing the imbalance between treated and untreated subjects as well as in reducing treatment-selection bias than stratification (Austin, 2007).

This study applied the propensity-score matching method to match each treatment client with control clients who had (almost) the same probability of A group of control client was selected in this way can then serve as an accurate control group to correct for selection bias.

Requirements for PSM validity

Two key assumptions underlie the use of matching methods, and PSMin particular:

1. Conditional independence: there exists a set X of observable covariates such that after controlling for these covariates, the potential outcomes are independent of treatment status: The conditional independence assumption implies that after controlling for X, the assignment of units to treatment is ‘as good as random.’

This assumption is also known as selection on observables, and it requires that all variables relevant to the probability of receiving treatment may be observed and included in X. This allows the untreated units to be used to construct an unbiased counterfactual for the treatment group.

$$(Y_1, Y_0) \perp D|X$$

2. The balancing assumption: States that participation is shaped by pre participation characteristics or that the balancing of participants and control is through the propensity score. A balancing score b(X) is a function of the observed covariates X such that the conditional distribution of X given b(X) is the same for treated (Z=1) and control (Z=0) units:

$$\boldsymbol{Z} \perp \boldsymbol{X} \,|\, \boldsymbol{b}(\boldsymbol{X}).$$

⊥ represents independence i.e. exposure to the program participant

(Z) Is shaped by the participation covariates (Xi)

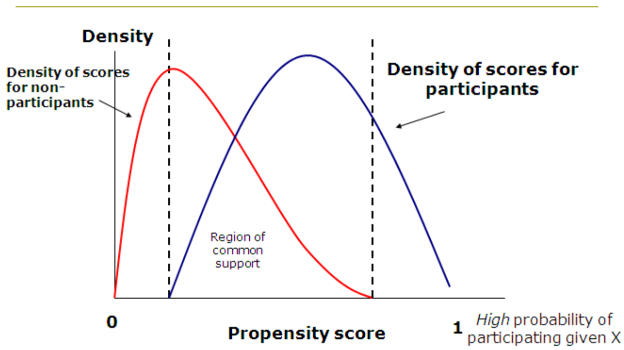
The most trivial function is:

$$\boldsymbol{b}(\boldsymbol{X}) = \boldsymbol{X}.$$

Common supports: for each value for X, there is a positive Probability of being both treated and untreated:

$$0 < P(D = 1|X) < 1$$

Where Y1, Y0 are potential outcomes with and without the program respectively, *D*i is participation variable, *P(x)* is propensity score. In other words, for a given propensity score exposure to program is random and therefore participant and control clients should be on average observationally identical, (Caliendo and Kopeinig, 2008). In order for the matching to be valid, it is essential to compare 'observed values' for participants and non-participants with the same range of characteristics. Observations in the comparison group with a propensity score lower than the lowest observed value in the treatment group are discarded. Similarly, observations in the treatment group with a propensity score higher than the highest observed value in the comparison group are also discarded. What remains is known as ‘the region of common support’**White, H., & S. Sabarwal (2014). Quasi-experimental Design and Methods, Methodological Briefs: Impact Evaluation 8, UNICEF Office of Research, Florence**



Average treatment effect

Given a population of units denoted by (*i*) if the propensity score *P (xi)* is known as average effect of treatment (AET) can be estimated as:

AET = $E\ \{Y1i - Y_{oi} / D_i = 1\}$

Let some subject have a vector of covariates X (i.e.: conditionally un-confounded), and some potential outcomes r0 and r1 under control and treatment, respectively.The basic case is of two treatments (numbered 1 and 0), with N [Independent and identically distributed random variables each subject i would respond to the treatment with r_{1i} and to the control with r_{0i}.

$$r_0, r_1 \perp Z \mid X$$

The quantity to be estimated is the average treatment effect:

$$E[r_1] - E[r_0].$$

The variable Z_i indicates if subject i got treatment (Z=1) or control (Z=0). Let X_i be a vector of observed pretreatment measurement (or covariate) for the i^{th} subject for any value of a balancing score, the difference between the treatment and control means of the samples at hand i.e.:

$$\bar{r}_1 - \bar{r}_0),$$

based on subjects that have the same value of the balancing score, can serve as an unbiased estimator of the average treatment effect.

3.5 Definition and Measurement of Variables

Variable Choice: The matching strategy builds on the CIA, requiring that the outcome variable(s) must be independent of treatment conditional on the propensity score. Hence, implementing matching requires choosing a set of variables X that credibly satisfy this condition. Heckman, Ichimura, and Todd (1997) show that omitting important variables can seriously increase bias in resulting estimates. Only variables that influence simultaneously the participation decision and the outcome variable should be included.

3.5.1 The Dependent Variable of the Model:

Participation in microcredit is a dummy variable indicating that whether a client is treatment or control client, 1 for treatment borrower enterprise, and 2 other wise or control clients.

3.5.2 Description of Explanatory Variables

Some methodologists (e.g., Pearl, 2009) have argued that only confounders should be used to calculate propensity scores to avoid additional bias introduced when variables related to the treatment but not the outcome (i.e., instrumental variables; Bhattacharya & Vogt, 2007) are included. Confounders, by nature, are related to the treatment condition and the outcome variable. Importantly, variables known to be caused by the treatment variable should not be included in the calculation of a propensity score (Caliendo&Kopeinig, 2008) and variables known to be related to the outcome variable (but not necessarily the treatment variable) should always be included (Brookhart et al., 2006).

If a predictor in the propensity score model is highly collinear with the treatment group, it can result in unbalanced results and an ineffective propensity score. Once the list of predictors for the propensity score model has been identified, it is wise to examine collinearity among the predictors before conducting the logistic regression that will provide the probabilities (Sarah Beal J. &Kupzyk A., 2013)

1. Place of work
2. Access to credit from other financial institutions (credit history)
3. Prior experience/knowhow about the business
4. Work place (private, rental)
5. Startup capital
6. Business year

.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

In this chapter, the collected data are presented in systematic ways and then analyzed by using different statistical methods. The analyses were interpreted accordingly and then further discussions are made to get answers for the four basic research questions. This was done by using both quantitative and qualitative statistical analysis methods.

4.1 Data Presentation

The data was mainly collected by a questionnaire and then interviews & document reviews were also made to further strengthen and triangulate each tool. The questionnaire has six parts:

- Startup Information about the enterprises,
- Information about the credit taken from ADCSI by the enterprises,
- Information about Holding and Recording Financial Journal Activities by the enterprises,
- Information about Saving and Investment done by the enterprises,
- Information about the Employment Opportunities created by the enterprises and
- Information about the overall Market Condition forthe enterprises.

4.1.1 Startup Information about the Enterprises

The study was made at AkakiKality sub city Wereda 13 ADCSI branch office. ADCSI AkakiKality branch office has been 4 years since it started its operation. Until now it has released loans to 4 major sectors, service, manufacturing, trade, and agriculture. And until now it has served more than 275 clients. from this 275 clients were currently active clients. their major criterion for releasing loan is renewed id card, trade license, trade registration certificate, rent contract, and marriage certificate. on over all ADCSI on branch levels it only offers financial service. That means there is no training, creating market opportunities, or any other Non-financial service provided to the clients. In this study from the active enterprises the study used 48 treatment units and as control units 32 enterprises were used. Both the treated and control units were located at AkakiKality sub city wereda 13. This helps in order to reduce the confounding situation that may have existed credited because of different market place. In order to reduce confounding situations every possible question was included in the questionnaire as shown in the table below.

Table 4.1: Sample Size by Sector

Sector	Treated	Control
Service	**17**	**12**
Manufacturing	**6**	**4**
Trade	**14**	**9**
Agriculture	**11**	**7**
Total	**48**	**32**

Based on the above economic sectors, additional information was gathered for two different groups, control & treatment groups, to check the impact of microcredits on capital accumulation employment creation and the categories are shown below.

Table 4.2: Startup information about enterprises

Sample Enterprises	Enterprise Work Place		Place of work		Experience on the job	Legal loan history	Collateral situation			
	Akaki Kality	Other Places	Private	Rented	1-5	Above 5 years	House	car	Salary	Group Guarantee
Treated	**48**	**-**	**5**	**43**	**38**	**10**	**1**	**2**	**30**	**14**
Control	**32**	**-**	**7**	**25**	**26**	**6**	**-**	**-**	**-**	**-**
Total	**80**		**12**	**68**	**64**	**16**	**1**	**2**	**30**	**14**

From the service most of the enterprises were engaged in barbershop stationery, maintenance of electronics etcetera. And this part of the sector was the main advantageous of off the sectors to use most of ADCSI loan disbursement. And when we came to manufacturing the enterprises were engaged in manufacturing of Detergent, Bricks Manufacturing, and production of Enjera. When we came to trade sector most of the small enterprises were engaged in mini markets, boutique shops, cosmetics shop, and electronics shops. On the Agricultural sector most of the enterprise was engaged in livestock farming, dairy farming, and fruits and vegetables production. From the four sectors agricultural sector was most of the impact on employment opportunity creation.

Q.1 Place of work all of the samples including treated and control units were taken from AkakiKalityWereda 13 that means 100 % so there is no confounding error based on place of work.

Q.2 is about work place and according to this question 99% of treated units and 98% of control units of the enterprises were working in a rented house and this explains that treated and control units are on the same situation before receiving the treatment.

Q.3 Experience on the job 78% from the treated units and 80% from control units have on the range of 1-5years of experience. This also shows that the confounding errors that may arise from difference in years of experience were nonexistent.

Q4. And Q.5 were about legal loan history and collateral situation respectively. Both of the samples (treated and control) have nonexistent loan history other than the current loan taken from ADCSI. And about the collateral situation 95% from the treated units and 96 % from the control units has no collateral that means house ownership certificate or car libera. These overall shows the data collected using PSM in order to minimize the confounding error has shown that most of the samples has the same probability of receiving the treatment based on the situation they have been before receiving the treatment.

4.2 Data Analysis and Interpretation

4.2.1. The magnitude of new employment opportunities created by ADCSI credit service after taken by clients.

After fulfilling the necessary conditions, the enterprises took loan and entered into their own industry of works. During this period of times, they hired additional employees to undergo their tasks. Table 4.3 shows their responses about initial number of employees.

Table 4.3: Enterprises' Responses of their initial number of employees

Question	**1 – 3**		**4 – 6**		**7 – 9**		**10 or more**	
	f	***%***	***f***	***%***	***f***	***%***	***f***	***%***
How much was your initial number of employees?	**27**	**56**	**12**	**25**	**7**	**15**	**2**	**4**

Source: Own Survey, 2023. (% rounded to the nearest whole number).

Regarding to the enterprises' initial number of employees, as shown in table 4.3, majority of the enterprises had initial number of employees from 1 – 3 (27/56%) followed by from 4 – 6 (12/25%) and from 7 – 9 (7/15%). Only two enterprises had 10 or more employees. Accordingly, we can observe that most of the enterprises had a very few number of employees when they started their business.

The enterprises were also forwarded questions on their own previous status of employment situation and whether or not additional numbers of employees were hired after starting their business. The table given below shows their responses.

Table 4.4: Enterprises' Responses of their previous status of employment and additional number of employees after taking loan from ADSCI

No.	Status and Additional Employment Opportunities	Yes		No	
		f	%	*f*	%
1	**Did you have another job before you start this enterprise?**	**44**	**92**	**4**	**8**
2	**Do you hire additional employees after taking loan?**	**48**	**100**	**0**	**0**

Source: Own Survey, 2023. (% rounded to the nearest whole number).

Concerning with the enterprises' owners status of their previous employment experiences, 44 (92%) reported that they were employed and the remaining 4 (8%) reported that they were not employed.

This shows that the credits they got from ADSCI has hugely impacted on hiring additional employees even if it has little impact on the owners status; as they all hired new employees (48/100%).

4.2.2. The difference in income generating ability of enterprises and change in expense after they get financed by ADCSI.

Table 4.5: Enterprises' Responses of their saving and reinvesting habits

No.	Saving and Investment Habits of Enterprises	Monthly		Sometimes		Rarely	
		f	%	*f*	%	*f*	%
1	**How often do you make a consistent saving for the enterprise?**	**48**	**100**	**0**	**0**	**0**	**0**
2	**How often do you reinvest on the enterprise?**	**14**	**29**	**34**	**71**	**0**	**0**

Source: Own Survey, 2023. (% rounded to the nearest whole number).

As we can see on the above table, all the enterprises (48/100%) are making forced savings monthly. This is due to ADSCI's rule of credit and saving for its customers. In addition to this habit of saving, the enterprises were also asked about the source of income to reinvest for their saving and the purpose of the reinvestment. Their responses are shown in the tables given below.

Table 4.6: Enterprises' Responses of their saving sources

No.	Saving Sources of Enterprises	From the Enterprise Activities		From Personal Income		From Both	
		f	%	*f*	%	*f*	%
1	What is the source of income for your saving?	48	100	0	0	0	0

Source: Own Survey, 2023. (% rounded to the nearest whole number).

Table 4.7: Enterprises' Responses of their purpose of reinvestment

No.	Purpose of Reinvestment of Enterprises	Undergoing Work Activities		Expansion and Purchase of Materials		All	
		f	%	*f*	%	*f*	%
1	What was the purpose of your reinvestment?	0	0	0	0	48	100

Source: Own Survey, 2023. (% rounded to the nearest whole number).

Table 4.8: Enterprises' Responses of the difference in income generating ability and the change in expense after they get financed by ADCSI

No.	Saving and Investment Habits of Enterprises	Yes		A little		No	
		f	%	*f*	%	*f*	%
1	Is there an incident that you reinvested from your saving for the enterprise?	48	100	0	0	0	0
2	Is there any change in your enterprise's ability to grow its output?	48	100	0	0	0	0

Source: Own Survey, 2023. (% rounded to the nearest whole number).

Finally, the enterprises were asked if their organizations are making profits or not. The table below shows their responses.

Table 4.9: Enterprises' Responses of market profitability.

No.	Market Profitability of the Enterprises	Yes		No	
		f	***%***	***f***	***%***
1	**Do you consider your company to be profitable?**	**39**	**81**	**9**	**19**

Source: Own Survey, 2023. (% rounded to the nearest whole number).

4.2.3. The extent by which ADCSI enterprise clients stock of capital changed after taking the credit service. (Increase/Decrease)

Concerning with the credits taken from ADSCI, it was seen that most of them used it for capital accumulation and expansion of the enterprises. The following tables show how the stock of capital has been changing and the impact of the credit services on current capital accumulation.

Table 4.10: The change in the amount of stock of capital (in thousands)

Startup capital		Loan Taken		Current Capital	
< 10k	**> = 10k**	**< 250k**	**> = 250k**	**< 500k**	**> = 500k**
28	***20***	***17***	***31***	***28***	***20***
***Smallest Amount = 2k** ***Largest Amount = 50k**		***Smallest Amount = 50k** ***Largest Amount = 1500k**		***Smallest Amount = 500k** ***Largest Amount = 3500k**	

The above positive change or increase in the capital accumulation is the result of the change in the productivity of the outputs of the enterprises as shown in the table below.

Table 4.11: Enterprises' Responses of the change in productivity and output after they get financed by ADCSI.

No.	Change In Productivity And Output	Yes		A little		No	
		f	%	*f*	%	*f*	%
1	Is thereanychangeinyourenterprise's outputs after you take loan from ADSCI?	48	100	0	0	0	0
2	If your answer for the above question is yes, do you think that the loan has an impact in income generating ability of the Enterprise?	48	100	0	0	0	0

Source: Own Survey, 2023. (% rounded to the nearest whole number).

As can be seen in Table 3 above, all enterprises have agreed on the fact that the credit obtained from ADSCI has made them change the amounts of productivity and outputs, and hence on their income generating ability.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Based on the results obtained from the study, the major findings and conclusions as well as the recommendations for future study with regard to the impact of micro credit services on capital accumulation and creation of employment are presented briefly in this chapter.

5.1 Summary of Findings

As indicated in the objectives part, the main aim of this study was to investigate the impact microcredits has on enterprises capital accumulation and creation of employment opportunities. The PSM model was used as a method of study to balance the treatment groups on confounding factors to make them comparable so that we can draw conclusions about the causal impact of a treatment on the outcome using observational data. But since the probability of receiving microcredits for the treated and control units are the same, the impact is studied by using descriptive statistics. The data was collected through questionnaire, interviews and survey observations. On the basis of the analysis made on the data secured through these instruments, the summary of the findings is briefly presented as follows.

Firstly, with regard to the magnitude of new employment opportunities created by ADCSI credit service after taken by clients, it was found that the level of the impact differs from sector to sector with huge impact on agricultural and manufacturing sectors in this order. Less impact was observed in the trade service sector.

Secondly, with regard to the difference in income generating ability of enterprises and change in expense after they get financed by ADCSI, the impact was found to be positive. The mandatory requirement for saving after the loan disbursement enables the enterprises to reinvest in their businesses.

Thirdly, with regard to the extent by which ADCSI enterprise clients stock of capital changed after taking the credit service, it was observed that there was a positive impact. This was due to the fact the majority of the treated units first actions after the loan disbursement was to purchasing fixed so as to increase their productivity.

Lastly, with regard to the microcreditservice quality for the clients to be engaged in production of marketable goods, ADCSI focuses on providing only financial services such as trainings on recording of financial journals, marketing skills and creating market networks, saving and investment and so on. This could change the impact with more positive effects.

5.2 Conclusions

The research focused on the impact microcredit has on enterprises' capital accumulation and employment creation. In conclusion, this study showed that microcredit programs have the potential to create capital ground for enterprises to create employment opportunities, development and industrialization of a nation. Formal financial funds released for investment purpose were rarely available for smaller enterprises, especially in developing countries. However, when we see the trend and as many of studies and data show, smaller enterprises play a vital role in promoting a nation's transformation to industrialization and growth and hence the reduced impact of unemployment situations.

Business loans can provide the necessary funding to pursue strategic initiatives such as expanding product lines, implementing new technologies, or entering new markets. By leveraging borrowed capital, businesses can make timely investments that position them for long-term success.

The eligibility criteria for taking out a small business loan are usually NOT very strict. If your business is a start-up or hasn't been operating for very long, you may have the kind of trading history a lender wants to examine.

In general, the findings of this study indicate that the strict follow ups from ADSCI and the mandatory requirements for regular saving in the prospect of larger loans if repayment is effected consistently and on time promote smaller enterprises to actively use the microcredit financial platform.

5.3 Recommendations

Business loans can provide the necessary funding to pursue strategic initiatives such as expanding product lines, purchasing fixed and current assets for day-to-day operations, purchase of raw materials, implementing new technologies, or entering new markets. By leveraging borrowed capital, businesses can make timely investments that position them for long-term success.

The eligibility criteria for taking out a small loan are usually very strict especially in developing countries like the case of ours Ethiopia. If your business is a start-up or hasn't been operating for very long, you may have the chance of not getting any loan.

In light with the findings of the study, the researcher believes that the following recommendations are reasonable.

- The creations of new jobs reduce local unemployment and provide economic stability to countries and contribute to economic growth. Therefore the government should increase its focuses on promoting microcredit loans to small enterprises.
- Enterprises must focus on increase their capacity to save more of their incomes in order to enhance their capital stock. This allows businesses to scale up operation, invest in new technologies and improve productivity.
- ADCSI and other Microfinance associations should start to provide training to enhance clients' business skills and market readiness.

REFERENCE

1. Ahlin, Lin and Maio (2011). Where Does Microfinance Flourish

2. Ahmad, Wasim, Irfan, Gogoi, Srivastava&, Farheen, (2019). Qualitative & quantitative research

3. Andres Solimano& Mario Gutierrez, 2008).Savings, Investment and Capital Accumulation

4. Armendáriz de Aghion and Morduch, (2010). The Economics of Microfinance

5. Bein&Ebosetale, (2017). The Impact of Microfinance Institution in Economic Growth of a Country: Nigeria in Focus

6. Berthélemy&Söderling, (1999). The Role of Capital Accumulation, Adjustment and Structural Change for Economic Take-Off: Empirical Evidence from African Growth Episodes

7. Brau, J. C., &Woller, G. M. (2004). Microfinance: A Comprehensive Review of the Existing Literature. Journal of Entrepreneurial Finance and Business Ventures.

8. Brookhart et al., (2006) variable selection of propensity score models

9. Bruce A. Thyer (2012). Quasi-Experimental Research Designs

10. Caliendo and Kopeinig, (2008).Some practical guidance for the implementation of propensity score matching

11. Christen, R.P., Lyman, T.R. and Rosenberg, R. (2003) Microfinance Consensus Guidelines: Guiding Principles on Regulation and Supervision of Microfinance.

12. Drbie&Tilaye, (2013). Deterrents to the success of micro and small enterprises in AkakiKality Sub City

13. Duressa, (2009).Filling the Breach: Microfinance

14. Djaowe Joseph, Ngomign Berger. (2015). Microfinance Institutions, Productivity and Growth.

15. Galindo, Schiantarelli and Weiss (2007) Micro-evidence from developing countries

16. Heckman, J., Ichimura, H., & Todd, P. (1997). Matching as an Econometric Evaluation Estimator. Review of Economic Studies

17. Hermes, Lensink and Meesters (2009). Financial Development and the Efficiency of Microfinance Institutions

18. Idewele, I. E. O. &Murad, A. B.: 2017 The Impact of Mıcrofınance Instıtutıon in Economıc Growth of A Country.

19. Jonathan &Shimshon, (2000). Inflation and accumulation the case of Israel

20. Kaldor, N. (1963) Capital Accumulation and Economic Growth.

21. Khandker, (1998) Fighting poverty with microcredit: experience in BANGLADESH

22. Kuznets, S. (1955) Economic Growth and Income Inequality.

23. Ledgerwood, 1999.Transforming Microfinance Institutions.

24. Nourse (2001), Woller (2002a). Microfinance: A Comprehensive Review of the Existing Literature

25. Oshora, Fekete-Farkas, &Zeman, (2020) Role of Microfinance Institutions in Financing Micro and Small Enterprises In Ethiopia

26. Paul R. Rosenbaum and Donald Rubin (1983). The central role of the propensity score in observational studies for causal effects

27. Pasinetti and Scazzieri, (1987). Capital Theory

28.PrabhatPandey, Meenu Mishra Pandey (2015). Research Methodology: Tools and Techniques

29. Robinson, M.S. (2001). The Microfinance Revolution: Sustainable Finance for the Poor. World Bank Publications, Washington DC.

30. Sarah Beal J. &Kupzyk A., 2013. An Introduction to Propensity Scores: What, When, and How.

31. Solow, (1956). A Contribution to the Theory of Economic Growth.

32. Xun Lu*, Dietrich Fausten†, Russell Smyth 2014. Financial Development, Capital. Accumulation and Productivity Improvement: Evidence from China.

33.Yamane, (1967). Determining sample size

34. ZolzayaLuvsandorj (2023). A beginner’s guide to propensity score matching

APPENDICES

Appendix 1: Questionnaire for Enterprises

This questionnaire is prepared for the partial fulfillment of an MSC paper on Development Economics

- Readthequestionsandwriteyour choiceonthelastbox(NexttheChoice)
- Youneednotmentionyour name or the name of yourbusiness.
- Thankyou inadvanceforyourcooperation

I. AboutTheBusiness

Q.N	Question's	Choice	Selected choice
1.	Type of Business You areengaged	1.Manufacturing	
		2.Service	
		3.Trade	
		4.Agriculture	
		5.Other	
2.	Initialcapitalof theBusiness		
3.	CurrentCapital		
4.	Noofworkers		
5.	FixedAssetCapital		
6.	Type & No Of Machineryavailablefor production purpose		

II.	**Credit Facility**		
1.	What was the reason for thecreation of thebusiness	1.Toescape frompoverty	
		2.Togetwealth	
		3.Welikedandwantedto startthebusiness	
		4.We findtheopportunityandthinkBetterinsteadofsitting	
2.	Did you take credit from AddisSavingandCredit	1. Yes	
		2.No	
3.	If your answer for the questionno2 isyes(2) do youwantto take credit from Addis savingandcredit	1. Yes 2. No	
3	Forwhatpurposedoyouwanttake it	1.Tobuy machineries	
		2.Tobuyrawmaterials	
		3.Topayexpenses	
		4.	
III.	**HoldingFinancialbook**		
1.	DidYouHold(RegisterYourBusinessFinancialActivity)	1.Yes 2.Sometimes 2.No	
2.	DidYouSeparateYourpersonal and business financialActivity	1.Yes	
		2.sometimesit'sMixed	
		3.Its'entirely separated	

3.	If your answer to the questionno1IsYesIsyourfinancialregisterbookofficial(IsitAudited of presented to Addissavingandcredit)	1.Yes	
		2.It’sNotOfficial	
4.	DidYouwithdrawcashfromYour business for your personaluseinformally	1.Yes	
		2.Sometimes	
		3.No	
5.	DidYouregisteryourIncomeandprofit	1.Yes	
		2.Sometimes	
		3.No	
6.	Ifyouearnedprofitforwhatpurposedoyouwanttospenditfor	1.Forpersonalconsumption	
		2.Tobuy	
		3.For expandingthebusiness	
7.	Didyouuse/takeproductorservice (which is the product ofyour company)without payingorregistering	1.Yes	
		2.Sometimes Itake	
		3.no	
		2.No	
IV.	**Saving&Investment**		
1.	Doyouhaveanysaving account in the name of yourBusiness	1.Yes	
		2.No	
2.	Ifyouranswertothequestion no 1. Is yes Where did you keepthesavingaccount	1.Inmy personalkeeping	
		2.Infinancialinstitution(Bank,OtherMFI)	

3.	Did you feel Is it obligatory tosave	1.Y es2. opti ona l	
4.	Howoftendidyou makesaving	1.Reg urarly 2.Som etimes 3.Seldom	
5.	If your answer for the questionno 1. Is yes from where did yousavetoyourbusinessaccount	1.From theactivityof thebusiness 2. Isometimessaveinmycompanyfrommyow nincome 3. Frommy own income	
6.	Is there any occasion you makeinvestment apart from yourinitial investment to yourbusiness	1. Yes 2. No	
7.	If your answer to the questionNo. 6 is yes Whatwere thepurposeofyour investment		
8.	Is there any occasion you makeinvestment from your businesssavings	1.Yes2.No	
9.	Have you perceived any changein your production level or salesaftertheinvestment	1. Yes 2. Alittlebit 3. NoIdon’tperceiveanychange 4.	

10.	Did you feel if you get creditform Addis microfinance youwillboostyourbusinessgrowth	1. Yesdefinitely 2. May be 3. Idon'tthink so 4.	
V.	**Employmentcondition**		
1.	Howmanyofyoustartedthebusiness		
2.	DidYouhavepriorjobbeforeyoustartedthis business	1. Yes allofus 2. Someofushavejob 3. Noneof ushave job	
3.	Did you have and priorexperienceorschoolingabout thebusinessyou started	1.Yes we have2.Someofushave 3.It'sentirelynewto us	
4.	If your answer to the questionno3.IS3.(entirelynewto us)did you take any training beforeyou startedthebusiness	1.Yes2.No	
5.	Ifyouranswertothequestion no 3. Is yes from where did youreceivethetraining		
6.	Have you hired any additionallabour/employeeother thantheoneyoustartedthe	1.Yes2.No	

	business		
7.	If your answer to the questionno 6 is Yes is the employee youhiredcontractualorpermanen t	1. permanent2. Contactual3. Both	
8.	Isthereanydivisionoflabour betweenyouremployees	1. Yes 2. Theyworkindependently	
9.	Didyouthinkyourstaffhasfull knowledgeabouttheworkyoudo	1. Yes 2. Thereissomegap 3. NOtheyluckknowledge	
10.	Is your entire employee hasfixedsalary	1. Yes 2. wepay forsomeofthem 3. It's sometimes varies based on income4.Weonlytakewhenwerealizeprof it	
16.	Forhowmanyhours didyour businessoperatein dailybasis		

VI.	**AvailabilityofMarket**		
1.	Did you have any stable marketconnectionforyouproduct	1. Yeswedohavestable(established)marketconnection 2. wefindregularmarket(butit'snotstable) 3. MostoftenIt'sdifficulttofindmarketforourproduct	
2.	Did you consider your businessisrunningsmoothly(profitable)	1. Yesverymuch(profitable) 2. Thereissomedifficultybutit'sstable3. NoIthas beendifficult	
3.	If your answer to the questionno3. Is 2 or3 whatare the difficultfacingyourbusiness		
4.	currently what is the maindifficultyfacingyourbusiness		
6.	What is the current plan aboutyourbusiness		

Appendix 2: Interview Questions for ADSCI Staff

These interview questions are prepared for the partial fulfillment of an MSC paper on Development Economics.

1. How long has it been since ADSCI started operation here in Akaki-Kality S/C?

2. What Is the main purpose of ADSCI?

3. How much loan does ADSCI dispersed per sector since it started its operation? For how many enterprises?

4. What are ADSCI's criteria for dispersing loan?

5. Does ADSCI have a check and follow up system for its clients if they have a financial journal?

6. Does ADSCI prepare trainings for its enterprise clients?

7. Is mandatory for the enterprises to open an account at ADSCI?

8. Is mandatory for the enterprises to save regularly before and after they take loans? If yes, how often do they save?