

Impact of Microfinance on the Schooling of Children

THESIS
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

Peck Gee Chua

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF ARTS

Dr. Gerald. W. Fry, Advisor

November 2010

Acknowledgements

I am very grateful to work with a group of talented and dedicated Committee Members. Special thanks to my main advisor, Dr. Gerald W. Fry for his time, valuable perspectives, constant encouragement, and calm presence. I have thoroughly enjoyed our weekly meetings and conversations! My gratitude and thanks to Dr. David W. Chapman and Dr. Paul W. Glewwe, for their very helpful feedback, suggestions and support. All of you have been a great inspiration.

My sincere gratitude to Rhiannon Williams for thoroughly reviewing my thesis, providing insightful comments and suggestions, and for making introductions! Many thanks to Claire Le Manach for helping with the abstract translation into French. Thank you to Dr. Christopher Johnstone, Dr. Joan DeJaeghere, Taro Komatsu, Akiko Minowa, Vidhya Shanker, Aditi Arur, Mayumi Moro, and Rrezarta Veseli for making introductions, sharing ideas, and providing valuable comments at different stages of the thesis process. My thoughts have been shaped, and refined by your generous sharing.

My family helped make me who I am today. My deepest gratitude goes to them for financially supporting my pursuit of the Master's program, and for teaching me the important values of hard work and humility.

Last, my immense thanks to my fiancé, Hiroki Uematsu for reading different versions of my thesis drafts and for his detailed and very helpful comments. I appreciate him for sharing with me the power of focus, patience and, delayed-gratification. That has been my driving force to keep moving forward.

Dedication

To Hiroki. Grateful thanks for your intellectual partnership, and strong encouragement to pursue my Master's degree. Appreciate your consistent support during especially critical transition periods in my life. The countless long-distance calls, arrivals and farewells at the airport terminals are all special moments that add up to the wonderful memory of our five years together.

Abstract

The popularity of microfinance has surged over the last three decades. Microfinance helps transform lives of the poor with the provision of modest financial services like microcredit, savings, insurance, and money transfers, which would not have been possible via regular financial institutions as the poor lack collateral. However, research studies have shown mixed impacts of microfinance on the schooling of children. The authors of some studies even claim that microfinance programs might result in unintended consequences of adversely influencing children's schooling.

The purpose of this study is to explore the impact of microfinance on the schooling of children. The sub-questions of this study are organized into three prongs: available studies on the topic, overall conclusion of the studies, and key themes that emerge from the findings. The unintended consequences framework is used to frame this study because of the lack of attention given to unintended consequences despite increasing attention and large investments in microfinance as a tool to help alleviate poverty.

This study uses a meta-synthesis methodology to aggregate, analyze, and synthesize 32 research studies covering a total of 46 research sites. These studies focus on over 150 microfinance programs in 27 countries, and span across five different continents. Seventy six percent of the studies have shown that microfinance programs elicit either a mixed or a positive impact on the schooling of children, especially in terms of school enrollment and education expenditure. This study synthesizes a model to show the complexity of household's decision making in the form of children's schooling, and

the interaction of key variables in influencing household's perception of the value of schooling.

Keywords Microfinance; Microcredit; Impact of Microcredit on Children's Schooling; Schooling of Children; Meta-synthesis; Unintended Consequences

Résumé

L'intérêt pour la microfinance n'a cessé d'augmenter au cours des trois dernières décennies. Celle-ci permet d'améliorer la vie de la population vivant en dessous du seuil de pauvreté en mettant à disposition des services financiers modestes comme le microcrédit, l'épargne, l'assurance ou les transferts de fonds, lesquels ne seraient pas permis par les institutions financières habituelles, la population visée manquant de garanties. Cependant des études ont montré un impact mitigé de la microfinance sur la scolarisation des enfants. Certains auteurs prétendent même que les programmes de microfinance pourraient avoir des conséquences imprévues et un effet contraire à celui escompté sur la scolarisation des enfants.

Le but de cette étude est d'évaluer l'impact de la microfinance sur la scolarisation des enfants. Pour ce faire ce travail s'est articulé autour de trois axes majeurs : les études disponibles sur le sujet, les conclusions générales de ces études et les questions clés émergeant des résultats. Une base de conséquences inattendues a été utilisée pour rédiger cette étude, car malgré une augmentation de l'intérêt et des larges investissements dans la microfinance comme moyen de réduire la pauvreté, celles-ci sont encore trop souvent négligées.

Cette étude met en œuvre une méthodologie de méta-synthèse pour rassembler, analyser et synthétiser 32 sujets d'étude recouvrant 46 sites de recherche différents. Ces études ont porté sur plus de 150 programmes de microfinance dans 27 pays différents et s'étendent sur les 5 continents. 76% des études ont montré que les programmes de microfinance avaient un impact soit mitigé soit positif sur la scolarisation des enfants, notamment en terme d'inscription scolaire et de dépenses liées à l'éducation. Ce travail résume la complexité de la prise de décision au sujet de la scolarisation des enfants et les interactions entre les différents facteurs influençant la perception de la valeur à donner à la scolarisation au sein d'un ménage.

Table of Contents

Acknowledgments.....	i
Dedication.....	ii
Abstract.....	iii
List of Abbreviations.....	vii
List of Tables.....	viii
List of Figures.....	ix
CHAPTER ONE	
Introduction.....	1
1.1 Problem Statement.....	3
1.2 Statement of Study Purpose.....	4
1.3 Value Premises.....	5
1.4 Assumptions and Hypothesis.....	5
1.5 Theoretical Framework	6
CHAPTER TWO	
Background and Literature Review.....	9
2.1 Overview of Microfinance.....	10
2.2 Structure and Mechanism of Microfinance.....	15
2.3 Background on Impact Assessments.....	20
2.4 Key Impact Assessment Studies.....	25
2.5 Microfinance and Education.....	30
2.6 Summary.....	35
CHAPTER THREE	
Methodology.....	37
3.1 Meta-Synthesis.....	37
3.2 Steps Involved in Meta-Synthesis.....	38
CHAPTER FOUR	
Findings.....	40
4.1 List of Available Research Studies.....	40
4.2 Overall Findings: How Microfinance Impact Children Schooling.....	50
4.3 Key Themes Emerged from Findings.....	62
4.4 Summary: A Model.....	78
CHAPTER FIVE	
Discussion and Conclusion.....	80
5.1 Summary of Results.....	81
5.2 Implications for Theory, Policy, and Practice.....	85
5.3 Study Limitations.....	88
5.4 Recommendations for Further Study.....	90
5.5 Conclusion.....	92
REFERENCES	93

List of Abbreviations

ADB	Asian Development Bank
AIMS	Assessing the Impacts of Microenterprise Services
ASA	Association for Social Advancement
BDRB	Bangladesh Development Board's Rural Development
BIDS	Bangladesh Institute of Development Studies
BRAC	Bangladesh Rural Advancement Committee
BRI	Bank Rakyat Indonesia
CGAP	Consultative Group to Assist the Poor
CRECER	Crédito con Educación Rural
DFID	Department for International Development (UK)
DPIP	District Poverty Initiatives Project
FINCA	Foundation for International Community Assistance
FOCCAS	Foundation for Credit and Community Assistance
FUNDAP	Fundacion para el Desarrollo Integral de Programas Socioeconomicos
GEMINI	Growth and Equity through Microenterprise Investments and Institutions
ICDDR,B	International Centre for Diarrhoeal Disease Research, Bangladesh
IFPRI	International Food Policy Research Institute
IRDP	Integrated Rural Development Programme
MDG	Millennium Development Goals
MFI	Microfinance Institutions
MISR	Makere Institute of Social Research
MMF	Malawi Mudzi Fund
MRFC	Malawi Rural Finance Company
MUSCCO	Malawi Union of Savings and Credit Cooperatives
NGO	Non-Governmental Organization
NYU	New York University
OLS	Ordinary Least Squares
PMERW	Promotion of Microenterprises for Rural Women
PRIDE	Programme Integre pour le Developpement de l'Entreprise
RBS	Royal Bank of Scotland
RCT	Randomized Control Trials
SEDP	Small Enterprises Development Project
SEWA	Self-Employed Women's Association
SHG	Self-Help Group
TNWDP	Tamil Nadu Women's Development Programme
UN	United Nations
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
VBSP	Vietnam Bank for Social Policies

List of Tables

Table 1. Profile of Available Research Studies.....	43
Table 2. Overall Findings on the Impact of Microfinance on Children's Schooling.....	51

List of Figures

Figure 1. Unintended Consequences of Innovation.....	8
Figure 2. Diversity of MFIs Approaches.....	16
Figure 3. World Map – Continents where Studies were Conducted.....	42
Figure 4. Model on How Microfinance Programs Influence Household Schooling Decisions.....	79

CHAPTER ONE

INTRODUCTION

"Microfinance recognizes that poor people are remarkable reservoirs of energy and knowledge. And while the lack of financial services is a sign of poverty, today it is also understood as an untapped opportunity to create markets, bring people in from the margins and give them the tools with which to help themselves." - Kofi Annan (2005)

Microfinance is the newest panacea for alleviating poverty (Karnani, 2007). According to the United Nations, microfinance is a small amount of money, loaned to a client by a bank or other institution, which can be offered to an individual or through group lending, often without collateral. Microfinance has been found to impact people by allowing for access to modest financial services. People's lives have changed and communities revitalized in the world's poorest and also the richest countries through the access to a range of financial tools that families can invest according to their own priorities – school fees, health care, business, nutrition or housing (UNCDF, 2005b).

Microfinance was developed in the 1970s by two organizations, working separately in different parts of the world: ACCION International in Latin America and the Grameen Bank in Bangladesh. However, the Grameen Bank under the pioneering work of Muhammad Yunus, is often credited for creating an effective poverty-alleviation tool that is currently used around the world. In 2006, the Noble Peace Prize was awarded to Muhammad Yunus and the Grameen Bank, signifying that microfinance is an ever more important instrument in the fight against poverty.

Microfinance is full of innovations. Its services now include microcredit, savings, insurance, money transfers, home mortgages, pension funds, scholarships, and other

financial products targeted at poor and low-income people (Rosenberg, 2006). The extent of microfinance institutions (MFIs) is far reaching as MFIs lent small sums of money to people, most of them women. Hence there have been claims that microfinance helps transform lives by allowing for modest financial services to the poor, which would not have been possible via regular financial institutions as the poor lack collateral and credit history. The provision of credit via microfinance programs allows borrowers the means to accomplish simple but important things in their lives like buying fertilizer, building latrines, or building wells. Also, by prioritizing women, MFIs can help reduce poverty, and can enhance children's health and education.

Much attention has been given to microfinance, not just within Bangladesh but worldwide, as the United Nations (UN) declared 2005 as the International Year of Microcredit¹ (UNCDF, 2005). It urged multilateral donor agencies and developed countries to “build inclusive financial sectors and strengthen the powerful, but often untapped, entrepreneurial spirit existing in communities around the world” in order to achieve the UN Millennium Development Goal of halving poverty by 2015.

The microfinance industry is evolving and has grown exponentially over the past twenty years under the premise that expanding access to credit will help improve the welfare of the poor (Armendariz & Morduch, 2010; Karlan & Zinman, 2009; Morduch, 1999). Within Bangladesh alone, microfinance has reached more than 20 million borrowers, which accounts for about 60 percent of the country's poor rural households (World Bank, 2006). Multiple approaches to microfinance have arisen among the MFIs. The minimalist approach is the most common approach, where the MFIs limit service

¹ Microfinance covers a broad range of services. Microcredit is one of the services and by far the most popular.

provision exclusively to the provision of credit and other financial services. The minimalist approach can be contrasted with the integrated approach which incorporates financial services with non-financial services focusing on skills training, education, health, and empowerment. Some not-for-profit microfinance organizations are concerned about the economic and social development of the poor, and so they normally offer education, training, and other social services alongside financial services (Karnani, 2007).

1.1 PROBLEM STATEMENT

There certainly has been growing attention and popularization of microfinance as it receives international acclaim, not just within the development community, international organizations and non-governmental organizations but also from the private sector. There is much potential in microfinance as it is seen as an innovative bottom-up development approach empowering local communities in reducing poverty (Boyte, 2008), as opposed to the growing dissatisfaction about aid and top-down approaches which have been criticized for fostering excessive dependence among recipients and limiting choice (Easterly, 2006).

If access to microfinance helps reduce poverty, then one might surmise that it could also improve investment's in children education (Islam & Choe, 2009). This linkage may hold validity because households with low income often lack access to credit, and are not able to provide adequate education opportunities for their children (Jacoby & Skoufias, 1997). However, research studies focusing on the impact of microfinance on children's schooling show mixed impacts with little convincing definitive evidence for either side. On the one hand, Pitt and Khandker (1998) indicated

in their study that a microfinance program in Bangladesh elicits positive impact on children's school enrollment. Yet on the other hand, as Hazarika & Sarangi (2008) noted in their study, microfinance programs might result in unintended consequences of adversely influencing children's schooling which could increase poverty in the longer term.

Microfinance is one of those small ideas that turn out to have enormous implications (Armendariz & Morduch, 2010). As microfinance continues to expand in new directions and markets, there is a need for further in-depth research: to gather what we know so far about microfinance, to understand the extent of its impact, and the possible reasons explaining that impact.

1.2 STATEMENT OF STUDY PURPOSE

The purpose of this study is to explore the impact of microfinance on the schooling of children. The research questions that guide this study are as follows:

1. What are the available research studies on the topic of the impact of microfinance on the schooling of children?
2. What is the overall conclusion of the research studies on the impact of microfinance on the schooling of children?
3. What are the key themes emerging from the findings on *how* microfinance influences the schooling of children?

1.3 VALUE PREMISES

The late Nobel laureate, Gunnar Myrdal (1969) explicitly states that researchers bring their values, perspectives, and biases into the research. Specifically, researchers who take on real issues make deep judgments which reflect his or her moral and ideological sensibilities. To quote Myrdal (1969), “we simply need to put our value premises up front and put our research to the test of relevance and practical significance to our democratic social ideals.”

As an individual interested in the areas of international development and education, the deep seated issue of poverty piques my interest. As an individual blessed with an abundance of opportunity, I believe in similar opportunities for the marginalized, and the extremely poor whose voices are often unheard. Good intentions are insufficient. I am certain that engaging in an in-depth research study is necessary to deepen understanding of people living in poverty in the hopes of helping others improve their lives and alleviate suffering. Given the many implications involved with the availability of tools to the poor, it is my wish to seek clarity in the midst of complexity.

1.4 ASSUMPTIONS AND HYPOTHESIS

To determine the overall conclusion of the research studies on the impact of microfinance on the schooling of children, this study explores the following hypothesis based on the assumptions indicated.

Assumptions: The provision of small loans through microfinance programs increases and diversifies borrowers’ income, thus reducing borrowers’ cash constraints. This should result in increased expenditures on household needs and increased

consumption for household members, including children's education (Armendariz & Morduch, 2010; Khandker, 2005; Shimamura, 2009). However, at the same time, increased demands are placed upon children either to help out at the household enterprises financed by microfinance programs or to assist in household chores. The inclusion of children in household chores is attributed to parents' involvement in income-generating activities like agriculture development or household enterprises financed with credit from microfinance programs (Morduch, 1999; Shimamura, 2009).

Hypothesis: In addition to helping household reduce poverty through access to credit, microfinance has unintended consequences of negatively impacting the schooling of children. Household enterprises financed by microfinance programs increase the demand for child labor (either to work at the enterprise or household chores), thus reducing educational outcomes which could increase poverty in the longer term.

1.5 THEORETICAL FRAMEWORK

In this paper, I investigate my research questions using the unintended consequences framework (Merton, 1936). I chose to frame this research study with the framework because of the lack of attention to unintended consequences despite increasing attention on microfinance as an innovative tool to help alleviate poverty. Furthermore, with the popularity of microfinance, large investments or funds have been channeled into various microfinance programs. Such large investments require further attention to understanding the impact of microfinance.

The term unintended consequences can be operationalized in the following combination: indirect, unexpected, unanticipated, and side effects (Sveiby, Gripenberg,

Seegercrantz, Eriksson, & Aminoff, 2009). Unintended consequences are not necessarily negative as they can be either desirable or undesirable. However, innovative programs like microfinance might not elicit the intended impact expected, and sometimes to the extent of yielding significant negative effects, thus requiring rigorous attention on the unintended aspects of the programs. In *Seeing Like a State*, James Scott (1998) revealed how well-intentioned plans for improving the human condition can fail, hence drawing attention to the unintended consequences aspects of programs. An example provided by James Scott is the “villagization” in Tanzania from 1973 to 1976. The Tanzanian central government’s intention to permanently settle most of the country’s population in villages was meant to associate the population with a modern peasant life. However, the planned villages turned out to be a disaster given the complexities of agricultural production in less temperate nations like in Africa.

The first systematic analysis of the concept of unintended consequences can be found in sociologist Robert Merton’s (1936) paper, “Unanticipated Consequences of Purposive Action”. Merton distinguishes five factors that limit a person’s possibility to anticipate both direct and indirect consequences (Sveiby, et al., 2009). First, the general lack of foreknowledge limits the ability for humans to accurately predict the consequences that may follow. Second, a person’s selected course of actions based on their existing habits may contribute to errors in accurately anticipating consequences. The third factor is what Merton refers to as the “impervious immediacy of interest”, which means individuals might so strongly desire beneficial consequences of their action that they are blinded by possible negative consequences. Fourth, the ability to consider and anticipate consequences might be hindered because of certain fundamental values.

Merton provided an example, whereby the Protestant ethic of hard work and asceticism led to its decline through the accumulation of wealth and possessions. Finally, Merton used the term “self-defeating prophecy” to illustrate an instance whereby an organization’s initiatives have failed in the past, thus met with employees’ cynicism for the following initiatives. *Figure 1* shows an analytical framework of unintended consequences influenced by Merton’s (1936) proposed limiting factors.

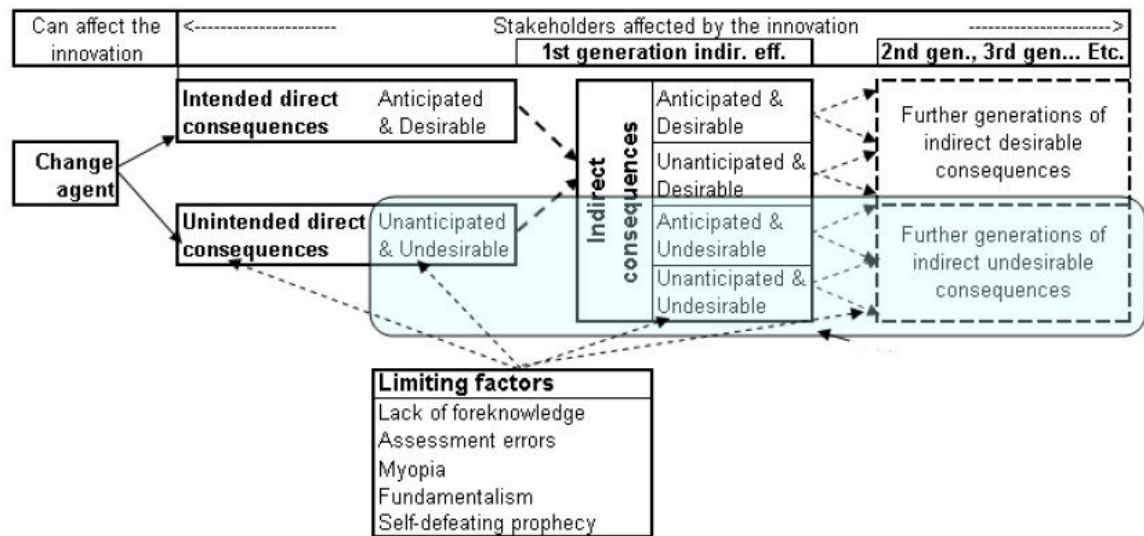


Figure 1 Unintended Consequences of Innovation (Sveiby, et al., 2009)

Morduch’s (1999) example of publicly-funded job training programs and the Head Start Program in the U.S. is a good case in point of how promising programs can sometimes elicit unintended mixed results. These programs have received enthusiastic support and were claimed to be self-sustaining while having an impact on the lives of poor households. However, the Head Start program which aims to help three to five year-old children with disadvantaged backgrounds have been found ineffective overtime in helping African-American children. Also, the publicly-funded job training programs in the U.S. have been largely expensive and rarely justify their costs (Morduch, 1999).

CHAPTER TWO

BACKGROUND AND LITERATURE REVIEW

“...the help we received from Protagonizar² was enormous. I felt that not everything was lost. On some occasions, we tried to get a bank loan but they asked for a credit card and wages receipt; impossible. Here instead, we go with our word, they believe and trust us. This is beautiful and I feel we are not alone...” – Bechetti & Conzo (2010)

This chapter is organized into six main sections. Section one (2.1) broadly introduces the topic of microfinance and presents an overview of services available, growing coverage in the media, claims made, and current debates on microfinance. Section two (2.2) goes into specifics of the structure of microfinance programs. Specifically, this section explains the underlying motivation, target audience, types of services, management structure, repayment schemes, and dynamic incentives of microfinance programs. Section three (2.3) focuses on impact assessments- what are they, how are they conducted, and the challenges in addressing biases, and various limitations in impact assessments. Section four (2.4) highlights key impact assessment studies in the following order: non-experimental, non-randomized or quasi experimental, and randomized experimental studies. Section five (2.5) introduces the link between microfinance and education, highlights key studies that are found to have positive, negative, ambiguous, and mixed impact, and identifies five key categories through which microfinance can impact education. Finally, section six (2.6) concludes with a summary of the chapter, and shows the gap of literature available and the rationale for conducting this research study.

² *Protagonizar* is an MFI in Argentina.

2.1 OVERVIEW OF MICROFINANCE

Microfinance is a development tool designed to address issues of poverty, underdevelopment, and marginalization. It covers a broad range of basic financial services targeted at poor and low-income people: microcredit or loans, savings, insurance, money transfers, micro pensions and other financial products. Poor people usually address their needs for financial services through mostly informal financial relationships. While credit is available from informal moneylenders, the interest rates are normally charged at an exorbitant rate and at a high cost of nonpayment of debt to borrowers. Savings services are also available through a variety of informal relationships like savings clubs, rotating savings and credit associations, and other mutual savings societies. However, these services tend to be somewhat erratic and insecure. Traditionally, institutional sources like commercial banks have not considered poor people to be a viable market because of the lack of credit history and collateral (CGAP, 2010). This is where microfinance comes into the picture, with the commitment to serve clients that have been excluded from the formal banking sector.

Microcredit, the most popular microfinance service, refers to extremely small loans for unsalaried borrowers with little or no collateral, provided by legally registered institutions (CGAP, 2010). It plays a key role in bridging the gap between the demand for credit by low-income households and supply from financial institutions (Douglas, 2009). These credits allow families to make small but important purchases in their lives like fertilizer, building latrines or wells, and sometimes allowing a client to start a micro-business. In the best-case scenario, such micro-businesses develop into a small-medium enterprise, which is defined as a larger scale of micro-businesses engaging in an

economic activity with fewer than 250 staff (Welle-Strand, Kjollesdal, & Sitter, 2010). With only a few microfinance programs requiring borrowers to put up collateral, this approach enables would-be entrepreneurs with few assets to escape positions as poorly paid wage laborers or farmers (Morduch, 1999).

Modern microfinance began in Bangladesh in the late 1970s as an experimental research project providing credit to the rural poor (Douglas, 2009). The Grameen Bank started by Muhammad Yunus was born from this experiment. MFIs have been spreading rapidly since the beginnings of microfinance. MFIs' reach extend not just within developing countries where microfinance has its roots but also in developed countries, as exemplified in the case of the Grameen Bank in the USA, Grameen Foundation USA, and ACCION USA, which is a subsidiary of the well-known ACCION International. According to the State of the Microcredit Summit Campaign Report 2009, 3,552 MFIs had reached 154,825,825 clients, 106,584,679 of whom were among the poorest when they took their first loan. Of these poorest clients, 83.4% are women, as of December 2007 (Daley-Harris, 2009).

Microfinance is not just a banking movement as advocates see the microfinance movement as a revolution that can impact poverty reduction and social change (Armendariz & Morduch, 2010). The availability of financial services helps safeguard poor households against the extreme vulnerability, and act as a buffer for sudden emergencies, such as flood or death in the family, business risks, seasonal slumps, that can push a poor family into destitution (Littlefield, Morduch, & Hashemi, 2003). Apart from being used to fight and reduce poverty, microfinance has also been used as a tool for post-conflict reconciliation in supporting countries recovering from a conflict or a

major disasters since 1970s (Welle-Strand, et al., 2010). For example, the World Bank was joined by the United Nations High Commissioner for Refugees (UNHCR), and several countries in financing several MFI projects in Bosnia and Herzegovina, after the war left the country in ruin (Welle-Strand, et al., 2010).

Much attention has been given to the topic of microfinance since it has attained international acclaim. The United Nations declared 2005 as the Year of Microcredit, a worldwide celebration that engaged banks, governments, philanthropists, and the media. In 2006, both the Grameen Bank and Muhammad Yunus, founder of the Grameen Bank were awarded the Nobel Peace Prize for contributing to the reduction in world poverty. The Consultative Group to Assist the Poor (CGAP), which is a branch of the World Bank dedicated towards promoting access to microfinance services, indicated that “there is mounting evidence to show that the availability of financial services for poor households – microfinance - can help achieve the Millennium Development Goals (CGAP, 2009). Littlefield, et al. (2003) reiterated the same thought in their study that “microfinance [is] seen as [an] important factor in reaching the MDGs”.

Numerous claims have been made about the impact of microfinance. As indicated in The Microcredit Summit Campaign Website (The Microcredit Summit Campaign, 2009), microfinance is a proven and cost-effective tool to help the extremely poor lift themselves out of poverty and improve the lives of their families. The idea that access to small loans helps poor families build businesses, increase incomes and exit poverty has blossomed into a growing global movement (Roodman & Morduch, 2009). Over the years, microfinance enthusiasts have also made claims beyond the effect on the income of the poor (Odell, 2010). Based on a review of impact studies that took place between 1994

and 2002, Littlefield, et al. (2003) finds that microfinance goes beyond just [influencing] business loans – it affects investments in health and education, management of household requirements, and other cash needs. Microfinance can reduce poverty, promote education of children, improve health, and empower women (Littlefield, et al., 2003). The claim of lifting people out of poverty seems more apparent especially when microfinance is channeled to women as they are found to use loans for the whole family rather than for their own individual consumption (Roodman & Morduch, 2009). The most recent count shows that women made up 71% of the 155 million customers at the end of 2007 (Daley-Harris, 2009).

Microfinance has also received extensive media coverage, in both a positive and a negative light, as well as some mixed reactions. Numerous articles on microfinance have appeared in the *Wall Street Journal*, *The Economist*, *Financial Times* and the *Boston Globe*. In the *Wall Street Journal*, August 13, 2009 edition, an article titled “A Global Surge in Tiny Loans Spurs Credit Bubble in A Slum” provides a negative perspective on microfinance (Gokhale, 2009). Microfinance borrowers noted that “Today in India, some poor neighborhoods are being “carpet-bombed” with loans...I took from one bank to pay the previous one. And I did it again.”, highlighting the tendency to over-borrow for some microfinance borrowers. The *Financial Times*’ article “Perhaps Microfinance isn’t such A Big Deal After All” appeared December 5 2009 (Harford, 2009), highlighting the increased attention to microfinance and increased public skepticism about its impact.

Microfinance programs are progressively promoted as an important approach for economic and social development especially in the developing countries. It is an increasingly popular form of development aid among international donors and has drawn

billions of dollars in financing as it attracts more government, private, and international donor funding (Littlefield, et al., 2003; Roodman & Morduch, 2009; Welle-Strand, et al., 2010). Donor funding provided to MFIs have also included poverty reduction in their mission (Littlefield, et al., 2003).

Despite promising claims, whether and how much microfinance helps the poor remains a subject of intense debate (Banerjee, et. al, 2009). Littlefield, et al. (2003) indicated that microfinance may have an adverse effect on broader development. Roodman & Morduch (2009) in their study posed the question, “how robust is the evidence that microcredit works?”. Milford Bateman’s (2010) new book, “*Why Doesn’t Microfinance Work? The Destructive Rise of Local Neoliberalism*”, has attracted strong opposing reviews. The book’s central thesis states that microfinance’s impact on economic and social development is not sustainable as its benefits are short term and minimal. In response to the book, David Roodman, a research fellow at the Center for Global Development, stated in his Open Book Microfinance Blog (Roodman, 2010) that “the book makes dramatic conspiracy claims, yet is loose in its reasoning; careless in its use of evidence.” In Karlan & Zinman’s (2009) study, the sample frame consists of micro-entrepreneurs, who are wealthier than average for the Philippines. The authors find little evidence of effects on those with lower-income within the sample frame. Hence, the finding does not bode well for arguments that microfinance’s impact is greatest for those who are poorer.

In Karlan & Zinman’s (2009) paper, a high rate of 60% annual interest was highlighted. The often high interest rates of microfinance loans signify that high returns to capital are required for microfinance to produce improvements in tangible outcomes

like household or business income. Borrowing is also part of the majority of low-income household's day-to-day activity and each household is likely to have multiple loans from several providers, either from moneylender, formal bank, MFIs, or other sources, once every two weeks. A study by Manchester University's Institute for Development Policy and Management between the years 1999 to 2001 shows how microfinance programs can lead to over-borrowing which can do more harm than good.

2.2 STRUCTURE AND MECHANISM OF MICROFINANCE

There is no doubt about the prevalence of microfinance programs. Approaches that started in Latin America have now spread to areas like El Paso and New York City; experiments in Bolivia have spurred on to become MFIs in Uganda and Azerbaijan; and policymakers in India and China are now developing their own homegrown microfinance versions (Armendariz & Morduch, 2010). The Grameen Bank of Bangladesh has been so successful that it has now been replicated on five continents. A diverse assortment of microfinance programs have been set up in both developing and developed countries, ranging from Africa, Asia, Latin America, Canada, to roughly 300 United States sites from New York to San Diego (Morduch, 1999). Within the United States, increasing activity is expected as banks turn to microfinance encouraged by a new addition added to the Community Reinvestment Act of 1977 (Morduch, 1999).

MFIs around the world serve different types of clients, offering various services in different environments (Odell, 2010). *Figure 2* shows the diversity of approaches employed by MFIs with the common idea of lending to low-income households. For example, using group-lending mechanisms, traditional MFIs target women, small scale

businesses, and entrepreneurs (Karlan & Zinman, 2009). Whereas, second generation MFIs like the First Macro Bank in the Philippines use individual liability loan mechanisms to target for-profit lenders, and micro-entrepreneurs. The diversity of approaches signifies the spirit of continuing experimentations, innovation and evaluation of the microfinance industry. To further the understanding on the impact of microfinance, it is crucial to first understand the structure and mechanism of microfinance.

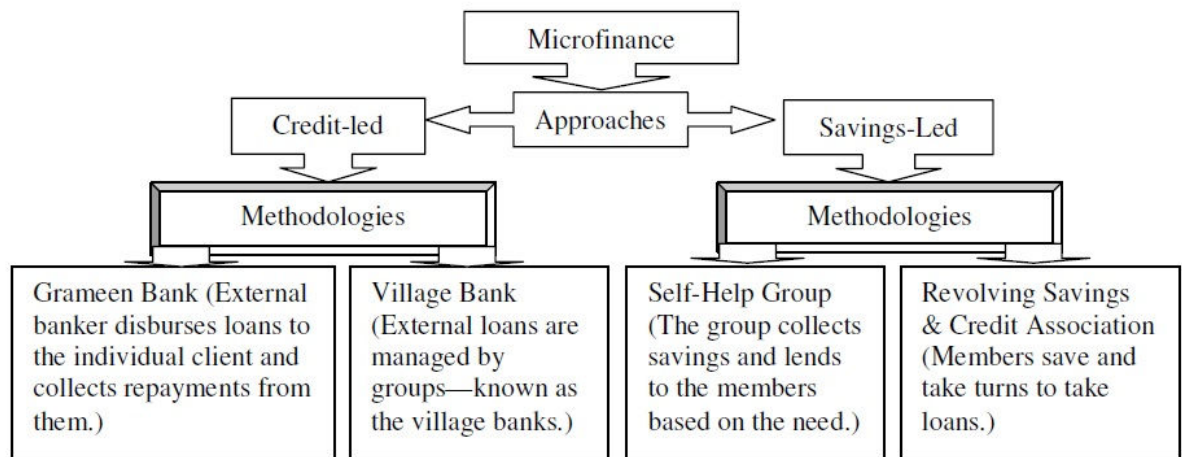


Figure 2 Diversity of MFIs Approaches (Acharya, 2009)

First, MFIs differ in terms of the underlying motivations of providing their services. The philosophy and purpose of an MFI can be as distinct as either to help the poor or being solely profit-driven. The classification of MFIs between anti subsidy and poverty-focused has generated ongoing debate. Those taking the anti-subsidy (“win win”) stance defend that MFIs can be both financially viable yet showing social impact at the same time. However, poverty-focused programs counter the argument that shifting all costs onto clients would likely undermine social objectives (Morduch, 1999). Also, the motivations of MFIs contrast greatly. For example, the Grameen Bank in Bangladesh

focuses on helping the poor by providing financing for non-agricultural self-employment activities, yet is not completely financially sustainable. On the other hand, the Bosnia and Herzegovina MFIs, amongst the largest in Eastern Europe, are financially self-sustainable, and hailed as examples of successes of microfinance programs in post-conflict situations (Welle-Strand, et al., 2010).

Second, MFIs have a huge range of target audiences. The target group greatly varies with some MFIs serving just a handful of borrowers while others serving millions (Morduch, 1999). Some MFIs lend exclusively to groups of poor or very poor households to benefit their immediate consumption, or to entrepreneurs who will use loans for investment. Common loan uses among the poor include use for rice processing, livestock raising and traditional crafts. Within the entrepreneurial group of borrowers, the nature of enterprises they choose to invest in differ greatly as well. Clients' characteristics like age, education or social status are also dependent on the different continents or locations MFIs choose to focus on. MFIs might be set up specifically to serve the underserved in atypically isolated rural areas, or where there are good complementary infrastructure like highways, markets and large towns in urban areas (Morduch, 1999). For example, the Grameen Bank, Bangladesh Rural Advancement Committee (BRAC) and the Bangladesh Development Board's Rural Development (BDRB) RD-12 program target rural poor, as defined as those who own less than half acre of land. (Pitt & Khandker, 1998).

Also, MFIs might choose to target either men or women borrowers. Providing credit to women mainly to support investment opportunities and non-agricultural microbusinesses became a popular course of action in the 1990s (Morduch & Rutherford, 2003). The reasons for MFIs to focus on women are twofold: first, the lower mobility of

women; second, the lack of economic access since women might have fewer alternative borrowing possibilities than men (Morduch, 1999).

Third, MFIs offer an amalgam of services. The traditional MFIs target entrepreneurs and focus solely on providing financial services like credit or loans, savings, insurance and money transfers (Karlan & Zinman, 2009). The non-traditional, or combination non-financial MFIs are getting increasingly common as institutions provide clients with financial services packaged with non-financial services like training to raise awareness on health issues, gender roles and legal rights. The combination MFIs offer different structural programs, ranging from providing loans with officers visiting on a regular basis, or loans with training programs, to providing neither additional services (Wharton, 2009). In the case of the Grameen Bank, BRAC and BDRB's RD-12 program, these institutions provide nonfinancial services in areas such as consciousness-raising, empowerment, training for skill development, literacy, bank rules, investment strategies, health, schooling, civil responsibilities, legal rights and alteration of the attitude of and toward women (Pitt & Khandker, 1998). Some programs take advantage of group meetings to hold communal discussions and training sessions to engage in "consciousness raising" activities by advising clients on family planning, and to stress the importance of schooling and good health practices (Armendariz & Morduch, 2010). Grameen Bank's social development program for instance, requires all members to memorize, chant and follow the "sixteen decisions". These decisions include clauses like decision seven on "we shall educate our children", and decision 12 on "we shall not inflict any injustice on anyone" (Yunus, 1999).

Fourth, MFIs have their own distinct management structure. The group-based structure is most popular and is originally based on the group-lending model of the Grameen Bank. Group lending contracts make use of the local informational advantage and “social capital” over outside lenders by obtaining information about the actions of each member of a group by having group members monitor each other (Pitt & Khandker, 1998). The concept of peer monitoring as substitute for collateral is used as groups are held responsible for loan repayment, as in the case of the Grameen Bank, BRAC and BDRB. The Grameen Bank’s group lending contract consists of five borrowers each, lending first to two borrowers, then to the next two, and then to the fifth. These groups of five meet together weekly with seven other groups, so that bank staff can meet with 40 clients at a time. If one member defaults, the entire group becomes ineligible and denied subsequent loans. Some MFIs even start to implement flatter structure, as opposed to hierarchical, that may allow for more cost cutting, as in the case of Bangladesh’s Association for Social Advancement (ASA).

The group-based structure provides many advantages hence the prevalence of using such structure amongst MFIs. The advantages of a group-based structure include minimizing cost as group members can now monitor each other with relative ease and can motivate and assist low-productivity members. Group members also have the incentives to monitor each other and to exclude risky borrowers from participation, promoting repayments even in the absence of collateral requirements. (Morduch, 1999).

Finally, MFIs offer diverse repayment schemes and dynamic incentives. MFIs require weekly, semi-weekly and monthly payments beginning soon after loan receipt. Some MFIs are also starting to implement innovative new schemes in reaching those in

absolute poverty while being financially feasible through simplified, cost-effective banking approaches. For example, ASA in Bangladesh and Banco do Nordeste in Brazil channel many of their transactions through post office networks, thus reducing costs and borrowers' transaction costs (Littlefield, et al., 2003). Progressive lending, also termed as step lending by the MFI ACCION, lends in increasing amounts over time, and cuts off borrowers in default. It allows MFIs the ability to test borrowers with small loans in the beginning and allows lenders to develop relationships with clients over time, and to screen out the worst prospects before expanding on the loan scale (Morduch, 1999).

2.3 BACKGROUND ON IMPACT ASSESSMENTS

During its first 20 years, the literature on the impact of microfinance relied almost exclusively on non-experimental methods. The past five years have been an exciting time as microfinance impact assessment methods expand and now include: randomized experiments, non-randomized or quasi experiments and non-experiments (Odell, 2010). Recently, much attention has been given towards impact assessments, especially since Banerjee et al.'s (2009) evaluation study on the MFI Spandana in India. The quality and rigor of impact evaluations vary greatly. There have been few impact evaluations with carefully chosen treatment³ and control⁴ (sometimes termed comparison) groups, and those that exist yield a mixed picture of impacts (Morduch, 1999). Some suggest that impact assessments need to be more rigorous: with attention given towards inputs as well as results (Banerjee, et al., 2009).

³ A group of population offered access to microfinance.

⁴ A group of population denied access to microfinance. The word *control* is used here for experimental studies; the word *comparison* is used for non-experimental studies.

Impact assessment studies are important as they raise questions as to whether microfinance products and services are reaching their intended recipients. As Armendariz & Morduch (2010) and Montgomery (2005) indicated, a rigorous impact assessment study will consider the questions: “how would borrowers have done without access to microfinance programs?” and “how have outcomes changed with the intervention relative to what would have occurred without the intervention?” Impact studies investigate whether development aid would have had more powerful effects if invested in other types of programs (like conditional cash transfers and teacher training) relative to investing in microfinance programs (Odell, 2010).

Despite the importance of conducting impact assessments, very few MFIs have invested much in conducting them. The literature on microfinance and microenterprise development have been limited and short on discussions on impact assessments (Armendariz & Morduch, 2010). As for the assessments that have been conducted, few have made strong claims that they have estimated a causal relationship (Roodman & Morduch, 2009). Pitt & Khanker (1998) and Khandker’s (2005) studies are some of the limited but amongst the prominent studies that have exercised the most influence within and beyond academia.

Household financial arrangements in developing countries are complex (Karlan & Zinman, 2009), as is the evaluation on the impact of microfinance (Banerjee, et al., 2009). Microfinance has been present for more than thirty years. However, to date, academics have not reached consensus on the impact of microfinance, and the evidence on its effects is at best mixed (Littlefield, et al., 2003). This is perhaps due to different missions or structures in programs can generate different impacts. Studies have been

conducted on the impact of microfinance on the eradication of poverty, children's education, women's empowerment, and health outcomes for women and children, with both positive and negative conclusions. Others claim that microfinance benefits economic performance more than broader social goals (Welle-Strand et al, 2010; Odell, 2010). Some claim otherwise. Countries like India, China, Thailand, Vietnam, Malaysia, Taiwan, Brazil, and South Korea, have successfully dealt with under-development by employing state and non-state interventions as well as institutional innovations not related to microfinance. China, Vietnam, and South Korea have reduced poverty in recent years with little microfinance activity. In contrast, Bangladesh, Bolivia, and Indonesia have not been as successful at reducing poverty despite the influx of microfinance (Karnani, 2007). Several independent studies have assessed the impact of microfinance activities in Bosnia and Herzegovina. The results vary from positive, through neutral, to negative.

It is likely that the varying assessments are in part due to issues of methodology (Littlefield, et al., 2003). Copestake et al. (2001) summarize the complexity and multitude of methodologies employed by different studies: "The first accepts the case for doing a limited number of rigorous studies but argues that it is a specialized and expensive task. The second trusts more in the ability of practitioners to interpret and be guided by a mixture of routine monitoring and qualitative studies, more akin to market analysis than to academic research. A third view seeks an intermediate or 'middle range' level of assessment: cheap enough to be carried out quite widely, but sufficiently rigorous to be credible." This complexity around the issues of methodology highlights the importance of replicating tests of theories and programs across different settings (Karlan

& Zinman, 2009) as exclusive reliance on one type of study is not optimal (Roodman & Morduch, 2009). As Odell (2010) indicated, various limitations arise in each study, the key is to compare the body of knowledge from many studies of varying methodologies to gain insight into how, and how well, the microfinance industry is serving its clients.

The most difficult part in any impact assessment is controlling for biases. Constructing a treatment and a comparable control group is not simple as participants in the microfinance program are quite different from non-participants in many ways (Montgomery, 2005). As stated in Littlefield, et al.'s study (2003), correlation does not prove causality. Studies that do not deal with biases have little power to prove causality. Merely showing that clients in one village are better off than those in another village does not prove that the financial services caused them to be better off or worse off. It is possible that the financial services only attracted or selected clients who were likely to be better off in the first place, even if they have not received the service. Also, it is hard to ascertain if the control group could be potential clients should they have been offered access to microfinance programs in the first place.

There are a number of biases in impact assessments. Two often-mentioned biases in the discussion of microfinance impact assessments are highlighted here. First, there is the issue of selection bias (Armendariz & Morduch, 2010; Chowdhury & Bhuiya, 2004; Goldberg, 2005; Karlan & Zinman, 2009; Maldonado, Gonzalez-Vega, & Romero, 2003; Montgomery, 2005; Morduch, 1999; Odell, 2010; Roodman & Morduch, 2009). Clients who choose to join the microfinance programs would be on different trajectories even in the absence of the MFIs. For example, impact assessment findings might be overstated as clients can be younger and better educated than non-clients who were more likely to be

landless. In the case exemplified in Coleman's (1999) study focusing on microfinance in Northeast Thailand, clients do have initial advantage over their non-client neighbors. McKernan (2002) indicated that not controlling for selection bias can lead to overestimation of the effect of participation on profits by as much as 100%. On the other hand, selection bias can go in the opposite direction. Many MFIs target women and poor households, and the estimated effects can make the impression that participation in these microfinance programs make clients poorer. Selection bias is prevalent among microfinance impact assessments and limits the conclusions that can be drawn.

A second source of bias is the non-random program placement bias. MFIs do not randomize the location of their operations. Depending on the purpose and motivation, MFIs will purposely choose to deliver their services to some villages and not to some others. Many microfinance programs are set up specifically to serve the under-served, in locations where there are weaker financial services. This may lead to negative impacts relative to comparison control areas (Morduch, 1999). On the other hand, if MFIs operate in areas that have better infrastructure such as access by roads, or more or less active markets, then estimates of the impacts of the program on participants do not measure the effects of just microfinance but of these other factors as well (Montgomery, 2005). Hence, the locations where MFIs choose to place and deliver their microfinance services would have already determined the characteristics of clients such as age, education, and entrepreneurial skills.

There are many aspects that limit impact assessments. Microfinance programs differ in design, implementation and management, therefore outcomes and impacts differ and the findings are hard to generalize (Banerjee et al., 2009). Another aspect is the

difficulty of separating out treatment (with microfinance) and control group (without microfinance) as microfinance programs have been in place for years. In the case of Bangladesh, for instance, where nearly everyone has access to microfinance, having the assessment structure in place in advance of program implementation is almost impossible (Odell, 2010).

Despite the importance of attending to these biases, few studies have addressed them well. A rigorous study is most often time-consuming and involves high cost. The duration of a study is often a great challenge in conducting good impact assessment. Data collection is costly (Morduch, 1999) and few MFIs have the resources to fund these studies, nor have sufficient staff-time to conduct the studies. Even if a rigorous and careful study can be conducted, as in the case of Banerjee et al.'s (2009) study, the time frame of a study is almost always limited. Banerjee et al.'s (2009) study was conducted between 15 to 18 months, quite a short time frame to show if microfinance have a broader impact on education, health, or women's decision making.

2.4 KEY IMPACT ASSESSMENT STUDIES

Non-experimental studies

Earlier microfinance impact assessments were mostly non-experimental studies. One of the earliest comprehensive microfinance impact assessments was "Credit for the Alleviation of Rural Poverty: The Grameen Bank in Bangladesh" published in 1988 by Mahabub Hossain. Hossain found out that Grameen Bank members' average household

income is 43% higher than non-participants in comparison⁵ villages. He noted that the increase in income was highest for Grameen Bank's members without land, followed by marginal landowners. *Women at the Center*, Helen Todd's 1996 book, employed an ethnographic approach to study the impact on Grameen Bank's clients (Goldberg, 2005). The findings include higher percentage of borrower households who are no longer poor and more girls who had schooling, compared to the comparison group.

Other examples of non-experimental studies include a study of microfinance recipients in Northern Bangladesh by the Goldin Institute, a Non-Governmental Organization (NGO) in Chicago. The study interviewed microfinance borrowers and found out that loans were often used for consumption and that loans were taken from one lender to repay another. The Royal Bank of Scotland Foundation India partnered with Cashpor to conduct an impact assessment in India's Eastern Uttar Pradesh region (RBS Foundation India, 2008). This study concluded that 75% of clients' children were enrolled in school (Odell, 2010).

Non-randomized (quasi) experimental studies

Non-randomized or quasi experimental studies are evaluations in which participants are compared to observably similar, but not randomly identified, groups. The most widely-cited evaluation of microfinance program is perhaps World Bank economist Shahidur Khandker's "Fighting Poverty with Microcredit" (1988) and the related paper, "The impact of group-based credit programs on poor households in Bangladesh: does the gender of participants matter?" (Pitt & Khandker, 1998). The study was based on data

⁵ The word *control* is often used synonymous with *comparison*. To contrast between experimental and non-experimental studies, the word *comparison* is used here for non-experimental studies.

collected by the World Bank and the Bangladesh Institute of Development Studies (BIDS) and focused on three microfinance programs: Grameen Bank, BRAC and the BDRB RD-12 program. More specifically, the paper was influential as it was the first serious attempt to deal with selection bias and non-random program placement (Goldberg, 2005; Odell, 2010). The results in Pitt and Khandker's (1998) paper were generally positive. They found an 18% return to income from borrowing for women, and a positive impact on girls' school enrollment.

This paper then inspired several responses that raised concerns over the data and methodology used. In 1998, New York University (NYU) economist Jonathan Morduch responded with the paper, "Does Microfinance really Help the Poor? New Evidence from Flagship Programs in Bangladesh" (Morduch, 1998). With additional data, Khandker then wrote a second paper in 2005 titled, "Microfinance and Poverty: Evidence using Panel Data from Bangladesh". The paper could confirm and strengthen the positive impact from the microfinance programs studied. In 2009, Roodman and Morduch revisit Pitt and Khandker (1998), Morduch (1998) and Khandker's (2005) studies and conclude that the evidence on impact for all three studies is weak.

Another key non-randomized study was done by the Asian Development Bank's (ADB) economist Brett Coleman. In "The Impact of Group Lending in Northeast Thailand" (1999), Coleman could address selection bias in his paper by having borrowers interested in microfinance programs, yet living in comparison villages without microfinance programs, to sign up a year in advance. His follow up work was published in 2002 and again in 2006. Coleman found that the two microfinance programs in Northeast Thailand are more likely to reach wealthier borrowers than the targeted poorest

group. Several other studies tried to recreate Coleman's model. Toshio Kondo of the ADB used Coleman's model in his 2007 paper, "Impact of Microfinance on Rural Households in Philippines: A Case Study from the Special Evaluation Study on the Effects of Microfinance Operations of Poor Rural Households and the Status of Women". Similarly, Kondo discovered that positive effects appear to only impact the relatively wealthy program borrowers. These studies raise important questions as to whether microfinance programs actually are reaching their intended recipients (Odell, 2010).

In 1995, the United States Agency for International Development (USAID) launched the Assessing the Impacts of Microenterprise Services (AIMS) Project. In the 2001 study "An Empirical Analysis of Microfinance: Who are the Clients?", Fordham University economist Gwen Alexander used longitudinal data from AIMS study in Peru to recreate Coleman's model. The other core longitudinal (across time) studies were conducted in India and Zimbabwe (Armendariz & Morduch, 2010; Goldberg, 2005; Littlefield, et al., 2003). These findings have indicated that microfinance is quite effective as borrowers enjoy greater household income than non-clients.

Randomized experimental studies

Randomized studies differ from non-randomized (quasi) experiments in the sense that a group is chosen randomly from the population to be offered access to microfinance services (treatment group) and compared with another randomly selected group who is not offered any access to microfinance (control group) (Armendariz & Morduch, 2010). However, randomized experimental studies have their limitations. Randomized experimental studies are not always feasible because of the high cost and ethical reasons

of choosing between a group that can receive interventions and another group that gets denied access to microfinance programs.

Two of the earliest randomized experimental studies were conducted in Sri Lanka by Suresh de Mel, David McKenzie and Christopher Woodruff. The 2008 paper, “Returns to Capital in Microenterprises: Evidence from a Field Experiment” measured returns to capital for small businesses. A surprising finding is that positive impact of microfinance on returns to capital for small businesses was largely limited to men, as no statistically significant average effect was observed for women. Also, returns to capital were higher for clients with higher ability, like entrepreneurial skills and years of schooling (Armendariz & Morduch, 2010; Odell, 2010). In the 2009 study, “Are Women more Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns”, the difference between returns to capital for male and female microenterprise owners was investigated. The findings show that women use only large grants and earn no return on these investments (Odell, 2010).

One of the first large scale randomized experimental studies was conducted by Banerjee, et al. on the MFI Spandana in Hyderabad, India (2009). 52 of 104 neighborhoods were randomly selected for opening of Spandana, while the remainder of the neighborhoods was not. In the meanwhile, other MFIs had also started their operations in both treatment and comparison households. The findings revealed that households in the treatment areas were more likely to borrow from MFIs and more likely to open businesses. Households identified as more likely to invest in a business were also found to decrease their monthly spending on “temptation” goods like alcohol, tobacco and gambling. In addition to evaluating the impact of microfinance on poverty, this study

also measured broader human development measures such as education, health and women's empowerment. No statistically significant effects on education, health and women's empowerment were discovered, however. Perhaps the study's short time frame (between 15 to 18 months) limited the findings as social changes take time to occur.

Another randomized study was done by economists at Yale and Dartmouth, respectively, Dean Karlan and Jonathan Zinman (2009). The study focused on the MFI First Macro Bank in Manila, Philippines. Similar study was also conducted by Karlan and Zinman in South Africa (2007). The findings of the impact of First Macro Bank were surprising. Karlan and Zinman (2009) found that male borrowers are less likely to be employed outside of the family business, and are more likely to send their children to school. These findings contradict the usual agreement that women would make better use of credits and will make decisions for the whole family instead of spending only on herself.

2.5 MICROFINANCE AND EDUCATION

Education is essential to sustainable economic development and poverty alleviation (DFID, 2001; Douglas, 2009; Lire, 2002; Maldonado, 2005; Maldonado, et al., 2003). The United Nations' Millennium Development Goals prioritize education and outline the achievement of universal primary education as critical in achieving the Millennium Development Goals by 2015. During the recent Millennium Development Goals Summit on September 22 2010, UNESCO Director-General Irina Bokova reiterated that investment in education is necessary to make development sustainable (UNESCO, 2010).

Robust evidence shows positive impacts of microfinance towards poverty reduction, especially through channels of income smoothing, increased and diversified income, and savings (Morduch & Haley, 2002; Pitt & Khandker, 1998). If access to microfinance helps reduce poverty, then one might surmise that it could also improve investments in children's education (Banerjee, et al., 2009; Islam & Choe, 2009). However, the overall consensus on microfinance's impact on the schooling of children have been mixed with evidence pointing towards both positive and negative directions (Wydick, 1999).

Microfinance can positively impact the schooling of children in many ways. First, through the provision of financial services, microfinance can enable poor families to expand or start up small enterprises, hence creating employment and generating additional income. With additional income, families will have an increased ability for their children's tuition, school fees, uniforms, and to enroll more of their children in school for a longer duration (Littlefield, et al., 2003). School drop-out rates are also much lower in client households than in non-client households (CGAP, 2009). Even where children help out in family enterprises, the poverty-induced imperative of child labor decreases, as borrowing households substitute away from labor into education (Karlan & Zinman, 2009). Second, studies have demonstrated that women are more inclined than men to invest in their children's education (Pitt & Khandker, 1998). Since women are the dominant group of borrowers from MFIs, microfinance may positively affect children's schooling (Islam & Choe, 2009). Therefore, the argument given based upon these findings is that through the empowerment of women, microfinance facilitates an increase in a child's access to and retention in school.

One of the first studies to demonstrate a positive link between microfinance programs and the schooling of children was conducted by Jacoby in 1994. Jacoby studied Peruvian children to show that a lack of credit is a major factor in withdrawal from school (Jacoby, 1994). In 1997, a study done by Jacoby and Skoufias examined data from Indian villages to conclude that a large percentage of children who withdraw from school did so when their families lacked the credit to face a negative income shock. Findings from this study suggested that with an increase in access to credit through microfinance programs, the need for children to withdraw from school was reduced (Jacoby & Skoufias, 1997). Other studies that indicate overall positive relationship between increased access to microfinance programs and education include: 1) the USAID-AIMS impact study on a microfinance program in Uganda, which demonstrated that client households invest more in education than non-client households; the 1998 World Bank study which concluded that children of microfinance participants had higher levels of schooling than non-participants, especially for girls (Littlefield, et al., 2003).

For the poorest households, education may be a lesser day-to-day priority than basic survival. First, the access to microfinance can increase investment in household microenterprise, thus increasing the demand for child labor and reducing education outcomes (Douglas, 2009), as exemplified in Islam and Choe's (2009) study. Islam and Choe (2009) found that participation in microfinance programs in rural Bangladesh reduced children's school enrollment. In cases of extreme poverty, children's work may contribute up to 40% of family income. Girls in particular contribute to unpaid labor, mainly in domestic and agricultural activities. Second, for families who operate household enterprises in developing countries, the household-level decision made in the

form of schooling for children involves an economic trade-off between the current return on children's labor in the household enterprise and future returns on schooling (Wydick, 1999). Direct (buying books and stationery) and indirect costs (foregone children's labor) can make education prohibitively expensive, while lack of access to a school or the poor quality of education may discourage parents who might have been willing to bear these costs (Herz & Sperling, 2004). Third, the amount of a microfinance loan might not be large enough for households to hire external labor, which may compel the household to resort to child labor. Fourth, some microfinance loan repayment periods are short, and interest rates are high, which may induce parents to discount the future returns on their children's education (Islam & Choe, 2009).

Some other studies have found more ambiguous results across different programs and studies. For example, the 1997-1999 AIMS study of microfinance clients in Zimbabwe found an increase in school enrollment rates for male children aged 6-16, while school enrollment rates for female students over the same period decreased (Littlefield, et al., 2003). Some studies have indicated no observable impact. For example, Banerjee et al. (2009) indicated that borrowing households in India do not spend more on schooling items like tuition, school fees, and uniforms, as compared with non-borrowing households. The study also finds that women in treatment areas are no more likely to make decisions about household spending, investment, savings, and no more likely to have children in school.

With such varied results, it is important to gain a clear understanding of the various channels through which microfinance can impact education (Becchetti & Conzo, 2010; Douglas, 2009; Maldonado, 2005; Maldonado, et al., 2003). Maldonado et al.

(2003) and Islam and Choe (2009) have identified five key pathways through which microfinance can impact education. First, the income effect indicates that the access to credit via microfinance programs increases household income, which may influence the demand for and perceptions of schooling. The amount of credit beyond the subsistence level can play an important role in shaping education decisions. For instance, microfinance loans that represent a very small portion of income may not impact schooling choices if the added money is insufficient to take households above the subsistence level, or fails to create sense of income security (Douglas, 2009). For poor households, school investment decisions are associated with a host of decisions regarding use of income and time of various household members (Lire, 2002; Morduch, 1999).

Second, access to microfinance has a risk-management effect. Microfinance may provide risk-coping strategies by improving households' ability to anticipate and cope with the volatility of income, and thus positively influence the demand for education. For example, the access to credit can increase capacity for families to allow children to stay in school as families are in less dire need of child's labor output because increased capacity to pay school fees, even in times of economic shock.

Third, gender plays a crucial role in microfinance. Generally, MFIs have been targeting more women than male borrowers for practical reasons. Women are found to have greater positive effect on measures of consumption on health and education as they are more likely to channel received loan support to their children rather than for personal consumption as found true for male borrowers (Douglas, 2009).

Fourth, microfinance programs elicit an information effect. Borrowers' perceptions and attitude about the future returns on education have been found to change

especially with microfinance programs that specifically provide awareness raising activities. Particularly in the context that parents' level of education can positively affect schooling decisions (Lillard & Willis, 1994), households' schooling preferences might be influenced by MFI-provided adult training programs that highlight education as a tool for future income generation. This information effect has implications on families' schooling decisions given families' uncertainty about the future and volatility of income.

Finally, the demand for child labor plays an important role in determining the impact of microfinance on children schooling. With increased credit, families might choose to send their children to school. However, families might use the credit to purchase livestock or establish household enterprises, which require additional labor. In the case when the amount of credit is not large enough to cover for external labor, household may be compelled to resort to child labor, risking children being put out of school. Wydick (1999) have detailed this as what he calls the dilemma "family-labor-substitution effect" and the "household-enterprise-capitalization effect".

2.6 SUMMARY

There is an abundant body of research in the area of the impact of microfinance on poverty alleviation, most with robust evidence of a reduction in poverty. However, the research on the wider impact of microfinance and human development outcomes is insufficient (Odell, 2010). Specifically, the empirical evidence on the impact of microfinance on the schooling of children across different programs and countries has been mostly mixed.

The provision of small loans through microfinance programs is meant to relieve borrowers from cash constraints by increasing and diversifying their income. Though it is important to note that simply borrowing from MFIs does not guarantee an increase in income for borrowers, as it is a debt to be repaid. There may be borrowers who use microloans to expand family enterprises, yet fail to generate more income. In the case when borrowers are successful with generating additional income, borrowers have additional means for consumption, investment in children's education, and the expansion of family enterprises. However, the household-level decision in the form of schooling for children involves an economic trade-off between the current return to children's labor in the household enterprise and future returns to schooling (Wydick, 1999).

The literature reviewed illustrates the complexity involved and highlights the ambiguity of the relationship between microfinance and children's schooling. Given the growing importance of microfinance in international development, development financing, and the increased disbursement of official aid via microfinance programs (Hazarika & Sarangi, 2008), an assessment of the effects of microfinance on children's schooling will be a useful contribution to research on the sustainability of development financing.

In particular, further in-depth research is necessary in the context that microfinance might elicit unintended negative consequences of adversely influencing schooling of children, which could then exacerbate poverty in the longer term. The framework of unintended consequences is used in this study to improve understanding of the further implications of an innovative and promising tool like microfinance.

CHAPTER THREE

METHODOLOGY

*All dances make a statement and begin with the question,
“What do I want to say in this dance?” - Janesick (1994)*

3.1 META-SYNTHESIS

A meta-synthesis approach was used to explore the available literature, overall findings, and the key themes emerging on the topic of the study: the impact of microfinance on the schooling of children. Meta-synthesis is a research approach that analyzes findings with diverse research approaches and methods, and synthesizes these findings to inform practice, policy or theory (DeJaeghere & Fry, 2003). Three main steps are involved in a meta-synthesis research: first, the aggregation of findings from qualitative and quantitative studies (Conard, 1992); second, the categorization into multiple themes based on the aggregated findings; finally, categories or themes are then integrated into synthesized findings, usually in the form of charts. Meta-synthesis differs from meta-analysis as it does not use formal statistical methods. As opposed to mainly integrating ideas and concepts when conducting a synthesis review, one uses meta-synthesis to enhance understanding of the overall involved processes and to draw conclusions from the integration of findings from many primary research studies.

I chose to use the meta-synthesis approach in this research study for several reasons. The past few years have been an exciting time for microfinance and microfinance impact assessment (Odell, 2010). Recent studies have initiated heated debates about the strengths and weaknesses, potential and unintended consequences of

microfinance. Thus, it is necessary to conduct a detailed research based on the available existing studies to, possibly, seek broader understanding on the intended and unintended impacts of microfinance, specifically the impact of microfinance programs on educational outcomes. It is crucial to deepen our understanding of how microfinance programs can have an impact upon program participants' decisions about the schooling of their children.

Second, the existing evidence on the impact of microfinance on the schooling of children has been mixed across different programs and countries. Roodman & Morduch (2009) have indicated that exclusive reliance on one type of study is not optimal. Odell (2010) has also reiterated that various limitations arise in the available study, and the key is to compare the body of knowledge from many studies of varying methodologies to gain insight into how, and how well, microfinance is serving its clients. Thus, it is crucial to conduct comprehensive research to aggregate findings in the hopes of obtaining greater clarity and a deeper understanding of how microfinance can influence the schooling of children.

3.2 STEPS INVOLVED IN META-SYNTHESIS

To conduct a comprehensive meta-synthesis research, I used Sandelowski & Barroso's (2007) recommendations as my main point of reference. The methods taken to approach my research study are detailed as follow. First, I started by clearly formulating and defining three research questions that guide the study:

1. What are the available research studies on the topic of the impact of microfinance on the schooling of children?

2. What is the overall conclusion of the research studies on the impact of microfinance on the schooling of children?
3. What are the key themes emerging from the findings on how microfinance influences the schooling of children?

Second, I conducted a systematic literature review by identifying all relevant studies to my topic. I searched the online databases from the University of Minnesota's online library search engine, the University's Proquest Dissertations & Theses online portal, Google Scholar, *WorldCat*⁶, and utilized the University's own library resources. The search terms that were used included key words like microfinance, microcredit, lending, access to credit, impact, child schooling, children schooling, education, and child labor.

Third, I screened and selected appropriate articles or references that included only key rigorous research studies. The criteria I used in the screening processes were as follows: studies that thoroughly addressed the topic of microfinance; studies that addressed the impacts of microfinance; and studies that addressed the relationships between microfinance and children's schooling.

Fourth, in the first stage of analysis and synthesis, I aggregated findings into relevant tables and figures. In the second stage, I sorted out the aggregated findings into key themes in order to understand the factors involved in explaining the impact of microfinance on the schooling of children. In the concluding chapter, I include the summary of results, key implications for theory, policy, and practice and suggestions for future study.

⁶ *WorldCat* is the world's largest network of library content and services, with more than 10,000 libraries worldwide part of WorldCat.org

CHAPTER FOUR

FINDINGS

“Out of such crooked timbers as man is made, nothing entirely straight can be fashioned.” – Immanuel Kant

An initial pool of 115 different studies was first identified. In the following step, careful screening was conducted. More than half of the studies were then eliminated to include only relevant literature on the impact of microfinance on the schooling of children. This study reviews findings from 32 research studies, with over 150 programs in 27 countries, spanning across five different continents. There are a total of 46 research sites since some studies are conducted in multiple sites in the same country and a total of 50 country observations as some research studies are conducted in multiple countries.

Chapter four consists of three main sections pertaining to the three research questions posed in chapter one of this study. Section one (4.1) focuses on the list of available research studies on the topic of study. In section two (4.2), the overall findings of the research studies on the impact of microfinance on children schooling are presented. Section three (4.3) presents key themes that emerged from the findings on the impact of microfinance on the schooling of children.

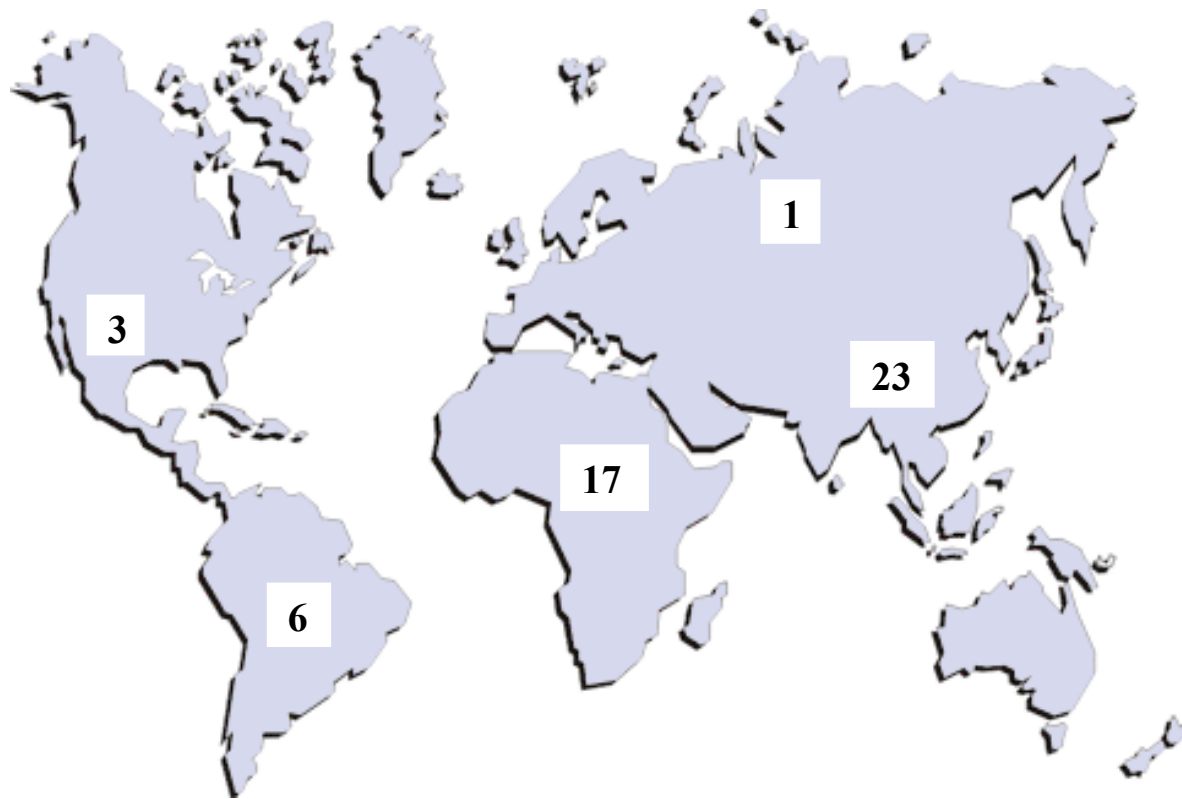
4.1 LIST OF AVAILABLE RESEARCH STUDIES

This section relates to the first research question posed: what are the available research studies on the topic of the impact of microfinance on the schooling of children? Due to the limited availability of research studies on the impact of microfinance on the

schooling of children, it is crucial to gain clarity and to deepen understanding on the available studies to take stock of what is known on this topic area thus far.

Figure 3 below shows a world map that indicates the different continents where studies were conducted on the impact of microfinance on the schooling of children. These studies cover five different continents, with a total number of 27 countries, and 50 country observations, based on 32 research studies. The map shows that an overwhelming number of studies, 23 were focused on 13 countries within Asia, followed by 17 studies in eight countries within Africa. This finding is not surprising since modern microfinance has its roots in Asia (Douglas, 2009). In Asia, the highest numbers of studies were recorded in India with six studies, followed by Bangladesh with four studies. In Africa, the highest number of studies was conducted in Zimbabwe and Uganda. As observed in the map, not as many studies focused on Latin America as compared to Asia. This is surprising because microfinance industry has a long history and is highly evolved and very diverse in Latin America, especially with the proliferation of ACCION International with its beginnings in Latin America.

Following *Figure 3*, *Table 1* below shows a detailed profile of the 32 available research studies on the topic of microfinance impact on the schooling of children. The table is organized in different columns which indicate the study source, the research disciplines or organizations involved in the implementation of the research studies, the countries of focus, the sample size of households or persons in the studies, the research methodologies or methods used, and the timeframe used in the study. For the ease of reference, the listing of the profile has been sorted in alphabetical order by the first author's last name.



COUNTRIES	CONTINENTS	# of STUDIES
Argentina	South America	1
Armenia	Asia	1
Azerbaijan	Asia	1
Bangladesh	Asia	4
Bolivia	South America	1
Cameroon	Africa	1
Ecuador	South America	1
Georgia	Asia	1
Guatemala	North America	1
Guinea	Africa	1
Honduras	North America	2
India	Asia	6
Indonesia	Asia	1
Kenya	Africa	2
Kyrgyzstan	Asia	1
Malawi	Africa	3
Nepal	Asia	1
Pakistan	Asia	1
Peru	North America	3
Philippines	Asia	2
Russia	Asia/Europe	2
South Africa	Africa	1
Thailand	Asia	1
Uganda	Africa	4
Vietnam	Asia	2
Zambia	Africa	1
Zimbabwe	Africa	4

Figure 3 World Map - Continents where Studies were Conducted

Table 1Profile of Available Research Studies (*alphabetical listing by first author's last name*)

#	Author(s)	Year	Source	Discipline/ Organization	Country of Study (Multiple/Single)		Sample Size (Household)	Research Methodology/ Method	Timeframe
1	Banerjee, et al.	2009	Working Paper	Economics	S	India	2,800	Random control / Impact surveys	Cross-sectional
2	Barnes, C.	2001	Report	USAID-AIMS / Management Systems International	S	Zimbabwe	691 persons	Mixed methods (surveys, case studies, pre-survey qualitative interviews, secondary sources)	Longitudinal
3	Barnes, C., et al.	2001	Report	USAID-AIMS / MISR	S	Uganda	1,332 persons	Mixed methods (qualitative interviews, surveys)	Longitudinal
4	Bechetti & Conzo	2010	Working Paper	Economics	S	Argentina	360 persons	Econometric model / Quasi- experimental questionnaire	Cross-sectional
5	Buckley, G. <i>in Sebstad & Chen, 1996</i>	1996	Book section	Economics	S	Kenya	N.A.	Quasi-experiment / Surveys	Cross-sectional

#	Author(s)	Year	Source	Discipline/ Organization	Country of Study (Multiple/Single)	Sample Size (Household)	Research Methodology/ Method	Timeframe	
6	Chowdhury & Bhuiya	2004	Journal	BRAC + ICDDR,B	S	Bangladesh	12,000	Mixed methods (interviews, focus groups, observations)	Longitudinal
7	Creevey, et al.	1995	Report	USAID-GEMINI	S	Guinea	99 persons	Quasi-experimental / Mixed methods (surveys, focus groups, interviews)	Longitudinal
8	Douglas, K. M.	2009	Thesis	International Development	S	India	2,800	Probit estimation model / Impact surveys	Cross-sectional
9	Gitter & Barham	2007	Journal	Economics	S	Honduras	362	Econometric model	Longitudinal
10	Hatch & Crompton	2004	Report	FINCA	M	11 countries (Latin Am, Africa, E.Europe, Central Asia)	3,361 persons	Interviews & surveys	Cross-sectional
11	Hazarika & Sarangi	2008	Journal	Economics	S	Malawi	404	Bivariate probit estimate / Impact surveys	Cross-sectional
12	Holvoet, N.	2004	Journal	Development Policy / Mgmt	S	India	300	Regression analysis / Impact surveys	Cross-sectional

#	Author(s)	Year	Source	Discipline/ Organization	Country of Study (Multiple/Single)	Sample Size (Household)	Research Methodology/ Method	Timeframe	
13	Islam & Choe	2009	Working Paper	Economics/ WB-BIDS	S	Bangladesh	2,034	Tobit model first stage regression / Impact surveys	Cross-sectional
14	Jacoby, H.G.	1994	Journal	Economics	S	Peru	5,000	Econometrics model / Impact surveys	Cross-sectional
15	Kabeer, N.	2001	Journal	Development Studies	S	Bangladesh	700 70 persons	Survey & qualitative interviews	Cross-sectional
16	Kaboski & Townsend	2009	Working Paper	Economics	S	Thailand	960	Regression / Impact surveys	Longitudinal
17	Karlan & Zinman	2009	Working Paper	Economics	S	Philippines	1,601 persons	Econometrics model / Impact surveys	Cross-sectional
18	Kondo, et al.	2008	Discussion Paper	Economics/ ADB	S	Philippines	2,276	Fixed effects regression / Impact surveys	Cross-sectional
19	Lire, E.	2002	Discussion Paper	IFPRI	M	Nepal Peru Zimbabwe	3,373 3,623 14,000	Bivariate probit model / Impact surveys	Cross-sectional

#	Author(s)	Year	Source	Discipline/ Organization	Country of Study (Multiple/Single)	Sample Size (Household)	Research Methodology/ Method	Timeframe	
20	Maldonado, et al.	2003	Conference Paper	Agricultural Economics	S	Bolivia	957	Negative binomial regression model / Impact surveys	Cross-sectional
21	Montgomery, H.	2005	Report	ADB Institute	S	Pakistan	2,881	OLS / logit estimation / Impact surveys	Cross-sectional
22	Mosley & Rock	2004	Journal	Economics	M	Kenya Cameroon Uganda Zimbabwe South Africa	67 60 84 90 231	Impact regression / Impact surveys & interviews	Cross-sectional
23	Peace & Hulme	1994	Journal	Development Policy & Management	M	Cross regional (70 programs)	N/A	Review of secondary data	N/A
24	Pham & Nguyen	2009	Conference Paper	Economics	S	Vietnam	9,189	Econometrics model / Impact surveys	Longitudinal
25	Pitt & Khandker	1998	Journal	Economics / WB-BIDS	S	Bangladesh	1,798	Econometrics model / Impact surveys	Cross-sectional

#	Author(s)	Year	Source	Discipline/ Organization	Country of Study (Multiple/Single)	Sample Size (Household)	Research Methodology/ Method	Timeframe	
26	RBS Foundation	2008	Report	RBS/ABN AMRO CashPor	S	India	300 persons	Impact surveys	Cross-sectional
27	Shimamura, Y. Chapter 2	2009	Dissertation	Agricultural Economics	S	Malawi	498	Regression / Impact surveys	Cross-sectional
28	Shimamura, Y. Chapter 3	2009	Dissertation	Agricultural Economics	S	India	500	Regression	Longitudinal
29	Snodgrass & Sebstad	2002	Report	USAID-AIMS	M	India	786 persons	Mixed methods (Surveys/case studies)	Longitudinal
						Peru	529		
						Zimbabwe	579 persons		
30	Sutoro, A.D. <i>in Sebstad & Chen, 1996</i>	1990	Booklet	BRI	S	Indonesia	186,000 persons	Non-experimental / Surveys & interviews	Cross-sectional
31	Wright, et al.	1999	Report	MicroSave- Africa / UNDP / DFID	S	Uganda	447 persons	Mixed methods (focus group / interviews)	Cross-sectional
32	Wydict, B.	1999	Journal	Economics	S	Guatemala	236 persons	Max-likelihood logit estimation / Impact surveys	Cross-sectional

Referring to the fourth column with the header *Source* in *table 1* above, journal seems to be the most common source for the impact studies, as there are eight studies published in journals from the 32 available studies. The second most common source is through reports, with six of them in total. Other sources in descending order are in the form of working papers, thesis or dissertation, conference papers, discussion papers, book section, and booklet.

Referring to the fifth column under the header *Discipline / Organization*, the economics discipline seems to dominate the research studies on this topic of study, as there are 17 studies with researchers with an economics background. There are quite a number of organizations involved in the research studies as well. Amongst the major multilateral organizations involved in the research studies include USAID-Assessing the Impact of Microenterprise Services (USAID-AIMS), World Bank-Bangladesh Institute of Development Studies (WB-BIDS), and Asian Development Bank Institute (ADB Institute). There are MFIs-affiliated impact studies as well, like FINCA, BRAC, and Cashpor.

Most studies focus on only a single country, with the exception of five studies which are multi-sited, or multi-regional, as exemplified in column six with the header *Country of Study*. As can be seen in column seven under the header *Sample Size*, the range of sample size for the studies is rather huge, from 60 to 14,000 households and from 70 to 186,000 persons surveyed. This sample size information makes it easier to distinguish the scope of each study, as this will have implications on the conclusion drawn from the studies.

Column eight on *Research Methodology / Method* shows that 22 studies have employed the econometrics methodology. This could possibly be explained by the background or discipline of the researchers. Since there are 17 studies conducted by researchers from economics background, it is likely that the background of the researchers have an influence in the use of methodologies in the studies. Other methodologies or methods used in the studies include mixed methods with a combination of quantitative or qualitative surveys, case studies, interviews, focus groups, and review of secondary data.

Finally, data in column nine with the header *Timeframe* have been grouped in two categories: cross-sectional and longitudinal. Cross-sectional studies are studies performed at a single point in time. Longitudinal studies track outcomes over different points in time (Woller, 2004). Presumably, impacts can be tracked over time, and longitudinal studies would be best fit for the purpose. However, *Table 1* above has shown that majority of the studies, 22 of them, are cross-sectional studies, and only nine studies are longitudinal studies, with one study's timeframe being unknown. An explanation for the common use of cross-sectional studies despite preference for longitudinal studies is perhaps cross-sectional studies do not require as much of a data collection commitment and at a relatively low cost compared to longitudinal studies, which often requires longer time commitment and are thus costly.

4.2 OVERALL FINDINGS: HOW MICROFINANCE IMPACT CHILDREN SCHOOLING

This section focuses on answering the second research question posed: what is the overall conclusion of the research studies on the impact of microfinance on the schooling of children?

Table 2 below shows the overall findings gathered on the impact of microfinance on the schooling of children. In *table 2*, the 46 research sites from 32 available studies are grouped into six categories according to the indicators or dependent variables used in each study, for ease of reference:

- Indicator A: School Enrollment
- Indicator B: Education Achievement
- Indicator C: Education Expenditure
- Indicator D: School Withdrawal
- Indicator E: Years of Schooling Completed
- Indicator F: School Attendance

These studies show the complexity involved and the dynamic nature of low-income households in the ways they respond to economic pressures and opportunities. This is clearly indicated in the various ways microfinance household recipients make decisions regarding how to allocate resources and time on the schooling of their children. The results of the impact are grouped into four distinct categories: positive, negative, mixed, and neutral (no significant impact).

Table 2Overall Findings on the Impact of Microfinance on Children's Schooling (*by indicators / dependent variables*)**Indicator A: School Enrollment (Part 1 of 4)**

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
1	Banerjee, et al.	2009	India	Spandana				X	Education Expenditure
2	Barnes, C.	2001	Zimbabwe	Zambuko Trust			X		N.A.
3	Bechetti & Conzo	2010	Argentina	Protagonizar			X		N.A.
4	Creevey, et al.	1995	Guinea	PRIDE				X	N.A.
5	Douglas, K.M.	2009	India	Spandana		X			N.A.
6	Gitter & Barham	2007	Honduras	N/A	X				Years of Schooling Completed

Indicator A: School Enrollment (Part 2 of 4)

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
8	Holvoet, N.	2004	India	IRDP				X	-Years of Schooling Completed -Education Achievement
				TNWDP			X		
9	Islam & Choe	2009	Bangladesh	13 MFIs incl. ASA / Proshikha		X			N.A.
10	Kabeer, N.	2001	Bangladesh	SEDP	X				N.A.
11	Karlan & Zinman	2009	Philippines	First Macro Bank	X				N.A.
12	Lire, E.	2002	Nepal	Commercial banks	X				N.A.
			Peru			X			
			Zimbabwe		X				

Indicator A: School Enrollment (Part 3 of 4)

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
13	Maldonado, et al.	2003	Bolivia	CRECER & Sartawi Batallas dataset	X				N.A.
				CRECER	X				
				Pro Mujer				X	
14	Montgomery, H.	2005	Pakistan	Khushhali Bank	X				N.A.
15	Peace & Hulme	1994	Multi-country	70 programs			X		N.A.
16	Pitt & Khandker	1998	Bangladesh	Grameen	X				N.A.
				BRAC				X	
				BDRB-RD12			X		

Indicator A: School Enrollment (Part 4 of 4)

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
17	RBS Foundation India	2008	India	Cashpor	X				N.A.
18	Shimamura, Y. Chapter 3	2009	India	DPIP			X		N.A.
19	Snodgrass & Sebstad	2002	India	SEWA Bank			X		N.A.
			Peru	Accion Comunitaria del Peru / Mibanco			X		Education Expenditure
			Zimbabwe	Zambuko Trust			X		N.A.

Indicator B: Education Achievement

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
1	Chowdhury & Bhuiya	2004	Bangladesh	BRAC	X				N.A.
2	Holvoet, N.	2004	India	IRDP				X	-School Enrollment -Years of Schooling Completed
				TNWDP			X		

Indicator C: Education Expenditure (Part 1 of 3)

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
1	Banerjee, et al.	2009	India	Spandana				X	School Enrollment
2	Barnes, et al.	2001	Uganda	FINCA FOCCAS PRIDE	X				N.A.
3	Buckley, G.	1996	Kenya	K-REP Bank, ISP	X				N.A.

Indicator C: Education Expenditure (Part 2 of 3)

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
4	Kaboski & Townsend	2009	Thailand	Millennium Baht Village Fund				X	N.A.
5	Kondo, et al.	2008	Philippines	38 MFIs (banks, cooperatives, NGOs)				X	School Attendance
6	Mosley & Rock	2004	Kenya	K-REP Rongo			X		N.A.
			Cameroon	MC2/ Cameroon Gatsby Trust			X		N.A.
			Uganda	Centenary rural Development Bank			X		N.A.
			Zimbabwe	CARE			X		N.A.
			South Africa	Small Enterprise Foundation			X		N.A.

Indicator C: Education Expenditure (Part 3 of 3)

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
6	(cont'd) Mosley & Rock	2004	South Africa	Farmer Support Programme			X		N.A.
7	Shimamura, Y. Chapter 2	2009	Malawi	MRFC			X		School Attendance
8	Snodgrass & Sebstad	2002	Peru	Accion Comunitaria del Peru / Mibanco			X		School Enrollment
9	Sutoro, A.D.	1990	Indonesia	BRI	X				N.A.
10	Wright, et al.	1999	Uganda	Uganda Women's Finance Trust	X				N.A.

Indicator D: School Withdrawal

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
1	Wydick, B.	1999	Guatemala	FUNDAP			X		N.A.

Indicator E: Years of Schooling Completed

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
1	Gitter & Barham	2007	Honduras	N.A.	X				School Enrollment
2	Hatch & Crompton	2004	11 countries <small>(Latin Am, Africa, E.Europe, Central Asia)</small>	FINCA	X				School Enrollment
3	Holvoet, N.	2004	India	IRDP				X	-School Enrollment -Education Achievement
				TNWDP			X		

Indicator F: School Attendance

#	Author(s)	Year	Country	MFI	Impact				See Also (other indicator section)
					Positive	Negative	Mixed	Neutral	
1	Hazarika & Sarangi	2008	Malawi	MRFC PMERW MMF MUSCCO			X		N.A.
2	Jacoby, H.G.	1994	Peru	N.A.			X		N.A.
3	Kondo, et al.	2008	Philippines	38 MFIs (banks, cooperatives, NGOs)				X	Education Expenditure
4	Pham & Nguyen	2009	Vietnam	VBSP				X	N.A.
5	Shimamura, Y. Chapter 2	2009	Malawi	MRFC			X		Education Expenditure

Referring to *Table 2* above, there are 46 research sites in total from the 32 studies examined. It might seem to the reader that the table consists of more than 46 total research sites. However, some of the studies use multiple indicators or dependent variables hence there are replications on some of the research sites as they are tabulated into different indicator categories.

Most of the program impacts in *Table 2* are either mixed or positive, as there are 19 mixed impacts and 16 positive impacts. There are eight neutral impacts, and three negative impacts. Also, most of the studies seem to focus on measuring the impact on school enrollment (indicator A) and on education expenditure (indicator C), with 19 and 10 studies, respectively.

For school enrollment (indicator A), most of the impacts are found to be positive, with 11 positive impacts. This is followed by nine mixed impacts, five neutral impacts, and three negative impacts. The findings on education expenditure (indicator C) show that there are mostly mixed impacts (eight research sites), followed by four positive impacts, and three neutral impacts. Mosley and Rock's (2004) study is a case in point to highlight how mixed impacts can be influenced by the utilization of different research methods. In Mosley and Rock's (2004) study, both econometrics model and qualitative interviews were used to study the impact of microfinance on education expenditure. The results from regression seem to be insignificant. However, the interviews have shown that parents who are also microfinance borrowers would spend not just on schooling fees but mostly on other types of education inputs or consumption like spending on school bags (Mosley & Rock, 2004).

There are only three research sites found for education achievement (indicator B). The impacts are each positive, mixed, and neutral. There is only one research site for indicator D on school withdrawal, and the impact is shown to be mixed. Indicator E on years of schooling completed consists of four research sites, with two positive impacts, one mixed impact and one neutral impact observed. Finally, there are five total research sites for indicator F on school attendance: three of them are mixed impacts, and two of them are neutral impacts.

From *Table 2*, it is clear that most available studies focus on the quantitative aspects of measuring education input or output like school enrollment, withdrawal, education expenditure, and years of schooling completed. There seems to be a lack in terms of measurement on actual education quality, an important component to gauge success in education.

The purpose of showing *Table 2* above is to give an overall sense of the impact of microfinance on the schooling of children. To examine more deeply on what explains the results of the findings, the following section – section 4.3 will discuss and explain some of the themes or trends found in the findings of these 32 studies.

4.3 KEY THEMES EMERGED FROM FINDINGS

This section focuses on the third research question posed: what are the key themes emerging from the findings on the how microfinance influences the schooling of children? This section is grouped into 14 different categories:

- | | |
|---------------------------------|---|
| a. Study methodology | h. Education level of clients |
| b. Study duration | i. Gender of clients |
| c. Approach of the MFI | j. Household income |
| d. Services provided by MFI | k. Birth order of child |
| e. Structure of MFI | l. Gender of child |
| f. Membership length of clients | m. Labor needed for household enterprise |
| g. Location | n. Labor needed for household domestic work |

a. Study Methodology

A study's use of research methodology or methods can influence the outcome of the findings. As mentioned in Chapter two, there is the issue of selection bias or program placement bias which studies will need to address to conduct a rigorous impact study. Chowdhury & Bhuiya (2004) in their study focusing on BRAC in Bangladesh recognize this bias in their study by indicating that the positive impact found on education achievement could be due to the fact that target clients are from less poor households.

The study in Uganda, conducted by Barnes, et al. (2001), focusing on MFIs like FINCA, FOCCAS, and PRIDE shows that client households are more involved than non-client households in their investment in education expenditure of household members. This involvement from household members even extends to their willingness to invest in approximately 3/4 of education expenses for non-household members. It is found that clients are more likely than non-client households to pay school-related charges, even assisting children who were not their own offspring, most of the children who were

probably grandchildren, nieces, and nephews (Barnes, et al., 2001). Barnes, et al. (2001, p. 65) have explained in their study that this finding could be due to the approach of the impact study, with initial differences between the treatment and comparison group.

b. Study Duration

A study's duration could also possibly influence the outcome measured. For example, the study of Spandana in India by Banarjee, et al. (2009) shows that women in the treatment groups are more likely than women in the control group to make education enrollment and expenditure decisions for their children. It is found that children of women from the treatment groups are not any more likely to be in school than children of women from the control groups. Banarjee, et al. (2009) noted that in order to observe wider impacts, a much longer time period is necessary. Banarjee, et al. (2009) recognize the study duration limitation and have made it clear in their study that the insignificant impact found on education could probably be due to the short study since this impact study was conducted between 15 to 18 months.

c. Approach of the MFI

It is important to recognize the motivation or philosophy of an MFI in an impact study. As mentioned in chapter two, some MFIs are clear about being profit-driven, while some are focused on helping the poor like the Grameen Bank with their *16 Decisions* made to help poor clients. Shimamura (2009) in his Chapter two study in Malawi on MRFC shows that there is positive impact of microfinance program on girls' school attendance and the households' education expenditure. Shimamura (2009, p. 127)

contended that this finding might be influenced by the main objectives of the Self-Help Group (SHG). In an SHG, there are often activities to promote an organizational structure to mobilize around social issues such as children's education. Hence, the participation of microfinance clients in social activities might greatly contribute to the improvement in their girls' educational outcomes. Likewise, a similar positive impact was found in Chowdhury and Bhuiya's (2004) study of BRAC in Bangladesh. It is noted that BRAC's focus is on girls, hence the education achievement for girls are found to be greater than for boys of the microfinance clients.

An important study to highlight the case that the MFI's approach might not always extend to its intended objectives is Montgomery's (2005) study of Khushhali Bank in Pakistan. It is observed that Khushhali Bank is profit-focused. However, positive impact on education was found in helping the poorest of the poor as there seems to be an increase in children's school enrollment.

d. Services Provided by MFI

The services extended by an MFI to its clients are also important aspects of influencing the impact of microfinance on the schooling of children. An MFI might choose to deliver only financial services like microcredit or microsavings. However, increasingly, there are more MFIs choosing to deliver integrated services, combining their financial services with education and health focus activities. For example, BRAC focuses on non-formal education and the Freedom of Hunger's Credit with Education program made popular by Christopher Dunford (2002) has an integrated approach of combining both credit delivery and prioritizing health education. Morduch (1999) have

indicated that MFIs which advocate for and stress the importance of schooling can help shift attitudes, and bargaining positions of husbands and wives.

e. Structure of MFI

The MFIs structure can be in either a group or an individual setting, and have implications on the decision making process within households. Shimamura's (2009) study of DPIP in India shows positive effect of the SHG on girls' school enrollment. He indicated in his study that SHG can help make the shift in decision-making power from father to mother to affect their children's educational outcomes. As Shimamura (2009) elaborated further, credit in women's hands and through SHG participation, may influence the intra-household decision making process through more equal bargaining power within the family, and, may enhance educational investment in children.

Also, Holvoet's study (2004) of IRDP and TNWDP in India has shown that large differences occur when mothers obtain microfinance credit through women's groups. As she found out through the individual and focus group interviews during the study, changes can be mediated in the decision-making processes through participation or membership in women's group. As Holvoet (2004, p. 46) further explains, "Women's group membership deliberates access and control over material and nonmaterial resources from men's mediation, which seems to increase their leverage within household decision making. Women's increased participation in household decision making has enabled them to see their preference for daughters' schooling more reflected in the final decisions regarding the allocation of educational inputs."

f. Membership Length of Client

Clients' length of membership or participation in MFIs seems to have an influence on households' decision to retain their children in school for a longer term. In their study of CRECER, Sartawi, and *Pro Mujer* in Bolivia, Maldonado, et al. (2003) have shown that longer-term clients tend to keep their children enrolled in school longer, as compared to shorter-term clients or non-clients. Likewise, Montgomery's (2005) study of Khushhali Bank in India suggests the same as she indicated in the study that it is more likely for households to enroll their children in schools given longer participation in microfinance programs. Shimamura's (2009) study also suggests that the positive impact on girls' school attendance increases as clients' participation in SHG becomes longer. However, after around three years of participation, the impact for boys' school enrollment becomes more apparent than for girls of the microfinance clients.

g. Location

In Maldonado, et al.'s (2003) study of *Pro Mujer* in Bolivia, the impact of microfinance on the school enrollment of children in an urban setting seems to be insignificant. Maldonado, et al. (2003) has suggested that it might be due to the more common presence of microenterprises in an urban setting. The demand for child labor to work at household enterprise, to do housework, or to perform childcare tasks, keeps the older children at home, instead of being sent to schools.

Maldonado, et al.'s (2003) study of CRECER and Sartawi in rural Bolivia shows the need for farming labor from households. It is indicated that an additional hectare of

land increases the demand for child labor, and it increases the schooling gap with a comparative group by about one-sixth of a year (Maldonado, 2005).

Lire's (2002) study in Nepal, Peru, and Zimbabwe shows that microfinance helps more in rural areas than in urban areas. It is indicated that rural poor in Nepal and Zimbabwe, specifically may find it viable to use microfinance credit to send children to school.

The distance from school seems to play a role in the decision making process of microfinance clients in sending their children to schools. Bechetti and Conzo's (2010) study of Protagonizar in Argentina shows that Santa Brigida in Buenos Aires which is farther than Mitre and perhaps consisting of wealthier clients have more positive impact on school enrollment than compared with the less wealthier pool of clients in Mitre. In the RBS Foundation (2009) study on Cashpor in India, families tend to withdraw their girls from schools when they are perceived as reaching marriageable age or when the schools are far from the villages (p. 16). In Wydick's study (1999, p. 860) of FUNDAP in Guatemala, children of microfinance clients in rural areas face higher costs of schooling in the form of longer travel to and from schools. In urban areas, nearly 91% of children aged 10-18 in the sample were still continuing in schools, while just 58% were attending schools in rural areas.

h. Education Level of Clients

The education level of microfinance clients is often positively correlated with their tendency of sending their children to school. In their study of 13 MFIs, including ASA and Proshika (which are the third and fourth largest MFIs in Bangladesh), Islam and

Choe (2009) find that less educated households are adversely affected in terms of their children's school enrollment, hence suggesting the vicious poverty cycle. Lire's (2002) study in Nepal, Peru, and Zimbabwe indicates that adult educational levels are essential factors in the reduction of child labor as they increase the likelihood that their children stay enrolled in school. In Maldonado, et al.'s (2003, p. 31) study of CRECER, Sartawi, and Pro Mujer in Bolivia, it is found that more educated household decision makers have a greater propensity to encourage the education of their children. As Maldonado, et al. (2003) claims, this trend might be facilitated with the higher incomes earned by more educated household workers.

i. Gender of Clients

A number of the studies have shown that women borrowers generally are more involved with investments in their children's education than men. Pitt and Khandker's (1998) study of the Grameen Bank, BRAC, and BDRB-RD 12 program in Bangladesh, shows that women send girls to school more than men. The study goes on to indicate that one percent of increase in microfinance credit increases girls' school enrollment by 1.86 percentage points, at the mean (p. 986). Islam and Choe's (2009) Bangladesh study on 13 MFIs shows that the adverse effect on girls' school enrollment is much less when microfinance credits are obtained by women. Maldonado, et al. (2003, p. 30) also indicated in their study in Bolivia of CRECER, Sartawi, and Pro Mujer that higher women's empowerment (in the form of women's contribution to household income) showed a strong correlation to girls' school attendance.

However, there are a number of studies which indicate that women borrowers do not necessarily increase investment in children's education. Douglas (2009) for example, stated in her study on Spandana in India that the gender of the household head did not have significant effect on schooling decisions. Karlan and Zinman's (2009) study in the Philippines on the First Macro Bank is an interesting one as it differs from previous studies in suggesting that men invest in their children's education. Karlan and Zinman's (2009) study found that male borrowers, as opposed to female borrowers, invest in their children's education, hence increasing schooling attendance. Kaboski and Townsend (2009, p. 30) also indicated in their study on the Millennium Baht Village Fund in Thailand that women do not spend more on children's education in response to microfinance credit. The microfinance program actually significantly lowered the probability that a female-headed household would have educational expenditures above average for the household.

j. Household Income

As a result of access to credit from microfinance programs, both consumption levels and the demand for children's education increase (Morduch, 1999). This income effect helps budget-constrained families to smooth somewhat their income variability. It is important to note that there are two main costs that households factor in when making schooling decisions for their children: first, direct costs like school fees, books, uniforms; second, indirect costs like foregoing children's labor potential.

Several studies have indicated positive impact on the schooling of children due to the additional household income. Karlan and Zinman (2009) in their study on the First

Macro Bank in the Philippines uses Wydick's (1999) explanation on the family-labor-substitution-effect to suggest that households use increase profit from access to credit via microfinance programs to send their children to school. Karlan and Zinman (2009) found that there is less investment made in targeted business by households, as households substitute away from labor into education.

A study conducted by Royal Bank Scotland Foundation (2008, p. 16) on Cashpor in India found that the proportion of schooling enrollment for both male and female children increases with access to microfinance credit, with 70% of children of the very poor in school and 89% of children of non-poor still in school. Also, there seems to be no significant difference between male and female ratios in school. The study by Montgomery (2005, p. 12) on the Khushhali Bank in Pakistan concludes that positive impact on education expenditures is found for the poorest borrowers. Jacoby (1994) indicates in his study in Peru that positive impact on school attendance was found only for credit-constrained families as their income increases. Based on interviews conducted, Mosley and Rock's (2004) study noted that parents would first spend on education expenditure with increased income. The education expenditure spent is not only limited to school fees, but also extending non-fee education expenditures such as books and uniforms. Mosley and Rock (2004, p. 483) further explained that by the same token, the education expenditure is often the first expenditure to be cut when income falls or with the cancellation of microfinance loans. Wright, et al. (1999, p. 41) in their study on Uganda Women's Finance Trust in Uganda noted that clients can make substantial investments in terms of education expenditure in sending their children to schools as a result of access of credit.

However, there are also studies which claim that access to credit via microfinance programs does not influence household's decisions on the schooling of their children even though it does create changes in household's income. For example, Douglas (2009) in her study on Spandana in India quoted Bebczuk and Haimovich (2007, p. 4), and stated that microfinance loans may not change the education decisions of poor families if the amount of loans is not substantial enough to take the households out of subsistence level or does not create a sense of income security. In addition, if the microfinance loans are perceived to be either non-renewable or short-term, families might have a disincentive in investing in making education choices (Bebczuk & Haimovich, 2007). Kondo, et al. (2008) in their study of 38 MFIs in the Philippines indicated that there were changes in income, however no impact was found on education expenditure investment. Like Douglas (2009), Kondo, et al. (2008) have also indicated that the finding might be due to the modest impact of microfinance loans on income, which is insufficient to change households' education investment.

k. Birth Order of Child

The position or the birth order of children seems to be a recurring theme in some studies. Some studies find that younger children are more likely to be in school with the presence of microfinance programs in the households. For instance, Holvoet (2004, p. 41) in her study on IRDP and TNWDP in India found that older children tend to have a lower average number of years of schooling compared to younger children in the households of microfinance clients. Also, the birth order and gender of the children seem to reinforce each other. The eldest daughter is about 12 times less likely to be enrolled in school, as

compared to the eldest son in the family. Douglas (2009) study of Spandana in India shows that older children are less likely to be enrolled in school as compared to their younger siblings. Maldonado, et al. (2003) in their study of CRECER, Sartawi, and Pro Mujer in Bolivia find that younger children in the household have higher school enrollment rates than older children as the older children get puts to work.

However, some studies seem to suggest that the older children in the family seem to benefit more with the presence of microfinance than their younger siblings. Islam and Choe's (2009) study on the 13 MFIs in Bangladesh reveals that younger children are more adversely affected in terms of their school enrollment than their older siblings. Shimamura (2009, p. 77) in his study on MRFC in Malawi indicates that there is an increase of school attendance for the older child, while the school attendance for the younger child, particularly girls, decreases. Shimamura (2009) suggests in his study that this finding could possibly be explained by the increased demand for child labor in the context of tobacco production. Shimamura (2009) further explains that because tobacco production is labor intensive, more family labor, including child labor, are needed for agricultural production and for domestic chores. Also, in Shimamura's (2009, p. 78) study, it is stated that the microfinance credit uptake offsets negative effect of shock on the school attendance for older child, not on the younger child. This may be due to the inflexibility of credit program as agricultural loans are provided annually, and might not be flexible enough to cope with emergency household needs.

1. Gender of Child

A number of studies find that male children are more likely to be sent to school, in the presence of microfinance programs within the household. Holvoet's (2004, p. 41) study of IRDP and TNWDP in India indicates a pro-male bias in education investment and literacy outcomes by indicating in that 3.9 times more likely that boys rather than girls are enrolled in schools. Also, on average, girls receive two years less of schooling than boys. Barnes' (2001) study of Zambuko Trust in Zimbabwe found positive school enrollment for boys in the age of six to 10 but not for girls. Barnes (2001, p. 85) indicates in the study that this could probably be due to the girls being kept at home to work at the household enterprise, though not due to participation in the microfinance program. Douglas' (2009, p. 35) study on Spandana in India finds that male children in the household are up to four percentage points more likely to attend school than girls, despite the finding that children of microfinance borrowers are two percent less likely to be in school. Islam and Choe's (2009) study on the 13 MFIs in Bangladesh indicates that the increase in child labor and reduced school enrollment is much more pronounced for girls than for boys in the households with microfinance.

Snodgrass and Sebstad's (2002) study of the SEWA Bank in India also indicates that there is positive impact on boys' enrollment ratio but not for girls. This could be explained by the social and market constraints that limit returns on education, especially for girls (p. 40). Snodgrass and Sebstad's (2002) study on Zambuko Trust in Zimbabwe also finds positive impact on school enrollment ratios for boys 6-16 years old, but not on girls' enrollment within the same age range. By 1999, 99% of boys in client households were enrolled in school, as compared to 94% for non-clients. For girls between the age of

six to 16, school enrollment ratios declined between 1997 and 1999. As explained by Snodgrass and Sebstad (2002, p. 40), a possible reason for the declining enrollment ratio for girls is that girls are more likely to drop out of school to care for the sick.

m. Labor Needed for Household Enterprise

Morduch (1999) indicates that microfinance with its income effect generates an increase need for female employment, thus having children becomes costlier, pushing fertility rates down. At the same time, the need to have children help out at home in order to compensate for extra work taken on by parents decreases children's schooling levels as the schooling opportunity cost increases (Morduch, 1999).

Wydick's (1999, p. 855) study of FUNDAP in Guatemala examines the family-labor-substitution effect versus the household-enterprise-capitalization effect. The family-labor-substitution effect shows that access to credit via microfinance programs relaxes households' capital constraints and thus allow the families to substitute hired labor for the child labor, thus increasing the schooling of children. However, as a household enterprise becomes more capitalized, the marginal product of family labor increases, which increases the opportunity cost of schooling for the children (p. 855). Children are used for labor at the household enterprise when hired labor and child labor are not easily substitutable. For example, in the fabrication of traditional products in Guatemala like cloths or textiles, where buyers place heavy emphasis on quality and detail of work, households prefer to impart these important skills to their children. Also, households would prefer to have their children work at the household retail enterprise as hired labor must be continuously supervised to prevent thefts.

Douglas (2009, p. 39), in her study on Spandana in India indicates that households receiving microfinance loans are 7.4% (at 10 percent level) less likely to enroll their children in schools than those in households who did not receive microfinance loan, controlling for effects of additional loans, household characteristics, child characteristics, and household structure. Islam and Choe's (2009) study of the 13 MFIs in Bangladesh reveals a negative impact on school enrollment because of work in household enterprises that are set up using microfinance credits. Interviews conducted as part of the RBS Foundation's (2009, p. 16) study on Cashpor in India show that families tend to withdraw their boys from school during harvest season to help out in agriculture labor. Peace and Hulme's (1994) multi-country study of 70 programs indicates that the program had a mixed impact on children's school enrollment because of the increased demand for child labor. Likewise, Pham and Nguyen's (2009) study of VBSP in Vietnam shows that there is little influence of that microfinance program on children's school attendance. The reason why children's school attendance rates remained unchanged could be because microfinance participation might motivate children to spend more time in household economic work, rather than on domestic work. Pham and Nguyen (2009) go on to explain that in this situation, children tend to reallocate time between economic and household work, and sometimes giving up part of their leisure time for schooling purposes (p. 29).

n. Labor Needed for Household Domestic Work

An interesting finding from some of the studies is that if labor is needed at all from children, then it is not confined only to household enterprise work, as households also need help with domestic work as they get busy with household enterprise work.

Hazarika and Sarangi's (2008) study of MRFC, PMERW, MMF, and MUSCCO in Malawi finds that children are involved in domestic work as adults get busy in economic work like retail enterprises or landholding, especially during the peak labor season from February to April. Hazarika and Sarangi (2008) specify though that this involvement in domestic work does not affect children's school attendance but decreases children's leisure time that might affect their studies (less leisure and work-induced fatigue with less time to study outside school hours could impede learning). Holvoet's (2004) study on TRDP and TNWDP in India shows that elder daughters are engaged in household activities like cleaning, sweeping, water, fuel collection, and childcare.

Shimamura's (2009, p. 58) study of MRFC in Malawi indicates that in Sub-Saharan Africa, young children are responsible for certain kinds of household chores such as cleaning, cooking, fetching water, and collecting firewood. Also, it is stated that child labor becomes more valuable as children become older because children and adolescents can substitute for adult labor in agrarian economies. Family labor is a precious resource for poor households and labor allocation, including schooling, is a critical decision for their subsistence.

Pitt and Khandker's (1998, p. 986) study of Bangladesh shows that BRAC and BDRB-RD-12 have a smaller positive impact for women's borrower on girls' school enrollment than does the Grameen Bank. An example was shown in the study that with microfinance credit, mothers are now drawn into self-employment, and their daughters' time might be used to replace the time mothers withdraw themselves from household production (such as child care and food preparation). Unlike girls, boys are poor substitutes for mothers' time in household chores, and are less likely to be drawn into

production of household goods as a result of credit provided to adult women. This is shown in the statistics in the study that one percent increase in credit to women for the BDRB-RD-12 program has the largest impact on boys' school enrollment, 3.1 percentage points, as compared to girls' school enrollment at 1.86 percentage points.

4.4 SUMMARY: A MODEL

Figure 4 below summarizes the themes presented above and shows the relationship between the key components that make up this study. The three key components are: microfinance program, household that makes the schooling decisions, and the schooling of children. The study's research methodology and method as well as the duration of study affect the overall research findings.

First, the microfinance programs deliver services, either purely financial or integrated with non-financial aspects like skills training, to the client household in either a rural or an urban setting. The microfinance program's objectives, target clients, services, and structure influence the relationship between the microfinance program and the household.

Second, the household makes schooling decisions for its children based on clients' perceived value of education. The clients' perception is dependent on: clients' gender and education level, household income, the child's gender and birth order, the cost of schooling (either direct or indirect), the location and distance to school, type of work needed (either household enterprise or chores), and length of clients' membership.

Finally, the household's education decisions can be measured by the schooling indicators: school enrollment, school achievement, education expenditure, school withdrawal, years of schooling completed, and school attendance.

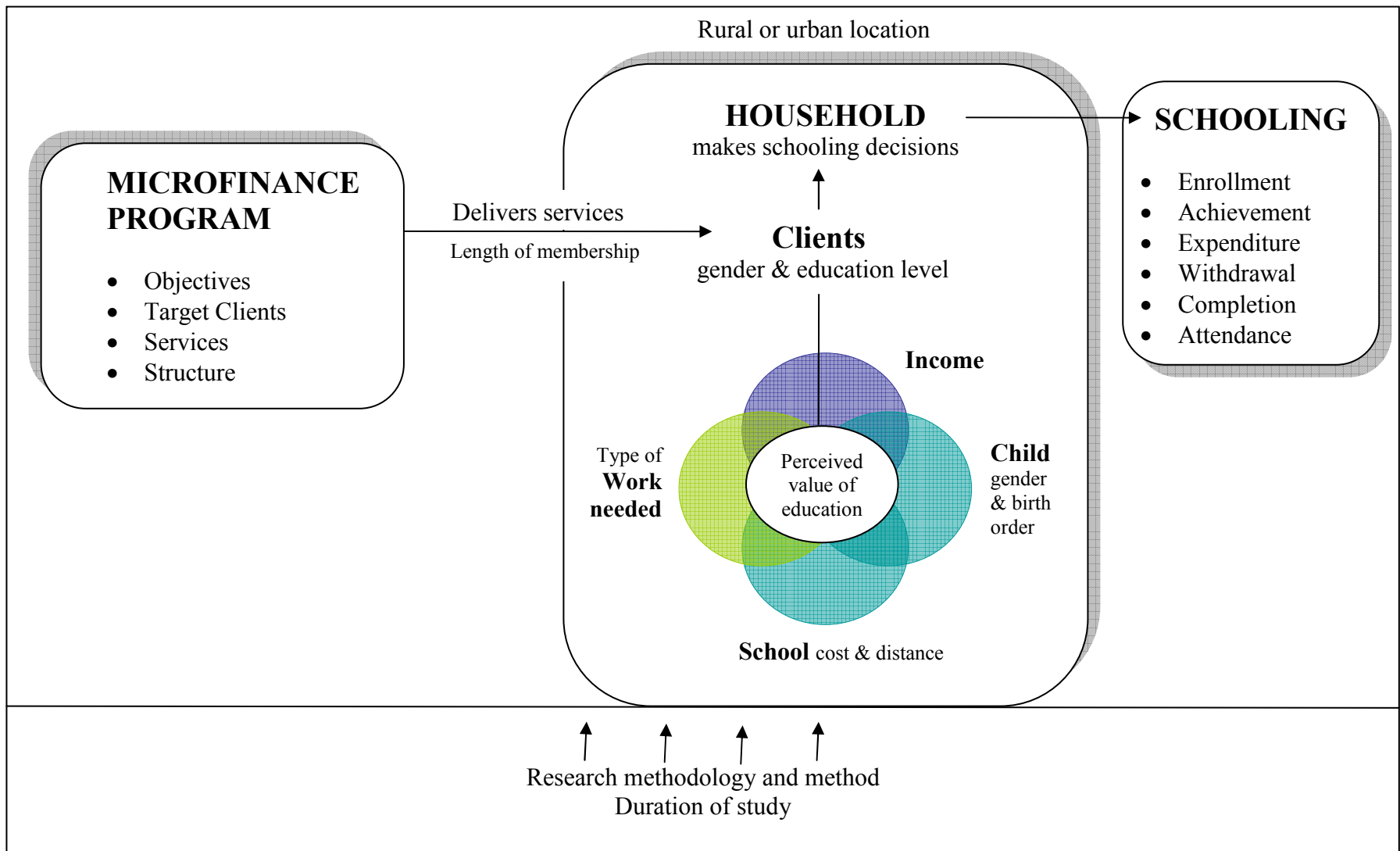


Figure 4 Model on how Microfinance Programs Influence Household Schooling Decisions

CHAPTER FIVE

DISCUSSION AND CONCLUSION

“I would not give a fig for the simplicity this side of complexity, but I would give my life for the simplicity on the other side of complexity.”

- Ralph Waldo Emerson

The main purpose of this study is to explore the impact of microfinance on the schooling of children. The three sub-questions that guide this study are:

1. What are the available research studies on the topic of the impact of microfinance on the schooling of children?
2. What is the overall conclusion of the research studies on the impact of microfinance on the schooling of children?
3. What are the key themes emerging from the findings on *how* microfinance influences the schooling of children?

The framework of unintended consequences guided the investigations of the research questions in this study. A meta-synthesis methodology was used to analyze and synthesize findings from the aggregated studies with diverse research approaches and methods. Finally, a proposed model was created based on the themes that emerged in the findings as a way to think about how microfinance programs influence the schooling of children via household’s decision making process.

The first section (5.1) of this chapter discusses the study’s summary of results. Section two (5.2) of this chapter presents the implications for theory, policy, and practice. Section three (5.3) follows with study limitations. In section four (5.4), recommendations

for further study are provided. Lastly, a final concluding statement is made in section five (5.5).

5.1 SUMMARY OF RESULTS

For ease of reference, there are two parts to this section. Part 1 consists of a concise summary. Part two provides a more detailed summary of this study.

Synthesis Summary

Households with low income often lack access to credit, and are not able to provide adequate educational opportunities for their children. Through reduced resource constraints, access to microfinance programs increases households' ability to make decisions to invest in their children's schooling. However, previous research studies focusing on the impact of microfinance on children's schooling have shown mixed impacts with little convincing evidence for either side.

This study hypothesizes that instead of helping the poor alleviate poverty, microfinance has unintended consequences of negatively influencing the schooling of children. Household enterprises financed by microfinance programs increase the demand for child labor, either to work at the enterprise or household chores, thus reducing educational outcomes.

The overall findings from this study seem to suggest a more nuanced take on the complexity of the relationship between microfinance and its impact on the schooling of children. Most of the impacts are found to be either mixed or positive for the schooling of children, especially in terms of school enrollment, and education expenditures. Out of the

46 total research sites from the 32 research studies, 19 were found to have mixed impacts and 16 with positive impacts on the schooling of children.

Based on themes emerged in the findings, a model on how microfinance program impact the schooling of children was presented to synthesize the overall findings from this study. The model shows that households' decision making in the form of children's schooling is often complex given the uncertainties in household's lives and the intermixing of multiple variables in forming their perception on the value of education.

Finally, as can be observed in 76% of the studies that have shown both mixed and positive impact on the schooling of children, microfinance is an important tool to increase access of credit to families, but perhaps not the panacea for wider impact as claimed. It is clear that the focus for some of the MFIs in the research studies are to generate profits, hence it is crucial not to make false assumptions that microfinance programs are set out to help with increasing educational investments in households. Even if an MFI is shown to produce positive impact on the schooling of children, the outcome might be an unintended or unanticipated one. Perhaps an integrated approach to microfinance services along with substantive funding is necessary to complement the already-existing core microfinance services to help influence wider impact on education and the schooling of children.

Detailed Findings

This study reviews findings from 32 research studies, with over 150 programs in 27 countries, spanning five different continents. There are a total of 46 research sites since some studies are conducted in multiple sites in the same country. There are 50

country observations in total as some research studies are conducted in multiple countries. An overwhelming number of studies were focused on Asia, followed by Africa. A majority of studies were conducted within the economics discipline, employed econometrics methodology, utilized impact survey method. Also, cross-sectional studies are most commonly used among the studies, possibly because they require less data commitment time and at a lower cost as compared to longitudinal studies. Cross-sectional studies track findings at a single point in time, as opposed to longitudinal studies which track outcomes over different points in time.

There are a total of 46 research sites for the overall findings of the impact of microfinance on the schooling of children, as sorted based on the MFIs in focus. These observations have been grouped into six distinct categories according to the indicators or dependent variables listed in the studies: school enrollment, education achievement, education expenditure, school withdrawal, years of schooling completed, and school attendance. These studies show the complexity involved in the ways households respond in making decisions for the schooling of their children in the context of receiving microfinance services.

It is clear from the available studies that there seem to be more focus on the quantitative aspects of measuring education input or output like school enrollment, withdrawal, education expenditure, and years of schooling completed. There seems to be a lack in terms of measurement on actual education quality, which is an important component to gauge success in education.

The themes emerging from the study findings are grouped into 14 distinct categories: study methodology, study duration, approach of MFI, MFI's services, MFI's

structure, client's length of membership, location, education level of clients, gender of clients, household income, birth order of child, gender of the child, labor needed for household enterprise, and labor needed for household domestic work. These themes are suggested in the research studies as possible ways to explain the results of the overall findings: positive, negative, mixed, or neutral or no significant impact.

Based on the themes which emerged, a model is presented to synthesize and show the relationship between the microfinance program, household, and the schooling of children. The model presents a sequence of relationship between microfinance program and the household. First, microfinance program delivers services, either purely financial or integrated with non-financial aspects like training, to the client household. Second, household make schooling decisions for their children based on clients' perceived value of education. The clients' perception is often dependent on: clients' gender and education level, household income, the child's gender and birth order, the cost of schooling (either direct or indirect), the location and distance to school, type of work needed (either household enterprise or chores), and length of clients' membership.

Finally, the household's education decisions can be measured by the schooling indicators: school enrollment, school achievement, education expenditure, school withdrawal, years of schooling completed, and school attendance. It is important to also consider these three components in affecting the overall impact findings on the schooling of children: living location of the households, research methodology and method, and the duration of study.

5.2 IMPLICATIONS FOR THEORY, POLICY, AND PRACTICE

This study focuses on addressing a gap on an important area that has lack previous research. More specifically, research on the wider impact of microfinance and human development outcomes have been found to be insufficient (Odell, 2010) and the available studies on the impact of microfinance on the schooling of children lack consensus across different programs and countries. This study has reviewed, synthesized, and illustrated the complexity involved in the relationship between microfinance program and children schooling.

Microfinance has much policy relevance and is no doubt a popular approach for poverty reduction especially over the past twenty years. There is certainly growing importance of microfinance among researchers, policymakers in international development, development economics, and development financing. This growing importance can be observed with the increasing numbers of development agencies supporting and implementing microfinance initiatives for the poor (Morduch & Haley, 2002), and investment into studies conducted by USAID-AIMS, World Bank-BIDS, ADB Institute and multiple MFIs like FINCA, BRAC, and Cashpor.

Some research studies included in this study have pointed towards the direction of the positive impact microfinance could have on the schooling of children. However, the claim for wide impact of microfinance programs might still be far-fetched given the large evidence of mixed impacts studies. It still seems unclear if the provision of credits via microfinance programs can necessarily help with the schooling of children positively. Granted the intricacies and complexities of household's decision making, studying

impact takes time. More specifically, examining education changes is complicated, slow and can only be observed overtime. Hence, there is much potential for the still-limited use of research methodologies like the Randomized Control Trials (RCTs) or longitudinal research studies in strengthening the impact study of microfinance.

The results of this study challenges a number of assumptions made about microfinance programs. The provision of small loans through microfinance programs are meant to relieve borrowers from cash constraints by increasing and diversifying their income hence lowering the opportunity cost to send children to school. However, the household decision making in the form of schooling for children involves an economic trade-off between the current return on children's labor in the household enterprise as funded by microfinance programs and future returns on schooling (Wydick, 1999).

Also, while the potential for successful microfinance programs to help alleviate poverty and to contribute to rural economy in the short term is undeniable, microfinance programs can also result in unintended consequences of adversely affecting children's schooling which could exacerbate poverty in the longer term. With the access to credit, households are confronted with making a choice between "school versus work" for their children, and in deciding whether to send their children to school or to take their children out of school to work hence contributing to the family's income. As shown in the studies, the pull away from schooling for children is also a matter of households deciding if the children are to help out at the household's enterprise financed by the microfinance programs or to do household chores in the absence of mothers who now work at the household enterprise.

Given the above-mentioned possibilities of unintended consequences, there is potential for MFIs in minimizing the possible detrimental effects of microfinance upon the schooling of children. First, it is necessary for MFIs to put more caution and to consider more extensively the unintended aspects of microfinance programs, especially during the design phase and implementation stage of the microfinance programs. Real-time evaluation, frequent follow-up studies of the microfinance programs could also be conducted to continuously assess the programs. Second, MFIs can institute lending rules sensitive to children's well-being, such as loans conditional upon household children attending school while contributing no labor to the funded enterprises (Hazarika & Sarangi, 2008) or continued access to loans for the household contingent upon satisfying certain schooling requirements. Third, the provision of financial services beyond credit, like focusing on microsavings, or microinsurance is an area with much potential to help in managing and planning for household's further consumptions or investments. Fourth, as exemplified in Shimamura's (2009) study on the SHGs and BRAC's non-formal education, MFIs have the potential in delivering integrated services alongside financial services to set up an organized system to promote social issues such as children's education. Fifth, the bundling of microfinance financial services with non-financial services like skills or awareness training are all possibilities and potential tools to change perceptions of households about investment in children's schooling to promote long term development.

It is quite apparent that microfinance is not a panacea for such a complex problem as poverty alleviation. In the context whereby education is part of the larger goal to reduce poverty, MFIs could collaborate with education development sector in addressing

development-related issues and complement each other. Policies that directly target children's education could also complement the introduction of microfinance in households to increase the return on education as perceived by parents to achieve the multiple goals of poverty reduction, human capital formation, and social development (Wydick, 1999). More specifically, a more cohesive and integrated effort is necessary to address such complex problems. Donor funding on microfinance needs to also complement substantial investments in core services like education.

5.3 STUDY LIMITATIONS

It is important to recognize the limitations in this research study. In particular, these results should not be interpreted as evidence that microfinance will necessarily lead to positive or mixed impact to the schooling of children. First, this study uses meta-synthesis as its only methodology. There is the tendency to want to make quick generalization and conclusion of the topic of study. However, the results only hold true for these particular sets of studies included. To gain richer perspective, triangulating data through mixed methods of interviews, observations, and documents would further strengthen the research (Merriam, 2009). However, triangulation of data is not possible in this research study due to time and budget constraints.

Second, the use of meta-synthesis to synthesize from many different sources limits the depth of findings that could be obtained. For example, an analysis of whether differences in microfinance programs (missions, rural or urban locations, and nature of MFIs) can lead to differences in educational outcomes is not possible. Some studies

which focus on multiple programs, or locations, conclude with only one finding, thus it is limits the analysis of various correlation possibilities.

Third, this study would be strengthened with more focus on contextual background piece to gain a more cohesive understanding of the overall impact. The author has initially created two profile tables to gauge detailed descriptions of specific MFIs and clients examined in the studies. However, it is not possible to include the two tables into this study due to limited information presented in the research studies examined. Impact studies do not occur in a vacuum, thus this study could be further strengthened with context information on the social, political, economic environments surrounding the MFIs and clients. Also, given that the range of microfinance clients is huge, this study is limited as it does not offer glimpse of MFI clients' characteristics, as these characteristics are important when interpreting the findings. For example, this study does not indicate whether the clients are extremely poor, moderate poor, or vulnerable poor clients. However, it is not possible to include the specific contextual information mentioned above due to the large range of studies examined via the meta-synthesis approach.

Fourth, this study is limited since it uses secondary data, thus dependent on the quality of the existing research studies and defined by the availability of findings in those studies. For example, the 32 main research studies predominantly focus on quantitative aspects of measuring education input or output like school enrollment, withdrawal, education expenditure, and years of schooling completed. Most of the studies seem to focus on aspects of formal schooling; hence there is a gap of understanding of how microfinance programs affect the informal or non-formal education of children. Also,

there seems to be a lack in terms of measurement on actual education quality, which is an important component to gauge success in education. This study will be strengthened with the inclusion of research studies on the impact on schooling matters in terms of education quality, qualitative aspects or more exploratory research on education situations. However, this study is constrained by the unavailability of such aspects in the research it draws on.

Finally, the bulk of the research studies used in this study are English-only literature. Certainly, it will be best to obtain literature from multiple languages to gain an overall sense of the impact of microfinance on the schooling of children. Findings on research studies in major languages like Spanish or French are not possible as these are not languages that the author is well-versed in and hence, inaccessible.

5.4 RECOMMENDATIONS FOR FURTHER STUDY

While this study might provide insights on the overall conclusion of the available research studies on the impact of microfinance on the schooling of children, it serves as a base from which future research can draw from.

A possibility for further study is to focus on gaining understanding if microfinance programs are even common in the countries indicated in this study. In her research, Douglas (2009) indicated that only five percent of loans taken are provided by microfinance lenders. There is certainly room for debate as to the extent of penetration of existing MFIs in their market and reach for clients.

Second, while it is recognized that longitudinal studies are costly and are time-consuming, impact studies would certainly benefit much from longer studies as impact can be tracked over time. More specifically, education effects take time to be observed. When examining education changes, perhaps longer time-frame studies would be able to uncover certain findings that are otherwise not possible with shorter time-frame studies.

Third, future studies could focus on more specific case studies in examining the impact of MFIs. Contribution to the understanding in the microfinance industry would benefit from studies which pay attention on the social, economic, and political context, as well as on the specific composition of households, and clients' characteristics. Also, it is important for future studies to focus on MFIs' program structure, and design. For instance, in Chowdhury and Bhuiya's (2004) study, BRAC is seen to promote education improvement with its clients' base. However, education improvement is also observed concurrently at the national level in Bangladesh. It is thus, hard to ascertain how much of an influence BRAC has on the clients to promote positive education improvement in making decisions to send their children to schools.

Fourth, future studies could research on the impact of microfinance on the non-formal or informal education of children given the lack of studies in those areas. Most of the current research studies seem to focus primarily on formal aspects of schooling.

Finally, future studies could focus on studying the potential of MFIs in the expansion of the range of their services. Recently, microfinance programs have now expanded beyond providing microcredit to include wider range of services for their clients like microsavings, insurance, and non-financial services. There is much potential for MFIs to complement their financial services by integrating non-financial services like

financial education and skills training that can influence perceptions of clients in their decision making process of schooling for their children.

5.5 CONCLUSION

This study focuses on a total of 46 research sites from 32 research studies, with over 150 microfinance programs in 27 countries, spanning across five different continents. 76% of the research sites (54% out of 76% shows mixed impact) have shown that microfinance programs elicit either mixed or positive impact on the schooling of children, especially in terms of school enrollment, and education expenditure.

The contribution of this study is the uses of meta-synthesis methodology and the unintended consequences framework to gain deeper understanding of what is known about the impact of microfinance on the schooling of children. An overall assessment of the impact of microfinance is necessary given the growing importance of microfinance in international development, development financing, and the increased disbursement of official aid via microfinance programs. Specifically, this study is a timely reminder of the possibility that a popular development tool such as microfinance can adversely influence the schooling of children, which could exacerbate poverty in the longer term.

The findings from this study can help inform researchers, policy makers, microfinance practitioners, and donors on the complexity of household's decision making in the form of children's schooling and the *interaction* of key variables in influencing household's perception of the value of schooling. Microfinance is an important tool to increase access of credit to families, but perhaps not the panacea for wider impact as claimed.

REFERENCES

- Acharya, M. (2009). *Reaching the poorest through microfinance: Learning from savings for change program in Mali*. Unpublished doctoral dissertation, University of Massachusetts Amherst, Amherst, Massachusetts.
- Armendariz, B., & Morduch, J. (2010). *The economics of microfinance* (2nd ed.). Cambridge, Massachusetts: The MIT Press.
- Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2009). *The miracle of microfinance? evidence from a randomized evaluation*. Retrieved July 11, 2010, from <http://collab2.cgap.org/gm/document-1.9.34827/The%20miracle%20of%20micro%20C2%85nance.pdf>
- Banerjee, S. (2009). *How microfinance changes the lives of millions, one person at a time*. Retrieved August 26, 2010, from http://www.foreignpolicy.com/articles/2009/10/26/how_microfinance_changes_the_lives_of_millions?page=0.0
- Barnes, C. (2001). *Microfinance program clients and impact: An assessment of Zambuko Trust, Zimbabwe*. Washington, DC: Assessing the Impact of Microenterprise Services (AIMS) Management Systems International.
- Barnes, C., Gaile, G., & Kimbombo, R. (2001). *Impact of three microfinance programs in Uganda*. Washington, DC: Assessing the Impact of Microenterprise Services (AIMS) Management Systems International.
- Bateman, M. (2010). *Why doesn't microfinance work? The destructive rise of local neoliberalism*. New York, NY: Zed Books.
- Bebczuk, R., & Haimovich, F. (2007). *MDGs and microcredit: An empirical evaluation for Latin American countries*. CEDLAS and Universidad Nacional de la Plata. Argentina.
- Becchetti, L., & Conzo, P. (2010). *The controversial effects of microfinance on child schooling: A retrospective approach*. ECINE Society for the Study of Economic of Inequality. University of Rome "Tor Vergata".
- Boyte, H. (2008). *The citizen solution: How you can make a difference*. St. Paul, Minnesota: Minnesota Historical Society Press.
- Buckley, G. (1996). Financing the Jua Kali sector in Kenya: The K-REP Juhudi scheme and Kenya Industrial Estates Informal Sector Program. In D. Hulme & P. Mosley (Eds.), *Finance Against Poverty, Volume II: Country Case Studies* (pp. 349-427). London: Routledge.
- CGAP. (2009). What do we know about the impact of microfinance? *Consultative Group to Assist the Poor*. Retrieved August 19, 2010, from <http://www.cgap.org/p/site/c/template.rc/1.26.1306/>
- CGAP. (2010). What is microfinance? *Consultative Group to Assist the Poor*. Retrieved September 7, 2010, from <http://www.cgap.org/p/site/c/template.rc/1.26.1302/>
- Chowdhury, A. M. R., & Bhuiya, A. (2004). The wider impacts of BRAC poverty alleviation programme in Bangladesh. *Journal of International Development*, 16(3), 369-386. doi: 10.1002/jid.1083
- Coleman, B. E. (1999). The impact of group lending in Northeast Thailand. *Journal of Development Economics*, 60(1), 105-141.

- Coleman, B. E. (2002). *Microfinance in Northeast Thailand: Who benefits and how much?* ERD Working Paper Series Title 9. Asian Development Bank. Manila, Philippines.
- Coleman, B. E. (2006). Microfinance in Northeast Thailand: who benefits and how much? *World Development*, 34(9).
- Conard, F. (1992). *The arts in education and a meta-analysis*. Unpublished doctoral dissertation, Purdue University, West Lafayette, IN
- Copestake, J., Bhalotra, S., & Johnson, S. (2001). Assessing the impact of microcredit: A Zambian case study. *Journal of Development Studies*, 37(4), 81-100.
- Creevey, L. E., Ndour, K., & Thiam, A. (1995). Evaluation of the impacts of PRIDE/VITA (The Guinea Rural Enterprise Development Project) *GEMINI Technical Report No. 94*. Bethesda, MD.
- Daley-Harris, S. (2009). *State of the microcredit summit campaign report 2009 Microcredit Summit Campaign*. Washington D.C.
- De Mel, S., McKenzie, D., & Woodruff, C. (2008). Returns to capital in microenterprises: Evidence from a field experiment *Quarterly Journal of Economics*, 123(4), 1329-1372.
- DeJaeghere, J. G., & Fry, G. W. (2003). *A critical analysis of less commonly used methods in evaluation*. Paper presented at the American Evaluation Association, Reno-Sparks, Nevada.
- DFID. (2001). *The challenge of universal primary education: Strategies for achieving the international development targets*. London: UK Department for International Development.
- Douglas, K. M. (2009). *The impact of microfinance on schooling decisions: Evidence from Hyderabad, India*. Unpublished Masters Thesis, Georgetown University, Washington, DC.
- Dunford, C. (2002). Building better lives: sustainable integration of microfinance with education in child survival, reproductive health, and HIV/AIDS prevention for the poorest entrepreneurs. In S. Daley-Harris (Ed.), *Pathways out of poverty: innovations in microfinance for the poorest families*. Bloomfield, Connecticut: Kumarian Press.
- Easterly, W. (2006). *The white man's burden: Why the west's efforts to aid the rest have done so much ill and so little good*. New York: The Penguin Press.
- Gitter, S. R., & Barham, B. L. (2007). Credit, Natural Disasters, Coffee, and Educational Attainment in Rural Honduras. *World Development*, 35(3), 498-511. doi: DOI: 10.1016/j.worlddev.2006.03.007
- Gokhale, K. (2009). *A global surge in tiny loans spurs credit bubble in a slum* Retrieved August 19, 2010, from <http://online.wsj.com/article/SB125012112518027581.html>
- Goldberg, N. (2005). *Measuring the impact of microfinance: Taking stock of what we know*. Washington, D.C.: Grameen Foundation USA.
- Harford, T. (2009). *Perhaps microfinance isn't such a big deal after all*. *Financial Times* Retrieved September 7, 2010, from <http://www.ft.com/cms/s/2/ae4211e8-dee7-11de-adff-00144feab49a.html>

- Hatch, J., & Crompton, P. (2003). *FINCA client assessment - 2003*. Washington D.C.: FINCA.
- Hazarika, G., & Sarangi, S. (2008). Household access to microcredit and child labour in rural Malawi. *World Development* 36(5), 843-859.
- Herz, B., & Sperling, G. (2004). *What works in girls' education: Evidence and policies from the developing world*. New York: Council on Foreign Relations Press.
- Holvoet, N. (2004). Impact of microfinance programs on children's education: Do the gender of the borrower and the delivery model matter? *Journal of Microfinance*, 6(2), 27.
- Islam, A., & Choe, C. (2009). *Child labour and schooling responses to access to microcredit in rural Bangladesh*. MPRA Paper 16842. University Library of Munich, Germany.
- Jacoby, H. (1994). Borrowing constraints and progress through school: Evidence from Peru. *Review of Economics & Statistics*, 76(1), 151-160.
- Jacoby, H., & Skoufias, E. (1997). Risk, financial markets, and human capital in a developing country. *Review of Economics Studies*, 64(220), 311-335.
- Kabeer, N. (2001). Conflicts over credit: Re-evaluating the empowerment potential of loans to women in rural Bangladesh. *World Development*, 29(1), 63-84. doi: Doi: 10.1016/s0305-750x(00)00081-4
- Kaboski, J., & Townsend, R. (2009). *The impact of credit on village economies*. MIT Department of Economics Working Paper. Department of Economics MIT. Retrieved from <http://ssrn.com/abstract=1395348>
- Karlan, D., & Zinman, J. (2007). Expanding credit access: using randomized supply decisions to estimate the impacts. *Review of Financial Studies*, 23(1), 433-464.
- Karlan, D., & Zinman, J. (2009). *Expanding microenterprise credit access: Using randomized supply decisions to estimate the impacts in Manila*. Yale University Economic Growth Center Discussion Paper No. 976. Yale Economics Department Working Paper. New Haven, CT.
- Karnani, A. (2007). Microfinance misses its mark. *Stanford Social Innovation Review*, 5(3), 34-40.
- Khandker, S. (1988). *Fighting poverty with microcredit: Experience in Bangladesh*. Washington, DC: University Press for the World Bank.
- Khandker, S. (2005). Microfinance and poverty: Evidence using panel data from Bangladesh. *World Bank Economic Review*, 19 (2), 263-286.
- Kondo, T., Orbeta Jr., A., Dingcong, C., & Infantado, C. (2008). *Impact of microfinance on rural households in the Philippines: a case study from the special evaluation study on the effects of microfinance operations of poor households and the status of women*. Discussion Paper Series No. 2008-005. Philippines Institute for Development Studies. Makati City, Philippines.
- Lillard, L., & Willis, R. (1994). Intergenerational educational mobility: Effects of family and state in Malaysia. *Journal of Human Resources*, 29(4), 1126-1166.
- Lire, E. (2002). Child labour and school decisions in urban and rural areas: Cross country evidence *FCND Discussion Paper no. 145*. Washington, D.C.: International Food Policy Research Institute.

- Littlefield, E., Morduch, J., & Hashemi, S. (2003). *Is microfinance an effective strategy to reach the Millennium Goals?* Washington, D.C.: World Bank.
- Maldonado, J. H. (2005). *The influence of microfinance on the education decisions of rural households: Evidence from Bolivia*. Ohio State University, Columbus, Ohio.
- Maldonado, J. H., Gonzalez-Vega, C., & Romero, V. (2003). *The influence of microfinance on education decisions of rural households: evidence from Bolivia*. Paper presented at the Annual Meeting of the American Agricultural Economics Association, Montreal, Canada.
- McKernan, S.-M. (2002). The impact of microcredit programs on self-employment profits: do noncredit program aspects matter? *Review of Economics and Statistics* 84(1), 93-115.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Merton, R. K. (1936). The unanticipated consequences of purposive social action. *American Sociological Review*, 1(6), 894-904.
- Montgomery, H. (2005). *Serving the poorest of the poor: the poverty impact of the Khushhali Bank's microfinance lending in Pakistan*. Manila, Philippines: Asian Development Bank Institute
- Morduch, J. (1998). *Does microfinance really help the poor? New evidence on flagship programs in Bangladesh*. Harvard Department of Economics and Stanford Hoover Institution. Stanford, CA.
- Morduch, J. (1999). The microfinance promise. *Journal of Economic Literature*, 37(4), 1569-1614.
- Morduch, J., & Haley, B. (2002). *Analysis of the effects of microfinance on poverty reduction*. NYU Wagner Working Paper No. 1014. Retrieved from http://www.nyu.edu/wagner/public_html/cgi-bin/workingPapers/wp1014.pdf
- Morduch, J., & Rutherford, S. (2003). Microfinance: analytical issues for India. In P. Basu (Ed.), *India's financial sector: issues, challenges and policy options*. New Delhi, India: Oxford University Press.
- Mosley, P., & Rock, J. (2004). Microfinance, labour markets and poverty in Africa: a study of six institutions. *Journal of International Development*, 16(3), 467-500. doi: 10.1002/jid.1090
- Myrdal, G. (1969). *Objectivity in social research*. New York, NY: Pantheon Books.
- Odell, K. (2010). *Measuring the impact of microfinance: Taking another look*. Washington, DC: Grameen Foundation USA.
- Peace, G., & Hulme, D. (1994). Microenterprise and children what are the intra-household impacts of income-generating programmes? *Small Enterprise Development*, 5(1), 21-29. doi: 10.3362/0957-1329.1994.004
- Pham, T. T., & Nguyen, H. V. (2009, September). *Child schooling and child work decisions in Vietnamese rural households: The role of microfinance in poverty reduction*. Paper presented at the PEGNet Conference, The Hague, the Netherlands.
- Pitt, & Khandker. (1998). The impact of group-based credit programs on poor households in Bangladesh: Does the gender of participants matter? *Journal of Political Economy* 106 (5), 958-996.

- RBS Foundation India. (2008). *Microfinance and poverty alleviation: An impact assessment survey* India: The Royal Bank of Scotland Group.
- Roodman, D. (2010). *Why doesn't Milford Bateman's book work* Retrieved September 7, 2010, from http://blogs.cgdev.org/open_book/2010/08/why-doesnt-milford-batemans-book-work.php
- Roodman, D., & Morduch, J. (2009). *The impact of microcredit on the poor in Bangladesh: Revisiting the evidence*. Center for Global Development. Washington, DC.
- Rosenberg, T. (2006). *How to fight poverty: 8 programs that work* Retrieved November 14, 2009, from <http://select.nytimes.com/2006/11/16/opinion/15talkingpoints.html?pagewanted=all>
- Sandelowski, M., & Barroso, J. (2007). *Handbook for synthesising qualitative research*. New York, NY: Springer.
- Scott, J. (1998). *Seeing like a state: How certain schemes to improve the human condition have failed*. Birmingham, New York: Yale University Press.
- Sebstad, J., & Chen, G. (1996). *AIMS: Overview of studies on the impact of microenterprise credit*. Washington, D.C.: Harvard University, Management Systems International.
- Shimamura, Y. (2009). *Three essays on children's education and rural credit programs in less developed countries: Evidence from sub-saharan Africa and South Asia*. Unpublished doctoral dissertation, University of Wisconsin-Madison, Madison, WI. (UMI 3383960)
- Snodgrass, D. R., & Sebstad, J. (2002). *AIMS: Clients in context: The impacts of microfinance in three countries*. Washington, D.C.: Harvard University, Management Systems International.
- Sutoro, A. D. (1990). *KUPEDES development impact survey: Briefing booklet*. Jakarta, Indonesia: BRI, Planning, Research and Development Department.
- Sveiby, K. E., Gripenberg, P., Segercrantz, B., Eriksson, A., & Aminoff, A. (2009). *Unintended and undesirable consequences of innovation*. Paper presented at the XX ISPIM conference The Future of Innovation, Vienna, Austria.
- The Microcredit Summit Campaign. (2009). *About us: Microfinance advocacy* Retrieved September 7, 2010, from http://www.microcreditsummit.org/about/microfinance_advocacy/
- Todd, H. (1996). *Women at the center: Grameen Bank borrowers after one decade*. Boulder, CO: Westview Press.
- UNCDF. (2005). *Microfinance and the Millenium Development Goals: A reader's guide to the Millenium Project reports and other UN documents* Retrieved November 28, 2009, from http://www.yearofmicrocredit.org/docs/mdgdoc_MN.pdf
- UNCDF. (2005b). *Why a year? About microfinance and microcredit* Retrieved November 28, 2009, from http://www.yearofmicrocredit.org/pages/whyayear/whyayear_aboutmicrofinance.asp
- UNESCO. (2010). *Millennium Development Goals cannot be achieved without education says UNESCO Director-General* Retrieved September 23, 2010, from

- [http://www.unesco.org/new/en/media-services/single-view/news/millennium_development_goals_cannot_be_achieved_without_education_says_unesco_director_general/back/18256/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed:+ungen+\(UN+gender+equality+news+feed\)](http://www.unesco.org/new/en/media-services/single-view/news/millennium_development_goals_cannot_be_achieved_without_education_says_unesco_director_general/back/18256/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed:+ungen+(UN+gender+equality+news+feed))
- Welle-Strand, A., Kjollesdal, K., & Sitter, N. (2010). Assessing microfinance: the Bosnia-Herzegovina case. *Managing Global Transitions*, 8(2), 145-166.
- Wharton, K. (2009). *How to measure microfinance's social impact* Retrieved July 11, 2010, from <http://www.forbes.com/2009/12/02/microfinance-poverty-wharton-entrepreneurs-finance-wharton.html>
- Woller, G. (2004). A review of impact assessment methodologies for microenterprise development programmes. In A. Nolan & G. Wong (Eds.), *Evaluating local economic and employment development: how to assess what works among programmes and policies* (pp. 389-436). Paris, France: Organisation for Economic Co-operation and Development (OECD).
- World Bank. (2006). *Microfinance in South Asia: Towards a financial inclusion for the poor*. Washington, D.C.: The World Bank, Washington.
- Wright, G., Kasente, D., Ssemogerere, G., & Mutesa, L. (2000). *Vulnerability, risks, assets and empowerment—The impact of microfinance on poverty alleviation*. New York, NY: Oxford University Press.
- Wydick, B. (1999). The effect of microenterprise lending on child schooling in Guatemala. *Economic Development and Cultural Change*, 47 (4), 853-869.
- Yunus, M. (1999). *Banker to the poor: Micro-lending and the battle against world poverty*. New York, NY: Public Affairs.