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May 01, 2010

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Recommended Citation

Dobson, Danielle, "Productive technology and its uses in microfinance in the Dominican Republic and India" (2010). *Honors Junior/Senior Projects.* Paper 62. http://hdl.handle.net/2047/d20002583

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Junior/Senior Honors Project
2009-2010

# Productive Technology and Its Uses in Microfinance in the Dominican Republic and India

## I. Introduction

This paper attempts to shed light on the important role that productive technology, in other research referred to as productive capital, plays in microenterprises undertaken by individuals participating in microcredit schemes. This research poses two basic questions: What are the most popular types of productive technology and how are they applied to their respective microenterprises? Research also explores how appropriate existing productive technologies are to the needs of poor consumers. Section II provides an overview of microfinance, the history of research on productive technologies and this research's potential applicability to actors in the arena moving forward. Section III provides a synopsis of research methodology, and Sections IV and V summarize research results from field studies conducted in the Dominican Republic and India. Conclusions and analysis is made of this research in Sections VI and VII.

## II. Literature Review

Microfinance is the extension of financial services to poor clients. Depending on the microfinance organization, this can include credit and savings programs and some times insurance schemes. Microfinance is also unique in its client base, as most MFI's lend primarily to women. Microfinance has largely been hailed as a success by those working in development because it seems to encompass and achieve many of the issues central to development discourses—the empowerment of women, the creation of services for marginalized communities, increased health and education opportunities for the next generation, fostering village entrepreneurship and nurturing local economies. Given this, the popularity of MFI's as

poverty interventions has increased over the past 20 years. 2005 was the official "Year of Microfinance" sponsored by the United Nations, and in 2006, Muhammad Yunus and the Grameen Bank won the Nobel Peace Price, further spreading the popularity around microfinance. According to World Bank estimates, there are now over 7,000 microfinance institutions in operation around the world, serving roughly 16 million poor people.[1]

Given its success, and its increasing popularity, microfinance has become the subject of numerous studies, books and other scholarly works. These have come from critics and supporters alike, and have covered a wide range of topics. These include studies on gender and repayment rates, financial structure, group lending versus individual loans, and a variety of other topics. These works seem largely concerned with the microfinance organizations themselves, from how they choose their clients to what kind of financial products and services they offer their clients.

Research also exists on the actual borrowers. This scholarship mostly seems to be focused on their successes and the socio-economic strides borrowers have made, or their perceived changes in their lives as a result of microcredit. This is all important research, especially as many of these organizations need these "success stories" to further attract donors. However, limited research exists on what these micro-entrepreneurs are actually purchasing with their loans, or in other terms what the productive technology purchased with the loans. Most scholarship the author found was only indirectly related to productive technology.

The role of productive technology should not be ignored, and leaders at the Microfinance and New Technologies Summit in 2008 recognized this. They stated that "the need remains, however, to examine the use of various [productive] technology products,"[2] and how they are applied to microenterprises. Research on this topic matters because it will aid current

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[1] "Kiva - About Microfinance," Kiva: Loans that change lives, 16 Apr. 2010 <http://www.kiva.org/about/microfinance>.
[2] http://www.mfntsummit2008.org/

microfinance leaders and organizations to build upon the successes already achieved by microfinance and lead to a longer term solution to poverty.

According to some scholars, creating access to productive technology is the reason why microfinance is successful. McKenan finds that "group-based credit programs" like microcredit, "affect household profits" because it allows for the provision of "credit for productive capital." (McKenan, 5) It is not the actual loan that is revolutionary to the poor, but what they are enabled to purchase with the loan. The same study also used the assumption that the effect of "extra services" offered by MFI's, such as education training or health services, can only increase profits proportional to the amount of productive capital the micro-entrepreneur is able to acquire.[3] This suggests that educational opportunities are just as important as the access micro-entrepreneurs have to the type, quality and efficiency of productive technology.

Most importantly, productive technology affects a micro-enterprise's productivity, and ultimately the ability of the enterprise to grow and remain sustainable. This is vital to the mission of microcredit—to be able to keep its clients out of poverty. According to a study conducted on small micro-enterprises (SME) in Taiwan, productivity creates virtuous cycles within SME's, where accumulation of productive capital allows for greater profits, which in turn allows individuals to "obtain access to resources and information which enables them to become more productive."[4] According to the World Bank, "the initial productivity of firms," which can be determined by productive technology is "significant determinant of subsequent growth." The same study noted that development work moving forward in this area "should target

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[3] Singe-Mary McKenan, "The Impact Of Microcredit Programs On Self-Employment Profits: Do Noncredit Program Aspects Matter?" The Review of Economics and Statistics 84 (2002): 5.

[4] Aw, Bee Yan. Productivity Dynamics of Small and Medium Enterprises in Taiwan (China). Rep. Washington DC: World Bank, 2002.

productivity rather than size."[5] This means an emphasis on obtaining productive technology. A study conducted on Grameen Bank in Bangladesh echoes these sentiments, "the overall success of micro credit program depends not only on immediate alleviation of poverty but also on long-term sustainability and long-term sustainability depends on accumulation" of productive technology, and ultimately, assets.[6] Norton continues on this same theme in his work about agricultural development policy, that "sustained poverty reduction requires actions and policies that help improve both the productive…capital of the poor." [7]

The role of productive technology in micro-enterprises is also important to microcredit organizations that cater their services exclusively towards women. According to the Cirpee Institute, effective productive capital is key to unlocking the potential of a female entrepreneur. "If a female entrepreneur plans to run a more productive activity, it is optimal for her to increase her demand for capital, otherwise she will not maximize the return to entrepreneurship." [8] The Platform for Action of the Fourth World Conference on Women recognized that women's empowerment is a "critical factor in the eradication of poverty". The conference noted that women's empowerment would also come about in a greater distribution and access to productive assets. [9] The UN Division for the Advancement of Women has made recommendations of the same nature; organizations already working for women's empowerment should also work to increase the ownership of productive assets for women,

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[5] Aw, Bee Yan. Productivity Dynamics of Small and Medium Enterprises in Taiwan (China). Rep. Washington DC: World Bank, 2002.

[6] Afrin, Sharmina. "A Multivariate Model of Micro Credit and Rural Women Entrepreneurship Development in Bangladesh." International Journal of Business and Management 8 (2008): 169-85.

[7] Roger D. Norton, Agricultural Development Policy: Concepts and Experiences (Hoboken, NJ: Wiley, 2004) 294.

[8] Dessy, Sylvian and Ewoudou, Jacques, "Microfinance and Female Empowerment" Centre Interuniversitaire sur le risque, les politiques économiques et l'emploi, Université Laval, Cahier de recherche/Working Paper 06-03, January 2006.

[9] Naila Kabeer, Women's Control over Economic Resources and Access to Financial Resources, Including Microfinance: 2009 World Survey on the Role of Women in Development (New York: United Nations, 2009) 1.

"such as productive equipment and technology." [10] Analyzing the role of productive technology in micro-enterprises and their borrower's ability to access it will be beneficial for microcredit organizations with a women's empowerment focus.

Research on the productive technology used my micro-entrepreneurs is also useful to producers, especially social entrepreneurs. The success of microfinance, which achieves its social mission by utilizing a for-profit model has also spurred the creation of "social businesses". These social businesses create products catered specifically to the poor. Microfinance recipients would be an excellent market for individuals looking to create products for the poor, especially products that could be used directly in their businesses. If social entrepreneurs were looking to cater products specifically for micro-enterprises, they would need to know what is and isn't being used within the businesses.

Second, the technologies that do exist for the poor aren't being used for their intended purposes. The XO Laptop created by One Laptop Per Child (a non profit organization which manufactures $150 laptops for children in developing countries, is a great example of this. The XO was hailed for its innovative R&D and for features tailored uniquely to the needs of children living in rural poverty—solar/hand crank powered battery, graphic instructions and rugged Wi-Fi.[11] Unfortunately, these computers are not being used for their intended purpose of connecting children to education through the internet. Instead, the number one use of the laptop reported by users was for a household light.[12] Clearly there is a gap between the needs of poor consumers and the information that producers have. Research on the products used

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[10] Naila Kabeer, Women's Control over Economic Resources and Access to Financial Resources, Including Microfinance: 2009 World Survey on the Role of Women in Development (New York: United Nations, 2009) 1.
[11] John Elkington and Pamela Hartigan, The Power of Unreasonable People: How Social Entrepreneurs Create Markets That Change the World (Boston, Mass.: Harvard Business School P, 2008) 128-130
[12] "What If Every Child Had A Laptop? - 60 Minutes - CBS News," Breaking News Headlines: Business, Entertainment & World News - CBS News, 16 Apr. 2010 <http://www.cbsnews.com/stories/2007/05/20/60minutes/main2830058.shtml>.

directly in microenterprises has the potential to shed light on the consumer's needs from a product.

Even Muhammad Yunus, the "father of microfinance" and founder of the Grameen Bank, has called for increased research on productive technology. In his book Creating a World Without Poverty, he says that the productive technology the poor have access to needs "a new approach", and to be "designed from the ground level up" always "keeping a picture of a poor woman in a poor country in the forefront."[13] This cannot be done without first understanding what the poor, especially microcredit recipients are consuming. The research outlined below is an attempt to begin this groundwork research on the productive technology consumption patterns of micro-entrepreneurs.

**III. Research Question:**

There are two central aims to this research. One to find what productive technologies are being consumed by asking: What are the most popular productive technologies and how are these applied to their respective microenterprises? How productive were the technologies being applied in microenterprises? Second, was to derive how well this productive technology was meeting the needs of the micro-entrepreneurs by asking questions about the attributes of their productive technology.

In this research, productive technology is defined as the goods that micro-entrepreneurs used directly in their microenterprises. Other research has referred to this "productive capital", "productive inputs" or simply capital. These questions were explored through two different cases studies. One was conducted with Esperanza International in the cities of Hato Mayor and Samana in the Domincan Republic. The second case study was conducted in conjunction with RAPID in a village outside of Hubli in southwest India.

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[13] Muhammad Yunus and Karl Weber, Creating a World Without Poverty: Social Business and the Future of Capitalism (New York: PublicAffairs, 2007) 193.

## Methodology

To answer the central research questions, two case studies were conducted with two partner microfinance institutions. Micro-entrepreneurs who were clients of these organizations were interviewed, both in group interviews and individually. The purpose of these interviews was to derive which technologies were most popular, and to discover attributes about that technology. Workshop and business visits were also conducted, to gain observational data about the context and application of the technology within the business. (For interview and site visit questions, see Appendix A.)

The methodology and manner of interviews conducted were different for each of the case studies due to organizational and time limitations. In the Dominican Republic, individuals were selected for interview based upon the type of enterprise they undertook. This was done in an attempt to find the most popular types of businesses, and therefore the most popular types of productive technologies. At the first branch office in Hato Mayor, this data was available, in the Samana branch, this information was not. Sample populations were then determined by observational data from organization workers. The sample population for workshops visits was self selecting—individuals whose workshops or businesses were in close proximity to the interview site were selected for a site visit.

In India, there were large time constraints to conducting research, as I was there in conjunction with another program. The sample population was determined by the organizational capacity to support an outside researcher, and was not related to the filter of popularity of microenterprise type. The sample population for workshop visits was also self selecting—women whose businesses were in close proximity to the interview site were selected for a site visit.

Given these constraints, a total of 38 individuals were interviewed. The author recognizes that this number is not statistically significant, nor is it a large enough sample size to draw concrete conclusions, however that does not take away from the knowledge gained, nor the opportunity to spur further research.

## IV. Results

### Dominican Republic

#### a.) Background Information:

### About the Organization: Esperanza International

Esperanza International is a non governmental organization and microcredit provider that has been operating since 1985.[14] Loans are given through their Bank of Hope program, which follows a group lending model for women, although some men are allowed to join. Members of the group are held jointly liable if one member of the group defaults on their loan. Many of the group members I met with chose their neighbors, relatives, or anyone else who they deemed trustworthy to be in their groups.

Loan size ranges from $125 USD to $1,000 USD, and to obtain larger loans, women must have successfully paid back smaller loans. Esperanza charges an interest rate of 3.75% a month to cover operation costs. This is still small compared with the informal money lender rates, which can be up to 200% on an even shorter time period. Women who participate in the Bank of Hope program are also entitled to a variety of services, including vocational/business training and education and health and dental services. Esperanza is also a partner on Kiva.org, a website that connects individual donors to individual micro-entrepreneurs.

### Sample population:

[14] "Kiva - Haiti: Esperanza International Dominican Republic, a partner of HOPE International," Kiva - Loans that change lives, 16 Apr. 2010 <http://www.kiva.org/partners/44>.

Research was conducted on 30 men and women who participated in the Bank of Hope program branches in Hato Mayor and Samana. Generally, the men and women interviewed were in their 30's and 40's, though there were a few women who were teenagers/college aged. All micro credit recipients had at least 1 child the micro-enterprise supported. Interviews took place at Esperanza weekly group loan meetings, held in the Esperanza office as well as micro-entrepreneur's homes. A total of 8 site visits were conducted.

**b.) Survey Findings**

**Types of Enterprise and the Productive Technologies Required**

Table 1: Popularity of Enterprise Type

| Enterprise Type | Frequency |
|---|---|
| Used Clothing Sales | 7 |
| Neighborhood Grocery/Food Sales | 12 |
| Fry Stand/Restaurant | 8 |
| Barber/Beauty Parlor | 3 |
| Jewelry/ Trinket Sales | 3 |
| Beverages/Ice Cream | 1 |

Among the men and women interviewed with Esperanza, the most popular enterprise type, with 35% of respondents was the colmado, or neighborhood grocery and food. sales. 23% of respondents owned fry stands or restaurants and 20% were engaged in used clothing sales.

Table 2: Popularity of Productive Technology

| Productive Technology | Frequency |
|---|---|
| Freezer/ Refridgerator | 17 |
| Stove | 10 |
| Shaver/Hairdryer | 2 |
| Juicer | 1 |

The most popular productive technologies consumed in the Dominican Republic were freezers and refrigerators, with 54% of respondents using this item in their business. The

second largest productive technology consumed was a stove, with 32% of respondents. These results are unsurprising given that the most popular enterprises involved food preparation and sales. It is interesting to note that, while the majority of restaurant/fry stand owners had gas or coal stoves, many preferred to cook with "moon stoves". Moon stoves are a "traditional technology", which are made from white clay harvested during a full moon. According to the men and women I spoke with, parents teach their children how to make the clay stoves. They also claim that they burn hotter and quicker, and allow for them to prepare food faster than the gas stoves. Compared with their traditional methods, gas stoves were expensive because the price of gasoline was so high. The third most popular productive technology were salon/barber products. One question in the survey asked if they had changed the productive technology in any way, this was based on alterations the author had seen to technology in South Africa. All of the respondents stated no. However, many colmado owners complained that their appliances required too much electricity to run, and caused them to have large electricity bills they wish they could change. One individual wanted her fridge to be able to distribute purified water, but she couldn't hook it up to water lines because of water contamination.

83% of individuals interviewed owned a cell phone. Only 16% did not have a cell phone. This 16% was mostly older women, who lived in the bateys (informal Haitian settlements outside of sugar cane plantations). Of the individuals that had cell phones, 58% used their cell phones in their businesses, whether to get in touch with clients or to check on prices of goods. 42% did not use their cell phones in their businesses.

**"Appropriateness" of Technologies**

Twenty of the productive technologies consumed among the sample population required electricity, ten did not. In a country where rolling black outs are common, 9 respondents said that they believed that when the electricity was out, they lost business. All of the respondents

who lived in El Limon, near Samana paid both a private and public electricity company so that business was never lost due to a black out. Respondents were also asked if their productive technology had ever injured themselves or their family during business hours. All respondents replied no.

Table 3: Desired Investments

| Additional Items Desired For Business | Frequency |
|---|---|
| No | 4 |
| Technology | 16 |
| Inputs | 7 |

When asked if they could purchase anything else for their business, 59% would purchase technology, 25% would purchase inputs and 14% were satisfied with their business' assets.

Table 4: Desired Technology

| Desired Technology | Frequency |
|---|---|
| add a motor to existing technology | 2 |
| wants sophisticated/upper level technology | 5 |
| computer | 7 |
| freezer | 4 |
| back up generator | 2 |
| freezer | 2 |
| cell phone | 1 |
| microwave | 1 |

Those who responded that they wanted technology specified which kind of technology they would like to purchase. 20% wanted an upgraded or more sophisticated version of the technology they already had, but could not afford it. 8% wanted to add a motor to their technology so that it was no longer manually powered. The most demanded technology good was a computer, with 29%. Majority of individuals who wanted a computer wanted it so that

they could keep better track of their accounts and loan payments. One respondent wanted a computer with internet so that they could be connected with clients over MSN chat. Another respondent wanted a better stove so that she could cook food faster than she could with her current stove. The second most demanded item was a freezer, with 25% of respondents. Of all of the technology goods desired, 58% were productive technologies.

**Desired Inputs:**

One interviewee wanted to be able to have electricity for her business, another wanted access to a wider diversity of food products and jewelry products.

**Conclusion:**

The finding that almost 60% of interviewees wanted access to technology, and a large percentage of that was productive technology is significant. It is also significant that many people wanted upgraded or better versions of their technology. This shows that perhaps individuals, even with the added resources of microcredit still don't have access to productive technology that meets their needs. It is also worth noting that many individuals faced issues regarding electricity that interfered with their business. The fact that a few individuals had to pay two electricity companies a month just to receive constant electricity points to a place where solar run products could easily fit in.

## V. India

a.) Background Information:

**About the Organization: RAPID**

Like Esperanza's Bank of Hope program, RAPID's Self Help Groups follow the group lending model. 10-15 women form a Self Help Group (SHG). Together they take business training, learning about the skills of basic business and accounting. After that education

program has been completed, the group takes another usually centered around a productive skill. RAPID offers trainings in sewing, incense making, embroidery and "homemade products" like beauty creams, as well as food items. After the women have completed these two steps of training, they have the option to receive an interest free loan from RAPID to start their own business.

**Sample population:**

RAPID provides services exclusively to single women who are abandoned, divorced or widowed. This is an extremely vulnerable population, especially given India's social and cultural attitudes towards single women. All of the individuals interviewed were women, mostly middle aged, but there were also younger women (in their 20's) and older women. All of the individuals interviewed had at least 1 child that their microenterprise supported. Interviews took place at the village temple; a total of 18 women were interviewed and a total of 3 site visits were conducted.

b.) Survey Findings

**Types of Enterprise and Productive Technologies Required**

Table 1: Enterprise Type Popularity

| Enterprise Type | Frequency |
|---|---|
| Rope Making | 2 |
| Animal Husbandry | 4 |
| Animal Products | 3 |
| Seamstress/Tailor | 7 |
| Incense Making | 3 |
| Neighborhood Store | 2 |

Seamstress and tailoring services were the most popular enterprise type with 33% of borrowers interviewed. This largely has to do with the fact that RAPID offers training on tailoring. The second most popular were incense making and animal products, each making of 14% of

respondents. Incense making is also an educational class offered by RAPID, which is probably the reason that many individuals undertook the same enterprise. Given the rural setting, the popularity of animal husbandry and animal products are unsurprising.

Table 2: Popularity of Productive Technology

| Productive Technology | Frequency |
|---|---|
| Sewing Machine | 7 |
| Stove | 1 |
| Rope Making Machine | 1 |

The most popular productive technology consumed was the sewing machine, with is unsurprising given the large presence of tailoring as a large percentage of enterprise type.

56% of interviewees used productive technology in their microenterprise, while 44% used no productive technology in their enterprise. For example, incense was rolled by hand, animal husbandry required no technology and the distribution of animal products required no technology. One woman had a stove in her neighborhood store.

33% of respondents had a cell phone, 67% did not have a cell phone, though 2 women knew members of their families who had cell phones. Of the women who had cell phones, 38% used it for their business, while 62% did not.

**"Appropriateness of Technology"**

10% of microenterprises in Kudikeri required electricity, while 90% did not. 53% of respondents were attached to current, while 47% lived without electricity. 50% of those surveyed believed that they had less business because they didn't have electricity, or that they lost business during rolling blackouts. 50% of those surveyed believed that electricity was not a factor in their profitability.

Table 3: Desired Investments

| Investment Type | Frequency |
|---|---|
| None | 1 |
| Inputs | 9 |
| Technology | 6 |

Only one woman interviewed did not desire to make more investments in their businesses. 40% wished to invest in technology, while 60% wanted to invest in their business inputs.

Table 4: Desired Technology

| Desired Technology | Frequency |
|---|---|
| Add a motor to existing technology | 2 |
| Refrigerator | 1 |
| Wants sophisticated/upper level technology | 3 |

50% of individuals surveyed wanted to buy better more advanced versions of technology they were already using in their enterprise. Many of these responders were women who wanted a sewing machine with more capabilities and features so that they could have a value-add to their services. 33% of respondents wanted to add a motor to their sewing machines, so that they could sew more material faster, and no longer have to pump the machine by foot. One woman complained that the activity of pumping the pedal was so strenuous that sometimes she felt dizzy and hurt after sewing.

Table 5: Desired Inputs

| Desired Input | Frequency |
|---|---|
| Food stuffs | 1 |
| Higher quality sewing materials | 5 |
| More animals | 3 |

The most popular response was access to higher quality sewing materials, this indicates a removal from the market, which may be due to their physical distance from large cities which offer a variety of sewing materials.

## VI. Conclusion:

Responses about electricity affecting the business suggest that solar technologies may be applicable to the Indian case study as well. Respondents who would spend their money on productive technology often wanted more sophisticated versions of the technology they already had. All of the technology requested would increase the productivity and quality of the product produced, which is important to their profitability. The lack of access (whether it be limits due to distance, funds, etc) of better technology may be an indicator that even these microcredit recipients don't have access to the technology they need for their business.

### Comparisons Between the Two Cases

Before any comparisons can be made, the author must recognize the wide differences between the groups, which may have an affect on the differences between the two data sets. For one, the poverty levels experienced by interviewees in the Dominican Republic and India were widely different. Individuals in the Dominican Republic seemed to have a larger initial income (through spousal/family support) before the microcredit loan was taken out than the Indian sample. The closest match to the level of poverty experienced in India was the Haitian individuals who lived in the remote bateys. Additionally, it was an issue of urban versus rural poverty. While the Dominican sample didn't live in major cities, they still lived in towns and had access to more information and resources. This was shown in the enterprise type selection by loan recipients—the reselling of materials purchased in cities and towns, as well as the many restaurant and fry stand operations. This suggests a more urban population. The Indian population was intensely rural, at least 45 minutes away from town. This was reflected in the enterprise types that these interviewees undertook, as most were agricultural or animal products.

There were organizational differences as well. Esperanza is a Christian organization, that includes a ministry and religious educational outreach component to its program offerings. Education is optional for individuals, and loans are also open to men. Loan packages carry an interest charge. RAPID had no religious affiliation, and only women were allowed to be clientele. RAPID also had a mandatory education program that women must attend before they can receive access to the loans. Loans were also provided interest free, as part of RAPID's mission to cater to the most disadvantaged.

There were also large cultural differences between the two sample sets. Though the Domincan Republic has a somewhat large Christian, traditional culture, there were no major social stigmas to women owning their own businesses or participating in a microcredit scheme. In India, many of the women I met with had to receive permission from their closest male "guardian". Women in the Domincan Republic also seemed to have greater access to technology goods; almost all the women I met with had a cell phone. In India, less women than expected had cell phones, but many noted that their brothers, sons or other male family members had a cell phone. This also could be due to the urban versus rural issue. Education levels, if measured by literacy rates, between the two sample populations were also different. Majority of individuals surveyed in the Dominican Republic were literate, while only 3 women in the India population were.

**Similarities**

Despite the wide differences between the two groups, there were commonalities. First, was the existence of a neighborhood grocery. While only one woman in India owned a small store, 12 in the Dominican Republic were owners. Almost all of the individuals surveyed had more than one business, and all of them received income from another source besides their microenterprise. This suggests that perhaps profits are not high enough in their micro

enterprises; this may be due to the lack of inadequate, inefficient or outdated productive technology. A few individuals from each sample also borrowed from informal loan sharks to supplement their loans, or in some cases, to pay back their loans. There also seemed to be market saturation present in both samples. Both had small areas with multiple entrepreneurs undertaking the same business in the same small area.

**Conclusions**

Productive technology and its uses in microfinance still remains a topic that is largely unexplored. However, it may be an important way for microcredit organizations to better serve their clients, and for social entrepreneurs to help lift people out of poverty. In the case studies highlighted above, the technology that exists, generally does not meet the need of micro-entrepreneurs. The most popular types of technology, which may be a starting point for social entrepreneurs was also highlighted. Like most research, more questions were spurred from the research than were answered. These are examined below.

**VII. Areas for Future Research:**

- The effectiveness of microcredit evaluated from the success of recipients: to create linkages in their communities and local economies, to have a diversity of microenterprises undertaken
- The effect of education services on enterprise choice, and whether or not education services match the demand in the market
- More in depth research about the products being utilized in microcredit schemes—can there be use in the "traditional technologies" and learning for technology producers? Are the needs of micro-entrepreneurs really being met (ie distribution, price and features) of the productive technology they presently have access to?

Appendix A

Site Interview Questions

1.) What do you use to generate income?
2.) How do you use it?
3.) Do you use it for its intended purpose?
4.) Does it require electricity?
5.) Have you changed it in any way from its original state when originally purchased?
6.) Did it come with an instruction manual?
7.) How did you know how to use it?
8.) Where did you purchase it from?
9.) Was it new or used?
10.) Does it require maintenance?
11.) Do you fix it yourself or hire others?
12.) How long does it take to fix it?
13.) Is there anything that you wish you could change about the product design?Does it meet your needs?
14.) Have you or your family ever been hurt by it?
15.) Do you have a cell phone?
16.) Is there anything else that you would wish to purchase for your business?

Site Visit Interview Questions

1.) Will you show me how you use it?
2.) What is the process you use?
3.) Do you mind if I take pictures of it?

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