INCLUSIVE INNOVATIONS

Providing Low-Cost Private Schooling for the Poor

Private schools are leveraging scale, standardization, and brand to provide affordable, good-quality, basic education for the poor

HIGHLIGHTS

- The school-in-a-box model involves highly standardized, scalable, branded schooling in which the chain designs and implements all educational inputs and business processes.
- Chains recruit para-skilled teachers from local communities, whom they train to deliver lessons of near uniform quality.
- Student and school performance is monitored and evaluated, enabling data-driven quality control, and research and development to improve outcomes.

Summary

Low-cost chain schools charge low or nominal fees to provide highly standardized education to large numbers of children in low-income communities. The companies are typically vertically integrated organizations that build and operate schools. Several have adopted a "school-in-a-box" model, designed to radically constrain costs and maintain consistent service quality, in order to build a trusted school brand.

Development Challenge

Providing their children with good-quality basic education is a struggle for parents at the bottom of the pyramid (BoP). As a result, an estimated 40 percent of the world's primary school–age children—a quarter of a billion children—lack basic numeracy and literacy skills, even though more than half of them have completed four years of primary school (UNESCO 2015). In the poorest quintile, a third of 14- to 16-year-olds fail to complete primary school (UN 2015). The high cost of education, lack of access, shortages of resources, teacher absenteeism, and overcrowded schools are key barriers to learning.

Business Model

Components of the Model

Low-cost chain schools address rising demand from low-income families for affordable, good-quality schools located in their communities. Some provide primary schooling only, others specialize in secondary schooling, and a few offer both. Investors, lenders, donors, and development agencies provide the capital to design the business model and educational inputs.

Chain schools' key innovation is the vertically integrated "school-in-a-box" business model, which leverages economies of scale, centralized purchasing, and standardization to minimize costs and school fees and enable

WORLD BANK GROUP

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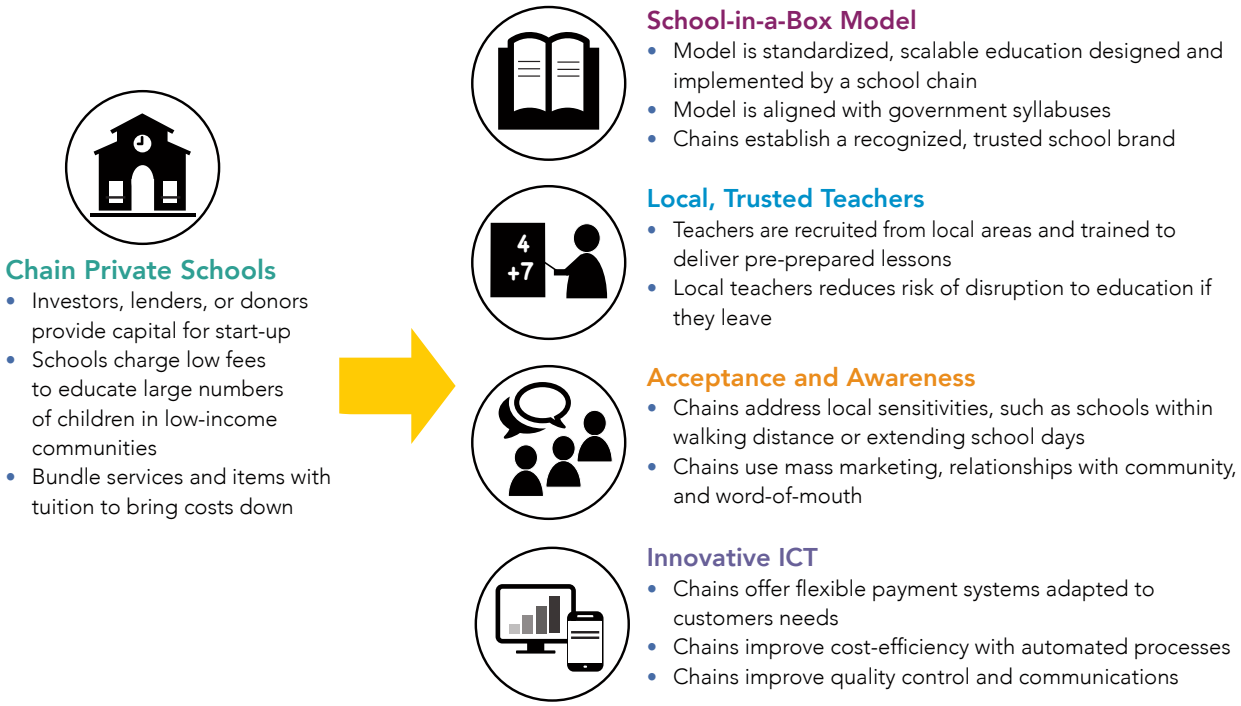
expansion at low marginal cost (see Figure 1). Chain schools typically design and deliver all inputs, from school buildings and business processes to curriculum development, teacher training, and lesson plans. Senior management handles most major budget lines on behalf of individual schools, including procurement, recruitment, and payroll. It enforces consistent delivery of school services and quality control, in order to establish a recognized, trusted school brand. Low-income parents choosing schools generally lack access to reliable measures of school quality. A trusted brand bridges that information gap, acting as a proxy for quality. First movers pioneering this model are Bridge International Academies in Kenya and Omega Schools in Ghana.

Figure 1. Features of the low-cost chain schools model



Two key elements of the model are the use of para-skilled teachers and innovative applications of information and communication technology (ICT). Chain schools frequently train local people who are not qualified teachers to deliver standardized lessons using materials and methods created by the chain. They use ICT to automate processes such as registration, payroll, and fee collection. Both Bridge and Omega operate a cashless fee payment system. Bridge parents pay their fees using the M-Pesa mobile phone payment system, and Omega parents use a daily voucher system. Several chains have developed proprietary school management software solutions that enable continuous data exchange between individual schools and central management. Bridge uses mass text messaging for this purpose. Vienova uses ICT to deliver some classes remotely. SPARK Schools is implementing one of Africa's first blended learning models, combining teacher-led instruction and computer-based learning.

Cost Factors

A new Omega school costs approximately USD 75,000, and a new Bridge school costs approximately USD 60,000, according to the companies. As of 2013, Bridge's cumulative investments were approximately USD 40 million. Equity investors, lenders, private donors, and development agencies provide financing. Attracting large-scale investment can be challenging, because many impact investors remain cautious about building schools for BoP customers.

Revenue Streams

School chains charge fees from parents to enable individual schools to reach operational sustainability once they enroll a critical mass of students. Using technology and data, chain schools drive enormous efficiencies both in terms of the overhead costs required to run an academy and in terms of increasing the quality of the output. Older schools can cross-subsidize newer ones, another advantage over stand-alone private schools. Any surplus income is used for training and research and development.

Schools typically charge parents school fees. Most chains are for-profit enterprises, such as Bridge International Academies, Omega Schools, and Vienova. Some chains are donor-supported nonprofit institutions, such as BRAC Shishu Niketan Schools, The Citizens Foundation, and LEAP Science & Maths Schools.

Financial Viability

Sustainability at for-profit chains depends on reducing costs and attracting large numbers of fee-paying students. Bridge expects its schools to break even after one year and to repay set-up costs within four years. Omega reports that its schools are self-sustaining when enrollment reaches 300 students. Some schools can typically fill to capacity within two weeks of opening. SPARK projects earning profits of USD 144,000 per school when the school is filled to capacity.

Nonprofit chains rely on substantial support from donors. At The Citizens Foundation, tuition covers just 5 percent of schooling costs; donors fund the rest. LEAP charges no fees; donors cover 85 percent of annual costs, with subsidies from provincial governments covering the remaining 15 percent. LEAP's accumulated deficit of approximately USD 550,000 led it to reduce student intake and increase teacher workloads. Both LEAP and The Citizens Foundation have sought to enhance their sustainability by establishing endowment funds, which will eventually contribute to operating costs.

Partnerships

Donors and investors provide grants, loans, and equity financing to chain schools, primarily to cover capital expenditure and start-up costs. Investment by Omidyar Networks allowed Bridge to build its management team, construct new schools, and cover overhead expenses. A leading investor is the Pearson Affordable Learning Fund, which has stakes in APEC, Bridge, Omega, and SPARK Schools.

Implementation: Delivering Value to the Poor

Awareness

Awareness mainly takes the form of marketing the school. Approaches range from conventional mass marketing to word-of-mouth advocacy. Bridge advertises on billboards, over the radio, and via text messaging. Omega relies on word-of-mouth and door-to-door canvassing; it also sends school managers into the community to recruit students and staff. Vienova posts ads on walls, distributes leaflets, has teachers go door-to-door, and sponsors community events. BRAC leverages its networks to advocate for its schools and employs experienced teachers who are trusted by the target community. LEAP cultivates long-term relationships with community organizations and primary schools that feed students into its secondary schools.

Acceptance

Chain schools meet demand for alternatives to inadequate public schooling by developing distinctive school systems and educational methods. They construct schools with up-to-date facilities and ICT systems and address local concerns and sensitivities. The Citizens Foundation employs only female teachers and principals to encourage conservative Pakistani families to send their daughters to school. LEAP builds community work into its curriculum, assisting social development organizations and providing after-school lessons to public school students. It reserves all places for disadvantaged children.

Chain schools provide economic opportunities by recruiting local teachers, school managers, ancillary staff, and construction workers. Recruiting teachers from the community improves accountability and promotes more engaged teachers who are also more socially connected to their students.

Accessibility

Schools are within walking distance of target communities, minimizing the risks and costs of travelling to and from school. Bridge conducts household surveys to gauge a community's suitability based on population density and income. Omega identifies areas with large numbers of children and other private schools (indicates receptivity to paying fees). Extended school days and extracurricular activities maximize the availability of core teaching services and teacher-student contact time. To reduce teacher absenteeism and inactivity, chain schools use centralized management to monitor their attendance and performance.

Affordability

Schools bundle services and items such as uniforms, examination fees, and textbooks with tuition fees, in an effort to reduce costs to levels comparable to or below public and stand-alone private schools. BRAC's package includes transport. Omega's all-inclusive daily fee includes midday meals, uniforms, and school bags.

Chain schools also offer flexible, convenient fee payment systems that accommodate the irregular cash flows of many parents and are easy to understand (see Table 1). Examples include Bridge's mobile payment system, Omega's daily fee vouchers (branded "pay-as-you-learn"), and The Citizens Foundation's sliding scale of fees, which is based on household income. Omega allows parents several fee-free school days each term. Vienova reserves 20 percent of revenues for scholarships for needy students.

Table 1. Fees charged by low-cost chain schools

Chain school/ Country	Education level	Cost	Coverage	Fee system
BRAC Shishu Niketan Schools (Bangladesh)	Primary	Average fee is USD 2.55 a month, USD 4.50 for higher grades. Cost is higher than public schools but approximately one-third the cost of private kindergartens offering similar services (Nahid and Nath 2014).	Tuition, admission fees, books, uniform, bag, examinations, and transport are included.	BRAC program organizers and teachers collect fees from parents.
Bridge International Academies (Kenya, Uganda)	Pre-primary and primary	Average tuition fees are USD 6 per month; exams and workbooks cost another USD 2 per term. According to Bridge, government schools cost USD 2–12 per month, and its services are 70 percent less expensive than other low-cost private schools.	Tuition, textbooks and other instructional materials, and extra reading books. Uniforms and meals are not included; they are sold separately by Bridge.	Parents pay using M-Pesa mobile payments, with payment tracked by text message.
The Citizens Foundation (Pakistan)	Primary and secondary	A nominal fee of USD 0.10–2.5 per month is charged, depending on family circumstances.	Tuition, admission fees, books, uniform are included.	Donors fund The Citizens Foundation, and they charge a nominal fee from parents and offer scholarships to students from low-income families.
LEAP Science &	Secondary	Schooling is free; a nominal fee	Tuition, breakfast,	Private donors fund 85

Maths Schools (South Africa)		is charged for community activities. LEAP estimates that its costs of approximately USD 3,150 per child per year are twice what the South African government spends per child.	lunch, textbooks, and stationery are covered. Uniforms are heavily subsidized. Transport is not included.	percent of costs, and provincial government subsidies cover about 15 percent. Parents pay for transport.
Omega Schools (Ghana)	Primary and lower-secondary	Fees are approximately USD 0.57 per day (USD 120 per year). This is equivalent to government school costs, when additional items (uniforms, stationery, and examination fees) are included, according to Omega, which reports costing less than 13 of 16 neighboring private schools in 2014.	Tuition, hot meal, two uniforms, school bags, and workbooks are included.	Third-party vendors sell Omega vouchers, which students present to schools. School managers return the vouchers to the head office to be resold to vendors.
Vienova Schools (India)	Pre-primary, primary, and secondary	Fees are USD 10 per month. Scholarships are provided for needy children (20 percent of revenues are set aside to fund them).	Tuition, co-curricular activities	Schools collect fees from parents.

Results and Cost-Effectiveness

Scale and Reach

Both for-profit and non-profit chains have scaled impressively, reaching significant numbers of students quickly and attracting new investment. Omega expanded from two schools in 2009 to 38 schools serving more than 20,000 children in 2013. Just six years after launching, Bridge was educating more than 108,000 children at more than 400 schools in Kenya, most of them in very poor areas. In 2014, The Citizens Foundation provided low-cost education to 145,000 children at 1,000 schools across 100 locations.

Improving Outcomes

Both independent and self-reported evidence indicates that chain school students are outperforming their peers. The Citizens Foundation and LEAP have achieved very low dropout rates, and their students have outperformed others on national examinations. Both have high-school graduation rates of more than 90 percent, and a significant percentage of their graduates pursue higher education. Just 1 percent of The Citizens Foundation's students failed to graduate, an extraordinary figure in a country (Pakistan) where the average figure is 45 percent. LEAP's dropout rate is below 6 percent—a fraction of the 49 percent average in South Africa.

Test performance of low-cost schools has been spectacular, according to the companies and third-party evaluations. In 2015, the first cohort of Bridge students sat for the national primary education certificate exam. Their mean score of 264 was significantly above the public school mean of 180—and even exceeded the private school mean of 230. According to LEAP, between 2008 and 2013, 91 percent of its students passed the national math examination, and 85 percent passed the science exam (the national pass rates were 50 percent for math and 52 percent for science). Omega students outperformed their peers in public schools by 15–21 percent on English tests and about 10 percent on grade 3 math tests, performing about as well as private school students. SPARK reports that its first class of students gained a year and a half in reading and math ability during 2013 and performed a year ahead of their peers at other schools.

Cost-Effectiveness

Some data suggests that chain schools are providing value for money in comparison to government and other private schools. In 2012 Omega's annual fees in Ghana amounted to just USD 113 per student—significantly less

than the recurrent unit cost per student in public primary schools of USD 166 (Ghana Ministry of Education 2013). According to Spark Schools, in 2013 it charged about USD 100 less a year than the South African government spent on equivalent students. In contrast, LEAP's annual per student costs of USD 3,150 are about twice what the government spends. According to a 2014 report, BRAC's Shishu Niketan schools charged one-third as much as equivalent private kindergartens but more than equivalent public schools (Nahid and Nath 2014).

Scaling Up

Challenges

Nonpayment is a major challenge for some schools. Like many low-cost private schools, Omega has allowed parents some flexibility on fee payments. It writes off some fee arrears, making operational sustainability a challenge.

Despite chain schools' efforts to create trusted brands and quality services, parents often struggle to distinguish between competing private schools. Independent school ratings systems based on actual learning outcomes could benefit both parents and chain schools concerned with raising standards.

Role of Government and Public Policy

Abolishing school fees without increasing investments led to overcrowding and lower-quality education in many countries, creating strong demand for low-cost private schools. Private sector involvement in education at the BoP is controversial in some countries, however, as reflected in regulatory and policy disincentives to develop or invest in low-cost chain schools.

- *Regulation*
  Strict regulatory requirements focused on school infrastructure and inputs rather than learning outcomes may hinder the development and viability of low-cost chain schools. Teachers at low-cost schools with as little as eight weeks training often achieve better educational outcomes than public school teachers with two years of training; requiring such training may therefore be counterproductive. Requirements that schools have a minimum plot size can make it difficult for low-cost schools to operate in congested slum areas. Focusing on these inputs rather than outcomes makes it difficult or impossible for low-cost private schools to operate.

  India's Right to Education Act requires private schools to allocate 25 percent of their seats to children from poor families for free. The government reimburses the schools for the fees of these students, who are selected by lottery. This measure has been difficult to implement, partly because the poor administrative capacity of many states complicates the already cumbersome task of identifying which students qualify for assistance.

- *Government subsidies*
  LEAP is the only chain school that directly benefits from government subsidies. It receives only half of the subsidy it would receive if it were a public school, however. Moreover, it loses its subsidy if it charges any fees. LEAP is lobbying to receive 100 percent of the subsidy. Other models of government support could include voucher schemes or cash transfers to families to cover schooling costs.

- *Contract schooling*
  Contract schooling—in which private enterprises manage government-funded schools—is an established public-private partnership model in Latin America. LEAP is advocating for such an arrangement, which could enable it to enhance school quality and expand education to marginalized communities where public provision is lacking and stand-alone private schools might struggle to be

viable. Because of their scale, chain schools can spread financial and operational risks across their operations, making them promising candidates for expanding schooling in challenging environments.

Table 2. Low-cost chain schools

Company	Country	Description
Affordable Private Learning Centers (APEC)	Philippines	Offers secondary education for approximately USD 500–540 per year, with a focus on employability, life skills, and English. Promises that graduates will move into higher education or professional employment.
BRAC Shishu Niketan Schools	Bangladesh	Provides "one room, one teacher" schools in which one teacher delivers lessons in all subjects to a cohort of primary school children for five years. Schools are located in rented premises in low-income rural communities. Goal is for each school to become self-sustaining.
Bridge International Academies	Kenya, Uganda	Offers nursery and primary education in purpose-built schools staffed by para-skilled teachers trained to deliver scripted lessons using handheld tablets. Model standardizes all inputs and processes. It is centrally managed to enable rapid scale-up at low cost.
The Citizens Foundation	Pakistan	Provides affordable primary and secondary private education to students in urban slums and rural areas, with a focus on girls. All principals and teachers are women. Fees are based on sliding scale.
Innova Schools	Peru	Offers student-centered schooling in purpose-built facilities using blended learning techniques that combine computer-based individual and group learning. Partnered with IDEO (a global design company) to design all aspects of the school. Online teacher resource center supports staff with lesson plans and other resources. Schools target middle-income families, charging about USD 110 per month.
LEAP Science & Maths Schools	South Africa	Provides free secondary schooling in relatively small classes to underprivileged students with large learning deficits. All students study math, science, and English; receive self-awareness training; and perform community service. LEAP partners with community groups and privileged private schools to foster social integration and share resources and expertise.
Omega Schools	Ghana	Offers low-fee primary and junior high school education. School-in-a-box model is based on scale and standardization; para-skilled teachers; and a centralized, ICT-enabled management and monitoring system.
SPARK Schools	South Africa	Provides low-fee primary schooling using blended learning model that combines teacher-led instruction and computer-based instruction to reduce teaching commitments, costs, and fees, which are roughly equivalent to public school costs. Centralized management of business and academic functions also realizes savings.
Sudiksha Knowledge Solutions	India	Offers affordable preprimary schooling (USD 8 per month) in 22 schools in underserved areas in and around Hyderabad. For at least half of schools, local women with entrepreneurial skills are trained to operate the schools as franchises, in return for 10 percent share of school's profits. Develops own curriculum, using methods from Montessori and Waldorf schools.
Vienova Schools	India	Operates preprimary, primary, and secondary schools in semi-urban areas of northern India. Leverages ICT to create standardized, technology-led system of instruction and school management. Offers some classes via Skype, delivered by highly qualified teachers.

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PROFILE: Omega Schools

Offering low-cost private schools in Ghana with an all-inclusive daily fee

Challenge

Ghana's school system struggles to provide good-quality basic education. Large increases in public school enrolment following the abolition of tuition have led to overcrowded classrooms and declining teaching quality. As a result, there is substantial demand for private alternatives to provide quality education.

Innovation

Omega Schools (www.omega-schools.com) is a for-profit chain of combined primary and junior high schools located in urban and peri-urban communities in Ghana. It offers affordable, easily accessible, and accountable schooling of consistent quality, based on key innovations:

- **Omega charges one all-inclusive daily fee.** The USD 0.57 per day fee in 2015 includes tuition, two uniforms, a school bag, workbooks, and one hot meal a day. Bundling school expenses into one package contrasts with the approach of most private schools, which charge separately for items and require large tuition payments every term. Parents buy Omega daily fee vouchers from third-party vendors, which their children submit to school managers to access lessons. This cashless system mitigates the risk of corruption and nonpayment of school fees.
- **Omega has a "School-in-a-box" model of education**, in which all inputs and processes are designed and implemented by a vertically integrated company that standardizes everything, from buildings to lesson plans. It costs about USD 75,000 to establish a new Omega school with capacity for 500 children. Schools become self-sustaining when enrolment reaches 300 children, according to Omega.
- **Omega uses a proprietary software system** that tracks enrolment, student and staff attendance, and performance. School managers, who are responsible for a cluster of schools, input data via Internet-enabled tablets, enabling the head office to continuously monitor, evaluate, and compare data.
- **Omega trains local young people**, mostly high school graduates, to deliver standardized lessons using materials created by Omega. The lower salary expenses help Omega keep annual costs low. According to the company, Omega spent just USD 113 per student in 2012—about one third less than public primary schools spent—and its fees were lower than 13 of 16 neighboring stand-alone private schools.

Impact

Omega has significantly expanded low-cost private school capacity, scaling rapidly from 2 to 38 schools serving more than 20,000 students within six years. New schools fill to capacity within two weeks of opening, with students coming from other schools, including both public and private schools. According to evaluations conducted for Omega, students perform 15–21 percent better than public school students on English tests and 10 percent better on math; in both subjects, they perform as well as private school students.

Scaling Up

Omega's understanding of the target market, its lean management structure, a fee model that suits poor households' cash flow patterns, and its leveraging of economies of scale position it to scale to 100 schools by 2018. Its expansion is propelled by private venture capital, led by the Pearson Affordable Learning Fund. Omega benefits from relatively benign oversight of private investment in education in Ghana. Also, abolition of public school fees and weak public financing has led to deteriorating quality in some public schools, prompting many families to opt for private education. It is constrained by nonpayment of fees, which could put its sustainability into question, especially given the vulnerability of target households to economic downturns.

PROFILE: LEAP Science and Maths Schools

Providing exceptional learning outcomes in South African townships through selective admissions, extended class time, and small classes

Challenge

Even after completing primary school, up to a quarter of South African children remain illiterate and innumerate (Spaull and Taylor 2012). Among disadvantaged children who do complete basic education, few qualify for tertiary education or succeed at math and science since high school "graduates" are inadequately equipped with emotional intelligence, self-awareness and life skills.

Innovation

LEAP Science & Maths Schools (www.leapschool.org.za/) is a chain of six fee-free private secondary schools in Cape Town, Johannesburg, Pretoria, and Limpopo, South Africa. In 2015, LEAP schools enrolled more than 950 students, all of them from households in the bottom two wealth quintiles. Sixty-five percent of students are girls, and more than 95 percent are black. LEAP innovates in three key ways:

1) It selects poor children with potential but no prospect of entering "high-performing" schools.
2) Its holistic curriculum prioritizes math, science, "life orientation" classes, and community work. Small classes, an extended school day, and learner-centered pedagogy maximize student-teacher contact time and learning opportunities.
3) It has a multi-sector network of local partnerships with private and public schools, community organizations, and government designed to build education alliances.

Central management recruits teachers, handles payroll, and aligns curriculum, teaching practices, and assessment. LEAP is funded by private South African and international donors, as well as government subsidies that cover approximately 15 percent of student costs.

Impact

LEAP schools have a relatively low dropout rate of less than 6 percent, compared with a national average of 49 percent (City Press 2014). Since 2004 more than 750 students have graduated. LEAP has created jobs for 170 school staff recruited from townships and about 40 African refugees recruited to staff the learning centers. Forty-two former students were enrolled in LEAP teacher training in 2015.

Scaling Up

LEAP's results stem from its rigorous admissions practices, extended contact time with students, low turnover among teachers and school leaders, and regular external and peer evaluations. Its specialized curriculum and use of qualified staff cost USD 3,150 per student a year, roughly twice what public schools spend. Donor funding covered just 85 percent of operational costs. It is lobbying the government to receive the same subsidy as public schools (it currently receives just half as much). Other challenges include students' difficult family circumstances and the shortage of skilled teachers.

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