A Billion to Gain?

Microfinance clients are not cut from the same cloth
Introduction

Exploring differences in microfinance impact

Problems with ‘the impact for an average client’ and the need for heterogeneous results

In September 2014 ING Bank and NpM, Platform for Inclusive Finance, published their findings from impact studies in India and Ghana in the fifth edition of the A Billion to Gain? series. The 2014 report presented the impact of microcredit on clients after using microcredit for two to three years. In doing so, one could say that the impact for ‘an average client’ was calculated for the specific schemes in India and Ghana. While this is very useful to know, many practitioners in the sector have challenged us afterwards by stating that the ‘average client’ does not exist in practice. They have asked us whether impact differs significantly between clients. Specifically among clients:
1. with very low income levels versus the better off clients;
2. who were already indebted when they received their first microfinance loan and those that are not;
3. who have received financial training and those who have not;
4. that are group leaders and those that are not.

Understanding how impact differs among clients has become top of mind

We have noticed that practitioners are eager to find out which type of clients experience high impact. Recently this trend has been magnified by an increasing impact investing community in the microfinance sector. As investors put more emphasis on the social return of their investments in microfinance institutions, practitioners are urged to create impact and report back on it. As a result questions like: “Which clients should I target if I want to create large impact?”, is now top of mind for many practitioners. As such, there is a need to get more detailed information about the impact of microfinance for different type of clients. This report addresses differences in impact with regard to income, initial indebtedness, financial training and the skills of group leaders.

Notes

2. See the appendix of this report and the September 2014 A Billion to Gain Report? for a description of the research method.
Impact of microfinance programs differs from country to country based on local circumstances. This was already the case for the ‘average impact’ calculated in the 2014 A Billion to Gain report. For example, microcredit proved highly effective in empowering female clients in India but not in Ghana as Ghanaian women were already much more empowered in comparison to their Indian counterparts. If one explores the impact among different client groups the differences in local context becomes even more important. Therefore this study must not be read as a comparison between two countries but merely as two case studies to assess impact. Microfinance institutions (MFIs) are advised to access the impact of their programs on their specific clients themselves rather than to draw conclusions from impact studies in other countries or even in other parts of the country in which they operate.

That said, the main findings for these specific programs in India and Ghana are as follows.

**Poorest of the poor benefit most**
In both samples the poorest of the poor tend to benefit most from microcredit programs in terms of income and savings (both India and Ghana) as well as empowerment (India only). It turns out that getting access to financial tools to manage money works extremely well for people who have very little money to manage in the first place as for them the financial stress to get from one day to the other is so pressing.

**Impact is higher for women with initial debt**
Women who already have debt outstanding when they receive their first microfinance loan show a significantly higher income effect than women who are not indebted (both India and Ghana). This could have different reasons. It could be that these women pay off expensive informal loans with cheaper microcredit which has a positive impact on income. It could also be that - combined with previous loans - these clients have more money available to invest productively. The fact that the vast majority of clients invests in existing business activities instead of new activities supports the view that microcredit helps these women to create economies of scale.

**Financial training improves impact on income and savings**
In India financial training improves the saving behaviour of clients. In Ghana it leads to higher impact on income. In Ghana households of trained clients earn $16 a month more than untrained clients. As such the benefits of financial training are quite large in relation to the costs for the MFIs which are typically in the range of $2 to $4 per client. This opens up new earnings models for MFIs in which clients themselves pay (part) of the training costs.

**Overall, not much difference is found in impact for group leaders**
The role of group leader definitely requires specific skills to manage the extra responsibilities but these skills seem not decisive enough to alter the impacts of a microcredit program.

**Impact does not differ for housing, asset accumulation and education**
In both countries hardly any impact for the different groups of clients was found with regard to housing conditions (as measured by electricity and toilet facilities, the number of rooms as well as rooftop material), asset accumulation as well as the education levels for both sons and daughters. This comes not as a surprise as it takes time for these outcomes to improve. The two to three year time horizon in our samples might simply be too short of a period to witness consistent results.
Poorest of the poor benefit most from microcredit

Lower, middle and upper poor

In line with standard World Bank classifications the India and Ghana samples were divided based on average income statistics:

- Lower poor: those living on less than $1.25 a day per household member.
- Middle poor: those living on more than $1.25 but less than $2 a day per household member.
- Upper poor: those living on more than $2 a day per household member.

In India impact differed as follows:

- Women in all the three groups become more empowered by microcredit. Further tests reveal that impact for the lower poor is significantly higher than impact for the middle and upper poor. There is no statistical significant difference in impact between the middle and upper poor.
- Households in all three categories experience a positive impact on income and savings as part of the additional income is saved. Again, the poorest of the poor stand out with a 19% increase in income and 32% increase in savings. This group shows significant higher impact compared to the other two groups.

In Ghana the following results stand out:

- Among all the different income categories no impact is found of microcredit on women empowerment as Ghanaian women are already much more empowered.
- Income for the low (+20%) and middle poor (+15%) is increased significantly by microcredit. Further tests reveal however that impact is not significantly different between these groups of clients. Microcredit impacts savings only for the poorest of the poor (+26%). No impact is found for the middle and upper poor as they spend most of the money. As initial savings for the middle and upper poor are higher in comparison to the upper poor it could be that the lower poor really focus on savings as to get basic needs, while the middle and upper poor might already have this and instead use the money towards investment.

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Income

Poorest of the poor benefit most from microcredit

<table>
<thead>
<tr>
<th>Income</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower poor</td>
<td>$26</td>
</tr>
<tr>
<td>Middle poor</td>
<td>$21</td>
</tr>
<tr>
<td>Upper poor</td>
<td>$29</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Income</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower poor</td>
<td>$26</td>
</tr>
<tr>
<td>Middle poor</td>
<td>$27</td>
</tr>
<tr>
<td>Upper poor</td>
<td>N.I.</td>
</tr>
</tbody>
</table>

N.I. means no statistical significant impact is found at the 99, 95 or 90% confidence level.

Source: ING Economics Department
Taking on debt; a cautious balancing act
The main promise of microfinance hinges on the good things that credit can bring. Through loans clients can start or expand a business and earn an income. In that respect, the question whether impact differs among clients who are already indebted when they receive their first microfinance loan and those that are not is very relevant. Also since the microfinance sector has not been immune to over-indebtedness and the related repayment issues with negative impact on consumption and welfare.

To answer this question we calculated the debt level of clients before they received microfinance as total debt outstanding divided by yearly household income and added this variable to the model. In India a large group of clients (31%) had already debt outstanding when taking on a microfinance loan. In Ghana this was only the case for 2% of the clients.

In **India** results are as follows:
- Women who are more indebted initially show a significantly higher income effect than women who are not indebted. This could have different reasons. It could be that these women pay off expensive informal loans with cheaper microcredit which has a positive impact on income. It could also be that - combined with previous loans - these clients have more money available to invest productively. The fact that the vast majority of clients invests in existing business activities instead of new activities supports the view that microcredit helps these women to create economies of scale.
- Women who are in debt before taking a microfinance loan show a significantly larger impact on empowerment than women from households that are not indebted. In other words: the more indebted a woman is initially, the higher increase in empowerment she experience by taking on a microfinance loan. This improvement in empowerment could come from the notion that the husband let the wife control financial matters more if she has taken on debt herself, especially if she is able to increase income with debt (see previous bullet).

In **Ghana**:
- No differences in empowerment are found as Ghanaian women in general are already highly empowered.

These results are in favour of debt usage for the poor to manage the business and household finances. As long as over-indebtedness is avoided, debt has positive impact. This raises the question whether debt is a free lunch?

Debt seems to be a free lunch for the clients without prior debt. In both India and Ghana these clients experience a significant reduction in financial stress after they have received microcredit for two to three years. However, debt is not a free lunch for clients with initial debt. In Ghana they experience a significant increase in financial stress. In India the direction of the results also indicate towards an increase in financial stress but the results are not statistically significant.

This underscores the view that debt, at some point, comes at a cost.
The majority of clients participate in a financial literacy training before loan disbursement. In this section we examine differences in impact between clients who have and those who have not received financial training.

In **India**:
- Both clients that have received financial training and the ones who did not become more empowered through the use of microcredit. However, impact differs not significantly between both groups. Empowerment seems to come from the group meetings and interaction with loan officers over time, rather from the initial training.
- Both the trained and untrained clients experience an increase in income due to microcredit of 17% and 12% respectively. The differences however is too small for the groups to differ significantly from each other. Both groups also improve their savings behaviour after receiving microcredit. Unlike for income, the difference for savings is large enough to conclude that impact differs significantly among both groups. The budgeting and bookkeeping techniques that are a cornerstone of the training seem to pay off in India in terms of savings rather than higher income from better business performance.

In **Ghana** financial impact is in line with the India findings as both trained and untrained clients experience positive impact by microcredit. Whether the groups differ significantly from each other yields the opposite results for Ghana. In Ghana the groups differ significantly with regard to income but not for savings.

All in all, financial training seems to have an impact on financial performance of clients. For the non monetary outcomes such as empowerment, education and housing no conclusive evidence of any impact is found. The reason for this could very well be that these outcome variables only will be affected in the long run. It could simply take more than two to three years before an effect of financial training can be observed on such indicators. The financial training’s main focus is on how to handle cash, understand the simple principles of bookkeeping and how to save. In that respect the trainings seem effective. Given the fact that microfinance institutions can manage training programmes themselves at relatively low costs, financial training is a powerful tool to improve impact. Our findings in Ghana suggest that the financial benefits for the clients ($16 increase in monthly income) are bigger than the costs of the training which are typically in the range of $2 to $4 per client. This opens up new earnings models for microfinance institutions in which clients themselves pay (part) of the training costs. For the clients this might be highly desirable given the fact that some MFIs have cut back on training in times of financial head wind.
Group leaders

Impact, in general, is not higher for group leaders

Group leaders are selected for this specific task to manage a self help group because the members of the group or loan officers think they are best qualified to fulfil the task and to handle the increased responsibilities it brings. As such it is often believed that group leaders have distinct capabilities in relation to non leaders. It could also be that being a leader gives certain other advantages such as a good reputation in the village making it more likely that the business of group leaders would flourish. This section examines whether this leads to differences in impact between the group leaders and those that are not.

Overall, not much difference is found in impact for group leaders. In India impact between both groups is too small to conclude that they differ significantly from each other. In Ghana the groups only differ in terms of income, but the result is barely significant and therefore weak. Being a leader, in general, does not increase nor reduce impact. The role of group leader definitely requires specific skills to manage the extra responsibilities but these skills seem not decisive enough to alter the impacts of a microcredit program. One exception however stands out.

In India sons of group leaders are significantly better educated than their counterparts of non leaders. It might be that group leaders value education more than non leaders and therefore invest more in the education of their sons. Interestingly, no such impact is found on education of daughters. So, although group leaders might value education more, they are still caught up in typical gender patterns that are so common in male dominated societies in which girls are more likely to be kept out of school than boys. It could also indicate a preference in terms of priority which children are sent to school if access is limited in case of school availability or insufficient money to send all the children to school.

Share of clients that is a group leader

Increase in monthly household income and savings

<table>
<thead>
<tr>
<th></th>
<th>Income</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>No leader</td>
<td>$30</td>
<td>16%</td>
</tr>
<tr>
<td>Leader</td>
<td>$35</td>
<td>17%</td>
</tr>
</tbody>
</table>

India

- Group leader
- Not a group leader

Ghana

<table>
<thead>
<tr>
<th></th>
<th>Income</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Leader</td>
<td>$22</td>
<td>12%</td>
</tr>
<tr>
<td>Leader</td>
<td>$40</td>
<td>21%</td>
</tr>
</tbody>
</table>

N.I. means no statistical significant impact is found at the 99, 95 or 90% confidence level.
Samples
Around 600 female clients in India and 500 female clients in Ghana were interviewed at the end of 2013 and beginning of 2014. The microfinance institutions involved were Basix in India and Opportunity International in Ghana. Clients were randomly selected that 1) received their first microfinance loan from these institutions two to three years ago and 2) were still active borrowers. During the interview it was checked whether they had received microfinance before. If so, they were left out of the analyses. In this way, the impact of microcredit after two to three years of active borrowing could be established. The sample in India covered rural villages in the Bihar region. The sample in Ghana covered both rural and urban villages around Techiman, Kumasi and Bekwai.

Methodology
Impact was calculated using Propensity Score Matching with Difference in Difference estimates. See the 2014 report for detailed information on the research method, research samples, questionnaire and survey technique and circumstances. India based firm M-CRIL carried out the field research and the University of Groningen ran the statistical tests to calculate impact. First the groupings were defined and then two statistical tests were run to assess whether there is a statistical significant difference in impact between the groups.

Defining groupings: the risk of data mining
It’s becoming increasingly popular to differentiate results between groups of clients, both in science as in practice. In doing so, the problem of data mining is a real concern. Impact studies often contain so many input and outcome variables that a wide range of groups with potential different outcomes can be defined. If one searches enough, one will most likely find differences in impact! Question remains whether the findings make sense or are simply spurious results. To eliminate the risk of data mining we have chosen to work along the four questions that we got back from investors and microfinance institutions as stated in the introduction. Note that income, initial debt levels and the required skills for becoming a group leader are all observable characteristics for experienced loan officers in the field. Furthermore, the option whether or not to enrol a client in a financial training is a deliberate policy intervention. As such, these categorisations of clients make sense and are highly relevant in practice.

Defining the outcome
Impact is measured on monetary outcomes (such as income and savings), female empowerment, asset accumulation (both livestock and non-animal assets), housing conditions and the education level of both sons and daughters.

Research methodology

1. Define groups
2. Statistical test 1: assess impact per group
3. Statistical test 2: test whether impact differs significantly between groups
Colophon and disclaimer

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