Private Enterprise Development in Low-Income Countries

Facilitating Innovative Growth of Low-Cost Private Schools: Experimental Evidence from Pakistan

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The primary objective of this project is to understand what factors constrain growth and innovation in Low-Cost Private Schools (LCPS) with an emphasis on alleviating financial and educational quality in enhancing constraints. Both financial products and educational support services (ESS) products were specifically designed (or re-designed) for this project, and introduced into a previously untapped market. Key findings include: 1) there is significant demand for financing from LCPS; 2) it is profitable and relatively low-risk to lend to schools; 3) there is significant demand for quality-enhancing ESS products and services from LCPS, but the market for these is thin and most LCPS do not have access to them.

Introduction

The past few decades have seen an exponential increase in the growth of these LCPS globally, and in countries like Pakistan and India, the private sector now commands a large and quickly increasing share of the market. Over forty percent of primary school enrolment in Pakistan is now in low-cost for-profit private schools (LCPS), and students in private schools in Pakistan far out-perform those in public schools.

Yet, firm innovation and expansions is constrained for private schools, likely due to a range of supply-side and market level failures. First, like other Small and Medium Enterprises (SMEs), LCPS face severe financial constraints. Second, this sector lacks access to affordable and context-relevant production technologies/inputs and, as a result, faces high costs of innovation. Perhaps even more tellingly, it is the interaction of these two constraints that most hinder firm growth in this sector. Without financial access, schools cannot afford to innovate, and without access to context relevant technologies, schools are unable to spend their resources effectively.

Pakistan has a vibrant education marketplace. Parents are highly motivated and invest in their children's education: even among poor households, nearly one out of five children attend private school where one is available. Private schools run on the revenues they are able to raise through sales (i.e. enrolment), receive no subsidies from the government, NGOs or private donors, and compete with multiple local providers (the median village has three LCPS) in terms of the price and quality of services offered.

Figure 1: Schoolchildren in a LCPS in rural Faisalabad, Punjab, Pakistan

The consumers they face, while poor and poorly educated, show that they are able to discern value and pay for quality (Andrabi et al. 2007, 2008, 2014). Given all these characteristics, Pakistan is the perfect location to study the market constraints on LCPS.

Offered Products and Causal Inference

The two treatments we use to alleviate abovementioned market failures in this randomized control trial are: first, access to financing through loan products from a reputable micro-finance institution, Tameer Microfinance Bank (TMB). These loans products were specifically designed for the LCPS market, and piloted with 100 schools before this study. Second, access to educational support services (ESS) products from multiple established educational service providers. These highly reputed providers had previously focused on medium and high fee schools, and worked with our team to design, develop and pilot affordable and relevant services for the (larger) low fee rural market.

In this study, some schools were randomly selected to be offered a loan, some were randomly selected to be offered ESS products, and some were randomly selected to be offered both. Finally, some schools were also randomly selected into a control group, receiving neither of the interventions. Although not all school offered either treatment took up that treatment, for the purpose of data analysis we use the offer of treatment as an indication that the school received the treatment. This helps avoid any selection problems with this study.

Main findings and interpretation

The main objective of this study is to examine the impact of alleviating financial and ESS market failures on the performance of private schools. Key outcomes of interest to players in financial markets are loan outcomes including delinquency rates, default rates, IRR and take-up rates. These outcomes help determine whether it is financially feasible for banks to continue lending to this market. Key outcomes measuring the performance of private schools include increased investment, increased enrolment, hiring of additional teachers and staff, and/or improvements in quality of education. Given that data analysis of the latter outcomes is still underway, we are sharing findings for the former below.

1. The high take-up of the loan product shows that there is a significant demand for financing from schools, but one needs to approach the market in a systematic way, by approaching schools that have a specific financing need (see point 2).

District	*Total schools*	*Schools with finance need*	*Schools loan offered ~ conditional on finance need*	*Schools actually took a loan ~ conditional on loan offered*
Faisalabad	1197	906 (76%)	310 (34%)	107 (35%)
Gujranwala	1036	515 (50%)	189 (37%)	38 (20%)
Sialkot	1218	786 (65%)	266 (34%)	98 (37%)
Total	3451	2207 (64%)	765 (35%)	243 (32%)

2. The initial screening process works. We used a screener to determine which schools were interested in a loan. We offered a loan to some schools that were screened out using this process, to determine the efficacy of the use of a screener.

	Said NO in screener	Said YES in screener
Taken loan	.18%	.82%
Not taken loan	.51%	.49%

3. People are much more willing to take uncollateralized loans, even though they have the highest interest rate. 11% of the loans were gold-backed loans, 16% were property-backed loans and the remaining 73% were uncollateralized loans. Contrary to a widely held belief that uncollateralized loans are more likely to be delinquent, we found that the property-backed loans are more likely to default than uncollateralized loans.

District	***Gold***		***Property***		***Personal Guarantee***	
Loans	**Delinquent**	**Loans**	**Delinquent**	**Loans**	**Delinquent**	
Faisalabad	7 (7%)	0 (0%)	24 (22%)	10 (42%)	76 (71%)	11 (14%)
Gujranwala	9 (24%)	0 (0%)	8 (21%)	1 (13%)	21 (55%)	4 (21%)
Sialkot	10 (10%)	0 (0%)	7 (7%)	0 (0%)	81 (83%)	2 (2%)
Total	26 (11%)	0 (0%)	39 (16%)	11 (28%)	178 (73%)	17 (10%)

4. School loans are highly profitable: we can see an NPV of 20% and an IRR of 29%.

	Tenure Expired	**Imputing payment history**	**Loans – paid all**
Schools	54	108	49
Loan Portfolio	4,387,600	10,467,600	4,003,600
Amount received (Principal + Interest)	5,463,301	13,500,000	5,148,259
Average Interest	17%	18%	17%
Delinquent- % of total portfolio	3%	N/A	0%
Write-off - % of total portfolio	2%	N/A	0%
NPV	925,724 (20%)	2,232,841 (21%)	909,676 (23%)
IRR	27%	24%	29%

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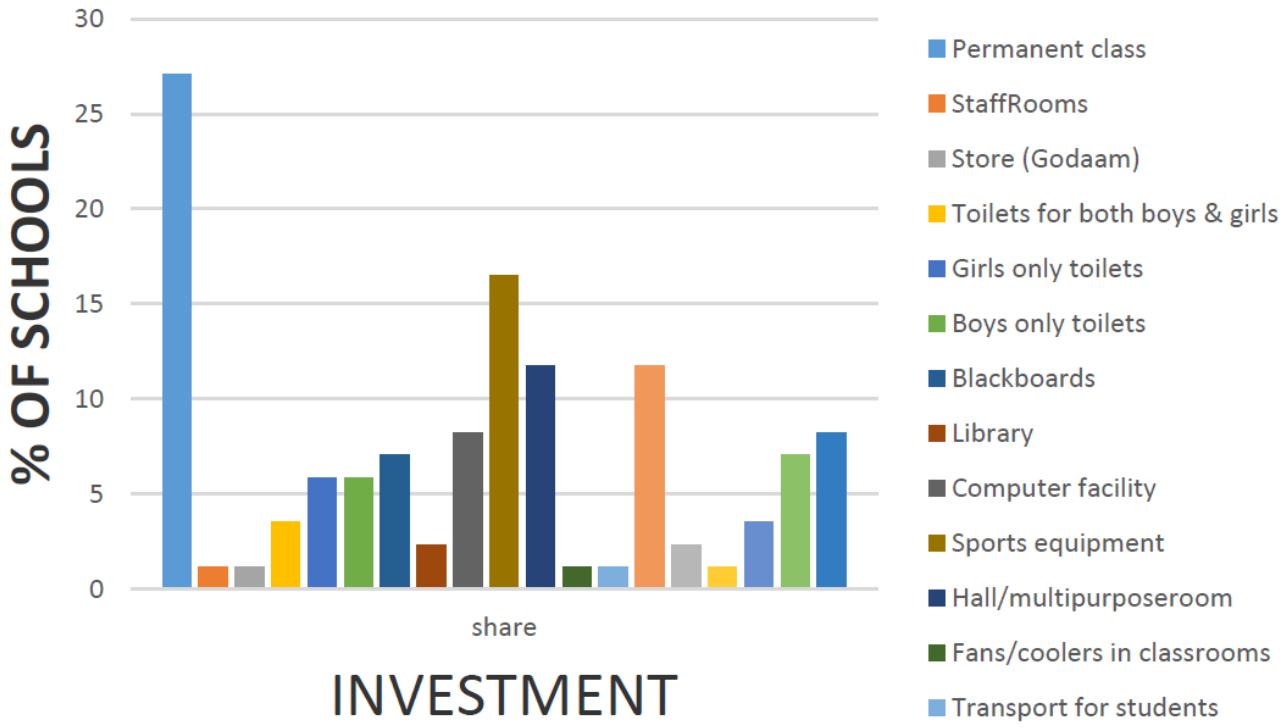
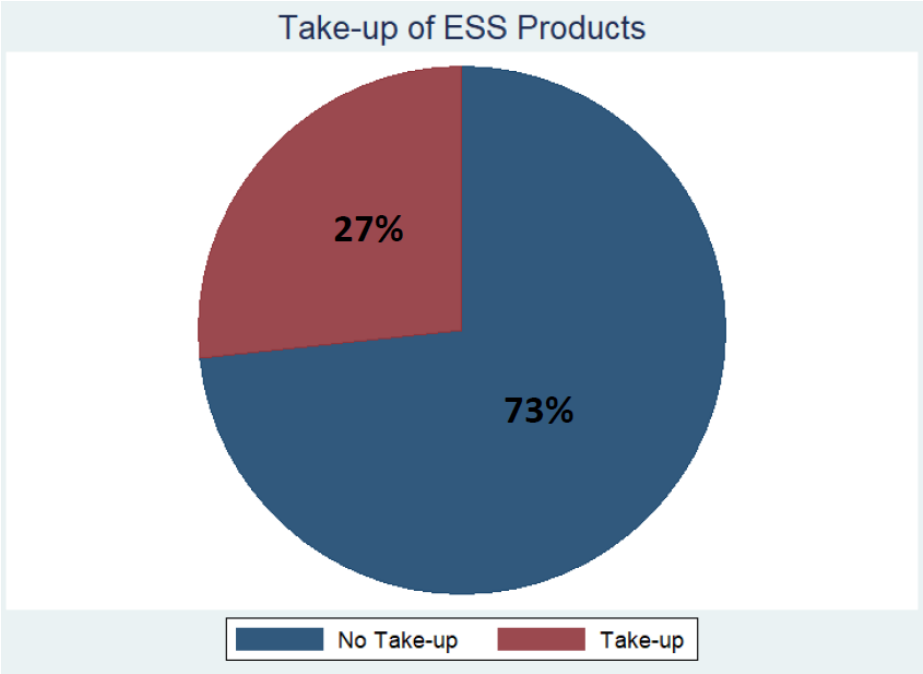
5. Schools are using loans for a variety of different purposes:



6. There is demand for Education support product and services. Of the 409 schools that were offered ESS products, 27% purchased a product from our partner service providers:



Potential Policy Impact

There are two key policy impacts of this study. First, the results of the financial products in this study have shown that market of LCPS is viable and profitable for lending. LCPS are no more risky than other small and medium enterprises, to which many banks already offer financing. Given the significantly better performance of students at these LCPS as compared to public schools, initiatives such as promoting more access to financing for these schools may have ripple effects for education quality (our own analysis on this is still underway).

Second, an important feature of both the financial and ESS products is that they are priced in a way to permit affordable yet profitable scale-up. The research team is looking into future work that enables the scale up of access to finance and educational support services to a larger number of LCPS in the market.

Moving Forward…

The project's next steps is to delve deeper into the impact of financing and ESS products on school performance. The measures we are examining include investments, hiring additional teachers, and enrolment. We are conducting an additional round of surveys with all school owners in our sample to better understand spending and investment decisions, as well as perceptions regarding ESS products and school growth.

Beyond this project, we believe that future research should explore effective and sustainable ways to provide LCPS access to finance and ESS products and services at scale. Our team has begun exploring the viability of digital mechanisms to connect school with providers at scale.