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# MICROFINANCE: A REVIEW OF THE CHALLGENGES AND TACTICS TO REACHING THE POOR IN DEVELOPING COUNTRIES

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## ABSTRACT

The prevalence of microfinance institutions in developing countries has increased drastically since the beginning of the century. As the field has surged in growth, much research has been focused on quantifying the effects of the organizations. In recent years, a growing literature on the shortcomings of microfinance has emerged. Specifically, microfinance institutions are failing to reach and positively impact the poorest of the poor, the individuals the organizations were created to assist. To overcome this hurdle, microfinance institutions are beginning to offer additional services relevant to the issues faced by the very poor. This paper synthesizes and critically evaluates the research on the ability of microfinance institutions to reach the poorest of the poor, and provides support for the integration of financial and nonfinancial services to successfully assist those living farthest below the poverty line.

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# Chapter 1

## Introduction

In 2006, Muhammad Yunus and Grameen Bank were awarded the Nobel Peace Prize for providing financial services to the poorest people in developing countries. By granting small loans to individuals who would otherwise not have had access to credit, Yunus initiated the growth of the microfinance field. At the time he was granted his award, over seven million people had utilized the services offered by Grameen Bank. With high repayment rates and a heavy focus on providing loans to women, Yunus had essentially transformed the market for credit in the world's poorest nations (The Norwegian Nobel Institute, 2015).

Since the 1980s, microcredit has grown immensely. Thousands of organizations sprouted to carry out the ideals presented by Grameen Bank. Services expanded from just microcredit to microsavings and microinsurance as well, giving birth to the field of microfinance. Today, microfinance institutions are present in more than 100 countries, and serve a client base of over 92 million individuals (Microfinance Information Exchange, 2010). Further demonstrating the explosive growth of microfinance, it was estimated that 800 million to one billion United States dollars were donated to microfinance institutions in 2004 (CGAP, 2004).

In the years following the expansion of microfinance, the field was lauded for its success in decreasing poverty. Among its main praises, microfinance was credited for raising income, increasing asset ownership, reducing vulnerability and improving health. It was also commended for fueling women's empowerment (Littlefield et al, 2003). To its proponents, microcredit was a

one stop solution to many of the issues faced by those living in the most extreme levels of poverty.

But following the immense praise of microfinance, criticism has emerged pertaining to the major setbacks of providing credit to the very poor. In contrast to the high repayment rates experienced by Grameen Bank, not all borrowers are able to repay their loans. Some critics have even claimed that the debt incurred by microfinance borrowers leads to increases in suicides, and threats from microfinance employees to borrowers (Hulme, 2000). In terms of measurable indicators of poverty, randomized evaluations have found that microfinance does not have significant effects on education and health, or consistent impacts on income and consumption (Banerjee et al, 2014, Crépon et al, 2015).

In the midst of the contradictory evidence on the effects of microfinance institutions, one finding has remained consistent throughout the literature: the effects of microfinance only extend to a certain group of poor individuals. In terms of who is reached, retained, and assisted by microfinance institutions, the relatively less poor fare better than their worse off neighbors. The evidence indicating this conclusion brings into question the effects of microfinance institutions aiming to replicate Grameen Bank's initial goal of reaching the poorest of the poor.

The inability of microfinance institutions to reach the very poor demonstrates that microcredit alone is not enough to elevate the poorest of the poor out of poverty. Organizations attempting to increase the livelihoods of the world's most impoverished people must take an integrated approach to microfinance. To account for the unique needs faced by those living farthest below the poverty line, microfinance institutions must incorporate well-founded targeting methods, asset transfers and financial training to reach the poorest of the poor in developing countries.

In this paper, I will provide support for the practice of microfinance institutions providing a combination of financial and nonfinancial services to fulfill their mission of reaching the extremely poor. By doing so, I will contribute a synthesis and critical evaluation of the literature on the ability of microfinance institutions to reach the poorest of the poor. First, I will evaluate the methods of measuring poverty utilized by researchers in the field to determine if microfinance institutions have successfully reached the very poor. Then, I will describe the results of the studies that measure the success of microfinance institutions in these terms. Finally, I will present the findings of the research on programs that utilize an integrated approach to specifically target the poorest of the poor.

# Chapter 2

## Methods of Measuring Poverty in the Field of Microfinance

The existing literature on the outreach practices of microfinance institutions focuses on the ability of the organizations to reach the poorest of the poor in a given community. Much of the research in this area addresses the effects of microfinance endeavors on groups of individuals exhibiting different characteristics, such as rural community members versus urban community members or very poor borrowers compared to poor borrowers. Researchers have established multiple methods of measuring poverty, ranging from simple to more complex measurements. Many factors vary among these methods, including the variables that are considered indicators of poverty, as well as the mathematical techniques used to compare borrowers to non-borrowers. In this section, I describe multiple methods of measuring poverty and provide a case for a single measurement that depicts poverty as a multidimensional attribute.

A basic poverty measurement is utilized by Shaw (2004) in her evaluation of microfinance institutions in Sri Lanka. After surveying the incomes of microfinance clients before and after they obtained loans, the poverty levels of respondents are compared to the national household poverty line. Each household is placed into one of four income categories, which are spread out evenly above and below the poverty line. These categories classify respondents as extremely poor, poor, nearly poor or nonpoor. A main objective of this classification is to determine if borrowers with lower initial incomes are more likely to use their loans for activities that produce smaller returns than those of borrowers with higher initial incomes (Shaw, 2004).

To create these categories, each respondent's income is determined through self-reported responses relating to all forms of income received in the year prior to the survey. Evidence to prove each source of income is required to be included with the respondents' reports. While the data on income levels is cross-checked with local information, such as standard wage rates, to prove the accuracy of the responses, the self-reported income levels may be overrepresented or underrepresented based on the ability of participants to obtain documents that prove their income sources (Shaw, 2004).

Furthermore, breaking a group of households into four categories of poverty based solely on income levels ignores additional factors that could play a role in the poverty status of the households. One household may appear to fall in the highest income category, while another appears to fall in the lowest, when only the income sources of the two households are examined. However, including other factors that could make the households relatively worse off or better off could equalize the two entities. These additional factors could also contribute to the reasons why certain households choose particular business endeavors to pursue with their loans. Shaw discusses some of these reasons, such as household location and business costs, but more factors could contribute to the types of activities pursued by clients (Shaw, 2004). Some of these factors are discussed through the examination of the methods included below.

One of these more inclusive measures of poverty is discussed by Ghalib (2013) in his evaluation of microfinance institutions in rural Pakistan. Factors included in his method of measuring poverty are statistics on household members, such as age and ability to read, home characteristics, such as condition and size, access to food, such as the amount of times nutritious items are served, and asset ownership, such as cattle and methods of transportation. Each factor is assigned a weight that addresses its numerical role in contributing to the poverty level of a

household. By engaging Principal Component Analysis, which simplifies the relationship between all of the factors included, each household receives a poverty score. A higher score indicates less poverty, while a lower score indicates more poverty. The poverty scores of borrowers are then compared to the poverty scores of non-borrowers (Ghalib, 2013).

However, when comparing non-borrowers to borrowers, poverty scores of borrowers could be higher than those of non-borrowers simply because they are in fact borrowers. On one hand, higher poverty scores on behalf of borrowers could signal that those being served by microfinance institutions represent the members of the population that are relatively less poor than the other members of the population. On the other hand, higher poverty scores among borrowers could be the result of the microfinance services successfully enabling participants to increase their wealth in terms of one or more of the variables included in the poverty score. The author is unclear about how long the participants of the study had been members of the microfinance institutions when the data was collected. Including only participants who had recently joined the organizations at the time of data collection would allow for a more accurate comparison of borrowers and non-borrowers.

Another method employed to compare borrowers using microfinance services and non-borrowers in the same region is applied by Lonborg and Rasmussen (2014) to study the targeting outcomes of community-managed organizations. Specifically, their method is used to determine whether microfinance institutions exhibit progressive targeting or regressive targeting. Progressive targeting is characterized by a greater percentage of poor people borrowing from the organization than the percentage of poor people in the entire population. On the contrary, regressive targeting is characterized by a smaller percentage of poor people borrowing from the

organization than the percentage of poor people in the entire population (Lonborg and Rasmussen, 2014).

To deem the organizations' targeting as progressive or regressive, multiple variations of the outreach ratio are calculated and evaluated using panel data. As the researchers describe, the outreach ratio "compares the poverty status of program participants – regardless of whether they use the loan feature - to the poverty status of the population as a whole. As such, it compares the actual targeting with neutral targeting, i.e., the situation where households participate irrespective of their poverty status" (Lonborg and Rasmussen, 462, 2014). Such a calculation allows a conclusion to be made on whether members are poorer than nonmembers because it evaluates the value of a factor for clients of microfinance institutions against the value of the same factor for members of the population who are not clients of microfinance institutions (Lonborg and Rasmussen, 2014).

The factors included in each calculation of the outreach ratio are income and consumption levels, the poverty headcount, the poverty gap and the poverty gap squared. Additional factors affecting poverty are also accounted for, including the number of meals that members of the household eat per day, the number of times that members of the household eat fewer than three meals per day, the education of household members and the health of household members. Each variable is measured for members of the microfinance institutions, as well as for members of the general population. These values are then compared to determine if borrowers are poorer than non-borrowers (Lonborg and Rasmussen, 2014).

An interesting point to note with this method is that an outreach ratio is calculated individually for each variable. This allows the poverty levels of borrowers and non-borrowers to be compared for each variable that is considered to be an indicator of poverty. However, poverty

is not a one-dimensional attribute. The poverty level of a household depends not only on each individual characteristic, but on the interaction of many characteristics. For example, borrowers may have higher consumption levels than non-borrowers, but this does not mean that borrowers are relatively less poor than non-borrowers. In conjunction with the higher consumption levels indicated by the outreach ratio, borrowers may also have significantly more children to feed. As a result, calculating separate outreach ratios based on individual characteristics has the potential to be less accurate than one calculation that incorporates the interaction of all significant poverty indicators.

Following an idea similar to the calculation of the outreach ratio, Navajas, Schreiner, Meyer, Gonzalez-Vega and Rodriguez-Meza (2000) calculate a ratio of borrower to non-borrower characteristics to study the success of Bolivian microfinance institutions in reaching the poorest of the poor. Similar indicators of poverty are used in their ratio, including home characteristics, access to basic services, access to healthcare and level of education. The values of the factors for borrowers are compared to the median values of the factors for the population as a whole (Navajas et al., 2000).

Differing from the calculation of the outreach ratios, an average of the ratios is taken to determine the poverty levels of the clients of the microfinance institutions. The result is called the Index of Fulfillment of Basic Needs (Navajas et al., 2000). While this addresses the concern related to using multiple outreach ratios, questions about the weighting of each poverty indicator arise. Taking an average places equal emphasis on all factors, but all factors might not contribute equally to the determination of a household's level of poverty. One factor, such as access to basic services, may have a stronger influence on poverty, than another factor, such as home characteristics. An alternative technique to address this issue is that used by Ghalib, in which the

weight of each variable is determined empirically before assigning poverty scores to households (Ghalib, 2013).

A final method to consider is one that differs from those previously mentioned in the way the poor are classified. In their study of microfinance institutions in Northern Bangladesh, Amin, Rai and Topa (2003) distinguish poor households from vulnerable households. Both groups are studied to determine the specific group – the poor, the vulnerable, or the poor and vulnerable – that is being reached by microfinance institutions. To do so, households are classified as poor based on their income and consumption levels. These measures encompass any transfer of assets, use of time, and loans and gifts received by the household. From this point, the obtained measurements are divided into the categories of food consumption and all consumption, as well as all income and total revenue. Household poverty levels for microfinance clients before they received their first loans are then compared between two villages in Northern Bangladesh. Additionally, the poverty levels of the microfinance clients are compared to the national poverty line (Amin et al., 2003).

Unlike the other methods mentioned, Amin, Rai and Topa (2003) include a separate measurement for vulnerability. Employing a test of risk sharing, the researchers create a baseline at which households are risk averse. At the baseline, household consumption does not change when household income changes. If the risk-sharing model is rejected for a household, then the household is impacted by changes in household income. Such households are considered vulnerable. Therefore, these are the households of interest to study how effective microfinance institutions are at reaching the vulnerable portion of the population (Amin et al, 2003).

Distinguishing between the poor and the vulnerable produces findings with different implications than findings stemming from measurements that do not make this distinction.

Measuring vulnerability as described above tests if microfinance institutions reach those who cannot adjust for shocks to their households. When vulnerability and poverty are considered separately, factors that typically indicate poverty are instead used to indicate vulnerability. Therefore, varying findings on whether microfinance institutions reach the poor and findings on whether microfinance institutions reach the poor and vulnerable could just be a reflection of differences in how the categories are defined and separated.

While each method of measuring and calculating poverty differs, the methods previously described can be categorized by the variables they include. Zaman (1997) cites three classifications for how to measure poverty. He writes:

> The 'income approach' views material well-being as the primary criteria and poverty lines are set with reference to income or consumption thresholds…The 'basic needs approach' stresses other critical facets of an individual's quality of life such as health, food, education, water and shelter but to name a few…[The] 'capabilities approach' extends the material 'basic needs' approach by including 'functionings' such as social status, self-confidence, etc. (Zaman, 7, 1997).

Methods represented in the existing literature span all three groups, but there is a strong case to be made that the "basic needs" approach is the most effective way to measure poverty. Examples of this type of measurement include those that use Principal Component Analysis, the outreach ratio, and the Index of Fulfillment of Basic Needs (Ghalib, 2013, Lonborg and Rasmussen, 2014, Navajas et al, 2000).

The "basic needs" approach aligns more closely with the definition of poverty by encompassing multiple factors that impact a household's well-being. As provided by microfinance institutions, such as Grameen Bank, the definition of poverty includes multiple

facets. The dimensions of poverty range from income levels to food access to housing characteristics (Yunus, 1998). While a "basic needs" approach to measuring poverty includes more variables than just income and consumption levels, it avoids including factors that are not easy to measure, such as social status (Zaman, 1997). Therefore, studies that employ a "basic needs" approach to measuring poverty best represent how well a microfinance institution reaches the poorest of the poor. In turn, a "basic needs" approach also represents how well a microfinance institution is fulfilling its mission based on its own definition of poverty.

**Table 1. Summary of Poverty Measurements**

| Authors | Method |
|---|---|
| Lonborg and Rasmussen (2014) | The outreach ratio is used to compare the poverty levels of randomly selected borrowers and non-borrowers |
| Ghalib (2013) | Poverty scores of borrower and non-borrower households are compared using Principal Component Analysis |
| Shaw (2004) | Income categories are determined through self-reported income sources of randomly selected borrowers to analyze changes from the first loan to the last loan |
| Amin, Rai, Topa (2003) | Consumption and income patterns of randomly selected borrowers and non-borrowers are compared, and vulnerability is tested using the risk-sharing method |
| Navajas, Schreiner, Meyer, Gonzalez-Vega, Rodriguez-Meza (2000) | The poverty statuses of randomly selected borrowers are evaluated based on the population median via the Index of Fulfillment of Basic Needs |

# Chapter 3

## Do Microfinance Institutions Reach and Help the Poorest of the Poor?

While extensive research has been conducted on the poverty status of microfinance clients, including detailed analyses of the various methods used to further categorize poor individuals in developing countries, the conclusions of these studies remain consistent. Regardless of the specific techniques utilized and the variables included in each measurement, microfinance institutions typically serve those who are relatively better off than their neighbors. If the organizations succeed in attracting those who are most in need of assistance, they often fail to provide the same benefits over the same period of time that other clients receive. Here, I will describe the results and characteristics of these studies in detail, as well as question the limited studies that have provided evidence contrary to this claim. In the context of the measures of poverty reviewed in chapter 2, I will do so by first addressing the question, have microfinance institutions reached the very poor? I will then answer the question, have microfinance institutions helped the very poor?

### 3.1 Have Microfinance Institutions Reached the Very Poor?

The method of measuring poverty used by Ghalib (2013) displays significant merit, and his findings support the aforementioned conclusion as well. By comparing the poverty scores of borrowers to non-borrowers, he shows that the very poor in rural Pakistan are less likely to be clients of microfinance institutions than are the moderately poor or the less poor. Most strikingly,

the ratio of non-clients to clients is much higher for the very poor than it is for the less poor (Ghalib, 2013). However, selection bias is a key issue with the way Ghalib's (2013) poverty measure is used. The idea that clients may be better off than their non-client neighbors simply because they are in fact clients is a critical drawback of the way the data was obtained. While further research accounting for the possibility that the particular microfinance institutions studied by Ghalib (2013) are simply working as intended is needed to support his conclusion, other research (Lonborg and Ramussen, 2014) has presented similar findings even after addressing this issue.

Alluding to the same conclusion, Navajas, Schreiner, Meyer, Gonzalez-Vega and Rodriguez-Meza (2000) find that microfinance institutions in Bolivia exclude the very poor, as shown through the use of another supported method of measuring poverty that evaluates the characteristics of borrowers against those of non-borrowers. A drawback to this method is also present, since the indicators of poverty are weighted equally. Yet, accounting for this issue may not significantly change the conclusions for two reasons. First, since the variables are weighted equally for borrowers and non-borrowers alike, both the experimental group and the control group are able to be compared on similar terms. Second, the groups under study are separated by variables that would equalize them in terms of poverty, such as region of residence (Navajas et al, 2000). In this case, the extent to which living in a certain area contributes to poverty would not matter, as only individuals living in the same area are being compared. As a result, implications from the findings are still relevant and support the overarching message present in the literature.

Amin, Rai and Topa (2003) further establish the evidence that less poor clients are disproportionately served by microfinance institutions compared to their relatively worse off

neighbors. While the Bangladeshi clients studied here are broken into two groups, the poor and the vulnerable, the conclusions still remain the same as those present in the rest of the literature. Based on comparisons of the poverty and vulnerability statuses of clients at the time they joined the organizations to non-clients in the same region, the authors find that although microfinance institutions are able to reach the poor, they are unable to reach the vulnerable. The first portion of the finding, that microfinance institutions are able to reach the poor, does not invalidate the other studies mentioned, as poor clients are only classified as borrowers whose consumption levels fall any distance below the poverty line. (Amin et al, 2003)

The second portion of the finding, that microfinance institutions are unable to reach the vulnerable, provides further support for the conclusion in discussion. Being both poor and vulnerable is negatively correlated with the probability of joining a microfinance institution, with clients being more likely to exhibit lower levels of poverty and vulnerability than non-clients (Amin et al, 2003). Specifically, the researchers state, "…We find no evidence that microcredit reaches the households most in need of assistance, the *vulnerable poor*" (Amin et al, 60, 2003). Those who are both poor, meaning they are living below the regional poverty line, and vulnerable, meaning they are unable to adjust their income in the face of shocks, are not being served by microcredit (Amin et al, 2003).

Interestingly, when speaking solely of their measurement of poverty, Amin, Rai and Topa (2003) find that microfinance clients are in fact poorer than the village residents who are not members of microfinance institutions. The statistically significant findings that point to this conclusion hold true in multiple ways. The consumption levels of borrowers at the time they became members were lower than the consumption levels of non-borrowers. Moreover, there is a negative relationship between consumption levels and the probability of becoming a borrower.

There is also a higher percentage of borrowers living below the poverty line than there is in the village as a whole (Amin et al, 2003).

These findings provide stark contrast to the overwhelming evidence that microfinance organizations do not serve the poorest of the poor, but can be reconciled through the vulnerability status of clients. Even if clients are worse off than non-clients in terms of consumption levels, they are still less vulnerable than the remainder of the population. Therefore, they are still not representative of the worst off community members. This could be the result of microfinance institutions not wanting to lend to individuals who cannot adjust their incomes in the face of shocks, or vulnerable individuals not wanting to take on the risk that accompanies loans. In terms of the classifications of poverty prevalent in other studies, the group of individuals served by microfinance institutions studied by Amin, Rai and Topa (2003) does not correspond to the poorest of the poor in their particular region.

Morduch (1998) also addresses the vulnerability of microfinance clients in his study of Grameen Bank in Bangladesh. Similar to the findings of Amin, Rai and Topa (2003), he finds that borrowers are less vulnerable than non-borrowers. However, contrasting their findings, Morduch (1998) credits the borrowers' abilities to smooth consumption to the success of the microfinance institution. He also finds that borrowers and non-borrowers are of comparable poverty status. Again, he attributes this finding to the microfinance institution itself, claiming that the organization did not succeed in increasing the incomes of its clients (Morduch, 1998).

On the flip side of the selection issue discussed in terms of Ghalib (2013), there is not persuasive evidence that these characteristics of borrowers are results of the microfinance institution. In particular, there is no defining link that signifies borrowers are less vulnerable than non-borrowers, or that borrowers are equally as poor as non-borrowers, as a result of their

participation with the organization. Even with Morduch's findings, one basic question remains: What is the direction of causality? Are borrowers less vulnerable because they have access to microcredit, or do borrowers have access to microcredit because they are less vulnerable? In conjunction with previous studies, as well as further statistics provided by Morduch (1998), the latter scenario seems to be a better interpretation of the results.

These further statistics are those representing the eligibility status of the Bangladeshi people living in the villages served by Grameen Bank. In order to be considered for membership of the microfinance institution, households have to own less than half an acre of land (Morduch, 1998). Yet, Morduch (1998) reports that twenty to thirty percent of borrowers do not meet this requirement, as they own more than the specified amount of land. He says,

> It would be natural, for example, for loan officers to bend the rules for particularly promising potential borrowers, but not for others…mis-targeting is not just due to land accumulation after becoming a borrower. There is considerable mis-targeting on the basis of initial holdings as well (Morduch, 14, 1998).

These findings again point to the idea that microfinance institutions serve those who are relatively more advantaged than the individuals the institutions were created to assist.

Despite variations in the methods used to study poverty, and criticisms of any particular method to do so, the literature has consistently pointed to the notion that microfinance institutions are not reaching the poorest of the poor. Multiple comparisons of the poverty and vulnerability levels of borrowers and non-borrowers have demonstrated that clients of microfinance institutions are typically less poor and less vulnerable than non-clients. Even though it has been shown that microfinance institutions do not reach the very poor, the previously mentioned studies have not demonstrated how the initial income levels of clients play

a role in their microfinance performance once they become borrowers. This topic will be examined in the next section.

### 3.2 Have Microfinance Institutions Helped the Very Poor?

Rather than examine the poverty levels of microfinance clients and non-clients to determine if microfinance institutions have reached the very poor, research has also evaluated the impact of initial incomes on the performance of microfinance borrowers. Considering individuals who have received and applied their loans, this research has indicated a difference in outcomes between less poor microfinance clients and very poor microfinance clients, with very poor clients faring worse than less poor clients. Among these differences include returns on loan investments and duration of time spent as a microfinance client. Additionally, researchers have speculated that these differences drive an even larger wedge between the levels of poverty in developing countries.

Copestake (2002) addresses income inequality in relation to microcredit in great length. Specifically, the argument is centered on the idea of group lending in Zambia. In essence, even if the poorest members of a community are incorporated into a group of borrowers, they will eventually be overshadowed by the richer members who are more capable of repaying their loans. As a result, the poorer members will be weeded out, increasing the gap between the very poor and the less poor in a community (Copestake, 2002).

Copestake's (2002) research ultimately supports this claim. When comparing new microfinance clients to microfinance clients who have been borrowers for one year, the clients who have been members for a longer time period are significantly worse off. In the sample

under study, the profits of these clients had fallen substantially in the year since they had obtained their loans, implying that microfinance membership, among other things, may have impacted them negatively. The researchers find one caveat to this trend that questions the ability of microfinance institutions to provide equal services to members living at all levels of poverty. Borrowers who owned more successful businesses before becoming microfinance clients are less likely to see a fall in their profits. This also implies that richer clients increase their profits more after becoming borrowers, and poorer clients decrease their profits more, highlighting the effect of microfinance on widening the gap between the less poor and the extremely poor (Copestake, 2002).

While Copestake's (2002) interpretation of the effects of microfinance on income inequality seems reasonable, there is still the possibility that the increasing difference in incomes between the very poor and the less poor could have occurred because of other, unobserved characteristics. Even without the introduction of microfinance to the households being studied, the difference between the incomes of the very poor and the less poor still could have increased. Despite Copestake's (2002) conclusions, research still needs to be conducted in order to determine whether microfinance institutions cause income inequality to increase or just quicken the pace at which it does.

Differing from many other studies, half of the members surveyed by Copestake (2002) were classified as extremely poor at the time they became clients of the microfinance institution. It would be interesting to note why this is the case, and the methods used to attract this portion of the population, as this is not a major point of the research. Given the increase in programs designed to target this category of the poor, and the scarce amount of literature available on these programs, more research on this component would be beneficial. However, the program's

success in attracting those living in extreme poverty is overshadowed by the difficulties these very poor members face when trying to apply their loans.

Mayoux (2001) also addresses income inequality in her study of microfinance institutions in Cameroon. Relating specifically to women's empowerment, she discusses the exclusion of certain women from the group lending mechanisms present in many microfinance institutions. In her study, thirty percent of women are not included in borrower groups. Half of these women are not included as a direct result of being too poor (Mayoux, 2001). As Copestake (2002) also shows, such practices can have adverse effects on microfinance results, leading to an increase in income inequality. Mayoux (2001) states,

> The poorest women and most disadvantaged women may be excluded from tontines and other types of group. Worryingly there were signs that programmes had in some cases increased inequalities within communities and within groups because of the emphasis on group repayment. Several groups…cited as an explicit policy the exclusion of the poorest and most disadvantaged (Mayoux, 454-455, 2001).

While much of these assertions are based on anecdotal evidence acquired through focus groups and interviews, important issues regarding the reasons why the poorest are not being served by microfinance institutions to the fullest extent are brought to the forefront.

Shaw (2004) also discusses these issues, after providing substantial evidence that the relatively less poor are able to fare better in terms of applying their loans. With their loans, clients can choose to participate in "survival" activities or "entrepreneurial" activities. The largest differences between the types of activities can be traced to the amount of knowledge needed to pursue each and the amount of income generated through each. Entrepreneurial activities are classified as the more advanced and lucrative of the two types of activities. An

example of a survival activity would be seasonal farming, while an example of an entrepreneurial activity would be carpentry (Shaw, 2004).

Two interesting results emerge from comparing the initial incomes of randomly selected microfinance clients with the types of activities they pursue. First, poorer clients are more likely to choose survival activities, while less poor clients are more likely to choose entrepreneurial activities. Second, when poorer clients choose to participate in entrepreneurial activities, they generate revenues below the less poor clients, but above the even poorer clients (Shaw, 2004).

While these results provide insight into why poorer clients do not see the same returns on their loans as less poor clients, there are still questions about the methodology used to reach these conclusions. Since the incomes are reported by the clients themselves, there may be reasons inherent to poorer individuals that would explain why their revenues seem lower than less poor individuals, regardless of whether or not they actually are. Nevertheless, the finding that poorer individuals are more likely to choose survival activities still holds, and conclusions regarding how poorer clients use their microfinance loans can still be made.

In addition, the individuals under study were randomly selected from a pool of existing microfinance clients (Shaw, 2004). Since those who are already borrowers may have preexisting characteristics that would impact their ability to use microfinance loans effectively, selection bias could still exist. Those who choose to become microfinance clients would most likely display attributes causing them to be more likely to use their loans productively. As a result, if selection bias is in fact an issue, Shaw's (2004) findings are biased, with very poor clients actually faring worse than what was estimated by her results.

Furthermore, other research has supported the findings mentioned above, including that by Crépon, Devoto, Duflo and Parienté (2015). In a randomized control trial in Morocco, the

authors find that the "introduction of microcredit leads to a significant expansion of the existing self-employment activities in agriculture and animal husbandry, but does not help start new activities" (Crépon et al, 135, 2015). While the researchers do not study the borrowers' levels of poverty directly, it is clear that those who are better off in terms of prior employment pursuits see more success than their worse off counterparts. Further lowering the incentives to join microfinance institutions, the authors estimate that twenty-five percent of the borrowers in the experiment group had negative profits (Crépon et al, 2015). For the extremely poor, who are often unable to overcome income shocks, the probability of facing negative profits most likely serves as deterrence to joining a microfinance institution.

The randomized control trial of Crépon, Devoto, Duflo and Pariénté (2015) accounts for many of the problems typically faced by other studies of microfinance institutions, including selection bias and reverse causality (Crépon et al, 2015). The researchers address these issues by first choosing to study an area where there were no other microfinance institutions besides the one that was placed in the region for the purposes of the experiment. They were therefore able to gather data before and after any access to microfinance was extended to households in the region. Furthermore, to examine the effects of microfinance, including externalities, as well as demand and take-up, the researchers used treatment as an instrumental variable (Crépon et al, 2015).

Shaw (2004) provides many reasons for the differences in choices made by the less poor and the extremely poor. Among these are factors relating to location, finances and education. To address issues of location, there is a large gap between the entrepreneurial pursuits available in urban areas versus rural areas, with the former having many more options. Compounding this difference, rural residents are significantly more likely to be poor, making it even more difficult

for them to find an activity that can lift them out of poverty. Reasons for the discrepancy in opportunities between locations arise from poor infrastructure, low service demand and difficulties accessing materials. Extending beyond location problems are the monetary costs of entering entrepreneurial businesses. The poorest microfinance clients typically do not have initial incomes or loans high enough to cover the starting costs of such activities. Lastly, the knowledge needed to pursue entrepreneurial activities is usually higher than that possessed by the very poor (Shaw, 2004).

Although the difficulties faced by the poorest of the poor vary by country and region, trends to the barriers they encounter are evident across locations. Ghalib (2013) cites similar reasons as Shaw (2004) to explain why accessing microfinance services in Pakistan becomes increasingly difficult as poverty increases. In his words, the explanations for this phenomenon are geographical constraints, provincial-level environment weaknesses, banking practices, illiteracy and/or poverty of clients and regulatory barriers (Ghalib, 2013).

In the most recent research, Lonborg and Ramussen (2014) summarize this tendency by saying,

> The reason that is typically given for this is that both microsaving and microcredit require resources, involvement, and skills on the part of participants. Both require that participants have basic financial literacy, and additionally savers need to have sources of monetary income while borrowers need to be able to use their loans productively, keep track of their repayment schedules, and manage the risks associated with taking on debt (Lonborg and Ramussen, 460, 2014).

In addition to the reasons why the very poor are initially excluded in high-return loan activities, or microfinance services at all, there are also explanations for why they may not be

members for the same duration of time as better-off clients. Copestake (2002) attempts to explain this occurrence with an exit survey of microfinance clients. He finds that about half of microfinance clients become non-clients within one year of joining the organization. The reasons explaining why clients leave seem very much related to the reasons why individuals do not join the institutions in the first place. These include exclusion from borrowing groups by other members as a result of default, as well as difficulties in their home lives or businesses. The explanations provided by clients and loan officers often do not align, implying misunderstandings between the problems the poorest actually face and the problems microfinance institutions think the poorest face (Copestake, 2002).

The difficulties the very poor encounter when trying to utilize microfinance services supports the conclusion that microfinance institutions do not adequately serve the poorest of the poor in developing countries. Overall, microfinance institutions do not reach the poorest of the poor, nor do they help the poorest of the poor. Recent literature heavily supports this conclusion, and studies that stray slightly from these findings still point to large differences between microfinance outcomes experienced by the very poor compared to the relatively less poor. The propensity for these differences to occur, as well as the reasons why it does, raises one overriding question: what is the best way to successfully reach the poorest of the poor?

# Chapter 4

## Programs that Target the Very Poor

As the literature on the tendency of microfinance institutions to drift from serving the poorest of the poor in developing countries grows, programs attempting to close the gap in services available to the less poor and the very poor are emerging. These programs take a multifold approach to extending access to credit to individuals living at the most extreme levels of poverty. Many of the programs targeting the very poor are relatively young, so the research on their performance is scarce. Yet, results from the studies that are available indicate greater achievements in providing services to the poorest of the poor than programs that do not express the explicit mission to do so. Some of these results can be credited to better targeting on behalf of the microfinance institutions, while the remainder is the product of increased focus on the services needed by the very poor. In this section, I describe the results of these studies, as well as the structure of the programs that have been successful in reaching the poorest individuals in a community.

The results uncovered by Lonborg and Ramussen (2014) are particularly intriguing, as the microfinance institutions under study are classified as village savings and loan associations. These particular types of microfinance institutions were created with the purpose of reaching the poorest subset of a population. Specifically, the Village Savings and Loan Associates' website states, "There is a gap between the financial products that MFIs prefer to offer and those that are

needed by the very poor." Compounding this ideal, the site's tagline reads, "Reaching the very poor: the need for a new microfinance model" (Village Savings and Loan Associates, 2015).

Regardless of this mission, the microfinance institutions studied by Lonborg and Ramussen (2014) exhibit regressive targeting. Targeting is characterized as regressive if there is a smaller percentage of poor people borrowing from the organizations than the percentage of poor people in the population as a whole. Even if the method used to measure poverty and determine if the poorest are reached is flawed in this study, significant evidence is provided that the poorest clients are the most likely to become non-clients at some point during the process of obtaining and using their loans (Lonborg and Ramussen, 2014).

This trend seems puzzling, as the village savings and loan associations provide various services, such as training and available assistance, to help those most in need of obtaining credit. However, the microfinance institutions also allow individuals at all levels of poverty to join, leading to an influx of clients who are relatively richer. Since the institutions are based on a group-lending system, the poorer clients, who are not as capable of paying back their loans, are often excluded from groups by others or themselves. Such exclusion can occur at any point in the process (Lonborg and Ramussen, 2014). The failure of the village savings and loan associations to attract and retain the poorest of the poor points to a need not only to target this group of poor individuals, but to offer services that will help them overcome the likelihood that they will drop out of microfinance programs.

Ensuring that prospective clients are actually the poorest members of a targeted community should be a natural component of organizations that desire to effectively reach this portion of the population. Yet, microfinance institutions attempting to meet the goal of serving the very poor do not always practice procedures that allow them to properly identify their

intended clients. The lack of successful targeting among microfinance institutions can stem from the organizations simply not incorporating techniques to do so, as was the case with the institutions studied by Lonborg and Ramussen (2014). It can also be the result of the organizations ignoring certain rules, which was demonstrated through Morduch's (1998) research on the overlooked eligibility requirements practiced by the staff of Grameen Bank in Bangladesh.

Moreover, the failure of microfinance institutions to reach the very poor can be an outcome of the difficulties associated with measuring poverty when it is at its most extreme levels. As discussed in the section on methods of measuring poverty, different researchers utilize different techniques to separate the relatively worse off and better off within a community of a developing country. Depending on the specific indicators and techniques used to determine the exact level of poverty that each household is experiencing, the results can be very different. If the researchers studying targeting effectiveness differ in the methods they utilize to measure poverty, it is only logical that the institutions themselves would differ in the techniques they employ to target certain individuals.

Zeller, Sharma, Henry and Lapenu (2006) address this exact issue by studying the different ways that researchers measure poverty in determining the success of development programs, as well as the varying ways that development organizations measure poverty to reach their target recipients. One organization, SHARE in India, successfully targets very poor clients using the housing index. Equally as important as locating the poorest members of the community, and differing from the village savings and loans associations studied by Lonborg and Ramussen (2014), SHARE does not accept households who are above a certain level of relative poverty (Zeller et al, 2006).

It is, however, important to note the limitations of SHARE's targeting approach. The housing index measures poverty using established variables that indicate poverty. Since these variables are not the same in every country, not all organizations utilizing this method would see results as successful as the ones experienced by SHARE (Zeller et al, 2006). The limitations of the housing index do not negate SHARE's success in targeting the poorest of the poor, as Zeller, Sharma, Henry and Lapenu (2006) confirm the organization's successful outreach methods through an analysis of its targeting techniques using Principal Component Analysis (Zeller et al, 2006).

Employing a different method to target the poorest of the poor, Bandhan, a microfinance institution in West Bengal, India, has also attained its goal of reaching the very poor. Bandhan's "Targeting the Hard-core Poor" program is designed specifically to locate and provide services to members of the population classified as "Ultra Poor." To qualify as a program recipient, a household must include at least one female member. It also cannot be receiving aid from another development program. Additionally, the household must have an inadequate source of income, own less than two tenths of an acre of land, lack productive resources, consist of no male members or send their children to work rather than school. Only three of the preceding five traits need to be applicable for a household to receive Bandhan's services (Banerjee et al, 2010).

Bandhan undertakes great lengths to identify such households and ensure that beneficiaries are not better off than their neighbors. After locating the poorest communities, Bandhan employees announce when recruitment for their program will begin. Through a process known as Participatory Rural Appraisals, Bandhan geographically locates every house in the targeted village. Each house is then sorted by poverty level, a measurement that is determined through the qualities possessed by Ultra Poor households.  After ranking the households,

employees visit the ones that rank the poorest to evaluate them based on the remaining criteria. Finally, the list of poorest households is further refined and confirmed by an additional Bandhan employee (Banerjee et al, 2010). Evaluating every household individually, ranking their wealth based on predetermined characteristics, and determining the level of poverty relative to all other households in the community serves as a conclusive method to ensure that Bandhan is offering its services to the poorest of the poor.

But even more impressive than its successful targeting methods, Bandhan's Targeting the Hard-core Poor program has led to considerable increases in the living standards of participants, as shown through a randomized experiment evaluated by Banerjee, Duflo, Chattopadhyay and Shapiro (2010). In their study, half of eligible households are randomly assigned to be members of the Targeting the Hard-core Poor program. Program beneficiaries are surveyed before receiving the first service, as well as 18 months later. Survey questions explore a wide range of topics relating to poverty, but many pertain to income, consumption, labor, health and use of time. Among the most intriguing results include a 15 percent increase in consumption among those asked to join Bandhan, and a 25 percent increase in consumption among those who actually became members of Bandhan. Members of the sample were also in better health and more secure about the availability of food (Banerjee et al, 2010).

These results can be largely attributed to the format of Bandhan's Ultra Poor program. Targeting the Hard-core Poor follows a "graduation" model. Member households first receive asset transfers, such as livestock, followed by access to formal savings. Finally, they are graduated into microfinance by receiving group loans. Throughout the 18 months following the receipt of asset transfers, members are trained by Banhand employees. Topics covered range from how to properly use the transferred assets to health concerns (Banerjee et al, 2010).

Targeting the Hard-core Poor is formatted to address the belief that the poor "either lack the confidence to escape poverty or that they lack sufficient human capital to make optimal use of assets" (Banerjee et al, 4, 2010).

The specific time during the graduation process that Banerjee, Duflo, Chattopadhyay and Shapiro (2010) conducted their experiment has significant implications for the results. Pointedly, data was collected before program participation, as well as after the asset transfers and training portions of the program were complete. Therefore, the increase in consumption levels experienced by the experimental group is completely driven by these two components of the program. The way in which the study was set up implies that asset transfers and training are effective, but does not demonstrate which aspect of the program is more effective. It also does not indicate how additional services lead to microfinance services being more effective. While, in this instance, further evaluation is needed on the experimental group after they obtain their loans, other research on the effectiveness of similar programs has shown increased consumption levels among participants who have completed the final steps of the programs (Banerjee et al, 2010).

One such program is BRAC's "Challenging the Frontiers of Poverty Reduction/Targeting the Ultra Poor Program," which served as the model for Bandhan's Targeting the Hard-core Poor program. BRAC is a microfinance institution based in Bangladesh. Hulme and Moore (2007) address the challenges faced by BRAC's targeted recipients as,

> Market-related opportunities, governmental social policies, and non-governmental organisation (NGO) programmes miss the ultra poor because they lack the material, human, financial and social assets to engage, and/or they live in areas or belong to ethnic/social groups that are bypassed or excluded (Hulme and Moore, 2, 2007).

To help the poor overcome these adversities, the Ultra Poor are targeted and provided assistance as described in terms of Bandhan (Hume and Moore, 2008).

The success of Challenging the Frontiers of Poverty Reduction/Targeting the Ultra Poor Program has been studied by tracking members from the program's launch in 2002 to the present and comparing them to nonmembers. All members of both the control group and the experimental group are classified as Ultra Poor. When comparing Ultra Poor clients to Ultra Poor non-clients, participants of the program own more assets, including savings, credit and livestock. They also exhibit better health and higher education. Furthermore, out of those who had graduated to the loan portion of the program at the time the data was analyzed, 70 percent had repaid their first loans (Hulme and Moore, 2007).

While these results indicate high accomplishments for the microfinance institution, they are subject to selection bias. The program is designed to assist the "economically active ultra poor," who may be likely to use loans more effectively even without the additional help provided by the institution. However, since only Ultra Poor non-clients and Ultra Poor clients who meet this criterion are compared, it is reasonable to assume that the program does in fact help the poorest of the poor. Furthermore, in conjunction with the early results of the randomized experiment of Banerjee, Duflo, Chattopadhyay and Shapiro (2010), there is significant evidence that the asset transfer and training components of these types of programs are working as intended. Once members of the experimental group in the latter study have received their loans, and their success or failure has been evaluated, the conclusions of Hulme and Moore (2007) can be revisited.

Additional randomized experiments have also shown the positive effects entrepreneurial training can have on microfinance clients, such as that produced by Drexler, Fischer and Schoar

(2011). By assigning members of Dominican Republic microfinance institutions to receive accounting training, simple training or no training, the researchers were able to quantify the effects of increased knowledge on microfinance clients. The largest effects were seen in clients who received simple training, which included financial lessons without in-depth descriptions of accounting principles. Those who receive such training are more likely to practice healthy financial practices. Specifically, the training led to a 10 percent increase in overall sales, as well as a 30 percent increase in sales during bad weeks. Savings also increased for the microfinance clients who received the lessons (Drexler et al, 2011). For the vulnerable poor, who are often representative of the poorest in a group, the increase in sales during bad weeks is especially significant, as it has the possibility to address their particular needs in the face of shocks.

Karlan and Valdivia (2011) have also found training to be beneficial to microfinance clients and institutions by studying its effects through a randomized experiment. Specifically, they provided access to entrepreneurial training, similar to that provided by BRAC, to microfinance clients in Peru. The training led to benefits on behalf of both the clients and the microfinance institutions. Sales for microfinance clients were higher for the experimental group, especially during bad months (Karlan and Valdivia, 2011). Again, this points to the notion that training can assist the vulnerable poor, a group representing those most in need of assistance. Training also leads to higher retention and repayment rates, which can benefit the microfinance institutions themselves (Karlan and Valdivia, 2011).

There is even further evidence that establishes a link between a combination of training and asset transfers and entrepreneurial success among microfinance clients. Bandiera, Burgess, Das, Gulesci, Rasul and Sulaiman (2013) find such a link by randomly assigning Bangladeshi women, identified as Ultra Poor using BRAC’s method of targeting, to receive asset transfers

assisting them in certain business activities, as well as accompanying training. The benefits of such training are extreme, including an increase in self-employment, productivity, earnings and household expenditure (Bandiera et al, 2013). The researchers state, "Our estimates of the program's impact show evidence of a causal link from the lack of capital and skills to occupational choice, and ultimately poverty and insecurity" (Bandiera et al, 4, 2013).

In order for these results to actually be useful from a policy perspective, it must be feasible for microfinance institutions to implement the described practices. While the long-term results still need to be analyzed, institutions that provide services to the poorest of the poor have shown to be sustainable. For example, with 65 percent of its clients living on less than one dollar per day, BRAC saw a return of 4.3 percent in 2000. Similarly, SHARE and CARD in the Philippines, also experienced positive returns in the early 2000s, even though the majority of their clients live on less than one dollar per day as well. Other organizations with extremely poor clientele have exhibited success as well, including EMT in Cambodia and Nirdhan in Nepal. The positive results of these institutions can be credited to high productivity; many of the organizations serve hundreds of clients per employee (Littlefield et al, 2003).

Since such methods appear to be sustainable, the benefits of providing training to microfinance clients, as well as the evidence on increased performance of the very poor under the provision of certain services, have heavy implications for microfinance institutions. Concretely, organizations that offer additional services fare better in terms of reaching and retaining the very poor. In other words, simply providing access to credit is not enough to elevate the poorest of the poor out of extreme poverty. Integrated approaches, such as providing a combination of asset transfers, training and loans, are significantly more successful in reaching and assisting the very poor segment of the population in developing countries.

## Table 2. Summary of Microfinance Studies

| Authors | Method | Results |
| --- | --- | --- |
| Crépon, Devoto, Duflo and Parienté (2015) | Access to a microfinance institution is randomly granted to certain villages and outcomes are compared to control villages | Take-up and effects are very low in treatment villages, and microfinance leads to increases in self-employment activities that already exist |
| Lonborg and Rasmussen (2014) | The outreach ratio is used to compare the poverty levels of randomly selected borrowers and non-borrowers | Targeting is regressive |
| Bandiera, Burgess, Das, Gulesci, Rasul and Sulaiman (2013) | Ultra Poor women are randomly assigned to receive asset transfers and training, and the effects on income are evaluated | Asset transfers and training lead to increases in self-employment, productivity, earnings and household expenditure |
| Ghalib (2013) | Poverty scores of borrower and non-borrower households are compared using Principal Component Analysis | Borrowers are not the poorest members of the community |
| Drexler, Fischer and Schoar (2011) | Microfinance clients are randomly chosen to receive accounting training, simple training or no training, and the effects on their businesses are evaluated | Simple training leads to an increase in sales and savings |
| Karlan and Valdivia (2011) | The effects of entrepreneurial training on randomly selected groups is compared to groups who did not receive training | Training leads to an increase in sales, as well as an increase in retention and repayment rates |

| | | |
|---|---|---|
| Banerjee, Duflo, Chattopadhyay and Shapiro (2010) | Evaluates the effects of a program targeted at the Ultra Poor after providing services to randomly selected households | Members of the treatment group experience higher consumption levels, and experience better health and food availability |
| Hulme and Moore (2007) | The change in variables associated with poverty are studied over time for Ultra Poor microfinance clients and Ultra Poor non-clients | Over time, clients own more assets, consume more food and experience higher food security than non-clients |
| Zeller, Sharma, Henry, Lapenu (2006) | The targeting methods of microfinance organizations are evaluated by comparing their success to what would be achieved using Principal Component Analysis | SHARE is found to successfully target very poor clients using the housing index |
| Shaw (2004) | Income categories are determined through self-reported income sources of randomly selected borrowers to analyze changes from the first loan to the last loan | Poorer participants are more likely to use their loans for activities with minimal growth and value |
| Amin, Rai, Topa (2003) | Consumption and income patterns of randomly selected borrowers and non-borrowers are compared, and vulnerability is tested using the risk-sharing method | Microcredit is successful at reaching the poor, but not the vulnerable |
| Copestake (2002) | Business incomes of borrowers at the time of their first loans are compared to their incomes one year later | Clients who had been members for one year had experienced a fall in their business incomes, an effect that was lessened if their initial businesses were more successful |

| | | |
|---|---|---|
| Mayoux (2001) | Clients of seven microfinance institutions are studied through interviews to determine the effects of the programs on women's empowerment | Microfinance institutions may lead to income inequality as a result of certain practices, such as excluding the poorest of the poor |
| Navajas, Schreiner, Meyer, Gonzalez-Vega, Rodriguez-Meza (2000) | The poverty statuses of randomly selected borrowers are evaluated based on the population median via the Index of Fulfillment of Basic Needs | Borrowers are not as poor as non-borrowers |
| Morduch (1998) | Consumption levels of borrowers and non-borrowers are compared | As a result of their participation with a microfinance institution, borrowers are less vulnerable than non-borrowers, but are also of comparable poverty status |

# Chapter 5

## Conclusion

The poorest of the poor face a unique set of barriers that inhibit them from utilizing the services available to the relatively less poor. Among the most important inhibitors leading to this outcome include a lack of physical and human capital. The negative results that emerge from these characteristics can manifest themselves in three ways. First, the poorest of the poor can be unable to participate in microfinance activity because they do not have significant income sources prior to obtaining their first loans. Second, the lack of resources available to the very poor can make them more likely to drop out of microfinance programs at some point during the loan cycle. Third, the insufficient amount of physical and human capital of the poorest individuals can result in minimal gains from the use of their loans.

Compounding these difficulties are the behaviors of the microfinance institutions themselves. Since poverty is multidimensional, with the very poor demonstrating characteristics that are not simply quantifiable, identifying and retaining the poorest of the poor is a challenging task. From the research specifically addressing the methods of measuring poverty, it is clear that microfinance institutions have failed to target individuals living at the most extreme levels of poverty. There are many explanations for this result, such as organizations using inadequate targeting measures or failing to comply with eligibility requirements.

The evidence on microfinance institution's inability to reach the poorest of the poor culminates in one major implication: microcredit is not enough. Providing access to credit to

those who can successfully use and repay loans is a positive attribute of development economics. However, excluding the most vulnerable from such an endeavor, especially when the possibility of reaching them exists, calls for reform. It is only logical for microfinance institutions to take the issues faced by the poorest of the poor into account when designing programs that are created with the specific intention of reaching this segment of the population.

Additional services, such as asset transfers and financial training, have shown to be credible methods of assisting the very poor. Combined with extensive targeting methods, offering assistance that caters to the needs of prospective clients allows microfinance institutions to reach and retain the poorest of the poor. Most importantly, doing so leads to considerable increases in income, consumption, food security and health. Randomized evaluations of the effects of asset transfers, financial services and a combination of both have repeatedly pointed to the positive impact such services can have on microentrepreneurs in developing countries.

The programs that have proven successful indicate a need for policy change among microfinance institutions. If organizations are designed to reach individuals hovering at the poverty line, then the lack of additional services is not problematic. But for the institutions claiming to assist the poorest, steps to make meeting this goal a reality are needed. Increased focus should be directed towards remedying the shortcomings that stop the very poor from successfully using their loans. Providing access to credit does not mean anything if the poor cannot do anything with the credit they receive. Poverty is not one-dimensional, and as such, programs that target poverty should not be one-dimensional either.

Studies on the success of multifaceted programs also demonstrate areas of research that need more attention. Already, microfinance institutions are being designed to be randomly placed, so their efforts can be evaluated effectively. This is a relatively new phenomenon, and

the long-run impacts of such efforts are yet to be determined. Additionally, the effects of the individual components of the programs need to be analyzed. For instance, asset transfers and financial training are often bundled together, so determining the impacts of each is not possible. In a more general sense, comparing the costs and benefits of microfinance institutions as a whole to other development efforts would also provide evidence on the best overall way of reaching the very poor. Extracting the results from each individual effort, determining how the strategies impact the successful use of microfinance loans and knowing the most cost-effective combination would be beneficial for microfinance institutions looking to increase the impacts their programs have on the poorest of the poor.

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**ACADEMIC VITA**

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## EDUCATION

**Bachelor of Arts, Economics Degree and Public Relations Degree** **May 2015**
**The Pennsylvania State University, University Park, PA**

- Schreyer Honors College Scholar
- Dean's List Fall 2011 to present

## WORK EXPERIENCE

**Market Research Intern** **May to August 2014**
**Victaulic, Easton, PA**

Researched the market for mechanical pipe joining systems by monitoring the economic growth of countries and regions, finding and summarizing information on competitors and developing products, and locating current construction projects for sales managers by industry type and location

- Used a variety of databases to gather information on the global market
- Organized results for presentations by creating charts and graphs
- Prepared reports for executives and regional sales managers

**Marketing Intern** **May to August 2013**
**The Downtown Bethlehem Association, a Council of the Greater Lehigh Valley Chamber of Commerce**
**Bethlehem, PA**

Helped plan events by contacting potential sponsors, business owners and vendors, designed promotional material, brainstormed ideas for event decorations, helped set up and manage events, and promoted events by distributing posters and posting on local websites

- Designed, wrote and published the newsletter
- Wrote press releases
- Took meeting minutes

**Economics Grader** **August to December 2013 and August to December 2014**
**Penn State, University Park, PA**

Graded homework assignments and exams for a 400-level economics course after receiving an A in the course and being selected to be a grader by the professor

**Inventory Specialist Assistant** **May to August 2012**
**Dorney Park, Allentown, PA**

Helped maintain the integrity and accuracy of the park's inventory system by monitoring quantities and adjusting when necessary

- Balanced the inventory between stores by tracking and logging the information electronically using bar codes and scanners
- Participated in inventory cycle counts and price verification procedures

**Merchandise Sales Associate** **July to October 2010 and June to August 2011**
**Dorney Park, Allentown, PA**

Operated the cash register, ticketed items, stocked shelves and cleaned the store

## PENN STATE ACTIVITIES AND ORGANIZATIONS

**The Economics Association** **2012 to 2015**

**Mentoring Coordinator** **2014 to 2015**

Led mentoring pairs of undergraduate economics students by guiding conversations and organizing events

**Philanthropy Associate** **2013 to 2014**

Coordinated volunteer and fundraising activities for members of the organization

**“OPP”erations Committee Member** **2011 to 2015**

Raised funds for the Penn State Interfraternity Council/Panhellenic Dance Marathon

- Assisted in preparing the venue
- Helped maintain a safe and clean environment for the dancers and families during the dance marathon

**Phi Eta Sigma Honor Society** **2012 to Present**

**Kappa Tau Alpha Honor Society** **2014 to Present**

**The Public Relations Student Society of America** **2012 to 2014**