Microfinance: The Impact of Nonprofit and For-Profit Status on Financial Performance and Outreach

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Abstract

The authors use an international data set of microfinance institutions to test whether there are significant differences between nonprofit and for-profit microfinance institutions (MFIs). They test six hypotheses that are set up to mirror the expected differences between nonprofit and for-profit MFIs based on expected differences in mission. Given that nonprofits are expected to have more of a social mission and for-profit firms to be more profit-driven, the results presented here are quite counterintuitive (though consistent with previous investigations). The authors reject all six hypotheses, finding no significant difference between nonprofit and for-profit firms in terms of gender, loan size and the number of loans outstanding, interest rates charged and proportion of risky assets. Where they do find significant differences is in terms of financial performance (e.g., profit margins, operational self-sufficiency and expenses), though nonprofit, not for-profit firms, had superior financial performance.

Introduction

In the past five years, microcredit (issuance of small loans to poor entrepreneurs, lacking access to formal forms of credit) and its more general counterpart, microfinance (including microcredit and other financial instruments such as life insurance), have become popular development strategies. With Muhammad Yunus and the Grameen Bank receiving the 2006 Nobel Peace Prize, following on the heels of the United Nations' declaration of 2005 as the International Year of Microcredit, the world has quickly become aware of the potential for microfinance. By 2009 the Microcredit Summit Campaign reported that over a hundred million of the poorest people have been reached with microfinance (Daley-Harris, 2009; Microcredit Summit, 2009).

Modern microfinance can be traced to Bangladesh, which is considered the "cradle" of microfinance. With the formation in the 1970s of Grameen Bank, Bangladesh Rural Advancement Committee (BRAC) and ASA, all Bangladeshi non-governmental organizations (NGO's) with clear missions for poverty-alleviation in one of the world's poorest nations, the role of the NGO in microfinance has been clearly established (Smillie, 2009). Both Grameen Bank and ASA, in particular, however, have demonstrated that microfinance can provide a very sustainable business model for NGOs. For example, in 2001, ASA declared itself "donor free" and achieved a number-one ranking on Forbes' list of microfinance institutions (MFIs) in 2007 (ASA, 2010; Swibel, 2007). Grameen Bank has been sustainable since at least the 1980s. Yunus states that "from October 2, 1983, onward (Grameen) could argue our side as a peer institution—and one that was financially outperforming traditional banks" (Yunus,1999, p. 123). More recently, Yunus' (2007) discussion of Grameen's development of "social businesses" suggests an internal cross-subsidy within the Grameen Bank from the very-sustainable microfinance portion of the business to other less-sustainable ventures.

Not surprisingly, the opportunity for positive net income and a willingness to gain market share has attracted some for-profit firms to microfinance. Perhaps the most famous of these is Banco Compartamos (seventh on Forbes' 2007 list—see Swibel, 2007), which became a publicly-traded, for-profit MFI after beginning as a nonprofit NGO (see Chu and Cuellar, 2008). While small, for-profit moneylenders have always been a part of credit markets for the poor, only recently have for-profit MFIs entered the market. Notwithstanding Compartamos' success, there is still some question whether this is a viable business model for for-profit firms, who have to earn returns high enough to justify their investment to shareholders. The attendant higher costs associated with making many smaller loans to the poor (as opposed to fewer, larger loans to the wealthy) raises questions about the long-run viability of for-profit MFIs, especially those that do not adopt the group lending model. One approach that for-profit MFIs could take is to focus on the higher-end (i.e., larger loans to the comparatively wealthier households) loans to the poor.

Though few investigations have directly addressed the issue of a non-profit or a for-profit bearing on financial performance and outreach, several studies have been conducted on the type of governance that an MFI should possess (Hartarska, 2005; Mersland and Strom, 2009). In particular Merlsand and Strom through their data of 278 MFIs from 68

countries find that there is no significant relation to a firm being either a non-profit organization or a Shareholder Firm and financial performance and outreach. Others investigate the influence of a MFI's type such as bank, non-bank, cooperative, etc. on profitability, sustainability, and reach (Cull, Demirguc-Kunt and Morduch, 2009). Their results suggest two things: (a) that the commercialization of microfinance does not hold the same capacity for outreach to the poorest clients, relative to nonprofit outreach and (b) that the typical non-profit MFIs are more financially self-sustainable than for-profit MFIs (Cull et al., 2009). Interestingly, they were also able to observe an increase in the average loan size per borrower as the various intensity of profit-seeking behavior increased (Cull et al., 2009).

In one of the larger studies available to date, Gonzalez and Rosenberg (2006) combined confidential information from The Microcredit Summit Database with data from The MicroBanking Bulletin as well as The Mix Market to produce a dataset of over 2600 microfinance institutions to evaluate impacts on profitability and outreach. The authors find that neither scale nor an MFI's age appear to impact an MFI's profitability, measured by net adjusted returns on assets. They also find that for-profit microfinance is financially viable opportunity to move into competition with others in the investment market. At the same time, Nobel laureate and "microfinance pioneer," Muhammad Yunus is on record as opposing the for-profit movement in microfinance, saying "When you are making profits you are moving into the mentality of the loan shark. We are trying to get that loan shark out" (Burgis, 2008, p 4). Research by Mersland and Strom (2008) and Cull et al. (2009) has different implications for the optimal ownership type for a MFI, though neither investigation provides an empirical consensus for the microfinance industry. The rest of this paper proceeds as follows: Section 2 is a discussion of the hypotheses, Section 3 describes the data, Section 4 contains the results and Section 5 presents our conclusions.

Hypotheses

The motivation for our hypotheses stems largely from the Yunus critique in "Creating a World Without Poverty", in which he considers for-profit MFIs to be problematic and potentially disruptive to the progress made by Grameen and other NGO's in reducing the harmful influence of moneylenders and opening opportunities for the poor. For expository purposes, we assume that the social mission of nonprofit MFIs will have systematically different outcomes when compared to for-profit firms seeking higher returns (even if these assumptions do not necessarily fit with previous empirical investigations). Our hypotheses are as follows:

H_1: Nonprofit MFIs have higher proportion of women borrower

Given that nonprofits more focused on social impact, rather than profitability per se, we would expect non-profits to have a higher proportion of women borrowers. Results from previous investigations (see Armendariz and Morduch, 2005) seem to suggest that women borrowers provide greater social impact than their male counterparts and also tend to have higher repayment rates.

H_2 : Non-profit MFIs make many small loans compared to for-profit

Similar to the discussion for H_1, to the extent that NGOs focus on reaching larger numbers of the poor, we would expect nonprofits to have more loans with smaller average loan size than their for-profit counterparts. Prior research (Cull et al., 2009) suggests that being a non-profit is associated with a greater outreach than a for-profit.

H_3: Nonprofit MFIs have lower margins

Since nonprofit organizations do not have the same profit-maximization motivation than their for-profit counterparts, nonprofits are expected to have lower profit margins than for-profit firms. In general one would expect nonprofits to operate very close to their costs, leaving little room for excess profits.

H_4: Nonprofit MFIs have higher expenses

With their social mission, nonprofits would be expected to provide more services per borrower. In addition, trying to reach as many poor borrowers as possible would likely increase costs for nonprofits. Thus, we would expect nonprofit MFIs to have higher attendant expenses than for-profits.

H_5: Nonprofit MFIs charge lower interest rates

Since they do not have a profit motive, nonprofit MFIs would be expected to charge their clients lower interest rates than for-profit firms. One of the critiques of MFIs is their high interest rates (indeed, this is part of the Yunus critique) so one would expect nonprofit firms (and their boards) to be especially cautious about charging rates that could be perceived as "usurious."

H_6: Nonprofit MFIs have higher proportion of risky loans

Since for-profit MFIs have a greater incentive to avoid making loans to very risky borrowers, we would expect nonprofits to have a higher proportion of risky loans.

Data

We generated a dataset including 460 MFIs from around the world using the Microfinance Information Exchange (MIX) data, which are publically available from the *mixmarket.org* web site. Our data set includes information on the funding source of the MFI (non-profit vs. profit), the country in which the MFI operates, the percent of women borrowers and the loan loss rate of the portfolio. Some of the observations contained missing data for gross yields, as well as loan loss rate and percent of women borrowers. In order to distinguish between for-profit and nonprofit MFIs we focused on the shareholder's capital variable. We assumed that if an MFI was funded with shareholder's capital that it was for-profit; otherwise, it was a nonprofit. Since the precise definition of "nonprofit" may vary from country to country, we believe this method of determining nonprofit status is the best one available. This method also likely avoids "false positives" for for-profit status, but may miss some that were actually for-profit firms but did not have any shareholder's capital. The data set contains more nonprofit MFIs with 272 MFIs reporting that they were funded completely by private and government sources, while 188 reportedly were funded by shareholder's capital.

While the MIX data have been used in other published investigations, one concern is that all the data are self-reported. As noted in Cull et al. (2009), the incentive for for-profit firms to appear better for investors may skew the data to be more ideal—whether through actual adjustments of data or self-selection to the pool. Of course, this could also work the same way for nonprofit firms that wish to demonstrate to potential donors that they are financially viable. We have included descriptive statistics in Table 1. The mean percentage of women borrowers is nearly two-thirds (65.60%), ranging from only 3.35% to a high of 100%. While the mean number of outstanding loans is just under 75,000, the values range from 22 to slightly over 5 million. Profit margins and gross yields also range from negative values to very high positive values. The average loan size is $1,029.81 (values are converted to USD), ranging from an average of just under $50 to over $16,000.

Table 1: Descriptive Statistics

Variable	Means	Std Dev.	Min	Max
Percentage of Women	65.60	26.41	3.35	100.00
Number of Outstanding Loans	74,705.21	418,486.65	22.00	5,163,279.00
Profit Margin	8.97	34.91	-269.11	66.26
Yield on Gross Portfolio (Real)	25.76	16.42	-2.66	120.90
Financial Expense to Assets (Pct)	4.72	3.67	0.00	24.13
Operational Expense to Assets (Pct)	18.12	12.37	1.28	91.94
Cost per Borrower	164.31	285.14	3.00	4,532.00
Portfolio at Risk More Than 90 days (Pct)	4.65	8.03	0.00	65.37
Loan Loss Rate (Pct)	0.94	2.29	-9.72	22.77
Average Loan Size	1,029.81	1,563.64	48.70	16,624.00

Results

In order to test whether there were significant differences between for-profit and nonprofit MFIs along a number of important dimensions, we separated the data by for-profit status and performed a t-test to compare the means for significant differences. Results are presented in Table 2. Columns two and three contain the mean values for nonprofit and for-profit MFIs, respectively. Column four contains the "t" values and values in column five convert the "t" into a probability that the means are identical (i.e., that the difference is zero). In other words, if the value in column five is below 0.10, then the probability that the means are identical is less than 0.10. Stated differently, there is greater than a 90% chance that the means are different from one another.

Based on these results, there are only three variables that are significant or marginally significant. The value for "operational self sufficiency" appears to be significantly higher, but not for for-profit firms as one might expect, but for nonprofit MFIs. Similarly, profit margins were marginally significantly higher for nonprofit firms (11.48 vs. 5.36) and "financial expense to assets" percentages were actually marginally significantly *lower* for nonprofit firms. In other words, where there were significant differences between for-profit and nonprofit MFIs, the results suggest that nonprofit firms were actually more financially sustainable.

In terms of the hypotheses, the results are generally not supportive of the hypotheses. More specifically, we find no support for H_1 (nonprofits have a higher proportion of women borrowers), since the means are not significantly different from one another. While nonprofits do serve slightly more women, there is no significant difference between the two percentages. Regarding H_2 (nonprofits make many small loans compared to for-profits), we have a similar results, namely that nonprofits serve more loans (99,587 compared to 41,143) but this difference does not meet normal thresholds for significance. Similarly, average loan size for nonprofits is slightly smaller ($991 vs. $1,075) but they are not significantly different from one another. In sum, we reject H_1 and H_2.

The results for H_3 (nonprofits have lower profit margins) are actually more dramatic. Not only do nonprofits not have lower profit margins, but they actually seem to have (marginally) significantly higher profit margins and significantly higher operational self-sufficiency (1.23 vs. 1.16). Thus, we have a "strong reject" result for H_3. Results for H_4 (nonprofits have higher expenses) are similar, though not quite as robust. As mentioned above, it appears from our results presented in Table 2 that nonprofits have actually lower "financial expense to asset" percentages (though these are marginally significant at the 10 percent level), not higher. Further, nonprofits do not have significantly higher "operational expense to asset" or "cost to borrower" percentages. In sum, we strongly reject H_3 and H_4.

Table 2: Comparison of Means, t-Test Results

	Means		t-Test	
Variable Description	**Nonprofit**	**For-profit**	**t**	**Prob. Dfc. = 0**
Percentage of Women	66.678	64.34	0.8856	0.3763
Number of Outstanding Loans	99587.06	41143.39	1.4073	0.1601
Gross Loan Portfolio	2.16E+07	1.50E+07	1.0641	0.2878
ROA	2.943	1.7402	1.3742	0.1701
Operational Self Sufficiency	1.2337**	1.1579	2.4393	0.0151
Profit Margin	11.4762*	5.35586	1.8328	0.0675
Yield on Gross Portfolio (Real)	26.5978	24.6316	1.2052	0.2288
Financial Expense to Assets (Pct)	4.4453*	5.1175	-1.8863	0.0599
Operational Expense to Assets (Pct)	18.6756	17.4163	1.0472	0.2956
Cost per Borrower	155.91	175.215	-0.6853	0.4935
Portfolio at Risk More Than 90 days (Pct)	4.4426	4.9065	-0.5804	0.5619
Loan Loss Rate	1.0605	0.769	1.3084	0.1915
Average Loan Size	991.0306	1075.133	-0.5413	0.5886

*** Denotes significance at 1%, ** at 5%, * at 10% level

We turn now to results for H_5 and H_6. The results for H_5 (nonprofits charge lower interest rates) indicate that while nonprofits did have a slightly higher "yield on gross portfolio (real)" (our proxy for interest rates charged) it was not significantly different from the value for for-profits. For H_6 (nonprofits have higher proportion of risky loans), we also find no support. The "loan loss rate" was slightly higher for nonprofits but the "mean proportion of portfolio at risk > 90 days" was slightly lower and neither of these was significantly different. Thus, we reject H_5 and H_6. In sum, each of the hypotheses, phrased in a manner consistent with prevailing beliefs about the differences between nonprofits and for-profits, is rejected by our results. Most of these results are, in fact, consistent with findings from other published reports (see Cull et al., 2009), though they do remain somewhat puzzling given the assumptions about the differences in mission by type and the concerns raised by Yunus about for-profit institutions.

Conclusions

This current endeavor has been an attempt to test six hypotheses about the difference between nonprofit and for-profit types of ownership. Each of these hypotheses was set up to reflect expected differences in mission that are associated with for-profit and nonprofit organizations. Since for-profit firms generally have a profit-driven mission and nonprofits are

assumed to be focused more on service, we find these results (while consistent with many other published papers) to be somewhat enigmatic. In fact, we reject all six of these hypotheses.

We found that there was no significant difference in terms of gender (H_1) or the number of loans and loan size (H_2). Results presented in Table 2 suggest that nonprofits actually seem to have higher profit margins and operational self sufficiency, not lower (H_3). They also appear to have lower financial expense to asset ratios and no significant difference on other "expense" variables (H_4). Results presented here also suggest that nonprofits do not charge lower interest rates than for-profit MFIs (H_5), nor do they have a higher proportion of risky assets (H_6). Overall, nonprofit firms appear to be very similar to for-profit firms, at least along the dimensions for which we had reasonable data for analysis. Where they do differ significantly is in terms of slightly better financial profitability—though not for for-profit firms, but for nonprofit MFIs.

While these results are somewhat counterintuitive, they do fit rather well with previously published results (see Cull et al., 2009). We offer a few caveats and suggestions for interpretation of our results. First, as noted above, there are some concerns about whether this international data set is representative of all international MFIs. There could be a "positive" reporting bias since these are self-reported data and to the extent that nonprofits rely on donor support, MFIs that are not performing well may choose to avoid reporting data to MIX altogether. Further, those that do may have more of an incentive than for-profits to make their financial picture as positive as possible, though one would think that for-profits also need to please their shareholders in order to generate additional financial capital, if necessary. We are also aware that some nonprofit firms may benefit from government subsidies and assistance, which would artificially "inflate" their financial success. We believe further research is needed to identify this particular issue.

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