



# SILC INNOVATIONS

## RESEARCH BRIEF 3

### Group Performance in Fee-for-service Savings Groups

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#### **Project Background – SILC & the PSP model**

Savings and Internal Lending Communities (SILC) is a model developed by Catholic Relief Services for user-owned, self-managed, savings and credit groups. A SILC typically comprises 15-30 self-selecting members, and offers a frequent, convenient and safe opportunity to save. SILC helps members build useful lump sums that become available at a pre-determined time and allows them to access small loans or emergency grants for investment and consumption.

SILC Innovations is a pilot project within CRS' broader SILC program, funded by the Bill & Melinda Gates Foundation from 2008-2012, which aims to establish local entrepreneurial capacity for sustaining the spread of the savings-group model beyond the funding period. In the project design, the Field Agents (FA) responsible for forming and supporting SILC groups are recruited and paid by the project for up to one year. The FAs then undergo an examination process to become certified as Private Service Providers (PSP), who offer their SILC services to communities on a long-term, fee-for-service basis, with no further project funding. The project currently serves over 350,000 savings group members, mostly rural villagers, across the three pilot countries of Kenya, Tanzania, and Uganda.

#### **KEY FINDINGS ON GROUP PERFORMANCE:**

- PSP-supported groups are outperforming FA-supported groups on key financial measures, such as individual savings levels, group assets, and loan sizes.
- On membership measures, PSP-supported groups are outperforming FA-supported groups on member growth rates and showing comparable results on drop-out rates and gender composition.
- Baseline-endline comparisons of the portfolios of randomized agents confirmed that these trends emerged post-randomization, thereby confirming the attribution to the PSP model.



## Research Design and Group Performance

To assess the model and inform future SILC rollouts on this fee-for-service, savings-group delivery channel, CRS carried out a broad research study using a Randomized Control Trial (RCT) design. The research was set up to make a fundamental comparison between two delivery channels: the fee-for-service PSP model and the more conventional project-paid FA model. To rigorously compare the two, an experimental design established statistically comparable cohorts of agents serving members in comparable environments over approximately a one-year interval (see the additional research background section on page 8).

In total, the study tracked 333 randomized agents across two cohorts (separated by about one year). The agents were assigned either fee-for-service PSP status or stipend-paid FA status for the research interval, which followed a 12-month training phase in which all agents were paid a stipend. Management Information System data was collected from all agents on a quarterly basis and included a multitude of data points. This brief draws on the data specifically pertaining to group performance, focusing on the comparison between groups served by randomized PSPs and groups served by randomized FAs. A central question was at the core: can we detect systematic differences in group performance between PSP-supported and FA-supported groups?

### Randomized Comparisons on Group Performance

To make these comparisons, we employed the data set for groups created and served in the RCT period by the randomized agents ( $n = 1,996$  groups).<sup>1</sup> The data that went into the set was drawn from the quarterly observation following the end of the one-year randomization period in each region of the study.<sup>2</sup> The metrics tracked and reported here can be divided into two group-performance categories: membership and finances.

On membership, we see that PSPs were supporting significantly<sup>3</sup> larger groups on average (consistent with findings elsewhere in this RCT). PSPs also led on membership growth within cycle, with the country breakdown indicating that the results are being driven clearly by the Kenyan subpopulation. On dropout rates and percentages of female members, we see mostly parity across the two delivery channels, though in certain subpopulations the FA-supported groups hold a moderately significant edge.

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1 In terms of cycles, the group sample breaks down as follows: 89 percent first cycle, 11 percent second cycle, less than 1 percent third+ cycle.

2 It is important to note that what we have in this data is a “snapshot” of group performance, taken immediately at the end of each agent’s randomization period. The data is not representative of complete group cycles, as those cycles do not correspond neatly with the randomization period. For example, average savings balances are not the full average value of savings built by members over a cycle, but rather the average amount saved when the randomization period ended in each region. The critical point here is comparability—the “snapshots” need to be comparable between the PSP-supported groups and the FA-supported groups, which they are.

3 Significance measures are two-tailed, generated by t-tests, with thresholds as indicated in table key. Corresponding assumptions on variance made using results of Levene’s Test ( $p < 0.05$ ). Three stars indicate the most significant differences, followed by two, and one, per the p-values in the text box next to the table. Zero stars indicate that there was no significant difference.

TABLE 1 - MEMBERSHIP-RELATED GROUP PERFORMANCE COMPARISONS<sup>4</sup>

	Rand Status	Number of Groups <sup>5</sup>	Avg. Group Size	Avg. Growth in Membership (within cycle)	Dropout Rate (within cycle)	Avg. Percentage of Women
Overall	FA	830	20.6**	24.2%**	0.1%	72.3%
	PSP	1166	21.2	29.4%	0.2%	73.5%
Kenya	FA	335	19.0**	29.9%**	0.2%	81.0%
	PSP	617	19.8	38.3%	0.2%	83.0%
Tanzania	FA	327	20.2***	23.1%	0.1%	65.8%**
	PSP	452	22.0	20.3%	0.2%	62.7%
Uganda	FA	168	24.3***	14.9%	0.0%	67.4%*
	PSP	97	26.5	15.6%	0.0%	63.1%
Cohort 1	FA	254	18.9***	23.9%**	0.2%	71.2%
	PSP	221	21.1	36.9%	0.0%	71.4%
Cohort 2	FA	576	21.3	24.3%	0.1%**	72.7%
	PSP	945	21.2	27.7%	0.2%	74.0%

\* P<.10 \*\* P<0.05 \*\*\* P<0.01 Red = PSPs lead Blue = FAs lead

PSP groups are offering their members significantly larger loans on average, and offering more sizeable returns.

The overall trend emerges much more clearly when we begin to look at group financial metrics (Table 2). Beginning with the overall results, PSP groups are significantly outperforming FA groups on core functions, such as members' savings (both individual balances and per-week contributions), member assets, and group assets. PSP groups are offering their members significantly larger loans on average<sup>6</sup>, and offering more sizeable returns, as measured via the Return on Savings (ROS) and Annualized Return on Assets (AROA) metrics<sup>7</sup> (Table 3). We note here that other aspects of this research have proven that the individuals in PSP groups are not wealthier than the individuals in FA groups, on average—consequently higher savings levels are not the result of greater member wealth.<sup>8</sup>

Those same differences clearly emerge in the country-specific findings. Uganda offers the only cases where FA groups show significantly higher results than PSP groups on percent of assets loaned out and percent of members with loans, which in turn has had a significant negative effect on the former measure overall. At this time, we cannot offer any concrete explanation for this divergence, but we note: 1) Uganda is by far the smallest country-specific sample (365 of 1,996 total groups); and 2) the results are not enough to alter the significance of key measures in the overall sample, which includes Uganda.

<sup>4</sup> All figures here and elsewhere in this brief are group-level calculations, averaged across the data set.

<sup>5</sup> The asymmetrical sample was a deliberate decision to account for the anticipated higher variance in the results from PSP agents.

<sup>6</sup> A finding confirmed by the Savix team at [www.savingsgroups.com](http://www.savingsgroups.com).

<sup>7</sup> One qualification to the ROS and AROA comparisons is that these return rates do not take into account the fees paid to the agents—hence a net return in the case of PSP groups would be somewhat lower. However, we have every reason to believe that these high rates of return would remain at these levels as the PSP groups progress into later cycles, where they typically see their payments to the agents reduce or discontinue.

<sup>8</sup> For additional details, see "SILC Innovations Research Brief 1: Poverty Outreach in Fee-for-Service Savings Groups."

TABLE 2 - FINANCE-RELATED GROUP PERFORMANCE COMPARISONS, PART I

	Rand Status	No. of Groups	Avg. Group Assets	Avg. Percent of Assets Loaned Out	Avg. Member Savings Balance	Avg. Member Savings per Week	Avg. Member Assets	Avg. % of Members with Loans Outstanding	Avg. Loan Value Outstanding
Overall	FA	830	\$434***	83.3%**	\$16***	\$0.97***	\$21***	60.1%***	\$28***
	P	1166	\$662	80.9%	\$23	\$1.19	\$30	64.4%	\$36
Kenya	FA	335	\$418***	75.8%	\$15***	\$0.90***	\$21***	58.1%***	\$27***
	PSP	617	\$684	77.7%	\$24	\$1.22	\$33	70.8%	\$34
Tanzania	FA	327	\$425***	91.7%	\$16***	\$1.18	\$21***	62.8%	\$31***
	PSP	452	\$631	90.8%	\$22	\$1.23	\$28	62.3%	\$40
Uganda	FA	168	\$484**	81.9%***	\$14**	\$0.67	\$19**	58.7%***	\$24**
	PSP	97	\$673	54.8%	\$18	\$0.80	\$24	33.0%	\$32
Cohort 1	FA	254	\$396**	81.2%	\$15*	\$0.90	\$21	57.2%	\$31
	PSP	221	\$531	79.8%	\$18	\$0.94	\$25	57.1%	\$32
Cohort 2	FA	576	\$451***	84.2%**	\$16***	\$1.00***	\$20***	61.4%***	\$27***
	PSP	945	\$693	81.2%	\$24	\$1.24	\$32	66.1%	\$37

\* P<.10 \*\* P<0.05 \*\*\* P<0.01 Red = PSPs lead Blue = FAs lead

TABLE 3 - FINANCE-RELATED GROUP PERFORMANCE COMPARISONS, PART II

	Rand Status	Return on Savings	Annualized Return on Assets
Overall	FA	20.0%***	27.9%***
	PSP	23.1%	34.2%
Kenya	FA	21.7%***	33.0%***
	PSP	26.7%	39.4%
Tanzania	FA	18.4%	32.6%
	PSP	17.9%	30.7%
Uganda	FA	19.9%*	14.2%**
	PSP	24.1%	19.4%
Cohort 1	FA	22.4%	32.2%
	PSP	21.4%	30.6%
Cohort 2	FA	19.0%***	26.0%***
	PSP	23.5%	35.0%

\* P<.10 \*\* P<0.05 \*\*\* P<0.01 Red = PSPs lead Blue = FAs lead

As in other areas of our RCT analysis, we disaggregated by cohort to determine whether project learning from the first cohort led to better agent selection or process improvement, thereby improving group performance between the first and second cohorts. Generally, the results confirmed this trend of improvement. Though Cohort 1 already shows some significant advantages for the PSP-supported groups, the gaps widen in Cohort 2 as the PSP groups pull away significantly from the FA groups on core financial measures, such as group assets, individual savings levels, loan size, and ROS/AROA.

As such, the PSP-supported groups have outpaced FA-supported groups on the performance measures deemed most important to this project. The PSP groups are growing faster, saving more (both at the group and individual level), and offering higher returns to members. Thus PSP supported SILC members have access to larger lump sums in the form of loans and share-outs than FA supported ones.

### Baseline-endline Comparison on Group Performance

To gain a more contoured understanding of the differences noted in Tables 2 and 3, we calculated baseline measures of group performance for the portfolios of the randomized agents—in other words, using only the groups created while the agents remained undifferentiated in the pre-randomization, 12-month agent training phase, as their original portfolio in the table. As such, the agents in this undifferentiated first line are still shown as FA/PSP because these are the statuses that the agents went on to assume in the randomization. In this way, we can compare to the endline results above to isolate the change-over-time impact and ensure that the differences in Tables 2 and 3 were not produced by a faulty randomization.

Generally, the results confirm the validity of the above impacts. On the baseline financial measures, we see limited differentiation between PSP and FA groups, and in fact, FA groups hold a slight lead in several categories, including group assets, individual savings balance, ROS, and AROA (Tables 4 and 5, Line 1). This trend completely vanishes in the endline measures for the groups created under randomized status, where the PSP-supported groups have pulled away on all core financial measures, such as group assets, individual savings, loan size, and ROS/AROA (Tables 4 and 5, Lines 2).

PSP-supported groups have outpaced FA-supported groups on the performance measures deemed most important to this project.

TABLE 4 - BASELINE-ENDLINE COMPARISONS OF GROUP PERFORMANCE MEASURES, PART I

			Randomization Status	Avg. Growth in Membership (within cycle)	Avg. Group Assets	Avg. Member Savings Balance	Avg. Member Savings per Week
1	Pre-Randomization	Original Portfolio	FA	23.7%	\$534*	\$17*	\$0.80
			PSP	25.3%	\$499	\$18	\$0.83
2	Post-Randomization	Randomized Portfolio	FA	24.2%***	\$434***	\$16***	\$0.97***
			PSP	29.4%	\$662	\$23	\$1.19
3	Post-Randomization	Original Portfolio	FA	24.6%	\$696	\$22	\$0.98**
			PSP	26.0%	\$663	\$23	\$1.15

\* P<.10 \*\* P<0.05 \*\*\* P<0.01 Red = PSPs lead Blue = FAs lead

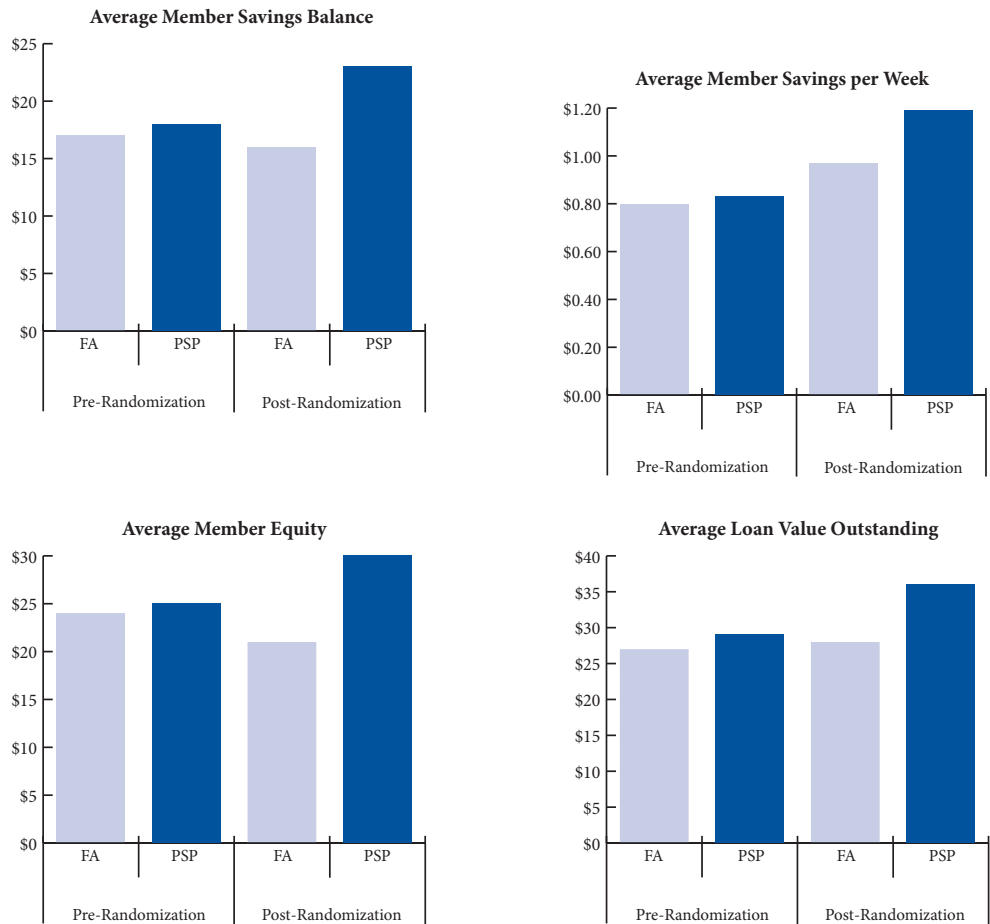
TABLE 5 - BASELINE-ENDLINE COMPARISONS OF GROUP PERFORMANCE MEASURES, PART II

			Rand Status	Avg. Member Equity	Avg. Loan Value Outstanding	Return on Savings	Annualized Return on Assets
1	Pre-Randomization	Original Portfolio	FA	\$24	\$27*	27.3%**	31.2%***
			PSP	\$25	\$29	23.8%	28.8%
2	Post-Randomization	Randomized Portfolio	FA	\$21***	\$28***	20.0%***	27.9%***
			PSP	\$30	\$36	23.1%	34.2%
3	Post-Randomization	Original Portfolio	FA	\$30	\$36	26.5%**	30.3%**
			PSP	\$31	\$37	24.3%	28.5%

\* P<.10 \*\* P<0.05 \*\*\* P<0.01 Red = PSPs lead Blue = FAs lead

In Figure 1, we graphically demonstrate this divergence between groups created pre-randomization and post-randomization on key financial metrics (Figure 1). The differences are statistically significant (i.e., insignificant differences at baseline becoming significant differences at endline) and indicate a clear positive trend for the PSP supported groups over time—which we can attribute to the different delivery channels. Moreover, this significance occurred in the relatively short interval of one year.

FIGURE 1 - PRE- AND POST-RANDOMIZATION TRENDS FOR INDIVIDUAL SAVING BEHAVIOR





As a final point, we look at the endline performance of groups carried over from the 12-month training period (Tables 4 and 5, Line 3) and compare them to the baseline, which examined those same groups at the start of the randomization period. In other words, we have seen how group performance improved among groups created after agents assumed PSP status, but does that same trend apply to the agents' original pre-randomization portfolio, which agents created as FAs (in training) but continued to serve as PSPs?

For the most part, the endline measures for this original portfolio show advantageous changes for the PSP-supported groups. The slightly significant edge that FA-supported groups held at baseline in terms of groups' assets and individual savings' balances has disappeared. Moreover, member savings per week has pulled away in favor of the PSP-supported groups for a 17 percent gap at endline. We consider this one of our most important group metrics as it is a promising indication that at least some of the PSPs' superior service was applied retroactively to groups created in the FA training phase.

### **Conclusion: PSPs Stand Out**

In a research study that pits fee-for-service agents against agents offering their services for free, an underlying hypothesis was that the market forces surrounding the PSP work would compel PSPs to distinguish themselves. That is to say, the PSPs would be driven to provide superior service to FAs, in order to create sufficient demand and earn a living from their groups. That superior service would manifest in elevated group performance, among other dimensions.

We have strong evidence to support this hypothesis on the group performance measures deemed most important to this project. PSP-created groups are growing more rapidly, saving more, building more assets, and offering larger loans and returns to their members, despite the fact that the SILC members are just as poor as those in the FA-supported groups. We see this trend clearly in the interval of one year and fully expect it will continue over a longer period. To the extent that ongoing agent support helps maintain strong group performance over time, PSP longevity should lead to sustained group performance beyond the project timeframe.

Member savings per week has pulled away in favor of the PSP-supported groups for a 17 percent gap at endline.



## **Additional Research Background**

### *a. Design of the RCT*

The study's experimental design was intended to create statistically comparable cohorts of agents, serving villages and households in comparable environments. Among FAs who successfully completed their examination and qualified to be certified as PSPs, some were randomly assigned for immediate certification (treatment), while others were randomly assigned to remain as FAs for an additional 12 months (control), before officially becoming PSPs. The treatment and control agents were equally qualified, and were supervised and supported in the same way. The only difference was how they were paid – by the project (control) or by the SILC groups (treatment).

The design thereby controls for observable and unobservable differences between agents, their supervisors and areas of operation. Through randomization, the treatment PSPs and the control FAs are statistically comparable and any differences in performance and outcomes can be attributed to the delivery channel.

A total of 333 agents were selected for the study. The household survey focused on a subset of 240 such agents and the villages they served.

### *b. Research questions/issues*

The RCT compares PSP and the FA delivery channels along the following dimensions:

- Group quality and financial performance
- Impact on group members and their households
- Poverty outreach
- Member satisfaction with agent services
- Agent satisfaction with their work and remuneration
- Competitiveness with respect to other financial service providers
- Sustainability of services to groups

### *c. Data Sources*

CRS is employing four primary data sources in the research:

1. The project's existing Management Information System, which tracks agent productivity and group financial performance (quarterly).
2. Agent self-reports on their work and income (every six months).
3. Qualitative research with agents and with group members, carried out by MicroSave, regarding satisfaction with the delivery channel and other topics (baseline/endline).
4. A household survey, designed in collaboration with Professor Joe Kaboski of Notre Dame University and administered by Synovate, of both SILC members and non-members in 240 villages to establish impact (baseline/endline).



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