Social Performance

Where Good Intentions Meet Good Business Practice

A correlation analysis of social, operational and financial performance in microfinance

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SUMMARY

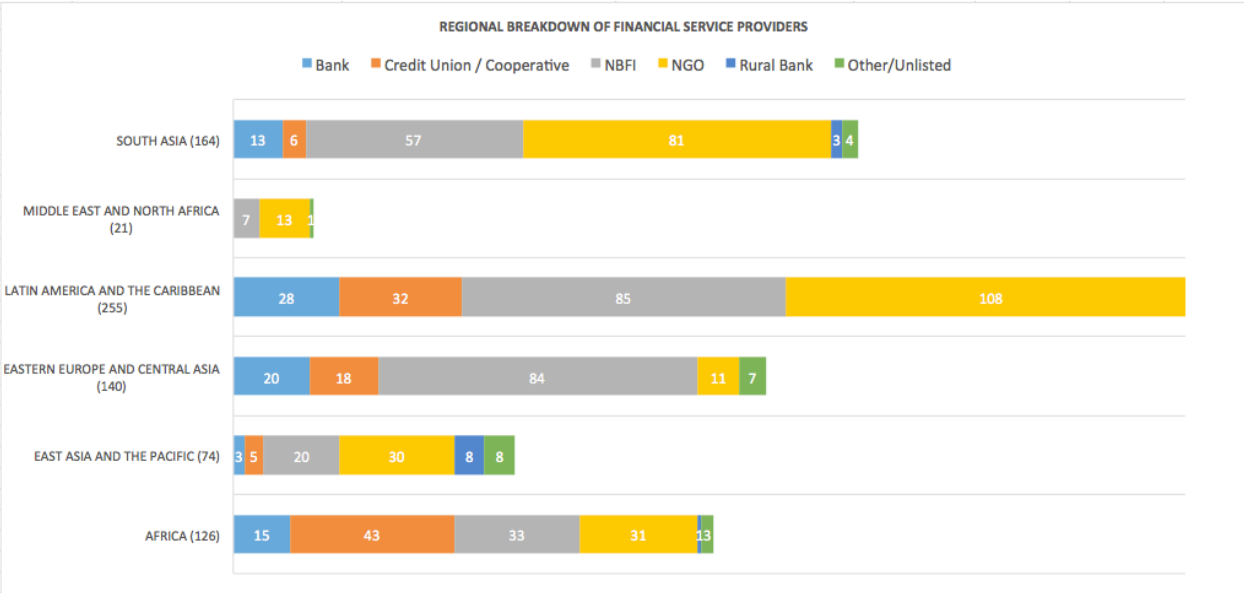
Over the past eight years, more than 1,000 financial service providers (FSPs) have demonstrated their commitment to information transparency by reporting social performance data to MIX. Drawing from this wealth of information collected, we conducted a regression analysis that explores the synergies and trade-offs between social, operational and financial performance using data reported by 780 FSPs during the 2014-2015 period. This is MIX's second analysis on this topic, after the study performed in 2010 on a smaller sample of 200 FSPs. The entire array of social performance indicators[1] that MIX collects were analyzed against productivity, portfolio quality, and efficiency. Statistically significant findings emerged mainly in five areas, namely - governance, women as a target market, poverty segmentation by target market, social responsibility towards staff and borrower retention. This analysis supports most of the trends observed in MIX's previous publication and also brings to light new meaningful findings. The implications of these results are powerful: social performance management is much more than just as a practice instrumental to the advancement of an institution's mission. It is indeed a fully-fledged business strategy.

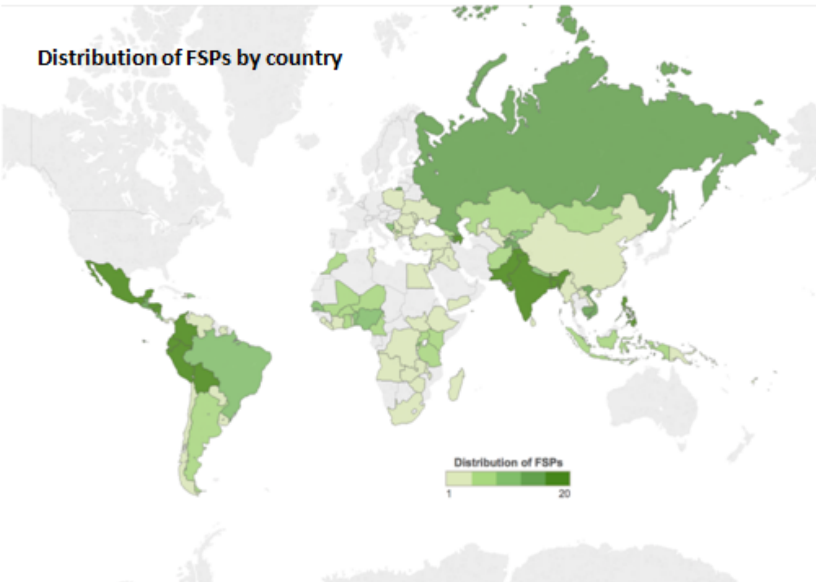
[1] MIX collects social performance indicators in the following areas: development goals and target market, governance, financial and non-financial products and services, human resources, consumer protection, type of interest rate, environmental policies, borrower retention, staff retention and outcomes related to poverty, employment and enterprises financed.

SELECTION OF INDICATORS

The sample features data from FSPs spanning across 96 countries and serving over 95 million borrowers. Institutions are mainly NBFIs and NGOs, with one third of them located in Latin America and the Caribbean, followed by South Asia, and Eastern Europe and Central Asia.

The dataset is for the most part self-reported, as only one third of FSPs in the sample provided some supporting documentation that validates their social performance data[2]. Despite this challenge, the presence of statistically significant results across the dataset reveals consistent trends.





The analysis does not include outcome indicators, as only eight percent of the FSPs in the sample reported this information. With respect to MIX's previous analysis, one indicator - staff training on social performance - was excluded

[2] For more information about how MIX reviews the quality of social performance data see here: http://www.themix.org/mixmarket/publications/better-data-better-business-how-mixs-desk-review-can-help-build-reliable

as MIX no longer collects it, while two new areas of indicators were added: one related to the relationship between an FSP's board and social performance management and the other about targeting female clients.

On the financial side, we focused on the same indicators previously analyzed - efficiency, portfolio quality and productivity – as they are most likely to be affected by social performance management.

The findings in this paper focus on the following areas of social performance:

Area	**Indicators**
Governance: Board with expertise on social performance management	• During orientation, board members are provided with an explanation of (or training on) the institution's social mission and goals. • A social performance management champion has been designated or a social performance management committee has been formally set up within the board. • At least one board member has education and/or work experience related to social performance.
Social responsibility towards staff: HR policies and staff incentives	• The institution has staff incentives in areas related to: number of borrowers reached, quality of interaction with clients based on client feedback mechanism, quality of social data collection, and portfolio quality. • The institution's HR policy includes: social protection (medical insurance and/or pension contribution), safety policy, anti-harassment policy, non-discrimination policy and grievance resolution policy.
Targeting female clients	• Number of female borrowers • Women representation in staff and Board
Borrower retention	MIX's formula: active borrowers at the end of the period / active borrowers at the beginning of the period + new borrowers during the period

FINDINGS

The expanded dataset that MIX has gathered on social performance allowed us to identify a large number of positive and statistically significant correlations between social, operational and financial performance.

In particular, it emerged that:

- FSPs with a board of directors that monitors social performance and with a specific focus on targeting women consistently show better portfolio quality, efficiency and productivity.
- The presence of more progressive Human Resources (HR) policies is associated with better staff productivity and portfolio quality.
- Exclusively targeting poorer clients is associated with higher operating expenses but also with lower costs per borrowers; the lack of a poverty strategy for market segmentation, on the other hand, is associated with higher costs per borrowers.
- Borrower retention is positively correlated to higher staff retention, productivity and lower costs per borrowers.

A variety of statistical methods were used to explore the relationships in this dataset[3], with the main findings summarized in the table hereunder. The section that follows describes in detail each of the findings.

	Board with SPM expertise	Progressive HR policies	Poor clients target	Female clients target	Borrower retention
Borrowers Per Staff	↑	↑ ↑	↑	↑	↑ ↑
PAR 30 /Write Offs	↓	↓	X	↓	X
Operating Expense as % GLP	↓	X	↑ ↑	↓	X
Cost Per Borrower as % of GNIPC	↓	X	↓	↓	↓

↑ ↑ : Strong positive correlation	↑ : Moderate positive correlation	↓ : Moderate negative correlation	X: Inconclusive

Synergies | Trade-offs | No Correlation

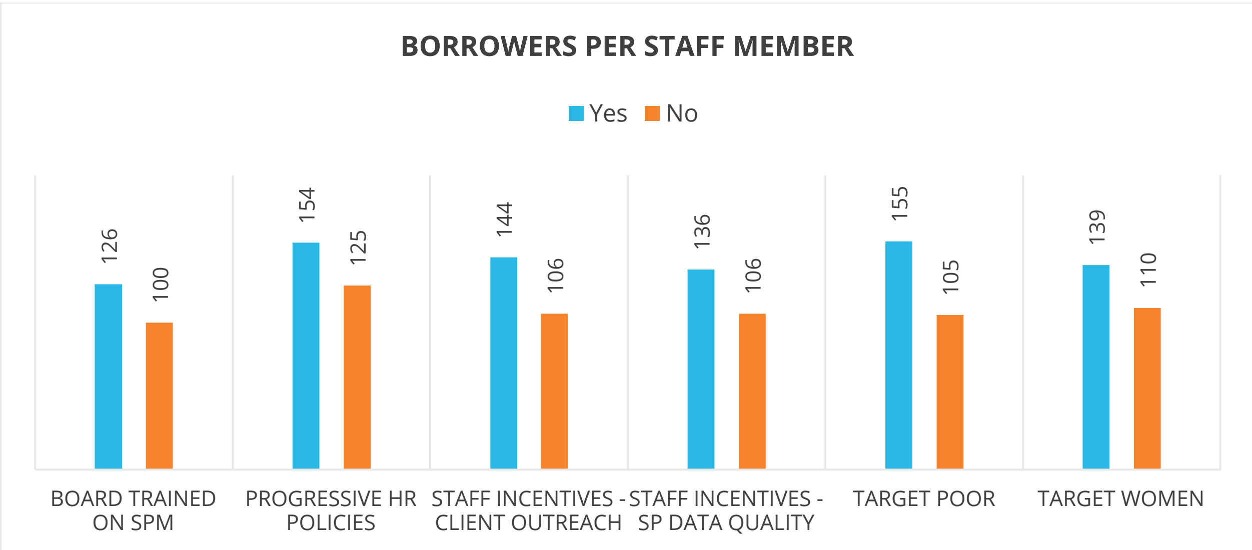
[3] While this is a robust dataset, it consists solely of cross-sectional data which hampers the ability to determine some treatment effects by using techniques like Difference-in-Differences or Regression Discontinuity Analysis. Nonetheless, many important findings were obtained using linear regression analysis through Ordinary Least Squares (OLS) methods and Two-Stage Least Squares (2SLS). In order to mitigate the effects of bias arising from endogeneity in the sample, 2SLS is used. For example, MFIs' decision to target female clients is not an exogenous variable so this is instrumented to isolate its relationship with average cost per borrower. Additionally, a Propensity Score Matching technique is used to mitigate the effects of selection bias and to determine the treatment effects of firms' decision to target the poor and to have no poverty target by controlling for other unobserved factors that could be influencing this decision.

1. PRODUCTIVITY AND SOCIAL PERFORMANCE

Staff productivity, measured as the number of borrowers per staff member, is the financial indicator for which synergies were found in each of the five areas of social performance analyzed. Results in this area confirmed our previous findings and also identified new synergies with poverty targeting.

Starting with **governance**, the findings seem to suggest a symbiotic relationship between a board trained on social performance and an FSP's productivity. FSPs with such a board have an average of 26 more borrowers per staff member and 69 more borrowers per loan officer than their counterparts with a board that has not received any social performance orientation.

Productivity also appears to be reinforced by the presence of progressive social responsibility policies towards staff: a strong positive association exists between staff productivity, **human resource policies, and incentive schemes.** In particular, FSPs with HR policies that include social protection (i.e. pension contribution/medical insurance, and grievance resolution) show higher levels of productivity amongst their staff; those FSPs that have each of these policies in place show an average of 29 more borrowers per staff member than their peers. Moreover, the presence of staff incentive schemes related to social performance - whether they are in the form of recognition or monetary compensation - may also encourage staff to achieve higher productivity levels; FSPs with incentives linked to the quality of social performance data collected and tied to the number of clients reached show an average of 30 and 38 more active borrowers per staff members, respectively.



We also observed strong evidence that **staff turnover rates** - which can be affected by HR policies, staff compensation and incentives - are inversely correlated with borrower retention rates. This further validates the notion that as more staff members leave an institution, a higher number of borrowers are likely to drop out; a five percent increase in the staff turnover rate is in fact associated with a three-percent decrease in the borrower retention rate.

Focusing on client outreach, we found positive associations between productivity and serving **poorer clients.** Institutions with a goal to exclusively serve the poor reported approximately 50 additional borrowers per staff member than those that also serve low-income clients or without a specific poverty strategy. This result is confirmed after controlling for the size of gross loan portfolios and average loan balance/GNI per capita. This result might be attributed to the possibility that such FSPs have a bigger share of their portfolios under group lending methodologies, or to the fact that a well-defined target market is a motivating factor for staff seeking to fulfill the institutional mission.

FSPs that specifically **target women** also show higher productivity levels, with an average of 29 additional borrowers per staff member. Such a relationship is reinforced when honing in on institutions that target both women and poor clients; these FSPs show an average of 53 additional borrowers per staff member. More broadly, we found that institutions with larger ratios of female loan officers are also those serving the higher number of female borrowers; when the ratio of female loan officers increases by five percent, an increase of one percent is observed in the number of female active borrowers. However, no correlation was observed between the presence of women in an FSP's management or board and the number of female borrowers. This suggests that hiring women as loan officers is one of the most relevant strategies for an FSP that wishes to target women in their lending.

Finally, we identified a strong positive association between **borrower retention rates** and productivity, as intuition would suggest: the more borrowers an FSP is able to retain, the more likely it is that it experiences higher levels of productivity. The strong positive correlation among the variables shows that a one percentage point increase in the borrower retention rate is associated with an average higher productivity of approximately 20 borrowers per staff.

2. PORTFOLIO QUALITY AND SOCIAL PERFORMANCE

Portfolio quality, which is measured using Portfolio-at-Risk over 30 days (PAR30) and written-off loans, appears to be positively correlated with social performance management in the areas of governance, HR policies and targeting women. However, as in MIX's previous analysis, no significant correlations were found in the areas of poverty targeting and borrower retention.

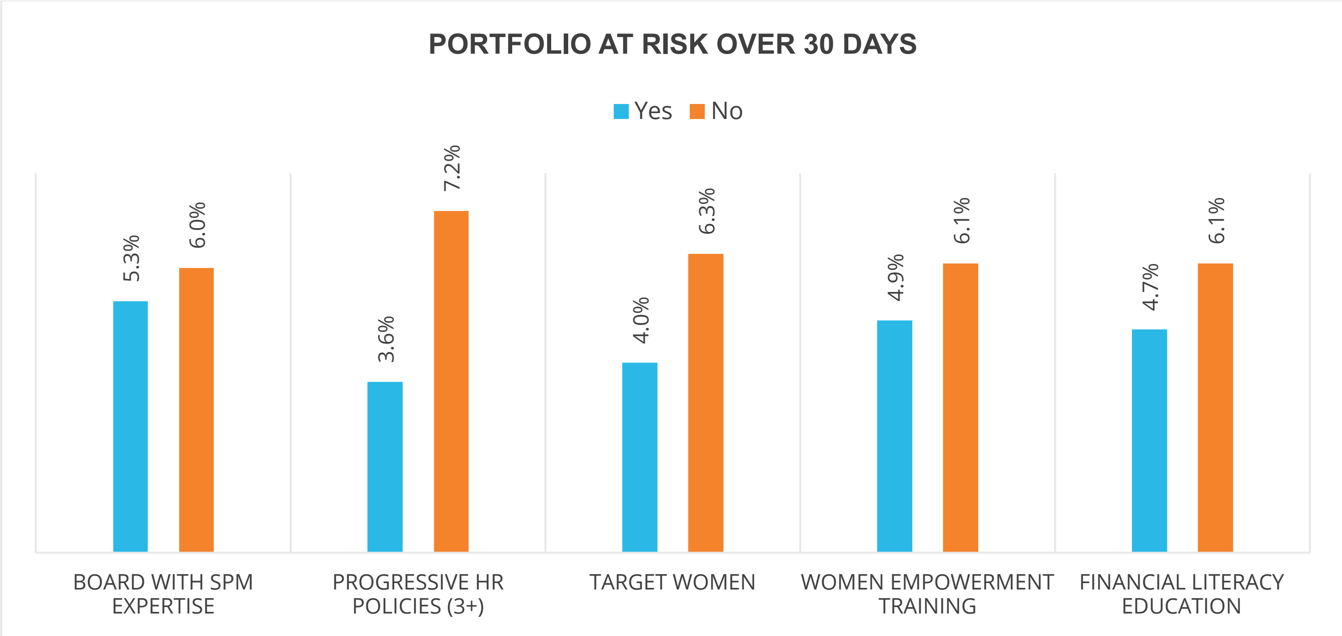
Board members should bring a range of expertise useful to the FSPs, including financial skills, knowledge of the target market, and a social perspective. Having a board with a broader array of qualifications might in fact make institutions more financially resilient and less risky[4]. The findings from our analysis seem to confirm this mutually virtuous relationship; FSPs that have at least one board member with social performance management experience show a PAR30 almost one percentage point lower and written-off loans almost three percentage points lower.

FSPs reporting a higher number of **HR policies** (at least three policies) than the sample average also exhibit better portfolio quality than their peers, as evidenced by their PAR30 reduced by almost four percentage points.

A symbiotic relationship also seems to exist between targeting **female clients** and portfolio quality; in these cases institutions show a PAR30 over two percentage points lower and written-off loans three percentage points lower than those without a gender-specific focus. While MIX does not track portfolio quality data disaggregated by gender, the findings from the correlation analysis seem to confirm the common knowledge that women have a better track record when it comes to loan repayment, possibly due to the types of businesses they own and to the group loan collection practices to which they are usually subject. One finding from this analysis seems also to suggest that offering women's empowerment services – such as business and leadership training – may be linked to lower portfolio at risk. FSPs offering such services in fact have a PAR30 that is lower by over one percentage point.

Finally, we found that the provision of **financial literacy education** is also correlated with better portfolio quality, with FSPs showing one percentage point lower PAR30 than their peers that do not offer this service. MIX defines financial literacy education as a training that addresses topics such as financial planning, savings, investments, borrowings, budgets, and interest rates. While more information is needed to know what type of financial literacy training FSPs offer to their clients, the findings seem to suggest a relationship between this area, better loan repayment rates and lower costs per borrowers, as outlined in the next section.

[4] Measuring governance in microfinance: initial findings from a pilot project. MIX, 2010. https://www.themix.org/publications/microbanking-bulletin/2012/04/measuring-governance-microfinance



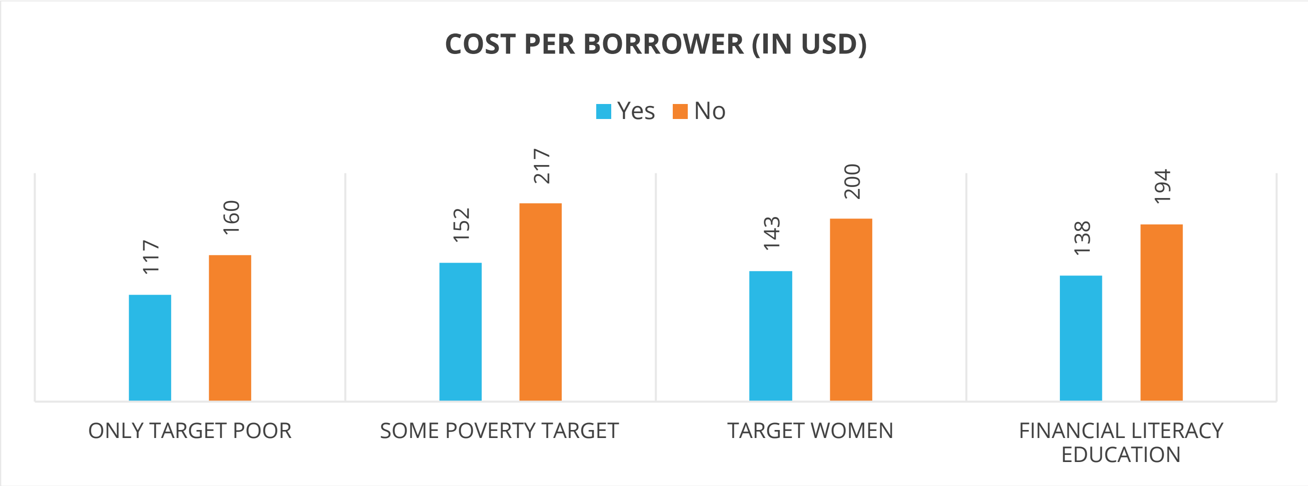
3. EFFICIENCY AND SOCIAL PERFORMANCE

Efficiency, which can be calculated as cost per borrower as a percent of gross national income (GNI) per capita and operating expenses as a percent of gross loan portfolio (GLP), is the area in which we identified a combination of synergies and trade-offs with social performance. The findings differ from MIX's previous analysis, where no correlation was found with poverty targeting, likely due to the small sample size. In addition, the previous analysis found an inverse correlation between staff incentives and FSPs' efficiency, while in our current analysis no significant correlations emerged in this area.

Also in the case of efficiency, positive correlations were found with **board members with social performance expertise**, whose presence is associated with lower operating expenses by three percent.

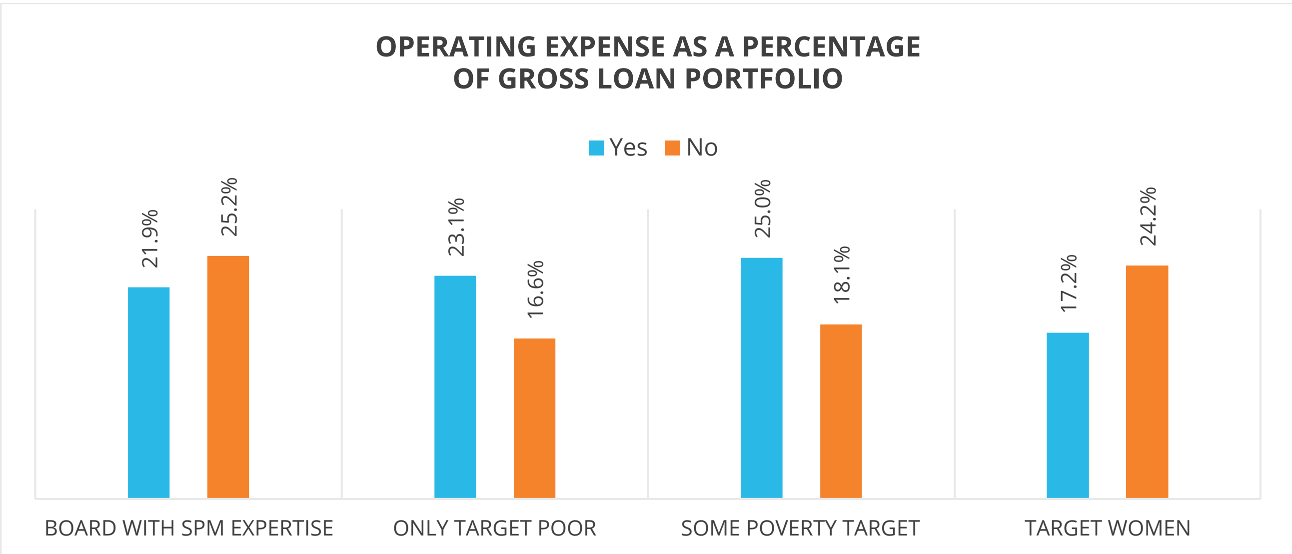
In terms of social responsibility to staff, we found no significant correlation between HR policies, staff incentives and costs per borrowers. No association was found in our previous analysis either with HR policies, although a positive correlation had emerged with staff incentives. The lack of a correlation with HR policies (where a trade-off with efficiency would be expected) might be due to the qualitative nature of the indicators that MIX collects.

Interestingly, we found varied results in terms of efficiency when it comes to **poverty targeting**: institutions that only target the poor have operating expenses higher by seven percentage points than FSPs with a segmented poverty strategy. On the other hand, institutions that solely target poor have lower costs per borrower by $43 compared to those with a more diversified poverty strategy. When compared to this latter group, FSPs without any poverty targeting have an even higher cost per borrower by $65, presumably on account of bigger (individual) loans that require higher costs in assessment. These results might be related to the productivity findings highlighted in the above section and to lending methodology; serving more borrowers through group lending might reduce costs per borrower, as opposed to higher operating costs involved in smaller loan sizes. In addition, not having a poverty targeting strategy might lead to products that are not tailored around clients' economic profile and this might add up to the costs per borrower as well. Further data on product segmentation and clients' effective outreach by poverty segmentation would be required to confirm this hypothesis.



Targeting female clients is also associated with a lower cost per borrower by $57 and lower operating expenses by seven percent. This finding could be attributed to the higher borrower retention among female clients[5], an indicator usually linked to higher efficiency within FSPs.

As in the case of portfolio quality, another positive association emerged with **financial literacy education**: institutions offering this service experience a reduced cost per borrower by $56.



We also found evidence showing that as the **borrower retention** rate increases, the average cost per borrower decreases. A one-percent increase in borrower retention is in fact associated with a $4 decrease in average cost per borrower. No significant results were found when borrower retention was correlated with operating expenses.

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[5] MIX does not collect borrower retention data disaggregated by gender but a study that MIX conducted in partnership with Women's World Banking revealed that borrower retention is higher among female clients. Link to the study: http://www.womensworldbanking.org/wp-content/uploads/2014/07/WomensWorldBanking_MIX_Select_Five_Indicators_July2014.pdf

CONCLUSIONS

The findings show that social performance and business operations can mutually reinforce each other and lead to some considerations that FSPs and investors should take into account when communicating and assessing an institution's performance:

- The FSPs that target the poor, knowing that they are more likely to face higher costs, should communicate this expected trade-offs to their board and investors and should devise specific strategies to tackle this challenge while staying true to their mission.
- Board members should be selected also on the basis of their expertise in social performance. The presence of a board trained in this area not only helps to ensure operational alignment with the social mission but also appears to be associated with better financial and operational performance.
- Implementing progressive HR policies as well as staff incentives should be considered a strategic investment to improve workplace productivity.
- Having women as target market is linked to better business performance. As the correlation analysis confirmed, a recognized step to increase female clients' outreach is through the recruitment of female loan officers.
- FSPs should monitor borrower retention rates as a proxy to gauge clients' satisfaction. In addition, retaining existing clients costs less to the institution and increases loan officers' productivity.

This analysis focused on the areas of financial performance that are most likely to be correlated with social performance. In future analyses, it would be useful to include data on income to analyze whether a business case exists for linking sustainability and social performance management.

This analysis would also benefit from the inclusion of an expanded and validated set of social performance indicators, such as those captured by social ratings and by Cerise's SPI4 tool, in order to identify new areas of synergies and trade-offs with financial and operational performance.

APPENDIX: ECONOMETRIC RESULTS

TABLE 1 - PRODUCTIVITY: BORROWERS PER STAFF MEMBER

VARIABLES	(1)	(2)	(3)	(4)	(5)
Log Gross Loan Portfolio		-18.23***	8.96***	16.71***	16.54***
		(0.00)	(0.00)	(0.00)	(0.00)
Average Loan Balance per Borrower	-13.05***	-35.73***	-13.84***	-19.27***	-23.73***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Target Poor				50.3***	
				(0.00)	
Target Women					29.24*
					(0.08)
Number of Active Borrowers		0.0003***			
		(0.00)			
Board Member Training – Social Mission	25.67**				
	(0.04)				
All Human Resources Implemented		29.06*			
		(0.09)			
Borrower Retention	133.11***	142.53***			
	(0.00)	(0.00)			
Target Poor and Women			53.4***		
			(0.00)		
Constant	19.54	325.05***	-33.4	-176.9***	-168.14***
	(0.16)	(0.00)	(0.39)	(0.00)	(0.00)
Observations	300	157	475	167	183
R-squared	0.091	0.527	0.136	0.197	0.176
Adjusted R-squared	0.081	0.511	0.130	0.182	0.162

P-values in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 2 - PORTFOLIO QUALITY: PORTFOLIO AT RISK OVER 30 DAYS

VARIABLES	(1)	(2)	(3)	(4)	(5)
Log Gross Loan Portfolio	-0.009***	-0.003***	-0.007***		-0.005***
	(0.00)	(0.00)	(0.00)		(0.00)
Gross Loan Portfolio - Consumption	1.71E-10**				
	(0.03)				
Client Protection Policies			0.008		
			(0.22)		
Target Women					-0.023**
					(0.03)
Board Experience – Social Performance				-0.007**	
				(0.05)	
Minimum of 3 HR Policies Enacted			-0.036***		
			(0.00)		
Internal Audit		-0.009			
		(0.31)			
Financial Literacy Education	-0.014**				
	(0.04)				
Women Empowerment		-0.012*			
		(0.08)			
Target Poor					-0.007
					(0.31)
Constant	0.20***	0.12***	0.16	0.17***	0.15***
	(0.00)	(0.00)	(0.18)	(0.00)	(0.00)
Observations	386	580	241	487	499
R-squared	0.07	0.015	0.102	0.013	0.026
Adjusted R-squared	0.062	0.010	0.091	0.012	0.020

P-values in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 3 - PORTFOLIO QUALITY: WRITE OFFS

VARIABLES	(1)	(2)	(3)	(4)	(5)
Log Gross Loan Portfolio	578928.2***	553328.2***		2276505***	1436003***
	(0.00)	(0.00)		(0.00)	(0.00)
Board Member Training – Social Mission	-1354401*	-1205920			
	(0.08)	(0.12)			
Target Women				-3130565	
				(0.12)	
Board Experience – SP	-2742370***	-2557002***			
	(0.00)	(0.00)			
All SP Policies Enacted					-2535639
					(0.32)
No Poverty Target			-112426.5		
			(0.126)		
Business Development Services					-2983518
					(0.21)
HR Policies Enacted				-2685687	
				(0.41)	
Target Poor	978703.2*				
	(0.09)				
Constant	-6053720**	-5161327***	254738.4***	3.2E+07***	-2.00E+07**
	(0.01)	(0.02)	(0.00)	(0.00)	(0.02)
Observations	93	93	263	479	193
R-squared	0.275	0.251	0.010	0.079	0.047
Adjusted R-squared	0.242	0.226	0.005	0.073	0.032

P-values in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 4 - EFFICIENCY: OPERATING EXPENSE AS PERCENTAGE OF LOAN PORTFOLIO

VARIABLES	(1)	(2)	(3)	(4)	(5)
Log Gross Loan Portfolio	-0.038***	0.041***	-0.046***	-0.037***	-0.008*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.09)
Average Loan Balance per Borrower	-0.014***	-0.023***	-0.012**	-0.060***	-0.030**
	(0.08)	(0.00)	(0.04)	(0.00)	(0.04)
Cost per Borrower		0.0003***			
		(0.00)			
Cost per Loan				0.0004***	
				(0.00)	
Mobile Banking Services			0.075***		
			(0.00)		
No Poverty Target	-0.076***				
	(0.00)				
Personnel			1.3E-5**		
			(0.03)		
Europe and Central Asia				-0.136***	
				(0.00)	
Borrower Retention					-0.160**
					(0.01)
Number of Active Borrowers					-4.8E-08
					(0.34)
Board Experience – SP					-0.033**
					(0.03)
Only Target Poor		0.071**			
		(0.03)			
Constant	0.886***	0.864***	0.981***	0.821***	0.472***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	574	521	522	551	161
R-squared	0.145	0.181	0.152	0.197	0.165
Adjusted R-squared	0.141	0.175	0.145	0.192	0.138

P-values in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 5 - EFFICIENCY: COST PER BORROWER

VARIABLES	(1)	(2)	(3)	(4)	(5)
Log Gross Loan Portfolio			22.14***	22.42***	19.92*
			(0.00)	(0.00)	(0.07)
Average Loan Balance per Borrower			24.41***	25.33***	
			(0.00)	(0.00)	
Personnel			-0.02***	-0.02***	
			(0.00)	(0.00)	
Target Women					-60.56**
					(0.02)
Target Poor and Very Poor (Average Treatment Effect)	-42.61** (0.03)				
No Poverty Target (Average Treatment Effect)		64.85** (0.04)			
Financial Literacy Education				-56.44***	
				(0.00)	
Borrower Retention					-370.41**
					(0.02)
Enterprise Skills Development			-78.03***		
			(0.00)		
Constant			-140.31**	-142.44**	200.69**
			(0.03)	(0.00)	(0.31)
Observations	488	503	523	523	190
R-squared			0.154	0.134	0.123
Adjusted R-squared			0.148	0.130	0.112

P-values in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

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