MIX Data Brief No. 7

Microfinance Synergies and Trade-offs:

Social versus Financial Performance Outcomes in 2008[1]

Adrian Gonzalez, Lead Researcher, agonzalez@themix.org

The microfinance industry has long speculated about potential trade-offs between financial and social goals. While struggling to achieve rapid growth, serve more clients, improve portfolio quality, and become financially sustainable, microfinance institutions (MFIs) with a double bottom line have to ensure they are meeting their development goals (women's empowerment, rural outreach, and social responsibility to clients). Often, development goals put pressure on financials, and many MFIs worry that becoming "socially-focused" may deteriorate their efficiency, portfolio quality, or productivity. At the same time, the microfinance industry is giving more importance to avoiding over-indebtedness, having better human resource policies in place, and implementing proper staff training and incentive schemes that may improve financial performance as well. These potential synergies between social performance (SP) and financial performance (FP) can compensate for some of the trade-offs commonly associated with pursuing a double bottom line.

The main goal of this paper is to identify and quantify both trade-offs and synergies between the social performance and financial performance goals of microfinance institutions. The main questions explored are whether significant relationships between social and financial performance exist, and whether these relationships lead to trade-offs and synergies in terms of MFIs' achievement of their double bottom line.

The focus of the analysis is on the Social Performance Task Force indicators (SPTFIs) that are most likely to affect MFIs' financial performance (FP).[2] Furthermore, among all the SPTFIs, the analysis concentrates on indicators with the highest expected data quality and sufficient reporting among the group of 208 MFIs that submitted Social Performance Standard Reports to Microfinance Information Exchange, Inc. (MIX) in 2008, as indicated on the first row of **Figure 1**.

The main results from the paper confirmed several **expected trade-offs and synergies** between SP and FP, including: **efficiency trade-offs** for targeting the poorest, SP training and social responsibility (SR) to staff, **productivity synergies** for SP training and SR to staff, and **productivity and efficiency synergies** for client retention. The results confirm that investments in human capital (SP training and SR) go hand-in-hand with higher staff productivity and better portfolio quality, but lower efficiency; that SP training and human resource (HR) policies have stronger synergies and weaker tradeoffs with FP; and that serving the very poor and poor comes at a cost in terms of efficiency, but not in terms of risk or productivity, even after considering differences in loan sizes.

The implications of these results are many. First of all, the analysis finds that for MFIs, improving client retention improves financial performance, and devoting funds to process discipline and staff support pays off. Consequently, funders cannot ignore MFI investments in staff training, incentives, and human resource policies, whether they are socially or financially driven. Additionally, critics of high interest rates and high costs need to be aware that exclusive targeting of very poor and poor borrowers increases the average cost

1. The author appreciates the case studies provided by Micol Pistelli, and valuable comments and suggestions from Florent Bédécarrats, Emmanuelle Javoy, Marten Leijon, Micol Pistelli, Blaine Stephens, and the participants at the Social Performance Task Force Meetings held in Bern, June 2010. All errors and omissions remain my own responsibility.

2. MIX's primary role is collection of the data, but it also chairs the Social Performance Task Force's group for social performance indicators, which is responsible for selecting and defining the indicators (http://www.sptf.info/page/social-performance-indicators). Some recommendations about how to improve the usability and quality of the information collected are discussed in Appendix 2.

of loans to the borrowers, and most likely the interest rate that borrowers must pay in order to cover the MFI's costs. Thirdly, researchers and analysts need to control for SP-factors known to influence FP in order to better understand differences in FP among MFIs. Finally, the Social Performance Task Force needs to refine questions that have ambiguous attribution as discussed in Appendix 2 (for example, the effects of SP training versus general training)and improve the depth of information in areas where just yes/no questions are not enough to quantify important trade-offs.

In addition to the confirmation of expected findings, two new results emerge from the paper. One is that rural MFIs are more productive and efficient than urban ones, contrary to the common belief. The main explanation of this counterintuitive result is that contrary to our perceptions, rural MFIs do not necessarily operate in more disperse areas, where distances and travel times usually reduce productivity and efficiency. The other result is that relative loan sizes and targeting policies appear to be complementary variables in explaining differences in productivity and efficiency among MFIs. This means that both relative loan size and targeted population are related to the productivity and efficiency levels of MFIs. In particular, differences in loan size explain process differences related to the evaluation of larger loans versus smaller loans, while targeting policies appear to create extra costs related to having more restrictions on acceptable borrowers, since MFIs have to reject many potential borrowers because they don't fit the targeting profile.

The first section of the paper discusses methodological issues, paying particular attention to differences between correlation and regression results. Then, the paper discusses the analysis in three different sections: productivity, portfolio quality and efficiency, with main results summarized in the graphs. After the conclusions section, tables with the econometric results are presented in Appendix 1, and recommendations to improve the SPTF indicators are summarized in Appendix 2.

Figure 1
SP and FP Expected linkages[3]

	Targeting V. Poor or Poor Q. 1[4]	Non-Financial Services Q. 3c	Training on SP Q. 4-5	Client Retention Q. 7	Social Resp. to clients (CPP principles) Q. 8	Social Resp. to Staff Q. 10a-b
-Borrowers per staff (Productivity)	-	--	-	++	-	+
-Portfolio at Risk over 30 Days -Write-off Ratio (Portfolio Quality)	-	-	-	--	--	-
Operating Expense % GLP (Efficiency)	+	++	+	--	+	+
Cost per Borrower as % of GNIPC (Efficiency)	+	++	+	--	+	+
	Blue:	Trade-offs	Grey:	Synergies		

+: Expected relationship is positive, meaning that an increase in the respective SP is associated with an increase in the respective FP, and a decrease in the respective SP is associated with a decrease in the respective FP. In other words, the variables move in the same direction.
-: Expected relationship is negative, meaning that an increase (decrease) in the respective SP is associated with a decrease (increase) in the respective SP. In other words, the variables move in opposite directions.
++, --: These are the areas where strong relationships between SP and FP are expected.
0: No relationship (effect) expected at all.
? Expected sign of relationship cannot be determined.

3. Data quality issues prevent us from analyzing trade-offs related to poverty assessment data. This also makes it impossible to analyze the relationship between average loan size as a proxy for the poverty of the clients. The 2008 SPTF questionnaire analyzed in this paper is available here: http://www.themix.org/publications/social-performance-report

4. The questionnaire defines three categories for identifying income levels of the clients: very poor, poor, and low income. By this classification, low income clients are non-poor.

Small Sample and Methodology

The relationships between SP and FP goals were tested using simple regression analysis (Ordinary Least Squares, or OLS), where different regressions were estimated using as dependent variables each FP variable of interest (as displayed in the first column of Figure 1), and using as explanatory variables different combinations of the selected SPTFIs (as displayed in the top row of Figure 1).[5] Regression analysis is a technique that works better with larger samples, and the relatively small sample of MFIs with SP information available introduces additional challenges for the interpretation of results, including some apparently inconsistent results and the lack of statistically significant results in areas where strong results were expected. However, after testing the robustness of the results with different models for each FP variable under analysis, we believe that the only way to address these issues is to have a larger sample size. Therefore, a big focus should be given to the SP data collection campaign and to careful evaluation on the part of researchers of what variables are added or excluded from the SPTF questionnaire.

Correlations versus regressions: Note that simple regression analysis is different from correlation analysis, because regression analysis tests the aggregate relationship between groups of explanatory variables (SPTFIs plus controls) over a particular dependent variable (FPIs) all together.[6] To illustrate the importance of this, think of the relationship between both age and training on productivity. Older MFIs are expected to be more efficient than younger MFIs because of the effects of a learning curve. Training of staff is expected to improve productivity as well. However, older MFIs are more likely to have better training programs than younger MFIs. Just by looking at correlation coefficients, we may find that there are positive and statistically significant correlations between both elements and productivity. A regression analysis will go farther to measure **the magnitude of each effect**, or if one actually dominates the other. Another example is the relationship between average loan size per borrower and targeting very poor or poor borrowers discussed in the productivity section.[7]

Social Performance and Productivity of Staff

Staff productivity is an area closely related to social performance management and social responsibility to staff. In particular, staff training and social performance incentives are expected to improve staff productivity (happier staff and staff retention go hand in hand, and both improve productivity), while higher drop outs are expected to lower staff productivity (as staff members need to spend more time on acquisition of new clients). From the narrow financial point of view, the focus is usually on the number of borrowers per loan officer or staff. For this analysis, productivity was measured as number of borrowers per staff in order to capture the effects of all the services (financial and non-financial) offered by MFIs on total number of staff.[8]

Both training of staff and staff appraisal on social performance are associated with higher productivity: On average, the productivity of MFIs with training of staff on social performance is between 26-39 borrowers per staff higher than the productivity of those MFIs without any training on SP, and the productivity of those MFIs that conduct staff appraisal on SP is 18 borrowers per staff higher than that of MFIs that do not conduct staff appraisal on SP. Common elements of staff incentive schemes include productivity, outreach to new clients, good portfolio quality, and low drop-out rates. With a larger sample, like the one we expect to have by the end of 2010, it may be possible to isolate the different components of

5. In particular, all coefficients were estimated using Ordinary Least Squares (OLS), of the form FP = a + B*Y + C*SPS + e, where FP is each of the financial indicators under analysis (productivity, portfolio quality, efficiency), Y is the control variables (age, size, deposit mobilization, average loan size per borrower as percentage of GNIPC), SPS are the Social Performance Standards used as explanatory variables, and B and C are the regression coefficients to be estimated by OLS.

6. Some of the controls used in the regressions include age, MFI size, lending methodology, loan size. For a full list see regression results in Appendix 1.

7. Recent papers exploring trade-offs and synergies between FP and SP goals based only on correlation analysis include "Is Social Performance Profitable? The Relationship Between Social and Financial Performance in Microfinance", by Florent Bédécarrats, Rémy William Angora, and Cécile Lapenu, available at http://www.themix.org/sites/default/files/MBB%2019%20-%20Is%20Social%20Performance%20Profitable.PDF. "MFI's Social Performance Mapping and the Relationship Between Financial and Social Performance", by David Dewez and Sandra Neisa, available at http://www.incofin.be/upload/pdf/Social%20Performance%20English.pdf, is also based on correlation analysis of both composite scores of social and financial performance.

8. In the case of productivity, we tried a similar analysis for savers per staff, but the sample was too small to produce any meaningful results. In particular, of the MFIs in the sample, only 54 MFIs reported some deposit mobilization in 2008.

staff incentives in order to better understand their relationships with productivity and other FP goals.

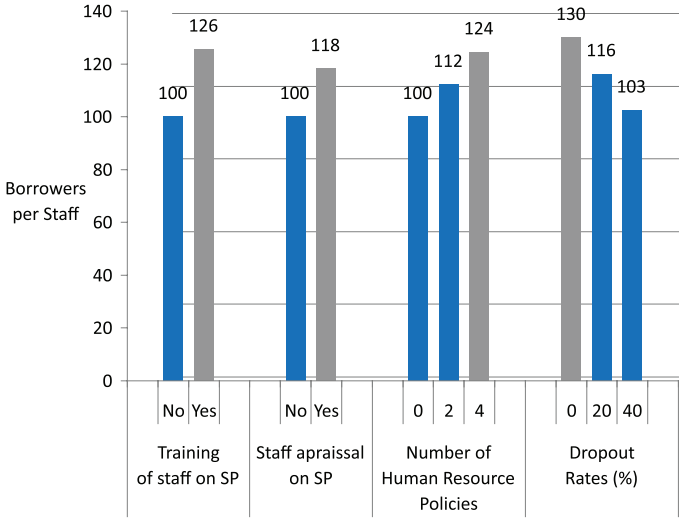
⇨ Staff Training and Higher Productivity

In some of the communities that MFW serves in Jordan, some people deem it unsuitable for women to work and to engage in fieldwork in particular. While these are isolated viewpoints, MFW has put into place policies that aim to keep to an absolute minimum any challenges their female staff might encounter. One way they achieve this is by employing people from within the same communities they will personally serve. This allows staff members to feel completely comfortable and secure when in the field. In addition, MFW's stringent hiring process helps to ensure that they select candidates who are suitable for fieldwork, while the training staff receives develops their knowledge and understanding of the nature of the work and prepares them for working in the community. Finally, every MFW staff member is provided with a mobile phone, with a closed group subscription from the network provider that allows free calls among staff.

However, it is not possible to separate the effects of general policies (training, staff appraisal) from policies focused on SP. Therefore, these results suggest that we are capturing the overall effects of general training and general staff appraisal on productivity, since training on SP is more likely correlated with general training, and staff appraisal on SP is more likely correlated with general staff appraisal at the MFI level. Future versions of the SP survey should ask additional questions for overall training, appraisals and incentives programs and not only for those policies that are only related to social performance. See Appendix 2 for more recommendations on improvements of the SPTF questionnaire.

Higher drop-out rates are associated with lower productivity: On average, a difference of 20 percentage points in dropout rates (i.e. between 40 and 60 percent) is associated with a difference in productivity between 12-17 borrowers per staff, with higher dropout rates being associated with lower productivity of staff. This result confirms common wisdom that financial services, and microfinance in particular, is an industry where creating client loyalty is one of the most important elements of success.

Figure 2
Statistically Significant Results:
Borrowers per Staff



The values on the horizontal axis of the graph are relative, and their absolute value is meaningless. However, the relative difference between bars is the important factor to keep in mind when analyzing the regression results.[9]

Progressive human resource policies increase staff productivity: The more progressive the human resource policies implemented by MFIs, the higher the productivity of their staff. In particular, the results show that on average every human resource policy increases the productivity of staff between 6-7 borrowers per staff. The particular policies identified in the survey are: clear salary scale based upon market salaries, medical insurance for all staff, pension contribution, practices and procedures which ensure safety of the staff, equal pay for men and women with equivalent skill levels, staff participation in decisions that affect them, anti-discrimination policies, and anti-harassment policies. Similar tests were done for policies to support women staff, but results were not statistically significant.

9. This comment applies to all graphs in the paper.

⇨ Human Resources and Staff Productivity

Fondesurco in Peru is an example of an MFI with a proactive policy related to human resources and staff productivity that has improved over time, passing from 117 to 281 borrowers per loan officer in the last 5 years. Besides implementing all the human resources policies listed in the Social Performance Report, the MFI has established an internal staff selection process which resulted in several internal promotions in the last two years. Assessments of employee expectations and satisfaction are also part of regular staff appraisal and surveys. The staff meets monthly to discuss work progress and exchange ideas. Each staff member receives at least 2 days of training per year and everyone is invited to proactively contribute to the progress of the institution by presenting proposals on how to improve the programs' performance.

Separating the effects of Loan Sizes versus Targeting Policies: After controlling for loan size, targeting the very poor or poor appears to have no impact on productivity. When both loan size and targeting are used as explanatory variables in the same regression, each variable is expected to capture a different effect, even though the variables are expected to be correlated with each other. In particular, it is expected that delivering smaller loans is faster than delivering larger loans, and this effect is captured by loan size. By contrast, targeting actually controls for the additional efforts to serve a particular segment of the population, already removing the effect of loan size. Regarding lending methodology, the results confirm that individual lenders have lower productivity than village banks or solidarity groups.

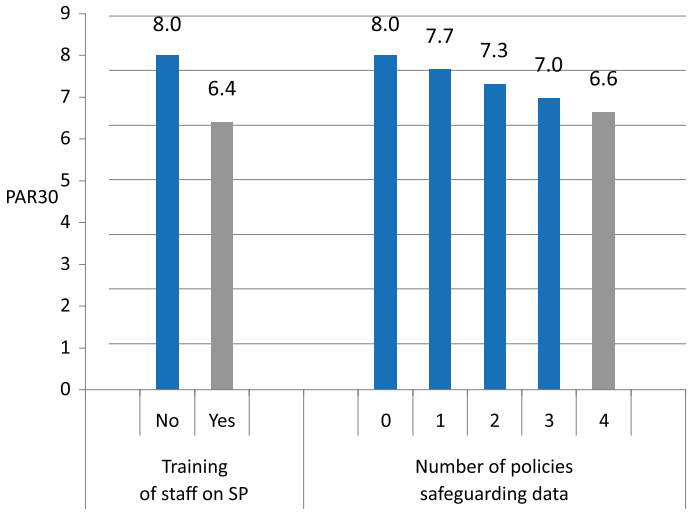
Urban versus Rural: One common hypothesis is that MFIs operating in urban areas are more productive than MFIs operating in rural areas. This argument is based on the idea that productivity is lower in more dispersed areas, where staff has to spend more time traveling to reach remote clients. However, it would be erroneous to assume that rural microfinance clients are more disperse that urban ones; in markets like India, Cambodia or Costa Rica, rural borrowers are actually closer to each other than urban ones. Correspondingly, after controlling for lending methodology and deposit mobilization, the results suggest that rural MFIs are more productive than their urban counterparts. This surprising result is actually confirmed when using all MFIs with 2008 data reported to MIX Market (Model V of Table 1 in Appendix 1). These results already account for differences in the lending technology used by MFIs, as productivity decreases as the percentage of individual lenders increases.

Other Results: Previous results already account for differences in productivity related to lending technologies. In particular, for the current sample, MFIs offering individual loans served on average 40 borrowers per staff less than MFIs without individual products (See Appendix, Table 1, Model IV). The results also account for differences in productivity related to other non SP factors including age, deposit mobilization, relative loan size as percentage of GNIPC and lending methodology. In particular, the results confirm that MFIs with a higher savers-to-borrowers ratio have lower productivity of staff, as do MFIs with larger loan sizes.

Social Performance and Portfolio Quality

This section highlights the interactions between SP and portfolio quality of MFIs. On the SP side, the focus is primarily on policies dealing with consumer protection, training of staff regarding SP, and dropout rates. In particular, it can be argued that consumer protection policies will improve the portfolio quality of MFIs, especially for those MFIs focused on avoiding overindebtedness or evaluating repayment capacity of borrowers. Training of staff on SP is expected to be associated with better repayment quality as well, as a more qualified staff is expected to better evaluate the repayment capacity of borrowers. Lower dropout rates are expected to be associated with recurrent borrowers and better portfolio quality. In the area of portfolio quality, the analysis focuses on portfolio at risk over 30 days (PAR30) and write-off ratio (WOR), both common measures of portfolio quality of MFIs.

Figure 3
Statistically Significant Results:
Portfolio at Risk Over 30 Days (PAR30)[10]



Training of staff on SP is associated with better portfolio quality: On average, the write-off ratio (WOR) of MFIs with training of staff on SP is 1.5 percentage points lower than that of MFIs without any training, and the difference is 1.6 percentage points for portfolio at risk over 30 days (PAR30). Many areas of social performance emphasize the fair treatment of clients, understanding client's overall social and financial situation, and general good practice in client handling. Much of this training may reinforce the underwriting and client management techniques needed to establish and maintain good repayment practices. This effect may also be related to the high correlation between training on SP and general training at the MFI level, as discussed in the productivity section.

Policies for safeguarding privacy of client data improve portfolio quality: Every policy for safeguarding data is associated with an average reduction of 0.34 percentage points in the PAR30. The effect on WOR was not statistically significant, and none of the other Consumer Protection Policies (CPPs) have any statistically significant effect on portfolio quality of MFIs. An important caveat for interpreting this is that most likely, policies for safeguarding privacy of data are related with excellent MIS and very professional services on the part of the MFIs. Thus, it is hard to argue that the positive effect on portfolio quality comes only from the particular policies under study and not from the better systems implemented by the MFI to handle client information.

The lack of statistical evidence does not mean that CPPs do not have a positive effect on the portfolio quality of MFIs. In order to conduct a more in-depth analysis, more details on the quality of the CPPs are necessary. In addition, a lag between the implementation of CPPs and their effect on portfolio quality of MFIs is expected. Knowing the point at which MFIs started implementing CPPs can be very useful once we move into the analysis of historical data. Appendix 2 summarizes all recommendations of how to improve the SPTF Indicators in order to improve the data available for this type of research.

10. See footnote 9 for a proper interpretation of the graph.

Staff Training and Portfolio Quality

SEF in South Africa conducts in-depth exit studies on an ad-hoc basis, as they have found that routine exit monitoring tends to produce similar results but often does not obtain the necessary depth of understanding. While clients report a wide range of reasons for exit, the root of most reasons is one of two issues:

(1) Financial problems experienced by clients, which largely result from clients mismanaging their businesses or external shocks that incapacitate the client or necessitate spending business funds.

(2) The impact of other clients' problems on others in the group or center. A recent study showed that 44% of SEF clients left due to group and center conflicts.

Exit is thus a key performance indicator at all levels of the organization and is strictly managed by SEF, using Best Practice guidelines and field staff training guides covering effective strategies to support clients and create the success that leads to client retention. Focus on staff training leads to better served clients and also to clients that perform better and repay on time, reflected in SEF's low loan provisioning and write-off.

We tested for other variables including desertion rates and the coefficients were not statistically significant. These results already account for differences in portfolio quality due to the age and size (measured by loan portfolio) of MFIs, where both larger and older MFIs have higher PAR.

Efficiency and Social Performance

For the analysis of efficiency tradeoffs with social performance, the focus is on both operating expense as percentage of GLP (operating efficiency) and cost per borrower as percentage of GNIPC. The first is a measure of the cost per dollar lent, directly associated with the weighted average interest rate (yield) that MFIs must cover in order to be sustainable, among other costs. This means that ceteris paribus, larger operating expenses implies either larger yields (and interest rates) or lower profits. Cost per borrower is standardized by GNIPC in order to be able to make international comparisons.

In the case of operating efficiency, it is expected that smaller loans (associated with poorer borrowers) are more expensive than larger loans. Following the same logic, it is expected that having more relaxed targeting policies, like allowing low income (non-poor) clients or not having a particular targeting policy at all, in contrast with targeting the very poor or poor, will improve operating efficiency because of the possibility of disbursing larger loans. On the other hand, targeting only very poor or poor borrowers reduces the chances of disbursing larger loans, and this contributes to lower operating efficiency. In addition, it is expected that staff incentives improve operating efficiency in the same way that they improve productivity of staff.

In the case of cost per borrower, it is expected that larger loans are more expensive to disburse than smaller loans. It is also expected that, after controlling for the impact of loan size, targeting the poor increases costs because it requires additional resources than does having a more relaxed targeting policy, where every borrower is welcome. The specific statistically significant relationships found for both measures of efficiency are summarized next.

Targeting less poor clients improves operating efficiency: We measured the effects on operating efficiency for MFIs that target the non-poor (low income) or have no particular target as part of a more diversified strategy.[11] The results suggest that MFIs with the more diversified strategy have better operating efficiency than the rest of MFIs: on average, 16 percentage points lower. Note that these results already control for the effect of differences in average loan balance per borrower. As previously discussed for the case of productivity, this suggests that reaching poorer borrowers affects operating efficiency in two ways: i) smaller loans are more expensive, and ii) targeting very poor or poor borrowers is more expensive.

⇨ Targeting the Poor and the Need of a Multiple Services Strategy

In a country where an estimated 32% of the population lives below the poverty line and about one-third of those live in absolute poverty, Fundación Paraguaya's microfinance program strives to reach poor, underserved microentrepreneurs in urban, rural and remote areas who are generally neglected by the financial sector. With loans starting at US $40, Fundación Paraguaya's average loan size of US $300 continues to be the lowest in Paraguay's financial market as well as in Accion International's network of microfinance institutions in the region.

More recently, Fundación Paraguaya's microfinance program has expanded its operations to offer a broader product portfolio that includes microfranchises and other non-financial services. Making the most of FP's growing network of women village banking groups, additional sources of income are being offered to clients in the form of microfranchises and community development programs. These include: reading glasses; accessories and materials specially tailored for village vision entrepreneurs; loans which finance cataract surgeries to low-income patients in remote areas; children village clubs for social and financial education; and networks of women and children for the development of musical talents.

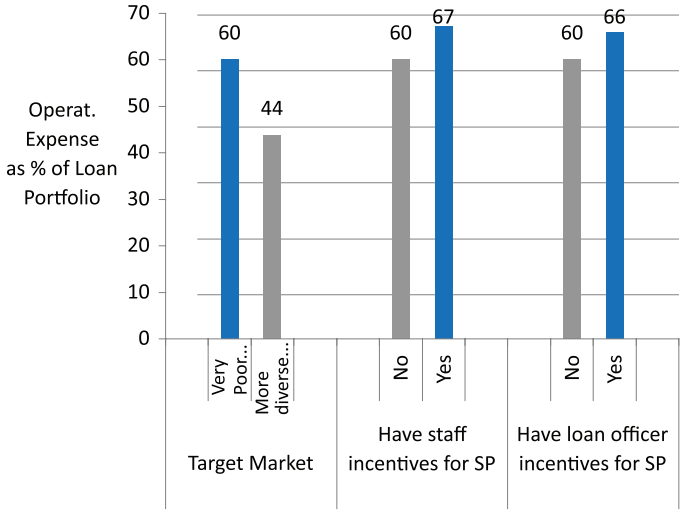
11. In the current paper, target market should not be confused with the definition used to benchmark MFIs in the MicroBanking Bulletin.

Targeting very poor or poor borrowers increases cost per borrower: MFIs that target very poor or poor clients have an average cost per borrower as percentage of GNIPC that is two percentage points higher than that of MFIs with more relaxed targeting rules. These results control for the impact of loan size. This finding points to those costly challenges of reaching poor clients that cannot simply be reduced by increasing the loan size. Such costs may be associated with overcoming distance-related, social, educational or other barriers to access for the poor.

In general, the last two results are consistent with each other suggesting that, after controlling for the effects of differences in loan sizes, targeting very poor or poor borrowers is more expensive that having a more relaxed targeting policy.

Staff incentives deteriorate operating efficiency: MFIs with staff incentives to SP have an operating efficiency ratio seven percentage points higher than other MFIs, and the difference is six percentage points for incentives for loan officers. In general, the significant result is consistent with the fact that most staff incentive schemes have a monetary component that adds to the operating cost of MFIs.

Figure 4
Statistically Significant Results: Operating Expense as Percentage of Loan Portfolio (OER)[12]

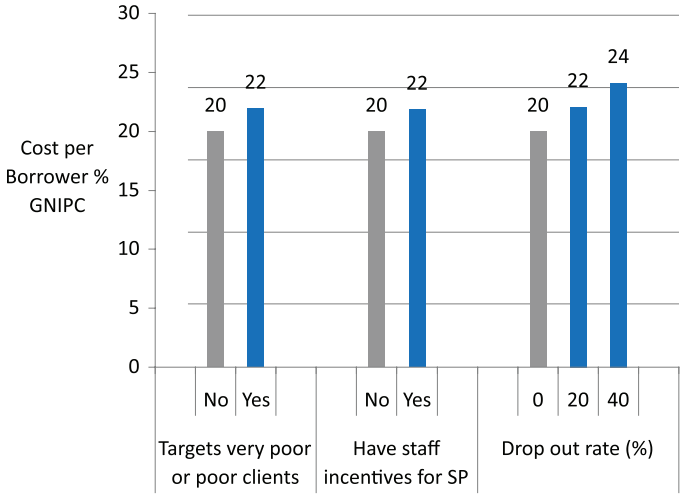


12. See footnote 9 for a proper interpretation of the graph.

In addition to controlling for differences in loan size, these results also control for differences in the size of MFIs as measured by total loan portfolio and for learning curve differences, as age differences are also considered in the analysis. Consistent with the findings for cost per borrower, the results suggest that operating efficiency deteriorates as the percentage of urban clients increases. Also, there was no statistically significant relationship between dropout rates and operating efficiency.

Staff incentives to SP increase cost per borrower: MFIs with staff incentives related to SP have a relative cost per borrower two percentage points higher than MFIs without this type of policy. No effect was found for training on SP, staff appraisals on SP, or loan officer incentives related to SP, but again, this is most likely due to the limited sample size. As previously mentioned, the significant result is consistent with the fact that most staff incentive schemes have a monetary component that adds up to the operating cost of MFIs.

Figure 5
Statistically Significant Results: Cost per Borrower as Percentage of GNIPC



Higher dropout rates deteriorate MFI efficiency: On average, a difference of 20 percentage points in the dropout rate of MFIs is associated with a difference between 13-20 percentage points in cost per borrower as percentage of GNIPC. These results underscore the relative cost of various stages of client interaction. Client ac-

quisition has much higher associated costs, stemming from familiarizing new clients with the products and systems of the MFI and, in some cases, providing training on managing credit and repayment discipline. As noted by previous results, MFIs that can retain clients over time free up their staff to manage more borrowers and reduce that overall cost factor.

Summary of Results:

The microfinance industry is more aware of the importance of social performance reporting, as reflected by the large number of MFIs that reported SP data to MIX during 2008. However, given the relatively small sample size available for the type of analysis sought in this paper, we have to be careful about the proper interpretation of the results. In particular, small sample sizes make it more difficult to find statistically significant results, even when they are there. Also, small sample sizes make it more difficult to generalize the magnitude of the effects for larger populations, such as MFIs reporting to MIX Market, with 200 MFIs reporting SP data out of 1600 MFIs reporting FP data.

One additional challenge when analyzing SP data deals with the validity of the information reported. It bears noting that the findings of the paper are valid only as long as the data reported is a true reflection of MFI performance. In addition, SP only collects basic yes-no information; deeper knowledge is necessary in order to better understand trade-offs and synergies between SPs and FPs. For instance, in the case of non financial services, information about quality, quantity, and frequency of the services is necessary.

Another challenge is the lack of additional information needed to separate effects. For instance, the current questionnaire only tracks training on SP and not general training of MFIs. Since training on SP is most likely done in MFIs that have general training policies, it is not possible to isolate the effect of training of SP versus general training with the current data.

Even after these challenges, many statistically significant results were found confirming some of the starting hypotheses. This suggests some internal consistency in the data reported. This research confirms many the trade-offs and synergies between SP and SP. Given limited sample size, we should not celebrate in cases where trade-offs were expected and none were found (like between non-financial services and efficiency) and instead wait until a larger sample is available to verify these findings. Also, these results should not be generalized to the universe of MFIs covered by MIX, given the reduced sample size.

Figure 6
Summary of Results

	Targeting V. Poor or Poor Q. 1[4]	Non-Financial Services Q. 3c	Training on SP Q. 4-5	Client Retention Q. 7	Social Resp. to clients (CPP principles) Q. 8	Social Resp. to Staff Q. 10a-b
Borrowers per staff (Productivity)			+	+		+
Portfolio at Risk over 30 Days Write-off Ratio (Portfolio Quality)			-		-*	
Operating Expense % GLP (Efficiency)	+		+			+
Cost per Borrower as % of GNIPC (Efficiency)	+		+	-		+

Blue: Trade-offs | Grey: Synergies | Dark Blue: Inconclusive, larger sample, more details needed

Appendix 1: Econometric Results

Table 1
OLS Regression Results: Borrowers per Staff

Model	I		II		III		IV		V[13]	
	coef	**p-value**	**coef**	**p-value**	**coef**	**p-value**	**coef**	**p-value**	**coef**	**p-value**
MFI age	-0.069	0.920	-0.311	0.652	-0.165	0.814	-0.233	0.721	0.663	0.115
Deposits Mobilization (% of GLP)					-0.270	0.190				
Savers to borrowers ratio	-12.370	0.119	-12.777	0.105			-15.806**	0.035	-4.589***	0.006
Average loan balance (% GNIPC)	-0.297***	0.000	-0.307***	0.000	-0.322***	0.000	-0.171**	0.016	-0.188***	0.000
Targets very poor or poor clients			10.368	0.368	4.861	0.676				
Clients in urban areas (%)	-0.367**	0.019	-0.295*	0.063	-0.341**	0.033	-0.305*	0.050	-0.405***	0.001
Individual Loans (% total loans)							-0.524***	0.000	-0.710***	0.000
Training of staff on SP	38.635***	0.006					25.518*	0.071		
Conducts staff appraisal on SP			13.533	0.210	18.239*	0.091				
Dropout rate (%)	-0.587*	0.059	-0.615**	0.043	-0.687**	0.022	-0.874***	0.003		
No. human resource policies			6.897***	0.010	6.115**	0.025				
_cons	145.485***	0.000	123.542***	0.000	131.422***	0.000	187.172***	0.000	200.396***	0.000
Number of observations	137		137		143		121		579	
R2	0.255		0.272		0.264		0.357		0.182	
Adjusted R2	0.220		0.227		0.220		0.317		0.175	

note: *** p<0.01, ** p<0.05, * p<0.1
statistically significant results highlighted in grey

13. Full MIX Market Sample.

Table 2
OLS Regression Results: Portfolio at Risk Over 30 Days (PAR30)

Model	I		II		III		IV	
	coef	**p-value**	**coef**	**p-value**	**coef**	**p-value**	**coef**	**p-value**
Log age of the MFI	2.125***	0.000	2.160***	0.000	2.195***	0.000	1.542***	0.008
Log gross loan portfolio	-0.351**	0.042	-0.393***	0.009	-0.429***	0.004	-0.347*	0.064
Training of staff on SP	-0.951	0.211	-0.892	0.231	-1.032	0.166	-1.591*	0.053
Dropout rate (%)	0.025	0.137	0.024	0.136	0.023	0.164	0.020	0.269
No. policies to avoid overindebtedness	0.015	0.938						
No. policies for transparent communication	-0.141	0.492						
No. policies for appropriate collections	0.294	0.167						
No. policies for ethical codes of conduct	0.168	0.380						
No. policies for complaint resolution	0.007	0.967						
No. policies for safeguarding data	-0.340*	0.071						
Implemented 5 or 6 CPPs			0.551	0.710				
Implemented 6 CPPs					1.021	0.145		
Log no. total policies related to CPPs							-0.440	0.689
_cons	4.315	0.109	4.017	0.166	4.406*	0.077	7.562**	0.029
Number of observations	158		158		158		159	
R2	0.167		0.139		0.150		0.097	
Adjusted R2	0.111		0.111		0.122		0.068	

note: *** p<0.01, ** p<0.05, * p<0.1
statistically significant results highlighted in grey

Table 3
OLS Regression Results: Write-off Ratio (WOR)

Model	I		II		III		IV	
	coef	**p-value**	**coef**	**p-value**	**coef**	**p-value**	**coef**	**p-value**
Log age of the MFI	0.195	0.693	0.185	0.700	0.198	0.680	-0.219	0.705
Log gross loan portfolio	-0.122	0.435	-0.114	0.392	-0.125	0.352	-0.331*	0.067
Training of staff on SP	-1.491**	0.030	-1.468**	0.025	-1.475**	0.027	-1.313	0.103
Dropout rate (%)	0.019	0.221	0.017	0.254	0.016	0.272	0.010	0.575
No. policies to avoid overindebtedness	0.040	0.821						
No. policies for transparent communication	0.003	0.987						
No. policies for appropriate collections	-0.048	0.799						
No. policies for ethical codes of conduct	0.085	0.624						
No. policies for complaint resolution	0.086	0.578						
No. policies for safeguarding data	-0.133	0.433						
Implemented 5 or 6 CPPs			0.863	0.513				
Implemented 6 CPPs					0.183	0.768		
Log no. total policies related to CPPs							1.034	0.334
_cons	4.176*	0.080	3.405	0.181	4.251*	0.052	5.661*	0.084
Number of observations	158		158		158		159	
R2	0.056		0.052		0.050		0.047	
Adjusted R2	-0.009		0.020		0.018		0.016	

note: *** p<0.01, ** p<0.05, * p<0.1
statistically significant results highlighted in grey

Table 4
OLS Regression Results: Operating Expense as Percentage of Loan Portfolio (OER)

Model	I		II		III		IV	
	coef	**p-value**	**coef**	**p-value**	**coef**	**p-value**	**coef**	**p-value**
Log age of the MFI	-3.408	0.321	-3.144	0.363	-3.131	0.362	-3.961	0.244
Log gross loan portfolio	-4.811***	0.000	-4.945***	0.000	-5.063***	0.000	-4.804***	0.000
Log avg. loan balance (% GNIPC)	-8.026***	0.000	-7.787***	0.000	-7.881***	0.000	-7.891***	0.000
Targets low income or MFI has no focus	-16.249***	0.005	-16.202***	0.005	-15.279***	0.008	-16.251***	0.004
Clients in urban areas (%)	0.094*	0.088	0.102*	0.062	0.109**	0.046	0.098*	0.071
Offers enterprise services	-5.669	0.168	-5.791	0.155	-4.156	0.315	-5.384	0.181
Offers adult education services	2.998	0.460	2.840	0.485	3.352	0.411	2.975	0.457
Offers health services	-3.062	0.468	-3.501	0.405	-3.489	0.403	-3.549	0.392
Offers women empowerment services	-0.436	0.927	-0.420	0.929	-1.624	0.733	-0.791	0.866
Training of staff on SP	0.351	0.944						
Conducts staff appraisal on SP			4.632	0.209				
Have staff incentives related to SP					7.093*	0.066		
Have loan officers incentives related to SP							5.850*	0.100
_cons	154.866***	0.000	152.441***	0.000	151.141***	0.000	151.980***	0.000
Number of observations	156		155		155		157	
R2	0.434		0.440		0.448		0.447	
Adjusted R2	0.395		0.402		0.410		0.409	

note: *** p<0.01, ** p<0.05, * p<0.1
statistically significant results highlighted in grey

Table 5
OLS Regression Results: Cost per Borrower as Percentage of GNIPC

Model	I		II		III		IV	
	coef	**p-value**	**coef**	**p-value**	**coef**	**p-value**	**coef**	**p-value**
Average loan balance (% GNIPC)	0.123***	0.000	0.119***	0.000	0.119***	0.000	0.118***	0.000
Log age of the MFI	-0.488	0.582	0.062	0.943	0.046	0.957	0.555	0.523
Log gross loan portfolio	-1.092***	0.000	-1.060***	0.000	-1.047***	0.000	-1.268***	0.000
Targets very poor or poor clients	1.580	0.132	1.275	0.205	1.375	0.176	1.914*	0.062
Clients in urban areas (%)	-0.002	0.880	0.001	0.935	0.003	0.843	0.012	0.411
Offers enterprise services	0.952	0.360	0.606	0.544	0.831	0.416	0.577	0.593
Offers adult education services	-1.142	0.247	-1.466	0.126	-1.357	0.161	-1.542	0.135
Offers health services	-0.254	0.813	-0.126	0.905	-0.159	0.881	-1.123	0.304
Offers women empowerment services	-0.488	0.689	-0.714	0.542	-0.863	0.468	-1.520	0.221
Dropout rate (%)	0.065**	0.012	0.067***	0.007	0.062**	0.013		
No. human resource policies	0.015	0.954	0.025	0.914	-0.017	0.942		
Training of staff on SP	-0.857	0.517						
Conducts staff appraisal on SP			0.715	0.426				
Have staff incentives related to SP					0.951	0.320	1.827*	0.066
Have loan officers incentives related to SP								
_cons	20.157***	0.000	17.419***	0.000	17.178***	0.000	20.631***	0.000
Number of observations	133		132		132		149	
R2	0.635		0.637		0.637		0.580	
Adjusted R2	0.598		0.600		0.600		0.550	

note: *** p<0.01, ** p<0.05, * p<0.1
statistically significant results highlighted in grey

Appendix 2:

Recommendations for Improvement of the SPTF Indicators

Non-Financial Services: Currently, the SPTF questionnaire collects only yes/no information on the offering of non-financial services. In order to better quantify trade-offs and synergies it is necessary to have a more detailed measurement of quality, frequency and amount of resources involved.

Training on SP: In order to separate the effects of general training from SP-specific training, the SPTF questionnaire needs to incorporate a control for general training. Adding measures of quality, frequency and resources involved will not be redundant.

Client Retention: The focus should be on data validation, and collecting the inputs to calculate drop-out rates under any formula. This way it will be possible to perform sensibility analysis of the different formulas to have a better understanding of the pros and cons of each methodology.

Consumer Protection Principles (CPPs) / Social Responsibility to Clients: Currently the SPTF questionnaire collects only yes/no information for each CPP. In order to better quantify the synergies with portfolio quality, it is necessary to measure quality of the implementation of the principles. In addition, since some MFIs have been implementing CPPs before they were promoted by the Smart Campaign (http://www.smartcampaign.org), knowing the starting point of implementation will be necessary in order to determine the effect of CPPs on portfolio quality.

Social Responsibility to Staff: The current version of the SPTF questionnaire does not differentiate between general policies related with staff (training, appraisal, etc.) from particular policies focused on social performance alone. Since both policies are highly correlated (it is very unlikely that MFIs offer only SP policies but not general policies, while it is most likely that MFIs offering SP policies have already a program of general policies), it is impossible to separate the effects of Social Responsibility to Staff related to SP versus general training and incentives not related to SP.