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## How can market-based solutions help improve the quality of affordable K-12 education in India?



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In recent years, the Indian government has focused on making schools more accessible so that more children can participate in the country's extraordinary economic growth. Enrolment in India's public and private schools has increased, yet the country still struggles with improving the low quality of education, especially in the case of underprivileged children. The Michael & Susan Dell Foundation works closely with the government as well as private schools to create affordable, high-quality options to improve learning outcomes for such children. Improving India's education system is, however, complex and requires an integrated and patient effort with a sharp focus on innovative solutions, clear accountability and

systemic reforms --in addition to learning outcomes-- to bring about sustainable improvement in education quality. This complexity, coupled with factors like lack of quality talent and huge student dropout rates, have led to very low private investment in the sector. Yet, the potential is huge. With 250 million Indian children enrolled in schools, we believe that there is an enormous opportunity for private enterprises focused on providing services to the critical K-12 segment.

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This essay provides an overview of the service providers in the affordable education market from an investor's perspective: the environment in which they operate, challenges faced by them and finally a couple of examples on organisations that are showing some early signs of overcoming these hurdles.



organisations that are showing some early and very positive signs of progress.

## Overview of the market: Huge untapped potential and an opportunity for scale

The Indian education market is expected to almost double to Rs 11,88,000 crores<sup>1</sup> by 2020, buoyed by the rapid expansion of the digital learning market and home to the world's largest population in the age group of 6 to 17 years. Although the sector continues to be plagued by poor infrastructure, high dropout rates and a shortage of trained teachers, it is heartening to note that in India, education is seen as an aspirational and important part of self-development. In fact, education commands a significant share of household expenditure across all income segments, with average household expenditure at over Rs 9,675 per month in 2014 (71st Round NSS 2015). Despite this, the sector has not seen much traction from venture capitalists or impact investors.

To date, the education sector has received a mere three percent of the equity investments made in the country. While impact investors seek high-quality solutions that meet the educational needs of all segments of society, their concerns centre on governance, growth potential and profitability of the available products and services. Given this scenario, the Michael & Susan Dell Foundation believes that early-stage investors can play

an extremely important role in leading the way to a new era of impact investing—one that sees an uptake in the calculated risks investors will take, on entities/private enterprises that have the potential to improve India's education system.

Since the Foundation began its work in India in 2006, with the goal of eradicating urban poverty through its focus on education and family economic stability, it has focused on scalable solutions supported by a combination of grants and impact investments. As an impact investor, the Foundation catalyses market shifts through pioneering investments, which bridge gaps that have not yet been addressed by the market for a low-income population. The objective is to create positive impact through market-sustainable models.

After having supported several non-profits in the education sector to improve their impact and enhance their scale of operations, the Foundation initiated its work with for-profit enterprises in education in 2012 to ensure financial sustainability and scale, without diluting its focus on the target segment (low-income populations) or quality. Since then, it has invested in seven education companies. The Foundation has also supported some of its existing grantees in adopting a revenue model and providing seed funding to a few of these ventures. The foundation has also invested in three early stage funds to boost the pipeline of investable opportunities in the affordable education space.

<sup>1</sup> Converted from USD 180 billion

## Market-based models can effectively serve the K-12 sector

The K-12 education sector can be divided into three broad categories by age group:

1. Nursery and K-5 segment: This is the entry point of students in school, and is usually marked by high enthusiasm and involvement of parents in students' academic and non-academic growth. There is a lot of anecdotal demand documented from schools and parents for non-academic products and services during these years.
2. Grades 5-8 segment: During these years, the academic curriculum starts to get burdensome, and most schools start focusing on academics very rigorously.
3. Grades 9-12 segment: More than school curriculum-based education, this age group starts to become focused on test-prep for board exams and their college education.

From an enterprise's perspective, they can utilise any of these three business models, which are not necessarily mutually exclusive:

1. Direct contact programs with students within brick-and-mortar locations: These include pre-schools, budget private schools (BPS), test-prep coaching classes, tuition or supplementary education.
2. Service provisions to schools or other forms of contact programs: These can range from content, teacher training, enterprise resource planning (ERP), other technology solutions, educational aids and school management to course management.
3. Direct services to parents and/or students: This is generally through a product, app or is technology-based. The number of affordable private schools has not grown due in part to economics. The kind of infrastructure required to provide quality, and be compliant, makes them unaffordable for the population at the bottom of the pyramid. However, today service providers have a great opportunity to improve the quality of this 'installed base' of public and private schools.

As a result, I will restrict my continued assessment to focus on education ventures that offer products or solutions (reference solution 2 and 3 above) in the elementary and K-12 market segments targeted to low-

income customers with monthly household incomes of Rs 25,000 or less, which is almost 70 percent of India's population.

## The K-12 market is extremely challenging to serve

The K-12 education market is largely a B2B (business-to-business) market, where service providers need to sell either to private schools or to government schools. There are some common challenges faced by these service providers, including:

### *Demand side challenges*

1. Selling to BPS
  - Low margins: With a market-imposed cap of fee levels and high price sensitivity, BPS are constrained on their voluntary spends, thereby implying a limited budget for service and product providers. There is a buying preference among BPS administrators for products whose cost can be passed on to the parents.
  - Lack of economic incentive: The benefits of services marketed to this segment are often cited simply as 'better class experience' or 'better learning outcomes.' Without drawing a direct economic link, providers fail to create a demand among the BPS administrators.
2. Selling to government schools
  - Lack of clear decision-making: A host of bodies and authorities at the centre and state levels act as stakeholders when it comes to government schools. This causes confusion amongst private entities as to the right forum for pitching a product to the right decision-makers.
  - Long and complicated procurement processes: Government purchasing requires any enterprise to go through a lengthy process. In addition, it often happens through the tender route, resulting in low margins.
  - Need of track record: A track record of sales, company size etc. is needed to bid for any government project, thus restricting market entry for new players.

### 3. Challenges common to selling to both government and affordable private schools

- Long collection cycle: Due to a combination of the

above factors, education is usually a sector that requires calling on prospects, multiple meetings to close a deal etc.

- Cyclicity of sales: Initial quarters of the academic year see a spike in demand while it is sluggish during the rest of the year.
- Absence of user experience/feedback: The end user i.e. the student is seldom involved in the decision-making process.
- Lack of measurability: Intangible measures of quality of a product or service like enhanced learning, increased retention etc. make it tough to track impact.
- High Input Costs: Technology-oriented products seem to have the highest demand: however, they require extensive as well as expensive training and follow-up with teachers to drive adoption.

### **Structural challenges of the school market**

1. Unorganised market with no aggregators: Most private schools are one-off establishments; there are very few chains of schools. For example, while the size of the pre-schooling market in India in 2013 was estimated to be between Rs 3,300 crores to Rs 4,950 crores<sup>2</sup>, only 10-12 chains constituted the organised segment of this sector and had received investments. Email or digital marketing and other low cost channels are not very effective, making the sales cycles long and manpower intensive. Schools are rarely part of a unified network, association or group, making access difficult for service providers in addition to increasing the costs incurred on identifying customers.
2. Fragmented nature of the market structure: In India, classes are categorised into pre-school, primary school, middle school and secondary school. Different laws govern these categories with varying amounts of regulation or government intervention in each. This causes the very structure of the market to be fragmented and difficult to cater to as a whole.
3. Geographical fragmentation due to state level curriculum: With education being an item on the concurrent list, schools are governed not only by central laws but also state laws. Understandably, there is a great amount of disparity in the state laws, which is something any service provider looking at scalability would need to consider.
4. Fragmentation of syllabi/curricula: The Indian

K-12 segment is not only open to being affiliated with a variety of boards, such as the Central Board of Secondary Education (CBSE), state boards, International Baccalaureate (IB), Indian Certificate of Secondary Education (ICSE) etc., but is also not always strictly governed by curricula prescribed by these Boards. A school affiliated with any board can still choose to have a syllabus of its choice, at least for the lower classes, depending on the pedagogical methods or age-level competencies it believes in.

### **Supply-side considerations**

1. Focus on parents: Service providers must educate and convince parents of the benefits or need for solutions by focusing on the results, e.g. better learning outcomes. Tracking the relevance of available solutions, though cost-intensive, is essential if buyers are to be convinced of their need.
2. Need for holistic solutions: Present solutions are provided in isolation, tackling a specific issue with schooling or education without a complete understanding of the market. Hence, solutions tend to have low relevance for the intended market.

### **The B2C (business-to-consumer) market in the K-12 segment continues to be very small, and parents and students rely on schools as the primary providers of education.**

For products and services sold directly to parents there needs to be a huge investment in marketing for product/service awareness and to highlight their benefits/value proposition. A lot of these products are technology-oriented or are focused on online learning. There is enough evidence to show that pure technology products often don't give tangible results, especially in lower grades/classes and in low-income level households. As a result, after the initial purchase decision, customer retention is low. In order to enhance loyalty, there is a need for consumers to recognise that technology is an enabler rather than a solution and that a hybrid model is needed in order to achieve greater improvement.

## **Promising solutions: Interviews with a school financing company and an EdTech company**

### **Indian School Finance Company (ISFC): School financing companies emerging as a strong demand aggregator**

The greatest facilitation of progress in the BPS segment, or any market for that matter, is the infusion of funds. This is where school financing companies come in.

<sup>2</sup> Converted from USD 500 million and USD 750 million respectively

Mr Neeraj Sharma, MD & CEO, ISFC provided us with some insight into the organisation's interaction with this market for the purpose of this essay. ISFC works extensively with BPS in the country, with 90 percent of their focus on the sector.

The company started with providing loans to schools that charge a minimum of Rs 400 in monthly fees. However, the company quickly realised that school fees was not the best parameter to judge these schools as fee range differed greatly across different states in the country. The BPS market is characterised by very high capital requirements in the face of low cash flows. Added to this are other existing liabilities, and thus loans in this sector tend to be within the range of Rs 25-50 lakhs. These are most commonly availed for specific projects such as adding rooms, digital classes, building science or computer labs or purchasing adjacent land. ISFC further encourages these schools to invest in infrastructure or hire better qualified teachers in order to allow for a hike in fees or increase in enrolments. Both these suggestions are aimed at augmenting the cash flow within the schools. More importantly, this has a direct and positive impact on learning outcomes. To test this hypothesis, ISFC has recently partnered with the Michael & Susan Dell Foundation to conduct a pilot program wherein 100 schools will be provided loans to invest in infrastructure, teachers etc. and will be subject to evaluations over a two-year period. Schools that show an improvement will be granted a fixed waiver on their loan amount.

### ***Convegenius: EdTech companies pave the way for the future of education***

While the challenges detailed out earlier in the essay have caused many education start-ups to shut shop, there are quite a few success stories that exist too. One such company is Convegenius, an EdTech start-up that aggregates available content to create customised learning and assessment tools. In an interview for this essay, Mr Jairaj Bhattacharya, co-founder, Convegenius, spoke about the way in which technology can be used to artificially remodel the teaching of concepts in a

classroom and constantly adapt to a child's individual requirements. The company's product uses data and machine intelligence to provide personalised help to students. When asked about the BPS segment in particular, Mr Bhattacharya was quick to point out that the biggest challenges remain the long sales cycle, limited sales period, small order sizes and the numerous stakeholders who need to be convinced before a product may be sold to a school. To bypass these issues, Convegenius has deployed a strategy of seeking funded projects with partners who have long-standing relationships with these schools. They believe that the BPS market does have a sizeable demand for EdTech products as a tool of confidence building, digital literacy, as well as an aid to offset teacher inefficiencies. Direct selling, however, adds huge sales overheads. The funded project route, on the other hand, provides them the time to focus solely on creating a great product.

### **Way forward**

There are many elements that can be integrated into business models from the start to overcome the challenges discussed:

1. Measure efficacy, develop standardised benchmarks and communicate these simply and repeatedly to the school stakeholders as well as the parent community. Parents have time and again unanimously voted for better quality educational outcomes for their wards, and objective outcomes in K-12 education could be the key to unlock this huge untapped opportunity.
2. A lot of companies are attempting to provide end to end solutions which provide many opportunities for partnership with other reputed vendors for leveraging existing content, aggregators like publishers and school financing companies.
3. Education is waiting for its data revolution and business models that leverage technology for applying data and analytics to improve learner outcomes can play a huge role here.

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