

Emerging Markets, Emerging Models

MARKET-BASED SOLUTIONS TO THE CHALLENGES OF GLOBAL POVERTY

Ashish Karamchandani Michael Kubzansky Paul Frandano

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Executive Summary



THIS REPORT INVESTIGATES “MARKET-BASED SOLUTIONS”

as a means to help those residing at the base of the global income pyramid. An alternative and complement to traditional government expenditures, aid, and philanthropy, market-based solutions give low-income people better access to socially beneficial products and services that genuinely and directly improve the quality of their lives and livelihoods. In India, for example, such solutions provide or enable:

- Clean drinking water at one-fourth the cost of the least expensive alternative.
- As much as a 125 percent increase in incomes for small farmers.
- Private education in urban slums that significantly outperforms the best government schools for about \$3 per month.
- Safe, doctor-attended births for a total cost of \$40—less than one-fourth the cost in traditional private hospitals.

Market-based solutions have recently attracted strong interest in the campaign against global poverty, in part due to the remarkable success of microfinance. They are relatively new, with an uneven performance record, and there is much yet to learn about what causes them to succeed or fail. The most successful pass two tests: they are self-funding, and they operate at sufficient scale to make a difference to masses of poor people. They also have one salient feature in common: a business model tailored to the special circumstances of markets at the base of the income pyramid.

READING BY SOLAR LANTERN

The poor participate daily in markets, whether for livelihoods, food, social services, or basic products like lamps and stoves. But these markets are often informal and provide low quality goods and services at a penalty. Market-based solutions are delivering better outcomes.

“Soft” funding plays an important role in low-end markets and helped many of the successful enterprises examined in this report to reach scale — even some of those started by large corporations.

Emerging Markets, Emerging Models is addressed to those organizations and individuals most concerned with making a real and enduring improvement to the lives of the poor.

We hope entrepreneurs will find much of use on business models that work in low-income markets and how they work. We hope donors and investors will be encouraged to fund those ventures that have the characteristics and potential to help improve lives and livelihoods at the base of the pyramid. And we hope governments and aid organizations will recognize the promise of market-based solutions and act to encourage them.

The report is based on Monitor’s extensive research into hundreds of market-based solutions around the world, with a particular focus on India, which is an advanced laboratory of approaches and an especially fertile source of lessons about performance. The research is based on dozens of site visits and hundreds of interviews as well as extensive work in the public record.

Monitor’s findings about the sources of success and failure of market-based solutions yield important lessons and conclusions:

- While the role of markets in the current global economic crisis is being reevaluated, market-based solutions in emerging markets have generated remarkable benefits to low-income people and offer enormous promise to do even more in the future.
- That promise depends on adopting the right business models, which must be tailored to the particular economic and social conditions of the poor. Business models that function well when dealing with affluent and middle-income customers are unlikely to work as well for low-income markets.

- As happened in microfinance, new entrants and small enterprises are more likely than large corporations to lead the development of market-based solutions in low-end markets. Large companies have other sizable, appealing opportunities in emerging markets that are not as challenging to serve. Exceptions will be large enterprises that engage poor people as suppliers, as these enterprises are best-positioned to organize extensive supply chains.
- Noncommercial or “soft” funding plays an important role in low-end markets and helped many of the successful enterprises examined in this report to reach scale—even some of those started by large corporations. In some cases soft funding may be the only way through which specialist business models can be developed, adapted, and tested.
- Meaningful scale is achieved in different ways but invariably takes time, especially if large corporations are not involved. Most small enterprises require at least a decade to reach significant scale. Market-based solutions, therefore, are not a quick fix to the causes and consequences of poverty, though they promise large, enduring benefits.
- The most common mistake among unsuccessful market-based solutions is to confuse what low-income customers or suppliers ostensibly *need* with what they actually *want*. Many enterprises have pushed offerings into the market only to see them fail. People living at the base of the economic pyramid should be seen as customers and not beneficiaries; they will spend money, or switch livelihoods, or invest valuable time, only if they calculate the transaction will be worth their while.

Emerging Markets, Emerging Models identifies seven business models, tailored to the circumstances of low-income groups, that we believe have the best chances of success.

Four business models focus on serving the poor as customers:

- A *Pay-Per-Use approach* in which consumers pay lower costs for each use of a group-owned facility, product, or service. This limits the impact on their cash flow while the sheer numbers of consumers makes the proposition sufficiently attractive for third-party providers.
- A pared-down, *No Frills service* that meets the basic needs of the poor at ultra-low prices and still generates positive cash flow and profits through high volume, high asset utilization, and service specialization.
- *Paraskilling*, which combines No Frills services with a reengineering of complex services and processes into a set of disaggregated simple standardized tasks that can be undertaken by workers without specialized qualification.
- Distribution networks that reach into remote markets via *Shared Channels*, piggybacking products and services through existing customer supply chains, thus enabling poor people to afford and gain access to socially beneficial goods such as solar lanterns or efficient kerosene burners.

The remaining three business models devise ways of engaging low-income suppliers or producers:

- A system of *Contract Production* that directly involves small-scale farmers or producers in rural supply chains. The contractor organizes the supply chain from the top, provides critical inputs, specifications, training, and credit to its suppliers, and the supplier provides assured quantities of specialty produce at fair and guaranteed prices.

- A variety of *Deep Procurement* setups that bypass traditional middlemen and reach into the base of the economic pyramid, enabling direct purchases from large networks of low-income producers and farmers in rural markets and often providing training for quality and other specifications.
- *Demand-Led Training* that applies a formal-sector “temp agency” model to down-market opportunities, with enterprises paying a third-party to identify, train, and place employees for job openings at the edges of the formal and informal sectors.

Emerging Markets, Emerging Models offers a range of recommendations for hastening the growth and success of market-based solutions. Although many of these models require time to reach scale, funders, investors, policy makers, and—most importantly—entrepreneurs can act now to smooth the path. They can help enterprises overcome common barriers to scale and commercial viability, such as startup costs, distribution challenges, availability of capital and credit, and the need to organize solutions at a systems level. Accelerating progress may entail interventions for smaller enterprises ranging from providing flexible, patient capital, to offering technical assistance, to addressing regulatory constraints. To encourage larger enterprises to participate, interested parties can fund new approaches to aggregating suppliers and customers and provide incentives for existing companies to share networks and channels. Finally, some steps will help spread the general approach, by cultivating the complementary field of impact investing, providing rigorous social impact metrics, developing shared assets that address barriers to scale, or simply asking tougher questions about what works—and what doesn’t.

The report provides strong evidence that engaging the poor as customers and suppliers presents an exciting—and significant—opportunity to establish new paradigms to bring genuine social change in economically sustainable ways.

Introduction



SEVERAL YEARS AGO, Servals, a small company in Chennai, India, introduced a new product it believed would greatly benefit low-income consumers. Most such consumers cooked on kerosene burners and Servals' Venus burner used 30 percent less kerosene than conventional models. It also was smaller, safer, required less cleaning, and lasted more than twice as long in service. In short, it seemed like a clear winner, delivering significant savings of money and time.

Servals is a for-profit commercial enterprise that serves extremely price-sensitive customers. It is also a mission-driven company determined to deliver real value to its clientele. Taking into account the costs of developing the Venus burner as well as its benefits, it introduced the product for a price about double that of conventional burners, reasoning that it would pay for itself after about two months because of its superior fuel efficiency.

But sales of the Venus burner fell below expectations in the early stages. The biggest problem was distribution, compounded by a comparatively steep price. Servals couldn't convince retailers to invest in educating customers about the benefits of the Venus. As a result, a potentially great product that could have made life better for many seemed likely to fail because of a flawed business model.

Fortunately, this story has a happy ending. In 2006, Servals reengineered the product, lowered the price, and, most importantly, improved dealer margins and incentives. Sales of the Venus burner took off — crossing one million units in 2008 — and it's

A SELF-HELP GROUP IN ANDHRA PRADESH

Village women meet regularly to manage credit and savings for purchases of dairy cows and other income-generating assets.

WHAT'S IN A NAME?

Readers will note this report contains hundreds of references to low-income persons or groups as “the poor,” “poor people,” “low-income segments,” “low-end markets,” the “base of the pyramid,” and many other loosely synonymous variations. We recognize each of these terms may displease or dismay someone, somewhere, just as we recognize each term is thoroughly accepted: low-income people self-identify as “poor,” economics professors expound on “low-income segments,” economic and social NGOs refer to “impoverished peoples,” and so on.

But our intent isn't to satisfy a standard of political correctness. This report is keenly concerned to take low-income groups seriously as customers or producers, suppliers, and workers rather than as beneficiaries of someone else's largesse or assistance. Our hope throughout is to move away from typecasts toward a more nuanced consideration, based on data and actual conversations with potential customers and suppliers in low-end markets, of the lives and livelihoods of poor people and the ways in which these might be improved through market-based solutions.

now one of the most successful new products of its type in India. And it is materially improving lives of the rising numbers of low-income people who buy it.

What almost happened to the Venus burner is an all-too-common problem for companies that develop and market products and services for low-income markets. Servals thought a superior product would sell itself, thus ignoring business fundamentals, in this case failing to think through its distribution model and pricing. A great product idea married to a noble mission, however, is rarely enough to make meaningful progress in the face of massive social challenges like improving the lives and livelihoods of billions worldwide living in impoverished conditions. Success

requires business models that work in the particular circumstances of the bottom of the economic pyramid,¹ where consumers and channels to reach them are not only extremely price-sensitive, but also cut off from news and facts that might help.

In this context, business models that work are those that, when serving the poor as customers, are responsive to the limitations imposed by small, irregular customer cash flows and credibly address distribution questions. When engaging low-income segments as suppliers or producers, a successful business model will attend to the costs a low-income supplier may face in switching livelihoods, and to the cost of aggregating and managing large numbers of small suppliers. In this report, we've sought business models that promise to be:

- *Profitable* or at least self-sustaining without requiring continuous subsidy (otherwise, they're merely alternative forms of aid and dependent on the continuing generosity of donors).
- *Scalable* and thus able to reach and improve the lives of significant numbers of poor people (otherwise, the effort is like to trying to bail the *Titanic* with a tea cup).

Emerging Markets, Emerging Models is based on extensive research into sustainable business models for helping the poor through “market-based solutions”—our term for using the formal market economy to help improve lives and livelihoods at the base of the economic pyramid. Monitor surveyed more than 300 market-based initiatives, mostly in India, an advanced laboratory for enterprises serving low-end markets and for what succeeds and what fails in the effort. The research involved scores of site visits and hundreds of interviews as well as extensive work in the public record. In addition, we scoured the globe for other examples of business models that work at scale, or that promise to scale, in low-end markets. (See *About the Study*.)

A great product idea married to a noble mission is rarely enough to make meaningful progress in the face of massive social challenges like improving the lives and livelihoods of billions worldwide living in impoverished conditions.

In that process we found many examples of market-based approaches that seemed promising on the surface but upon further investigation proved not to be commercially viable or scalable. Some that met these two criteria turned out not to engage low-income segments at all. Given the level of ferment in India and other countries, we found everything from attempts to bid up the prices farmers receive at auction, to solar-powered weaving looms, to telemedicine and tele-prescription schemes, and all manner of efforts in between. From this much larger list of initiatives and

We found many examples of market-based approaches that seemed promising on the surface but upon further investigation proved not to be commercially viable or scalable.

models, we cut through the many that are interesting but lack promise to distill down to a few that have high potential.

In all, we identified seven business models that are self-sustaining and offer the promise to scale in ways that include the poor in markets and improve the quality of their lives and livelihoods. Four of these—*Pay-Per-Use*, *No Frills*, *Paraskilling*, and *Shared Channels*—present practicable ways of engaging the poor as consumers. Three others—*Contract Production*, *Deep Procurement*, and *Demand-led Training*—focus on engaging the poor as suppliers, producers, and workers. To our main text we've added brief, boxed descriptions of relevant initiatives—some successful, some not—from Africa, Southeast Asia, Latin America, and elsewhere.

This is a vibrant field, and other business models will emerge. Some will eventually reach considerable scale and be self-sustaining. The seven we focus on, however, promise those results now and can be adapted and emulated by enterprises seeking to help the poor through market-oriented approaches.

This report is organized in four major sections that follow.

- The first covers market-based solutions as a promising new approach to alleviating global poverty.
- The second details the seven business models that work in serving low-income customers or engaging the poor as suppliers, producers, and workers.
- The third derives general themes and lessons from the business models.
- The fourth outlines implications, conclusions, and recommendations for constituencies most interested in addressing challenges of global poverty and hastening the spread of market-based solutions.

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ABOUT THE STUDY

This report is based on a multi-year research project funded by eleven sponsors interested in new approaches to economic development and social change. We are grateful to ICICI Bank, IDFC Private Equity, IFC, Omidyar Network, Orient Global, the David and Lucile Packard Foundation, PATH, the Rockefeller Foundation, Sir Dorabji Tata Trust, Swiss Agency for Development and Co-operation, and TPI for their support.

The original project involved a year-long analysis carried out by Monitor's Inclusive Markets practice based in Mumbai, India (www.mim.monitor.com). The starting point was the belief that the "next microfinance" is out there, and that other market-based approaches may help address pressing issues of poverty and development in a commercially sustainable fashion.

Initial investigations in India, the Philippines, South Africa, Brazil, Kenya, and other countries revealed no shortage of market-based approaches that claimed to be profitable or financially self-sustaining. Many seemed exciting, innovative, and groundbreaking. On closer inspection, however, we observed that many were struggling financially and most served a few thousand people, a drop in the ocean given the millions living in conditions of extreme poverty. Only a tiny fraction of market-based initiatives have reached numbers of people commensurate with the scale of the problems they aim to address.

We knew from Monitor's commercial practice that succeeding at a large scale is far more

difficult than succeeding in small markets.

Consequently, two fundamental questions guided our research: 1) Why have so few market-based solutions achieved scale? and 2) What are the business models — across sectors — that show promise of achieving scale?

We set about to answer these questions in three phases of work. We began by focusing on India, a pacesetter among emerging markets, with a high degree of social entrepreneurship, strong NGOs and entrepreneurs, general openness to new ways of addressing development, and a huge addressable market.

We also chose to focus on market-based solutions that offer "socially beneficial" products and services for poor people as customers. Obvious categories included education, health care, financial services, water and sanitation, insurance, clean energy, and telecommunications. We also considered products that appear to have less immediate benefit but still improve quality of life, such as efficient cook stoves, which offer second-order health and economic advantages — less soot, less time to clean, and less energy consumed.

We ruled out products that might arguably convey second-order social benefits but only tangentially so, or that in many cases had sticker prices that rendered them unaffordable to lower income segments. We therefore excluded products such as soap, washing powder, shampoo, batteries, televisions, motorbikes, and automobiles. We arrived at this decision because we did

not wish to produce yet another study simply about marketing to the poor.

In the first phase, we inventoried more than 160 different market-based approaches run by large corporations, small startup enterprises, NGOs, and other entities such as cooperatives, government agencies, and non-bank financial companies. Based on this investigation we identified the most promising business models for in-depth investigation, and over the course of the rest of the project we examined an additional 120 distinct examples. (See the Appendix for additional details on the study.)

The second phase involved in-depth field research into 36 initiatives to help validate and generate most of the data. These detailed reviews included original customer research (both survey and focus

groups involving more than 600 customers and small producers), evaluation of substitutes, interviews with management, interviews and economic modeling of competitors, and in-depth discussions with participants in the supply chains and value chains from sales forces down through distribution warehouses. These analyses covered initiatives all over India, at different sizes, levels of maturity, in urban and rural contexts.

In the third phase, we carried out a combination of primary and secondary research to identify and analyze comparable market-based solutions in other countries, where we started with over 30 additional examples for investigation from 19 countries. (See map.) These initiatives are both instructive in themselves and confirm that the business models apply independent of geographical context.



New Approaches to Low-Income Markets



NEARLY HALF OF THE WORLD lives on less than \$2 a day. What most readers make of this fact is difficult to say, but for each of the 2.6 billion individuals living at or below that income level, it points to subsistence or, at best, bare adequacy.² And for just under a billion of these, those at the very base of the global income pyramid, “living” means “only just” as part of the world’s food-insecure, who literally do not know where their next meals will come from.³

This report is about “market-based solutions” as a means of helping low-income people to better lives and livelihoods. These can be alternatives or supplements to the traditional approaches of domestic and foreign assistance programs, philanthropic foundations, and other non-governmental organizations. Although traditional aid has provided, and continues to provide, relief to millions, global poverty remains a massive social challenge.

We have no wish to denigrate traditional aid, but we also believe it possible to claim market-based solutions have significant advantages in addressing certain aspects of global poverty. The full argument might occupy a monograph substantially longer than the present report. We simply ask that the reader consider recent history in thinking about what succeeds in actually helping poor people to better lives and livelihoods, as opposed to providing them immediate but often temporary relief from the symptoms of poverty. It is scarcely a coincidence that, from 1990 to 2004—when global GDP grew annually by 2.8 percent—the global percentage of developing-country inhabitants in absolute poverty declined from 29 percent to 18

GRINDING FLOUR

Among low-income families, food preparation is often laborious and time-consuming. Today, market-based solutions offer better ways to simplify traditional chores like cooking or securing clean water.

percent.⁴ The market-driven economic growth of developing-country GDPs and the coincident decline in global poverty is perhaps the greatest economic success story of the modern era.

Below we offer evidence that substantiates the promise of market-based solutions. For example, several business models help participating suppliers to realize positive income effects of 10 to 30 percent per year—income that is not a result of redistribution but real and sustainable wealth creation.

We view the promise of market-based solutions as twofold: they actually drive sustained improvements in people’s lives and livelihoods, because individuals are making their own choices and taking responsibility for their lives rather than becoming dependent on aid providers; and this outcome is attained on a more cost-efficient basis. The solutions promise to be self-sustaining, and the up-front funding is thus true “capital” rather than an annual outlay for benefit programs.

In sum, we believe market-driven ventures can help those at the base of the global income pyramid do still better for themselves—even when we recognize the potential “fortune” at the pyramid’s base will certainly be less for purveyors of the socially beneficial products and services that are the focus of this report. The business models presented here offer the possibility of better outcomes for the poor and financial and social returns for ventures willing to risk the effort.⁵ These business models are grounded in the practical, empirically investigated realities of what works in low-end markets and what does not.

MARKET-BASED SOLUTIONS AND THE GLOBAL FINANCIAL CRISIS

This may seem an odd time to be touting markets as a way of helping the world's poor—what with non-stop news of global recession, financial meltdown, a “new New Deal,” a dramatic reduction in global investment, and the most intense scrutiny since the Great Depression of the very role of markets in all economic life.

And yet. Crisis provides a natural opening for re-examining roads taken and envisioning new ways forward. The new skepticism of conventional assumptions and wisdom on market economies might also be usefully directed at conventional views of economic development—including the respective roles of the government and private sectors in creating growth that actually reduces poverty overall, puts the poor on a path to improved livelihoods, and helps promote sustainable development.

Moreover, governments will be strapped for revenues and sunk in huge deficits. The collective ability of the most promi-

nent OECD donor countries to sustain recent levels of foreign assistance will almost certainly decline. There will certainly be pressure to do more with less, and do it better.

The private sector has the potential to step in and help fill the resulting gap. From the beginning, businesses in the large industrial economies have been a significant part of the development and poverty-reduction picture, both at home and abroad. And companies in many emerging markets have long engaged the poor on both the supply and demand sides of their operations. As a result, those at the base of the pyramid are not new to markets; indeed, they're already enmeshed in traditional, mostly informal, overwhelmingly rural, markets and webs of trade—even if mostly to their great disadvantage. Formal, market-driven efforts to sell to and engage the poor might thus be of great use in the current global economic environment.

The Poor as Economic Actors

Sound market-based solutions can and should be able to sell goods and services to the poor or engage them as suppliers on fair terms, with better-quality service and treatment. Monitor research reaffirms the poor as rational participants in markets and attentive to their own interests. And as in any market, one size simply will not fit all. Still, for many in low-income segments, reliable market solutions offer value and service superior to both private and public options at a cost customers and suppliers will judge for themselves. We'll never be able to rule out exploitation of poor

People at the base of the economic pyramid are customers with the power to choose — not simply “beneficiaries.”

people, intended or otherwise, but this risk ought not, in our view, be grounds for discarding, untested, potentially beneficial ventures.

We therefore see people at the base of the pyramid as customers with the power to choose—but whose market participation usually incurs penalties in the form of overcharging, poor quality, products and services hazardous to their health, and “take-it-or-leave-it” marketing. We recognize current low-end markets are informal, inefficient, exploitative, and often dominated by monopolists, quacks, or crooks. And we are convinced that any compelling effort to serve the poor or engage them as suppliers and producers must build around discovering or developing new business models.

Thus in the course of our investigations, we've continually probed for answers to three questions:

Who will serve the poor as customers?

Who will engage them as workers or producers?

And how will that service, or that engagement, occur?

One answer to all three questions: market-based solutions based on business models designed to work at the base of the economic pyramid.

Business Models in Low-End Markets

“A business model performs two important functions,” writes an authority on the subject, “it creates value, and it captures a portion of that value.”⁶ Yet the term “business model” means different things to different people, and here we view the matter as more nuanced than in many common definitions. Here, we consider a business model as a particular set of business elements that serve customers or engage suppliers, producers, or workers in low income segments. We also stipulate that such models be commercially viable and show potential to achieve large scale.

The microfinance sector represents the best-known commercially-viable effort to serve low-income groups and a prime example of a successful market-based or demand-led solution. Modern microfinance began in the 1970s with experimental programs in Indonesia, Brazil, and Bangladesh⁷ and took 30 years to develop a sustainable formula of group credit and joint liability group lending.⁸ This business model is actually a combination of at least five different elements:

- No frills products—a simple, single loan product executed at a group meeting, creating an experience very unlike branch banking with its buildings, ATMs, teller windows, and, of course, paperwork.
- Small-size products⁹—loans much smaller than those available in commercial banks, with smaller, more frequent installments.
- Group products — joint liability group (JLG) lending products that can only be used by a group, not individuals.
- Pre-assured demand—JLGs form and guarantee demand in advance to the microfinance institution (MFI).

- “Paraskilling”—many MFIs train and employ secondary-school graduates as loan officers to implement simplified lending systems, instead of college degree holders found in commercial banks.

Microfinance’s proven, robust model continues to expand, even as it has generated a lively, and at times heated, debate on the tensions between commercial and social objectives.¹⁰

Where the Formal Economy Reaches...and Doesn’t.

The 2004 publication of C. K. Prahalad’s *The Fortune at the Bottom of the Pyramid* sparked interest among large corporations in serving low-income people as consumers. Although some large corporations do participate in low-income markets, especially in industries like telecommunications, pharmaceuticals, and fast moving consumer goods, they have not had to make major adjustments to their business models to do so. In these industries, big companies tend to have relatively low marginal costs, with correspondingly high fixed costs. Often, they only need to tweak their existing offerings down-market.

In telecommunications, for example, India has become one of the world’s fastest growing markets, with deep penetration into low-income groups accounting for much of the growth. Business model adaptations required for this added reach were modest—use of prepaid formats, low-cost handsets, and agent distribution networks built from scratch. The key, however, was that such innovation built atop investments and structures long in place: billing platforms, network infrastructure, and manufacturer relationships for millions of handsets in an industry already well down the cost curve due to global economies of scale in production.

In sectors with higher marginal costs, larger corporations have tended to steer clear. They can pick from a range of familiar growth opportunities that are easier to pursue and don’t require a revamped business model. Hence we observe a palpable

sluggishness of down-market movement in housing, healthcare, banking, and other industries that offer high potential in low-end markets. Notable exceptions exist, especially in sectors that directly engage the poor as suppliers and producers (see below), but substantial obstacles to formal-sector market-oriented solutions remain in place.

As a result, most low-income people participate primarily in the informal economy. It is the moneylenders, budget private schools, and mom-and-pop shops in this sector that serve poor customers daily, and the “non-compliant” textile and other small informal-sector manufacturers that engage the vast majority of poor workers. Indeed, textiles, which are produced mostly in the informal sector, are India’s largest source of manufacturing jobs—over 35 million in 2006, with two million new jobs expected to be created annually until 2012.¹¹

The market participation of the poor often comes with the infamous “bottom-of-the-pyramid penalty” of higher costs, lower quality, exploitative business relationships, and usurious terms of credit for the poor.¹² Part of the promise of market-based solutions thus lies in the recognition that market exchanges are not terra incognita for poor people and that ways of enhancing their informal-sector interactions exist and can provide improved products and services, with better quality, and better lives and livelihoods, at lower cost.

Some large corporations do participate in low-income markets, especially in industries like telecommunications, pharmaceuticals, and fast moving consumer goods.

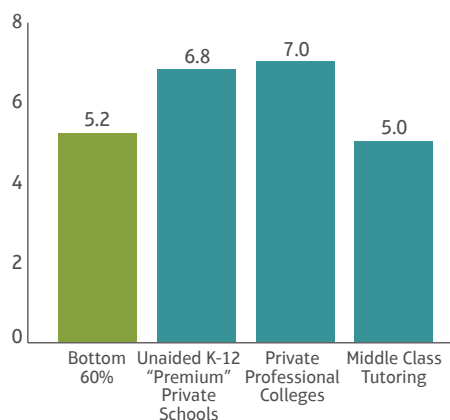
Just How Big, Really, is the Opportunity?

There are indeed fortunes to be made in low-end markets, though the sheer size of the market alone may be a deceptive signal of whether large companies will rush in.¹³ Examination of two sectors in India, education and water, illuminates the true magnitude of the opportunity and the dynamics of who might be expected to pursue it.

First, absolute market sizing: for the bottom 60 percent of the income distribution, India's education market is estimated to be about \$5.2 billion, a sizable opportunity by any measure.¹⁴ As points of market comparison, this is about the same size as the global market for radio frequency identification (RFID) chips in 2007,¹⁵ tablet PCs in 2009,¹⁶ network security software and devices in 2007,¹⁷ or the anticipated Chinese market for laser printers in 2010.¹⁸ The current health care market for the same segment in India is about \$18 billion.

Exploiting such opportunities, however, is another matter. While India's low-end education market is indeed large and attractive, it also is mostly informal and highly fragmented. Moreover, India's middle class education market has at least three segments—professional colleges, standard private schools, and tutoring—that are at least as large and conventionally easier to develop—and thus presumably more attractive to potential corporate entrants.¹⁹

Education in India: Market Size Comparison (US\$B)



Source: CLSA Asia Pacific Markets: "Indian Education Sector Outlook" 2008, IFC/WRI "The Next 4 Billion," 2007

Apart from sheer size is the complexity of operations required to generate revenue in business models engaging low-income segments, which may be substantially greater than comparable alternative opportunities in middle class markets. For example,

T.I.M.E. is a successful operator of coaching classes in India, with 175 centers that help aspiring middle-class applicants with entrance exams to professional schools, and annual revenue of \$30 million. A market-based-solution business model aimed at poor people would need to manage nearly 15 times the number of centers—almost 2,500 budget private schools in lower-income segments—to generate the same annual revenue.

In India's water sector, the estimated spending on water for the low income segments is about \$389 million, according to an IFC and World Resources Institute study. In contrast, the market for bottled water alone—leaving aside markets for household filtration equipment, water delivery by truck, spending on municipal utilities, or other middle class water expenditures—is about \$400 million.²⁰

In water, the problem of operating complexity is even further magnified. Bisleri, India's leading manufacturer and marketer of bottled water, currently operates 50 plants generating over \$70 million of revenue.²¹ To generate the same revenues that Bisleri produces with 50 plants, a market-based enterprise catering to poor people would need to operate more than 17,500 village water plants.

The sheer size of the market alone may be a deceptive signal of whether large companies will rush in.

In both education and water, the pure scope of activity can be daunting to any large company that may want to enter. The requirement to take on or invent a drastically different business model with significant operating complexity will, we believe, deter many large companies from making the attempt. As the education sector suggests, for every perceived opportunity in low-end markets, there is often a more conventional, easier-to-exploit opportunity somewhere else, often in the same sector.

These observations need not be cause for despair. Although market-sizing and business model adaptation issues may dissuade most large companies from serving or engaging low-income people, many small or medium enterprises, NGOs,

or purpose-built business models will perceive compelling opportunities to create both large social returns and reasonable financial ones. Some opportunities, like community water filtration plants, will likely reach scale as a cluster of enterprises or operators, as did Indian MFIs, rather than as a single firm. With the right business model, the opportunity is considerable, and the result will be better primary education, or increased access to financial services, or stable livelihoods with strong income effects.

Whom Can We Expect to Find in These Markets?

Monitor research suggests the majority of ventures entering low-end markets will be small to medium-sized social enterprises or private firms, and especially those seeking to serve low-income segments as customers. These entities have varying degrees of capacity, access to capital, and ability to develop or implement a good base-of-the-pyramid-oriented business model. As a result, they will generally take longer to reach scale. And in pioneering a novel business model they will generate returns that are significantly different—as in “smaller”—than those of an average mobile phone operator or even perhaps an average established microfinance institution.

Although we expect most of the action in market-based solutions to be dominated by small-to-medium enterprises, we nevertheless expect to see expanded participation by a few large national and multinational companies, especially in high fixed-cost industries like telecommunications. Where enterprises engage with the poor as suppliers or producers, Monitor’s research suggests more large companies are likely to pursue the opportunity. They will often be the preferred entity to organize solutions from at or near the top of the supply chain. This can be a compelling proposition for larger entities, given the cost and supply chain advantages that can be gained from working with groups of dispersed low-income producers.

The Imperative to Scale

Scale is a central concern for market-based solutions intended to serve the poor because of the sheer magnitude of the problem in many countries. We recognize that reaching scale is difficult for any enterprise, and even more difficult for one aiming to serve or engage the poor *and* do so by providing socially beneficial products and services *and* do it in a financially self-sustaining way.

Only a handful of enterprises in low-income markets are commercially viable and operate at scale, even in a huge potential market like India, with its more than 700 million living at or below the poverty line.²² There and elsewhere, Monitor investigated many celebrated enterprises, most of which served at best a few thousand customers or employed a few hundred producers. Only a small handful—mostly well publicized ones like Grameen Bank and Aravind Eye Care—attained a scale sufficient to transform a “business model” into a “solution.”

The majority of ventures entering low-end markets will be small to medium-sized social enterprises or private firms, and especially those seeking to serve low-income segments as customers.

The challenge of market-based solutions is to imagine business models that not only create products, services, and socially beneficial results but will also reach large scale.

Such business models need to be uniquely tailored to the needs of low-income groups and capable of replication and use by small enterprises, NGOs, and large corporations alike—and even in some cases, by governments.

Monitor’s view of business-models-as-solutions centers on getting three elements rightly aligned. First, enterprises must engage those living at the base of the income pyramid with socially beneficial products and services.²³ Second, enterprises must be viable commercially, which for simplicity we define as a condition in which revenues cover costs—or, in other words, self-funding or self-sustaining.²⁴ Third, enterprises must operate—or have demonstrated potential to operate—at large scale.

WHAT IS “SCALE”?

When we say an enterprise operates at “scale” or is “scalable,” we mean several things. First is simple economics. As scalable enterprises grow, average cost per unit declines and the marginal cost of adding another customer is routine, fast, and simple. Second is simple arithmetic. The enormous magnitude of global poverty requires solutions that reach billions of people. For that to happen efficiently, discrete individual solutions must operate at large scale, reaching many thousands, preferably millions, of people.

Beyond these basics, we note three additional considerations.

Scale is sensitive to national context. In a huge, populous country like India, Monitor defined “scale” as one million customers or 30,000 small suppliers or producers. In an Indian market of 700 million or more potential customers, one million is a relatively modest number. And 30,000 is the median number of employees that India’s Forbes Forty largest format sector employers had on their pay-rolls.²³ In a country the size of Rwanda, with a population of about 10 million people, that would equate to one in ten residents, so we would look to a lower threshold there.

At the same time, **scale is dependent on the type of business model.** As described above, scale is more easily reached when serving low-income segments as customers, where the relationships tend to be transactional, rather than in engaging them as suppliers. The world’s largest formal-sector private employers have at most several hundred thousand employees; in

contrast, it is relatively easier to sell hundreds of thousands or even millions of products, durables, condoms, mobile phone minutes, or loans via established channels.

Finally, it is important to note that **scale happens in different ways.** Some enterprises, like Aravind Eye Care or the Grameen Bank, scale in the traditional way as a single entity, adding services to a well-established product line, thereby expanding a receptive customer base. In other industries, it may be the model itself, replicated and repeated, rather than the enterprise that goes to scale—the model as a disruptive “good idea,” reproducing wildly. This happened in microfinance, where entities like Grameen Bank gave rise to emulators that, with the same model, made an industry. Indian MFIs have achieved scale both individually and in clusters of firms, with the industry as a whole serving more than 14 million mostly poor borrowers. Two hundred MFIs account for 90 percent of all lending using an identical joint liability-group business model.²⁴ A third route is that of intermediaries like AMUL, where organizers bring together like-minded groups of producers who then partake of a collective benefit. In the case of AMUL the organizing entity, the Gujarat Cooperative Milk Marketing (GCMMF) Federation Marketing Board, created scale over its 60 year history, incorporating over 13,000 village societies and 2.7 million producer-members.²⁵ However, the individual members did not become large integrated dairies—rather, what scaled is the number of small producers in the network.

Many of the business models investigated in *Emerging Markets, Emerging Models* were able to demonstrate two of the three elements, but not all three. And of the missing elements, scale was most often the one missing.

In our investigation of enterprises that attained scale in low-end markets, we observed several commonalities—including the varied paths to scale operations—exhibited by most of our scale exemplars (see *Four That Scaled* on the following page). These translated into “lessons about scale” that informed our study of promising market-based solutions.

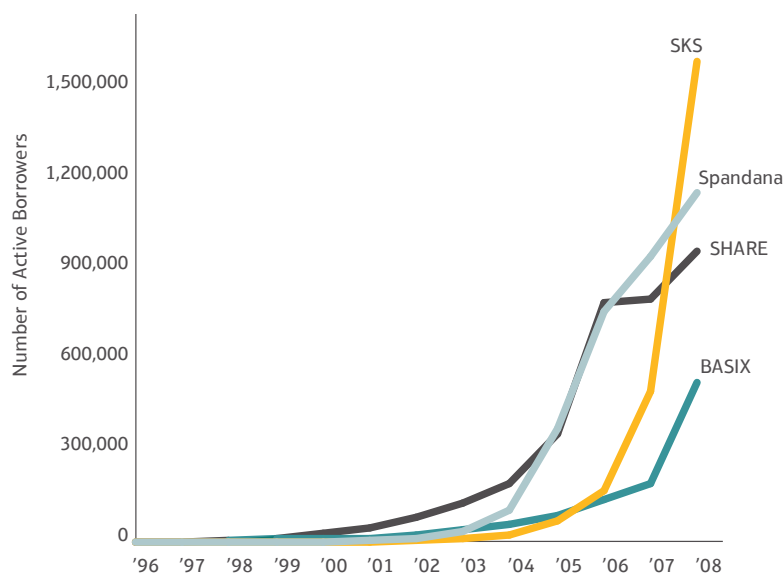
1. *End-to-End Organization*. Each of the scale exemplars invented not just a product or approach but an entire business ecosystem encompassing whole value chains. For example, when Aravind needed lower cost inputs for its entire range of ophthalmic services, it set up its own lens manufacturing capability. Similarly, AMUL organized its own infrastructure of local and district level milk federations, chillers, and storage. ITC’s history was somewhat different in that it entered an existing rural market, albeit one that operated on terms disadvantageous to low-income farmers. ITC’s e-Choupal created an alternative to the traditional *mandi* system of rural markets by building its own rural grain collection infrastructure of hub facilities and village-level kiosks.
2. *Focus*. The task of organizing an entire value system rather than just a specific product becomes hopelessly complex if attempted across multiple products and services. It is easier to build the value system around a narrow range of products or services—a business model that recurs in the success stories. All four examples began as highly specialized enterprises and for the most part remained so as they scaled up. Their narrow specialization allowed them to reduce cost by exploiting economies of scale, whether in asset use or in supporting systems, and by allowing key agents in the chain, often with limited skills, to focus on a limited set of activities. Over time, the exemplars added some new services to the mix but generally did so after first having achieved scale together with stable supporting systems. Moreover, with operations at scale came hardy distribution channels that attracted the attention of ventures in search of piggyback distribution possibilities.

Four That Scaled

COMPANY	KEY INFORMATION	OBJECTIVE AND STRATEGY
ARAVIND EYE CARE	<ul style="list-style-type: none"> • Founded in 1976 • 2 million surgeries in 32 years • 2.7 million patients screened per year 	<p>Aravind Eye Care provides low-cost surgeries to low-income segments. Remarkably, although it conducts two-thirds of its surgeries free of cost, it is a profitable entity.</p> <p>Aravind’s success lies in its end-to-end, all-inclusive business model, which operates very like an assembly-line to ensure low-cost, high-quality high patient throughput. It screens potential patients in “eye camps,” provides transport to its hospitals, and deploys paraskilled professionals at each stage, thereby optimizing the use of “high skilled” resources—its doctors.</p> <p>Aravind took decades to reach scale operations: it conducted 125 thousand surgeries in its first decade, 375 thousand in the second, and 1.5 million in the third. The enterprise struggled in its initial decade as Aravind ironed out the creases in its operating model; its founders had to make large personal investments of time and money to keep it afloat.</p>
AMUL ("PRICELESS" IN SANSKRIT)	<ul style="list-style-type: none"> • Founded in 1946 • Buys daily from 2.6 small farmers • Produces 2.3 billion liters per year • Took some 4 decades to scale 	<p>AMUL is the world’s largest dairy cooperative. It is organized by 12,000 village-level producer societies and district-level dairy unions and is managed by an apex cooperative body, the Gujarat Cooperative Milk Marketing Federation (GCMMF). Amul generates revenues of approximately \$1 billion, selling milk through 5 million retail outlets. Although Amul has primarily focused on milk, its business mix has changed to include other high-value-added dairy products, including yoghurt, buttermilk, cheese, ice-cream, soups, and beverages.</p> <p>Amul’s journey to scale has been a long-haul—during in its first decade, it only collected milk from a small district in Gujarat state. The key constraint to its scaling up has been the cost of—and the time involved in—setting up the multi-layered cooperative structure. This is the core of its collection system, with units at the village, district and state-levels.</p>

COMPANY	KEY INFORMATION	OBJECTIVE AND STRATEGY
MICROFINANCE INDUSTRY	<ul style="list-style-type: none"> • Founded in early 1990s • More than 14 million borrowers in India today • Scaled as an industry in less than 10 years 	<p>India’s Microfinance Industry (MFIs) use the same Joint Liability Group (JLG) model as the storied Grameen Bank of Bangladesh. The Indian MFIs created their own self-help groups to make small-size loans to low-income segments, largely in rural areas. Most MFIs offered only one product: a small unsecured short term group loan. They innovated in order to develop a low cost and scalable distribution model, for example, by “paraskilling” less educated hires to become field loan officers.</p> <p>The scaling up of the MFI industry in India has been relatively rapid—it reached significant scale in some 6 years, partly because MFIs in India effectively transplanted and deployed the JLG business model already developed and paid for by groundbreakers in Bangladesh. Bangladesh’s similar population density and cultural needs allowed model to be easily transposed. A key inflection point came in 2002, when ICICI Bank introduced the “Bank partnership model.” MFIs no longer need to keep lending capital on their balance sheets and can focus instead on their core strength of distribution and collection—thus accelerating the industry’s scale-up.</p>
ITC E-CHOUPAL	<ul style="list-style-type: none"> • Founded in 2000 • Serves 4 million farmers through 6,500 Choupal kiosks • Seven years to scale 	<p>ITC e-Choupal—the name links the Hindi term for “village square” to “e” for “electronic”—is a deep procurement channel that collects soybean and wheat from farmers in six central Indian states. Its hub and spoke operation consists of village-level e-Choupal kiosks—run by a local farmer who provides growers with price information—and collection hubs that handle actual procurement, storage and processing. It has begun to leverage its network to “flip the supply chain” and distribute goods and services to the villages as a shared channel.</p> <p>ITC e-Choupal has scaled rapidly from modest beginnings as a pilot in 6 villages. Its network now has one of its 6,5000 e-Choupal kiosks per each 4-6 villages in coverage area. It has some 180 hubs, each of which service 30-40 Choupal kiosks. Its scale-up was largely a result of the corporate resources of ITC, which enabled a rapid end-to-end organization of the rural supply chain. ITC also sought to integrate, rather than displace, existing middlemen into their system, which helped minimize resistance from existing rural <i>mandi</i> structures.</p>

Less Diversified MFIs Have Grown the Fastest



Source: Mix Market

Note: BASIX, as a livelihoods company, has a more diversified set of activities than the other MFIs

3. *Use of “Soft Funding.”* At some point in their growth history, three of the four exemplars benefited from soft funding—that is, below-market capital or grants—either directly or indirectly. AMUL, for example, took advantage of a government program to develop co-operatives and build collection infrastructure, and most first generation Indian MFIs started as NGOs with grants from donors and aid agencies. From this we draw a practical lesson: some market-based solutions may need such funding to get started, address critical barriers, or scale up.
4. *Time to Scale.* Not only are there many different roads to scale, but there are many timelines. The only absolute is to expect no short-term miracles; no

demand-led model targeted at low-income markets is likely to scale in less than ten years. That said, a subsidiary spin-off a large conglomerate like ITC e-Choupal, can draw on the parent’s resources to scale up rapidly. As a large, integrated company rolling out a new procurement system, ITC was able to grow e-Choupal into a large-scale multi-state presence in just seven years. An organization that builds on its own from scratch will probably take decades. Scaling methods will vary depending on business and the environment. We would count any time span short of a decade as remarkable, and anything within the 10- to 15-year range as aggressive but realistic.

In sum, attaining scale is difficult, costly, and time-consuming, especially in impoverished areas where basic infrastructure is lacking, solutions must be end-to-end, and logistical challenges are great. Still, the four exemplars illustrate that market-based solutions to help poor people can reach scale. The key to success is a robust business model adapted to the particular conditions of low-end markets.

Most Scale Examples in India Took Well Over Ten Years to Get There



Business Models That Work



GETTING THE BUSINESS MODEL RIGHT is a baseline truism for all enterprises²⁵ but the nature of low-income markets is such that the margin for error is particularly slim. Monitor's research sifted through over 270 examples of market-based solutions, and found many business models that lacked the ability to sustain themselves, or to serve the poor effectively. However, through the process of investigation, we identified seven business models that work in this setting—that is, they are capable of serving or engaging low-income people profitably and at scale.

Most of these models are reasonably mature—such as contract production or demand-led training and placement—with benefits and limitations that are relatively well understood. Several are newer and are still proving themselves over time, like the paraskilling model, which has yet to be successfully replicated despite the great success of its originator, Aravind Eye Care. And some are in-between, where the idea may be antique—pay-per-use services, for example—but the application new in the context of an imaginative mix of business model elements.²⁶

Monitor's approach to exploring demand-led business models has been to cast a broad net in seeking out those that serve the poor as customers and engage them as suppliers. Of the initiatives we investigated in India, approximately half revolved around demand-side commercial activities and half on supply-side production and labor-related activities.

MARKET-BASED SOLUTIONS IN PRACTICE

Market-based solutions using effective business models are making a difference in education, agriculture, water purification, health care, and other sectors.

We do not suppose that the seven business models we've settled on are the only ones that can and do work—indeed, Monitor's India study identified several other potential approaches that looked promising and merit further investigation.²⁷

In the discussion that follows, we have illustrated each business model with a leading example in India and often an accompanying example based elsewhere. However, behind each of these business models is not just a story, but usually at least four to six other entities that also exemplify the model in question, and at varying levels of scale.

The Poor As Customers

Developing products and services for low-income consumers is demanding. Promising ventures might run aground by mistaking products or services poor people *need*—inexpensive irrigation pumps or sanitary water supplies—for things they genuinely *want*—such as gold on credit (see *What Customers Say*). Or by failing to recognize that for the poor, cash is not only limited but generally only intermittently available.

Promising ventures might run aground by mistaking products or services poor people *need* for things they genuinely *want*.

To meet the needs of the poor as customers, enterprises need to overcome a variety of predictable challenges, starting with understanding those living at the base of the pyramid and what they want. Only then can enterprises begin to think about devising ways to improve the choice, quality, and price point

of their offerings. This is often easier said than done: despite markets in India and South Africa, Brazil, Philippines, and elsewhere that increasingly reach down to the base of the pyramid, low-income groups find good quality products and services almost wholly unaffordable. In urban India, for example, a normal birth in a private clinic costs Rs. 8,000-10,000 (\$160-\$200) and requires roughly 200-250 percent of an average monthly income.²⁸ A good quality private school for one

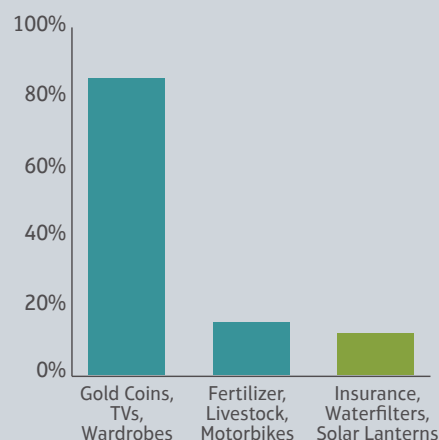
WHAT CUSTOMERS SAY

What Do MFI Borrowers Really Want?

Little data on the buying preferences of low-income people in India is available. To gain insights, Monitor conducted focus groups and interviewed hundreds of people around the country. A sampling of what we learned from interviews with microfinance borrowers in Andhra Pradesh appears in the graph below. These customers—like most at any income level—are interested in status symbols, entertainment, and conveniences. The data suggest that educating

low-income customers about the value of socially beneficial products and services is a significant challenge.

What do MFI Borrowers Want to Buy on Credit?



Source: Monitor Focus Groups Andhra Pradesh, Feb. 2008

child would require 20-25 percent of income for an average poor family. As such, what low-income segments can afford is mostly of the poorest quality—and sometimes even health-endangering.

Yet despite being exploited in traditional markets, low-income groups are willing to pay dearly for what they most value, spending surprisingly high shares of scant income on private health and education services. For the poor as for anyone else, health is a necessity good. And education, as others have found and Monitor customer research confirms, is an aspirational good for which the poor will make sacrifices. Indeed, low-income groups in many countries readily opt for private services over those provided

SOCIAL BENEFIT VS. STICKER PRICE — THE NEST AISHWARYA SOLAR LANTERN

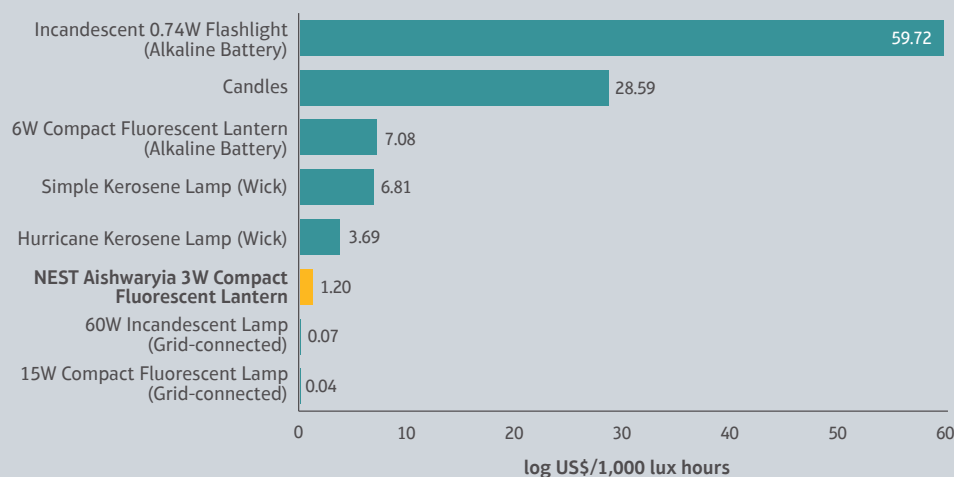
A small for-profit entrepreneur in Hyderabad, India, Mr. D.T. Barki—whose self-described mission is to “end light poverty in India”—set up NEST (Noble Energy Solar Technologies) Ltd. to fulfill his vision. NEST assembles and markets solar lanterns to the rural poor. Its flagship product, the Aishwarya Solar Lantern, is a three-watt high-efficiency compact fluorescent lantern that recharges with a solar battery. The Aishwarya retails for about Rs. 1,500 (\$30), not including replacement batteries. It is marketed as a substitute for unhealthy kerosene lanterns and, counting monthly kerosene expenditures, pays for itself in 2-3 years, depending on usage. On a cost per lumen basis it is far superior to any replacement option.

Yet NEST has sold only some 5,000 units per year and about 50,000 since inception in 2001. Several reasons might explain

this—small enterprise, just starting, hasn’t yet quite figured out its market and product, and so on. But in digging a bit deeper, Monitor learned that the sticker price was the problem. For many low-income customers, a desirable item that might seem objectively affordable still represents a huge up-front commitment— a minimum of two weeks’ wages for many potential buyers.³¹

Customers understood with perfect clarity the lantern’s value, but most were simply unable to pay the ticket price or the upfront cost of purchasing the lantern. “Who has 1,500 rupees just to spend on a lamp?” was a common refrain from people who are used to spending no more than Rs. 400 on kerosene-powered alternatives. Most rural target customers have irregular and generally low cash flows, little savings, little access to credit, and—as a result— short time horizons for payback. A large percentage of this segment can only afford low-cost, low-quality substitutes.

NEST Lanterns Have Sold Slowly Despite Superior Price/Cost Performance Comparison of Cost/Lux hr of Various Lighting Technologies



Source Improved Lighting for Indian Fishing Communities (Energy and Resources Group Report, 2007); Mills, 2005; Monitor Analysis

for free by government—in India, 80 percent of the lowest income decile pay for private health care.²⁹ Even in one of India’s poorest states, Bihar, parents earning over Rs. 3,000 (\$60) per month (or \$2 per day) are willing to pay more than ten percent of monthly income to send at least one or more children to private school.³⁰

That said, serving the poor remains difficult, even if they are willing to pay, because the amounts of what they are able to pay. The actual purchasing power of each individual customer is small, irregular, and is frequently expensive to tap. Typical pricing strategies in markets consisting of daily wage earners involve extremely low price points and small quantities for products that compete for a place in the wage earner’s daily basket of purchases. This makes the issue of irregular cash flows the single most critical concern in selling to low-income groups. (See *Social Benefit vs. Sticker Price—The NEST Aishwarya Solar Lantern.*)

Many of the models described below aim above all at lowering cost to serve through innovative practices and adaptations of familiar ones. And by limiting our survey to socially beneficial products, this issue becomes especially salient, as many such offerings are essentially “push” products and services, entailing some costs to educate and persuade potential customers.

Business models aiming for the poor as customers must address the primary challenges of affordability, cost to serve, and matching customer cash flows. Demand-led ventures seeking to serve the poor as customers will rarely have the luxury of taking the classic strategic positioning of “high cost-high quality.” To serve the poor, costs must be relentlessly driven lower.

Pay-Per-Use MODEL 1

CORE MODEL ELEMENTS

In pay-per-use models, customers typically pay for each use instead of owning an asset. The models share certain features:

- **Accommodating terms**, in which customers pay as they have cash available (or may subscribe for a set quantity of product or service) and may collect the product or service at centralized distribution point or pay surcharge for delivery. Products can be metered, pre-paid, rented, sold in individual portions, etc.
- **Group infrastructure**, which is provided not for individuals or families but for a larger aggregation—yielding higher efficiency and lower unit costs than individual assets. Local (village-level) management provides day-to-day operations of facilities, distribution, accounts, equipment maintenance (engaging equipment suppliers, repairmen), etc., and a collective local entity often serves as a means of enforcement (e.g. timely payments).
- **Third-party administration**, which an external entrepreneur—e.g. an individual, firm, NGO, village consortium—undertakes to organize and provide services or products to a low-income market (typically a village or group of villages), bringing requisite administrative, operational, financial, marketing expertise/experience/success.

Enterprises that hope for social returns as well as financial ones often develop helpful low-cost durables and conveniences for the poor—solar lanterns, water filters, treadle pumps, cook stoves, and the like. Despite the operational imperative to price such items as low as possible, a product's most significant barrier to attaining big sales numbers is often its price. The amount of cash typically available to people in low-end markets is simply too little for the necessary upfront lump sum payment. Customers are thus forced to borrow: from family or friends if possible, or from moneylenders at steep rates.

Many offerings are essentially “push” products and services, entailing some costs to educate and persuade potential customers.

With the rise of microfinance institutions, poor people in many areas have more credit options at rates significantly lower than those of traditional moneylenders. But even credit at reasonable rates reduces (through added expense) the economic benefit of low-cost products, and many potential customers remain wary as credit for one durable reduces options to take credit for other things like seeds.

The Byrraju Foundation³² provides a good example of a promising pay-per-use operation in water purification. In India, one typical low-cost business model is to provide individual activated carbon water filter units to low-income families at costs ranging from Rs. 900 to 1,500 (\$18-\$30), with replacement filter cartridges needed every three to six months at the cost of Rs. 400 (\$8). With a monthly cost of Rs. 60-90 at normal usage rates, this is often too much for families living on Rs. 3,000 or less.

To make clean water available, Byrraju implemented an innovative model centering on community filtration plants.³³ These sell purified water at about half the price of individual activated carbon water filters, and about a third of the cost of boiled water. Water is sold in 12-liter containers for Rs. 1.5 (\$0.03), which covers the daily clean water needs of an average household; customers buy the water when they have the available cash.

Byrraju has built 57 water filtration plants, serving 850,000 people in the southern Indian state of Andhra Pradesh. The facilities are then operated and maintained by a local *gram vikas samiti* (GVS, Hindi for “village development committee”). The GVS begins with a short marketing campaign, raising villagers’ awareness of the benefits of clean water. Afterwards, residents are asked to contribute an amount equal to about three-quarters of the total RO plant building and equipment costs of some \$15,000. Donors generally come from the wealthiest villagers or non-residents holding city jobs. Local authorities also typically donate land and access to a water source. Byrraju completes the package by donating the remaining plant costs out of external funding.

The GVS runs day-to-day business and employs two village residents as operators under the supervision of a plant manager and two helpers. Byrraju provides high level support, including fortnightly laboratory-based water-quality analysis. This ensures the water quality stays consistent and is a marked improvement on the individual filter model, which may often run short of funds for new cartridges or overlook cleaning the old ones.

Half of the non-users
Monitor surveyed preferred
the taste of their unfiltered
water, even though they
had sampled the Byrraju
water several times.

Commercial Viability

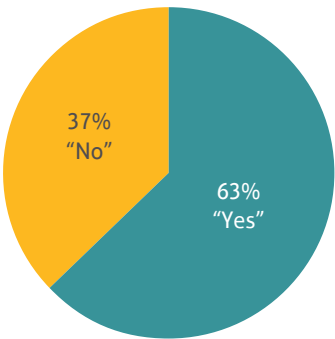
Monitor estimates the potential Indian customer base for clean, cheap drinking water to be extensive—more than 100 million families. At the prices charged by

Byrraju, the water meets the critical “low price” criterion: low-income segments can pay for it. Fifty-three percent of Byrraju water customers have household incomes of less than Rs. 2,000 (\$40) per month, indicating that the price charged is affordable even to those earning as little as Rs. 60-70 (\$1.30) per day. At this price point, Monitor’s customer research shows considerations such as taste to be more significant as barriers to adoption than cost. Half of the non-users Monitor surveyed preferred the taste of their unfiltered water, even though they had sampled the Byrraju water several times.

WHAT CUSTOMERS SAY

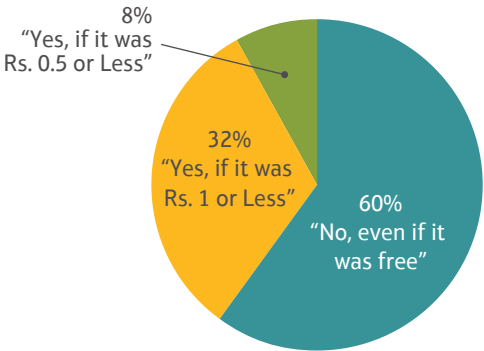
User Perception

Has Using Byrraju Water Reduced Illness Within Your Household?



Non-User Perception

Would You Switch to Byrraju Water If It Was Cheaper?

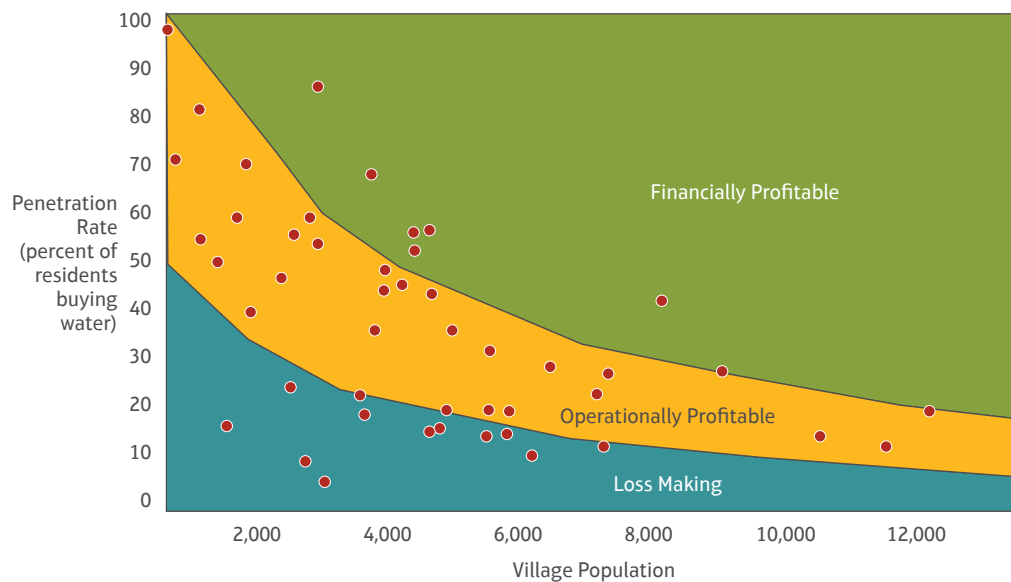


Source: Monitor user focus groups and surveys, Andhra Pradesh, April 2008.

Adoption of a Byrraju-type pay-per-use model for water generally occurs more readily than for use of individual filters. The Byrraju model requires fewer behavioral changes, as consumers do not need to boil or filter the water once they've picked it up; delivery is even available.

And the model is, or can be, self-sustaining and thus commercially viable: if some 500 households buy one 12-liter container per day, the plant will cover its costs. More than 75 percent of Byrraju's extant plants are already operationally profitable (see graph). As penetration levels are typically 20-45 percent—purified water is often a push product that requires a substantial marketing investment—each Byrraju plant serves the needs of two or three neighboring villages, as well as the village where it is situated.

Two-Thirds of Byrraju Plants Are Profitable Without Significant Marketing Effort



Note: each dot represents one Byrraju plant.

The filtration technology is also proven, low-cost, easy to acquire and replicate, and is thus easily scalable. Indeed, considered as a cluster, the model and variants are already at scale—four operators in Andhra Pradesh and two in Rajasthan—both for-profit and non-profit enterprises—are already working the water filtration market with similar models. Fifty million dollars would capitalize plants for 10-15 million people. With simple refinements, the model could become commercially sustainable. For example, as other operators do, denser customer bases in urban and peri-urban areas might be targeted, with better, more extensive marketing and awareness campaigns developed. Fortunately, in this model, interests are aligned—driving utilization up is good for both profitability and public health.

Pay-Per-Use Challenges

Despite operating at scale, and near full commercial viability, these are significant and center on the issue of driving utilization up, and thus on demand stimulation. Given that services like clean water, toilets, and other sanitation infrastructure must be “pushed,” the core issue becomes one of awareness and marketing. The poor need credible information on the health benefits of clean water or sanitation—less than two-thirds of Byrraju-related focus-group participants associated clean water directly with good health. Monitor research in southern India indicates all users of Byrraju water switched in the first three months of plant operation, pointing to the importance of marketing stages. Even so, understanding customer needs and tradeoffs sufficiently well to increase demand is costly, particularly for social marketers straining for the lowest price point. Other challenges include demonstrating the model’s economic viability in smaller or poorer villages, selecting locations with adequate demand, and operating models that are suitable for expansion and that generate community trust. The model requires electricity, so will not be applicable in all rural villages. And finally, new government-provided infrastructure could make private-sector enterprises redundant.³⁵

OTHER INDIAN EXAMPLES:

Water: Naandi Foundation, Water Health International, Poorvi Enterprises, Piramal Foundation; *Energy:* Biogas Bank; *Lighting:* S³IDF; *ICT:* Drishtee, n-Logue, Comat

LIGHTING THE LAO INTERIOR: SUNLABOB RURAL ENERGY LTD.

In Laos, a doctor at a remote village health care center comments on the difference solar power has made to his work. “Before we had solar, we had to fetch essential medicines and vaccines from elsewhere, because we had no way of keeping them cool here. Often people are very ill by the time they reach here so it could make a difference as to whether they live or die. With solar, we can operate at all hours. We used kerosene lanterns before, but they were dirty and smoky and the light was poor.”

The solar energy that lights this village center is provided by **Sunlabob Rural Energy Ltd.**, a commercial company founded in 2001 to provide renewable energy services to those living in remote Lao villages.³⁴ Since its establishment, Sunlabob has delivered high-quality photovoltaic (PV) systems to more than 450 villages serving between 300,00 and 400,000 people. It uses an ingenious business model whereby village franchises rent a solar-recharging station, purchase

a number of lanterns— from 24 to 144, depending on village size—and rent the lanterns out. For sizable “public installations” like that of the village health care center discussed above, Sunlabob may install a system at the behest—and with the funding—of an NGO.

Sunlabob employs an imaginative, readily scalable pay-per-use business model that makes a profit for Sunlabob and its franchises while producing windfall socially beneficial results in bringing light to remote Laotian villages. In so doing, Sunlabob seems to have solved the problem that separates those enterprises that will succeed in low-end markets from those that will fail: cost to serve. Commercial revenue covers all operating costs: the least-expensive Sunlabob PV unit rents for 35,000 Lao Kip (\$4.00) per month; households typically spend 36,000 to 60,000 Kip (\$4.20 to \$7.00) for kerosene and will thus save money immediately by switching to Sunlabob’s PV lanterns. Typical renter households earn \$20-50 per month and have no access to the power grid.

NO FRILLS SERVICE MODEL 2

CORE MODEL ELEMENTS

No Frills models serve low-income markets by economizing at every stage of an offering:

- **Setup and service**, in which the provider reduces or minimizes non-core capital and expenses to provide “bare bones” service and lower the unit cost of delivery. Quality is kept sufficiently high to provide customer benefits superior to other options.
- **High throughput/high asset utilization** in which high customer volume drives capacity utilization, pushes down unit costs of key human or physical assets, and provides economies of scale for purchasing, marketing, and other functions.
- **Service specialization**, which enables the provider to focus on a limited array of services, standardize processes and reduce the need for additional procedures or multi-functional (and thus more expensive) personnel and training.
- **Services/protocols**, which are highly standardized, documented, routinized, and easy to deliver for lower-skilled staff.

A strong market exists for quality private-sector service delivery in low-end markets, ranging from healthcare to education and financial services. In India, the government provides many services free at the point of delivery, but most low-income customers do not trust the state to offer quality services and prefer private-sector alternatives.³⁶ Even so, few such options are accessible to them. For example, sending two or more children to private school of even modest quality could consume half an average monthly income.

New business models of low-cost service delivery might thus tap into low-end markets where aspirational demand is great, the poor are willing to pay, and the existing providers are also people of little means—a common convergence of circumstances.

One such approach is a highly standardized, specialized, no frills offering that relies on high volume and low unit costs to reduce prices—a model that has succeeded in other sectors, including telecommunications. Many successful low-cost mobile phone services in India, Philippines, and elsewhere are no frills ventures that provide basic service on a prepaid model, simple yet standardized, and sellable by networks of agents at reduced delivery costs rather than by experienced telecom employees.

Monitor's studies in India as well as cases from Kenya and the Philippines,³⁷ however, indicate “no frills” models can be extended to areas like health and education, where regulation and certification have traditionally limited practitioners.

LifeSpring Hospitals is a for-profit six-hospital chain of 20-bed facilities founded in 2005 and based in the peri-urban areas around Hyderabad, India, that specializes in maternal and child health, particularly labor and delivery. It has tailored its approach to serve its clientele by locating within their community and taking a no frills approach, recognizing most of its customers will trade off extras for affordable, high quality services.

LifeSpring reduces the cost of private doctor-attended delivery to as low as Rs. 2,000 (\$40) for a normal delivery in the general ward and Rs. 7,000 (\$140) for ce-

sarean delivery—prices only 20-35 percent of those charged at comparable quality private hospitals but sufficient for LifeSpring to be profitable. LifeSpring cuts costs by standardizing its procedures, trimming its expenses, increasing volume, reducing staff attrition rates, and using a cross-subsidy model for three types of wards, (general, semi-private, and private). Additionally, it has dramatically increased the typical hospital use rates of key assets ranging from diagnostic machines to the obstetricians themselves.

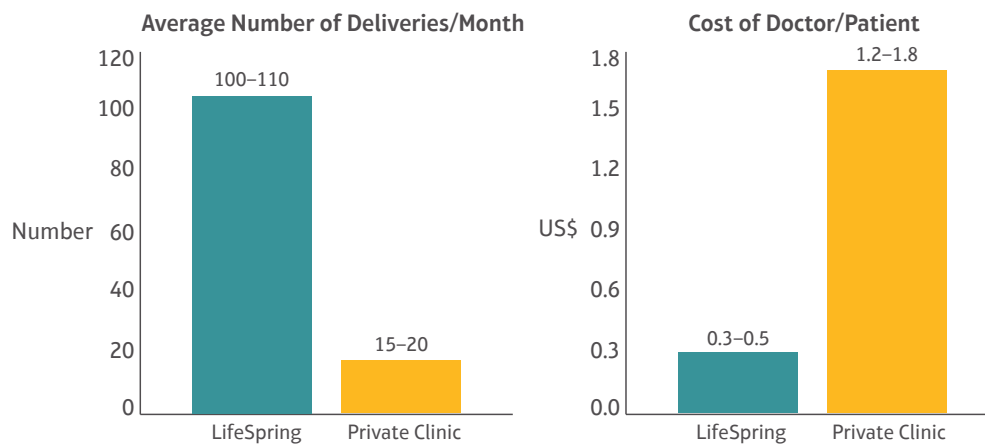
LifeSpring hospitals are thus strictly no frills: no canteens, outsourced pharmacy and laboratory services, rented rather than purchased properties, old hospital buildings rather than new ones. Most beds are in general wards, with basic furnishing and no air-conditioning. The most expensive equipment is an ultrasound machine. LifeSpring doctors earn fixed salaries rather than the variable consulting fees of their private clinic peers. Doctors nevertheless have strong non-monetary incentives—for example, less administrative duties, more clinical practice—to stay.

LifeSpring's high throughput/high asset use business model is vastly more productive than that of its counterparts. Operating theaters accommodate 22-27 procedures each week compared to between four and six in a private clinic. Doctors undertake 17-26 surgeries per month—four times that of private-clinic doctors.

LifeSpring's marketing approach is multi-faceted, consisting of its outreach teams, voucher programs, health camps, and word of mouth. To generate high patient volume, it targets key decision-makers in maternity matters—husbands and mothers-in-law—and has a dedicated (and persuasive) community outreach team that customizes its message depending on whether the woman has had an institutional delivery before, and if so, where. It also focuses heavily on customer retention and referrals—even operating a “pull” program that gives every inpatient a voucher, good for one out-patient visit, to distribute to friends and family. The low-cost outpatient department plays a vital role in attracting mothers by

providing a showcase for services, including women’s health and pediatrics.³⁸ A visit costs Rs. 50 (\$1) in contrast to a private clinic’s Rs. 100-300. Moreover, it posts a price list outside the hospital, creating consumer awareness and confidence of transactional transparency.

LifeSpring Asset Utilization is More than Five Times That of Comparable Private Clinics



Source: Lifespring Hospital, Monitor analysis
Note: Private Clinic refers to small 20–30 bed nursing homes, often run by a family.

Specializing solely in inpatient gynecology and obstetrics leads to easy standardization. LifeSpring has over 90 standard procedures including standardized surgery kits and clinical protocols. Many are ISO9001-certified, guaranteeing the quality of hospital procedures. LifeSpring uses a narrow range of drugs and equipment for large numbers of repeat procedures and thus bulk-purchases standard equipment and generic medicines. Standardization also enables it to use Auxiliary Nurse Midwifery nurses (ANMs) in addition to more expensive General Nurse Midwifery nurses (GNMs)—for maternity services, the skill sets of both classifications of nurse are the same.³⁹ But because ANMs have a lower level of qualification, they are less costly to employ than GNMs, whose degrees are more advanced and expensive to attain.

**SIMILAR MODEL, DIFFERENT RESULT:
THE WELL-FAMILY MIDWIFE CLINIC
PARTNERSHIP FOUNDATION**

The Well-Family Midwife Clinic Partnership Foundation (WFMC) of the Philippines is a labor-and-delivery-service model that shares many aspects of LifeSpring's no frills approach. WFMC has even fewer frills, with doctors on-call but not on staff, a network of Registered Midwives (RMs) who own and operate their own clinics—now numbering 130, often in the home of the midwife, and each with a delivery room and a single-bed recovery room. The clinics handle 10-15 deliveries per month in the countryside and 40-60 in urban areas from a customer base of some 250-300 women per clinic. WFMC offers many other services, like reproductive health and advice, but its profitability rises and falls with labor and delivery.

WFMC has not been an unalloyed success, however. As recently as 2005,

WFMC had 230 clinics but 100 or so clinics have dropped out of the program in the last three years. Primarily, RMs departed along with their clinics after having received WFMC intellectual property and training in providing services they can independently sell. Most of the individual franchises were profitable, but the master franchise company was losing money because of the losses of franchisees, and found it difficult to collect the franchise fees. The departures accelerated after the drawdown in 2005 of USAID assistance to the program and its administering NGOs and the corresponding loss of soft funding to capitalize startup clinics.

The lessons of WFMC are clear and underscore the model's central challenges: no frills ventures need to place a premium on retention of skilled staff and maintaining sufficiently high throughput, which will improve sustainability and reduce dependence on external funding.

The LifeSpring model is scalable for obvious reasons: it targets densely-populated urban and peri-urban areas, offers a value proposition superior to competitors and, although more expensive than government hospitals, provides superior service, has an easily defensible—because demonstrably no frills—cost and profit structure, and is verifiably replicable.

No Frills Challenges

The two most prominent tests for this business model are recruiting, training, and retaining sufficient numbers of doctors and nurses, and attaining and maintaining sufficiently high customer volume. Each LifeSpring hospital has only a small number of doctors —three to six—making the loss of even one a potentially serious issue. As for the need to ensure high customer throughput (particularly in the initial phases of a new hospital's operation), services like healthcare and education typically rely on word-of-mouth and reputation in low-income markets. Marketing and sales systems need to generate customers and services must be located in areas with a high acceptance of institutional delivery; the model cannot afford to bear alone the cost of convincing low-income women of this basic proposition.

OTHER INDIAN EXAMPLES:

Health: Vaatsalya Hospitals, Dial 1298, Narayana Hrudayalaya Hospitals,

Financial Services: SKS Microfinance, *ICT:* rural mobile telecommunications

SOCIAL (AND OTHER) FRANCHISING: A BUSINESS MODEL?

Franchising has lately attracted attention as a way both to extend services to the base of the pyramid and to engage low-income segments in entrepreneurial activity. Monitor found examples ranging from slum pharmacies to ICT kiosks. In 2007, the term “microfranchise” made a popular philanthropic blogger’s Top-10 List of “Buzzwords in Philanthropy.” And franchising has a compelling logic: managing a franchise, complete with its central support network, extends the possibility of a head start on success—at least in theory.

Take the recent burst of global activity in “social franchising,” which uses franchise networks to help providers of services or products leverage their offerings into socially beneficial services. To date, most social franchising has been donor-led in the family planning and reproductive health service delivery sector—for example, the Well-Family Midwife Clinic Partnership Foundation (*see page 51*). But franchising is also expanding into a range of services, from drinking water distributors, to voluntary HIV/AIDS treatment services and even TB-related services.

Although social franchising—and franchising more generally—is often considered a business model, we see it more as a tool that might help bring an underlying business model to scale. Social

franchising usually involves low-cost, no-frills services. ICT kiosks use a pay-per-use business model. But regardless of taxonomy, a franchise needs a compelling offering for a low-income clientele. For social franchisors the challenge is to hit on a commercially viable business model that provides a high-quality, socially beneficial product or service the poor truly want and will pay for.

On the whole, although many social franchisees are—or have the potential to be—financially sustainable, few have become commercially viable. Franchisors are often dependent on remittances of royalty fees—which are difficult to collect from franchisees—or on donor funds to keep afloat and provide pan-franchise functions such as quality assurance, training, branding, marketing and advertising. Indeed, financial self-sufficiency is often only a secondary objective in many donor-led efforts. And many social franchises have historically been in the least financially viable sectors of public health, such as family planning and reproductive health. Nevertheless, ample experimentation has allowed social franchisors branch out, with many aggressively seeking to increase their numbers and basket of services. Others have negotiated public-sector service contracts, formed partnerships with pharmaceutical manufacturers, or obtained commercial loans and private equity.

PARTNERS IN PERU: FRANCHISING WITHOUT THE FEES

One low-cost, no frills health care franchise that appears to be self-sustaining is RedPlan Salud (RPS) in Peru. RPS was established in 2002 by a local NGO, INPPARES—with support from USAID, Schering, and Pharmacia—to improve community access to quality sexual and reproductive health services and products. Its business model is similar to franchising, but without the franchise fees. INPPARES, the franchisor, provides RPS midwives with training, promotional advice, and brand-name drugs purchased at a discount from partnering pharmaceutical companies. INPPARES sells the discounted drugs to RPS midwives at a mark-up, which allows the NGO to realize a margin of between

20 and 40 percent on the drugs provided, a proportion of which goes to the midwives, and the rest goes to INPPARES in lieu of franchise fees. RPS midwives take advantage of the NGO's reputations and affordable branded drugs to attract women from low-income households to RPS's low-cost services. RPS thus achieved financial sustainability within 18 months. By 2007, it was operating in six cities, with 1,127 providers and half a million consultations. The continuing success of RPS, despite the withdrawal of USAID support in 2007, shows that social franchising can be economically viable if commercial considerations are fully taken into account.

Paraskilling MODEL 3

CORE MODEL ELEMENTS

Paraskilling entails all of the elements of No Frills (Model 2) plus:

- **Key processes reengineered** into smaller, often disaggregated, discrete parts that can be performed by lower-skilled workers.
- **Simplified and codified processes** that lower-skilled workers can perform on a high-volume basis many times per shift or per day.
- **Cultivation of a paraprofessional cadre** that has less education or skills than the professionals who customarily perform services. Paraskilling requires finding suitable staff members who see the business proposition as attractive and making substantial continuous investment in staff training, and heavy investment in segmenting the labor market. Retention through promotion or expansion is generally a key to success.

Paraskilling business models complement the no frills model, which operates in low-end markets for quality private-sector service delivery such as healthcare, education, and financial services. In such industries, wage rates for skilled workers are generally the greatest fixed costs. Enterprises that require high-skill labor inputs

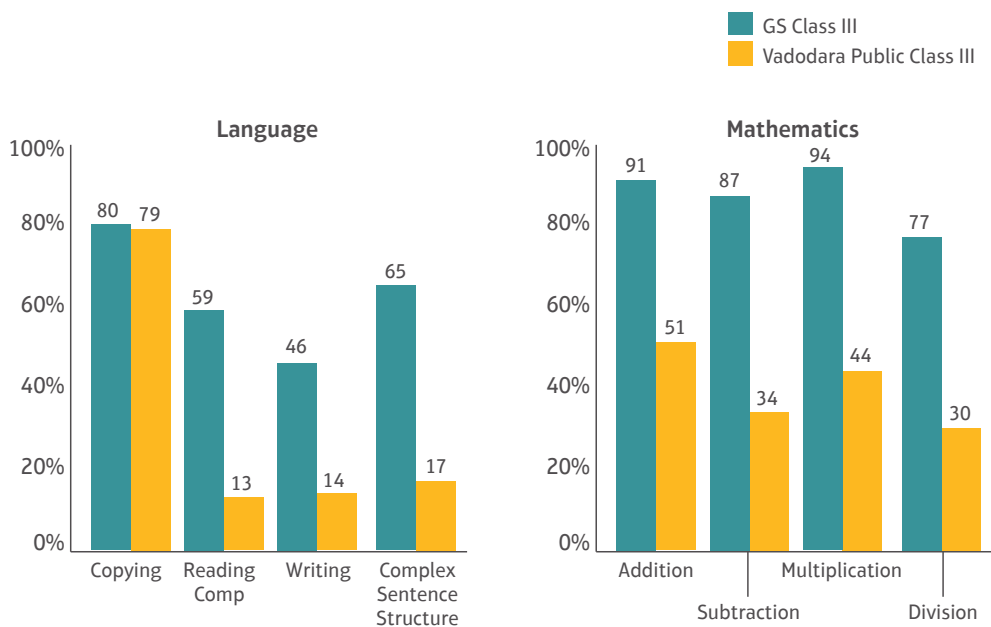
need to reduce staff costs and maintain quality of service, a sizable challenge in these markets.

Paraskilling offers a way to reduce the wage bill by disaggregating complex processes into simple, routine and standardized tasks. These can then be undertaken by less skilled workers, with the desired reduction in costs and a simultaneous increase of volume and throughput.

A pioneer paraskilling enterprise, Ahmedabad-based Gyan Shala (Hindi for “a school for knowledge/wisdom”) is an NGO provider of primary education to the poor. Gyan Shala’s 330 one-room schools, located primarily in slum districts, serve 8,000 children whose households earn between Rs. 2,000 and Rs. 6,000 (\$40-120) per month. Gyan Shala schools teach children in grades 1-3 at a monthly cost of \$3, roughly a quarter of the cost of a government school and about a sixth the cost of a recognized private school. School budgets are often subsidized by third-party funds to ensure affordability. Most parents pay Rs. 30 (\$0.60) per month per student.

Gyan Shala schools provide remarkable performance at uncommonly low cost. Comparative studies report test results showing Gyan Shala students outperforming students in the best government schools in Gujarat in every category (except “copying”), even when government-school children tested were a grade above.⁴⁰

Gyan Shala Students Outperform Public School Children in Every Subject, Except Copying

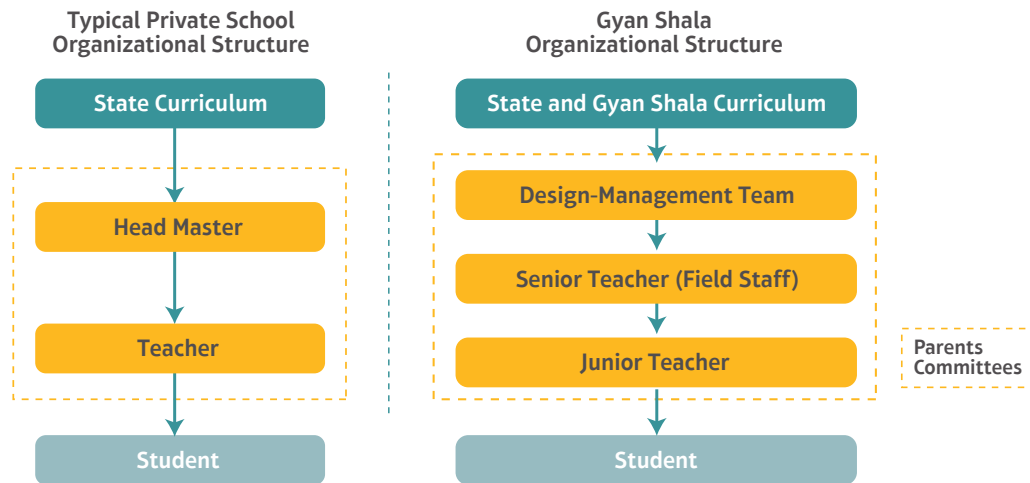


Source: Leigh J. Linden, “Complement or Substitute? The Effect of Technology on Student Achievement in India” June 8, 2008, Working Paper posted to <http://www.columbia.edu/~ll2240/Research.htm>, accessed January 4, 2009.

The Paraskilling System

These impressive results issue from a radically-engineered teaching methodology that focuses on learning processes. The senior Gyan Shala team created a teaching model in which a “master” design and management team of education professionals constructs a standardized curriculum and lesson plans, which are supplemented by extensive learning aids and continuous monitoring of classroom processes for regular staff feedback. Junior teachers then deliver a total learning package straight out of highly structured workbooks.

Standardization facilitates teaching by less-skilled individuals. Junior teachers are recruited from the community in which the school is located. They typically have a high school education and grade 5 skills in math and language, but lack the formal pedagogical qualifications required of government teachers. Instead, junior teachers are chosen for their local roots and an appropriate “attitude” toward teaching elementary school students.



Recruits undertake a two-week crash course before they enter the classroom and are required thereafter to attend a day of formal training every month, with additional training in the summer and mid-year breaks. Junior teachers are supported by a senior teacher with whom they have weekly meetings to explain the week's curricula and teaching process. Once a week, the senior teacher sits in on classes to give active support in teaching and hands-on training. Feedback from classroom

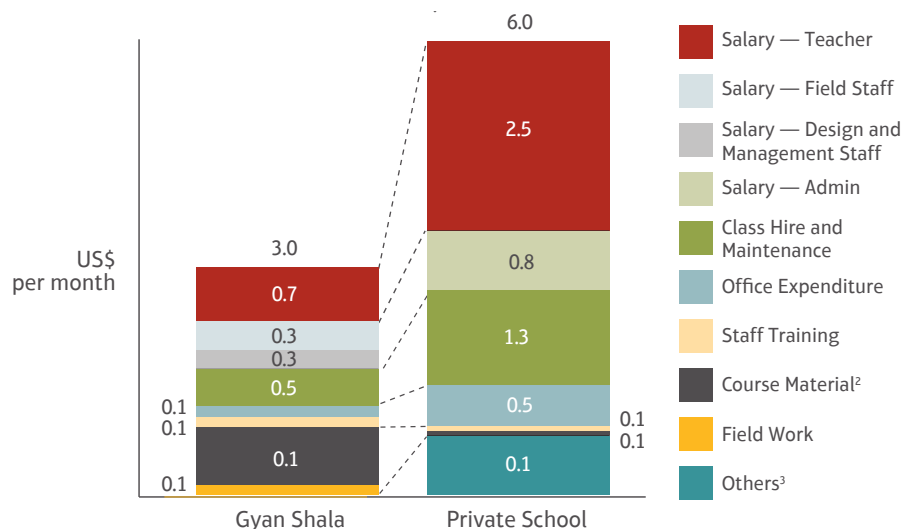
observation and student performance is critical: if supervisors believe practical or curricular improvements will help students learn better or more quickly, they will mandate changes to lesson plans or curricula.

Gyan Shala schools teach children in grades 1-3 at a monthly cost of \$3, roughly a quarter of the cost of a government school.

Cost Structure

Paraskilling enables Gyan Shala to lower costs significantly. Although the design and management teams are highly-skilled and command relatively high compensation, their cost is amortized over 300 classrooms. Most of the savings on wages are made on the junior teachers, who are paid Rs. 1,000 (\$20) a month for working three hours a day.⁴¹

Gyan Shala Schools' Teaching Costs Are Only 30 Percent of Informal Private Schools



1 Average school surplus (profit) is 25-30 percent of the revenue and school fee per student is often more than the tuition fee, as the monthly cost per child at a private school. 2 Worksheets and learning aids are provided by GS. 3 Others include fee concessions, unofficial payments. Note: Typical low-income school is often a private recognized/unrecognized school operating in urban slums and an average monthly fee of Rs. 150 per child. Source: GS Annual Report 2007, James Tooley, and Pauline Dixon, Private School Serving the Poor Working Paper: A Study from Delhi, India, (New Delhi: Centre for Civil Society, 2006); Monitor Interviews and primary research.

As the cost structure (above) shows, Gyan Shala has significantly-higher course material costs—Rs. 30 per child as against Rs. 3—than the typical private school. This is central to the Gyan Shala model, as extensive proprietary course materials reinforce the lesson and make it possible for junior teachers to succeed. Conversely, the amount spent on teachers’ wages is less than a third of a private school—Rs. 56 (just over \$1) compared to Rs. 105 (just over \$2).⁴²

Benefits

The use of local women is advantageous in three ways: local teachers tend to relate better to their young charges, increasing children’s willingness to learn. Renting single classrooms rooms in local slums improves accessibility and increases female

enrolment rates, and creates a “smaller size” offering. Moreover, providing junior teachers with formal employment improves their status within the community and increases both their earnings and their future earnings potential—a far cry from their usual alternatives of working as domestics or garment pieceworkers.

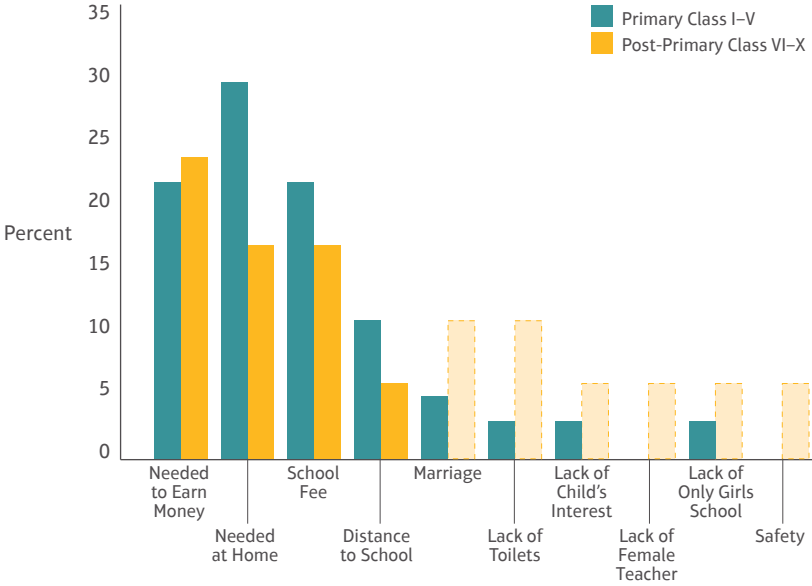
By retaining staff Gyan Shala minimizes training costs and keeps overall costs down. Formal teacher qualifications are low and the resource pool is wide, increasing the likelihood of recruiting the right people. And as junior teachers grow in skill, knowledge, and experience, some become senior teachers. Staff turnover is thus correspondingly low.

Scalability

Demand is high for Gyan Shala schools. Parents generally prefer to send children to private schools: between 1993 and 2002, 80 percent of new enrollments in urban India were in the private sector.⁴³ The standardized nature of the model also makes larger-scale rollouts easier once the course materials, teaching manuals, and curricula have been created. Indeed, the commercial success of the business benefits from economies of scale. Although Gyan Shala chooses not to operate on a breakeven basis, interviews with parents earning Rs. 3000/month and up suggest a strong willingness to pay school fees at a level that would sustain the business model commercially.

WHAT CUSTOMERS SAY

Gyan Shala Addresses Two of the Top Four Reasons That Girls Drop Out — School Fees and Distance to School



Source: Monitor Survey of Bihar parents, July 2008.

OTHER INDIAN EXAMPLES:

Health: Aravind Eye Care, Ambuja Cement Foundation; *Financial Services:* Spandana;
Education: Pratham

PREMIER PARASKILLER: ARAVIND EYE CARE

After Grameen Bank, Aravind Eye Care is perhaps the most celebrated of all enterprises serving the base of the pyramid. Its practice of paraskilling is in a most exacting market: for 30 years, Aravind has provided end-to-end eye-care services, screens more than 2.7 million people annually, and now performs some 285,000 surgeries a year.

The Aravind business model is built around process reengineering that disaggregates the entire course of care but is best illustrated by the surgical eye-care process. In redesigning the process, Aravind minimizes the demands on its doctors' time. Instead of a medical professional seeing the patient at each step, the doctor attends only to the preliminary examination, final diagnosis, and surgery. The rest is done by paraskilled paramedics, who are trained to do a range of clinical tasks: ward management, counseling, out-patient care, and serving as operating-

room nurse assistants. Paraskilled workers are also used in the administrative side of the business, in record-keeping, catering, optical implant sales, and so on.

As a result of process reengineering, doctors at Aravind are highly productive and patient throughput is high. Aravind does 2,400 surgeries per doctor per year compared to 300 in standard Indian clinics.

As with the No Frills business model, training and retention are critical issues for Aravind. Considerable investment goes into training, and to get a sufficient return, Aravind needs candidates to succeed as long-term employees. Like Gyan Shala and LifeSpring Hospitals, Aravind looks for educable young women who have an appropriate attitude, for which they are tested in writing and interviews. Dr. G. Natchiar, Aravind's Director of Human Resources, views a certain type of person as an ideal paramedic candi-

date: young women from poor families in rural areas, with average grades, “low aspirations” and a dose of common sense. Those who fit this bill—particularly those with “low aspirations”—are unlikely to look for other jobs, prefer to remain in their local communities, and on average stay with Aravind for a long stretch—an average of 10 years once past the first year.* When a new facility opens, more than 30 percent of the staff will be experienced paramedics from existing facilities. Aravind focuses intensely on retention and is mindful of its importance given the costs of required training. Aravind has so far benefited from a strong culture that builds loyalty. Its hospitals are also placed in smaller cities, where competition for staff may be less than in India’s largest cities.

Given Aravind’s success, the question becomes why hasn’t its business model been replicated? It’s not that the

model is unique: it’s the unique application—across all the elements of paraskilling—in an unusually demanding business. Most who try to replicate just focus on price cross-subsidization, or use of low cost labor, or other discrete particulars of Aravind’s practice, but not the full package including, especially, the recruitment and training side of the equation. And, in the end, it’s this intensive training requirement that is the greatest challenge in implementing a paraskilling business model.

* On average about 7-8 percent attrition occurs in the first year as trainees and employees.

Shared Channels MODEL 4

CORE MODEL ELEMENTS

Distribution arises repeatedly as an obstacle to scale and business viability for socially beneficial products, especially those aiming to reach the rural poor. Shared channels piggybacks the distribution channels of other enterprises, reducing costs and increasing reach through:

- **Use of existing distribution platforms**, which can be already functioning channels or networks created for other purposes.
- **Increased field force responsibility** to carry multiple products from a single hub deeper into the rural areas.
- **Proper incentives to all participants in the distribution chain**, including warehouseers, intermediate distributors, and end dealers, so that margins approach levels competitive with existing products/services sold.
- **New alliances** to allow specialization by task or capability — e.g., those with better logistics and fulfillment capability might handle physical delivery, or a channel can provide group-customer introductions to product-specific field forces.

Distribution poses key obstacles to scale and viability of enterprises attempting to reach the poor with socially beneficial products. That's because the poor are costly to reach, and there are few direct channels to them. Indeed, a remarkable 97 percent of India's retail landscape is in the "unorganized sector."⁴⁴ Distribution channels similar to those that serve middle class customers—networks of wholesale distributors and a mass of informal *kirana* shops, grocers, pharmacies, and other small-scale retailers—extend into slums and poor rural areas.

Although India's retail sector is changing rapidly,⁴⁵ formal retail outlets target primarily upper income groups in urban areas. These channels rarely provide the education or push needed to vend socially beneficial products such as condoms, water purifiers, solar lanterns, and insurance down toward the base of the pyramid. As such, it is imperative—but difficult—to find suitable channels able to reach low-income customers and also fulfill important customer education or sensitization roles. The task is made harder by the fact that many socially beneficial products are "push" products, unfamiliar to the low-income segments and requiring behavior change or paying for something they formerly received free. Credit is a notable exception, and its presence can at least create a "pull context," but cannot solve these problems alone. And as indicated above, borrowers have distinct preferences for their credit-enabled purchases.

Not surprisingly, the traditional way of selling socially beneficial products is by creating a proprietary sales force and—along with after sales, service, and other primary functions—use it to provide any needed customer education. Although it may seem obvious, this was the single most frequently occurring mistake the study found. Custom channels often result in uncompetitive product prices and non-scalable business models. Because socially beneficial products need to be priced as low as possible to reach the greatest number of potential customers, expensive

Although it may seem obvious, creating a custom channel was the single most frequently occurring mistake.

proprietary distribution channels add to ticket price and thus diminish the potential market. So too do attempts to employ poor people in proprietary distribution channels as an explicit part of the distribution strategy.⁴⁶

NEST's Proprietary Channel adds 23 percent to the product cost



Source: NEST

New Channels

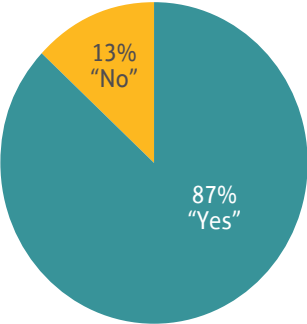
Recently, an increasing number of new, non-traditional distribution channels that directly reach the rural poor have reached critical mass in India. These have attracted interest from producers who recognize that sharing channels will increase market penetration. For example, MFIs now have some 14 million customers and self-help groups in India now reach some 35 million rural low-income women.⁴⁷ Agricultural co-ops include more than 230 million farmers, most of them poor. And several high profile initiatives — from Project Shakti⁴⁸ of Hindustan Unilever Limited (HUL) to e-Choupal of ITC — aim to distribute everything from soap, to cosmetics, to health insurance and other non-traditional products and services.

MFI strike many producers as an especially attractive channel: most rely on a proprietary direct sales force and offer the appealing synergy of distribution along with access to credit—in effect, goods plus financing. For example, HUL and several partners, including ACCESS, a network of NGO-based MFIs in India, have had recent success in distributing HUL’s Pureit filter along with credit in Andhra Pradesh. HUL initially sold 1,500 units in six months in a pilot phase, and the partnership is now expanding to Rajasthan and other states.

Even so, several prominent attempt attempts to distribute socially beneficial products via MFIs—insurance, solar lanterns, and mobile phones, for example—have been notable disappointments. In general, the MFI channel can handle additional capacity but needs managing to avoid overstretching its capabilities. Functions such as order fulfillment or after-sales service are better performed by dedicated sales forces working with MFI representatives, who are better used mainly as door openers. This type of hybrid approach might enable a sales force to cover far more territory.

WHAT CUSTOMERS SAY

Would you buy the pump if you could pay for it with long-term credit?



Source: Monitor Focus Groups, 2008

“I’ve always wanted a phone but didn’t have the money at any one time—the main reason I bought the phone from SKS is so I can pay it back over many weeks.”
- Customer, Andhra Pradesh

Some manufacturers have started experimenting with a class of “semi-rural organized retail” stores emerging in India and elsewhere. These rural supercenters—such as Hariyali Kisaan Bazaar or ITC’s Choupal Saagar—sell products ranging from fertilizer and agricultural inputs to small durables and scores of other items from tie-ins with pharmacies and other sources. Each store has a small field force to extend its reach deeper into rural areas and is experimenting with product mix in smaller villages. This channel doesn’t yet reach very far into the base of the pyramid, but is rich with possibilities.

Shared Existing Channels

India and other countries have experimented with shared distribution via co-operatives. Although co-ops can be difficult to work with, given their many layers and fragmented decision rights, they are a potentially high-value channel. The South Indian state of Karnataka, for example, has over 26,000 cooperative societies, with nearly 19 million members. An insurance provider, Yeshasvini, uses co-ops to reach more than a million rural co-op members. The insurance costs about Rs. 10 per person per month and covers over 1,600 surgical procedures, including maternal delivery and outpatient consultation.⁴⁹

Although the insurance model isn’t commercially viable—it still relies on public subsidies—early returns on distribution issues from the shared channel were encouraging. For Yeshasvini, the co-ops are a platform for access, distribution, customer education, and collection of premiums, while over 200 hospitals in Karnataka provide cashless treatment to Yeshasvini members. Shared distribution, however, is not the sole key to the model: it also aggregates co-op members into a group risk pool that now has access to good insurance coverage at a reasonable price. As of 2007, some 33,000 people had made claims, and another 200,000 received cashless outpatient care each year. And of all the potential market-based solutions examined by Monitor, Yeshasvini was among the fastest to scale, almost solely because it relied on an existing co-operative network. It reached its first million customers after just two years.

THE MULTINATIONAL AND THE MFI: THE GRUPO BIMBO-FINCOMÚN PARTNERSHIP

In Mexico, small shop-owners at the base of the pyramid are gaining access to credit via an innovative channel-sharing arrangement between a small national microfinancier and a large multinational corporation, in which the MFI does the piggybacking rather than the other way around. In 2002, FinComún, an MFI with some 45,000 customers, entered into an alliance with Grupo Bimbo S.A., the eighth-largest baked goods corporation in the world, whose Mexico distribution network includes some 450,000 small retailers — 20 percent of whom regularly ask for credit. The partnership allows Bimbo to take advantage of FinComún's credit expertise while FinComún taps into Bimbo's channels and product delivery methodology.

The FinComún-Grupo Bimbo business model is particularly attractive for its simplicity: FinComún agents go out in Bimbo supply trucks, learning from driver-deliverymen along the way the payment history of Bimbo customers. As the drivers make deliveries, the MFI's agents discuss loan programs with Bimbo customers who have good payment records. Afterward, shop owners interested in FinComún programs can book a lengthier meeting. For its part, Grupo Bimbo is trimming bad debt, reducing the interval in which loans are repaid, and successfully offering its clients access to credit. The typical loan size can be quite small — as little as \$50 — and, within two years of the partnership, 20 percent of FinComún's business had originated through its Bimbo connection. The partnership has ample room to scale.

Even under the best of circumstances, it is critical to align incentives correctly throughout the channel all the way through the final distributor. Although an elementary point, it is consistently overlooked by small-scale enterprises. A telling example is the experience of Servals, the small manufacturer of cook stoves whose cautionary tale—and storybook ending—is related in the introduction.

The benefits of a shared channel extend to scale economies in reaching the poor and increasing the variety of products and services available to them. Shared channels are clearly scalable, as multiple manufacturers can share the costs of channels that would otherwise be too expensive for any single producer. India's success in rural telecommunications illustrates the point: regulators ordered the major mobile carriers to share the cost of building rural towers, thereby extending coverage and providing access to millions of people. No carrier by itself could have generated enough demand or volume to warrant the investment, but by sharing the cost, rural service expanded exponentially.⁵⁰

Challenges Require Imagination

We expect to see continued channel-sharing experimentation in India and elsewhere. Creative arrangements may be necessary to bring private actors together. Many channels that could be shared—for example, those of HUL's Project Shakti—were designed originally to sell only one firm's goods. And some channels are simply not set up to sell products at all. India has an extensive rural and state-owned banking network, but regulations prohibit its use to sell physical goods.⁵¹

OTHER INDIAN EXAMPLES:

Food Security: SERP (rice delivery); *Livelihoods:* ITC e-Choupal insurance, Moksha Yug Access; *Agriculture:* NCDEX/PCOs (futures pricing)

PHILIPPINES' GLOBE TELECOM: A HARBINGER OF THINGS TO COME?

This report notes that, in addressing low-income segments, large corporations will generally avoid high marginal-cost ventures like conventional branch banking and that middle-market business models cannot expect to succeed by simply slimming down for the low-end markets. In the Philippines, however, Globe Telecom is doing both—but with a twist.

As an established leader in telecommunications services for low-income Filipinos, Globe has already established a strong understanding of these customers, their needs, and purchasing power. Globe now seeks to build on that foundation, in tandem with its sister bank, BPI (Bank of the Philippine Islands). But instead of BPI trying to migrate its middle-market model of branch banking to low income segments, it is joining with Globe to fundamentally reinvent its offer and model for markets at the base of the pyramid.

The Globe-BPI joint venture is set to operate a new microfinance bank that would combine the telecom company's distribution network and mobile commerce platform with BPI's banking technology to serve customers in a new

way while dramatically lowering cost. The venture subsumes within it BPI's wholesale microfinance business and focuses on serving large microfinance clients that are growing into small-and-medium enterprises. The bet is that the distribution-banking combination will create sufficient automation and cost reduction to establish a profitable business. For both companies, this is an attempt to leapfrog: the business model allows BPI to grow through a low-cost distribution structure and an approach aimed squarely at the poor, and it gives Globe further penetration into financial services without having to build out infrastructure in the trade, getting the banking licenses, or learning banking capabilities.

If proven out in practical results, the Globe-BPI business model might find itself at the fore of a trend in which big firms with large fixed cost investments and a comfort zone in serving low income segments—as many telecom companies are finding—eventually branch into other services, leveraging knowledge and assets already in place. Indeed, mobile banking is already a “hot topic” at CGAP and other places considering the future of financial services to the poor.

THE POOR AS SUPPLIERS, PRODUCERS, WORKERS

India's ground-realities paint a challenging picture: of the 450 million or so jobs in India, over 90 percent are in the informal sector. Most of these require relatively low-skilled labor. Currently, of the more than 200 million households that occupy the bottom 60 percent of India's income pyramid, more than two-thirds are in agricultural production, either as landholders, providers of day-labor, or both. A distant second in the magnitude of employment is the construction sector, followed by textiles, handicrafts, and labor-intensive sub-sectors of industrial manufacturing.⁵²

Our efforts have focused on business models in these sectors.⁵³ The demand for low-cost labor in India, already significant, had been growing rapidly until the recent slump. As of mid-2008, construction alone was expected to command 5 million additional jobs each year; textiles, retail, security, and Special Economic Zone expansion were each forecasted take up over a million laborers a year. More than ever, a variety of enterprises—large businesses, third-party intermediaries, and organizers such as co-operatives—are engaging the poor as suppliers.

The reason why enterprises are increasingly engaging low-income segments as suppliers lies almost wholly with its cost function: their labor is inexpensive and, in most cases, underpriced. It is abundantly available—in uniform, large chunks for centralized production (like textile factories or large-scale construction sites) or in small, incremental pieces for essentially multiplying a household's productive time (as in poultry or crafts production). Moreover, low-income workers will generally underprice—if they price at all—their capital, equipment, and land assets.

Although the growth of the formal economy is giving rise to rural-urban migration, it will be decades before the balance shifts toward the cities, at least in India or Africa. Meanwhile, those who would create market-driven business models employing rural suppliers—now mostly small agricultural producers or dairy farmers—will face a host of particular challenges, and none more formidable than that of scale.

Monitor investigated over 130 enterprises attempting to engage the poor as suppliers, producers, or workers. Most failed to scale, largely due to a common set of barriers that are endemic to low-income suppliers, who are generally:

- *Dispersed, hard-to-reach, and therefore expensive to aggregate through direct engagement.* In India, more than four-fifths of impoverished people currently live in remote, rural areas.
- *Participants in intermediated, inefficient, and opaque supply chains.* Each level of intermediation amounts to lost value in many segments along the length of the chain as a result of significant transaction costs and inefficiencies. And because the transmission of information along these chains is incomplete and obscured, low-income suppliers are closed off to current market signals; enterprises seeking to work with them often experience difficulty in transmitting direct market signals down the chain, whether on price, quality, or demand.
- *Generally unable to finance the costs involved in switching supply chains.* Getting base-of-the-pyramid suppliers to switch from legacy crops or traditional occupations to better-value production is difficult and expensive for a prospective market-driven venture. One way of promoting a switch is to assist in financing their participation in new supply chains, which many enterprises are reluctant to risk, primarily due to the retention problem.
- *Often difficult to recruit and retain on terms favorable to the enterprise.* This is particularly so in informal, typically unskilled settings, where the decisions of low-income suppliers follows short time horizons and are usually unconstrained by long-term contractual

relationships. The problem of retention is compounded by the phenomenon of “side-selling”—suppliers trying to increase their income in the short-term by selling their produce or labor to third parties—which creates disincentives for firms to invest in training low-income suppliers.

Moreover, in engaging the poor as suppliers, quality control and standardization are problematic and contribute significantly to enterprise costs. Quality assurance becomes more expensive higher in the supply chain, as the cost of returns or reworking becomes steeper. The enterprise’s commercial interest is thus best served by building in QA checks as close to bottom of the chain as possible.

The business models we single out here provide imaginative ways to help overcome these structural hurdles and enlarge opportunities for low-income rural workers. They also have one thing in common: they all are organized at or near the top of the supply chain. A frequently recurring development livelihood intervention is to aggregate producers at the bottom of the supply chain, provide them with better information, or build assets in the middle of a given value chain (for instance, agricultural warehouses or terminal markets). Very few such interventions studied by the project, however, resulted in significant, scalable effects on livelihoods. Here more than in any other area we found a number of business models much greater than the three we see as being viable.

WHAT DOESN'T WORK IN ENGAGING DISTRIBUTED SUPPLIERS: FHEL'S EXPERIENCE

The development world has produced a slew of intervention schemes built around convincing small, marginal agricultural producers to switch from low value-added products to higher value ones—thus helping producers “jump supply chains” and realize improved incomes. The traditional approach proceeds from the recognition that aggregation is generally beneficial to small producers but takes a wrong turn by relying on a “bottom of the supply chain” approach. That is, many NGO, government, and donor-funded schemes focus on organizing farmers into producer groups or co-operatives, training them to grow or produce something new, covering startup or switching costs, and then promising to help find markets for their product. But when the markets fail to materialize, everyone loses.

Even private firms fall into this trap, as illustrated by Fresh and Healthy Enterprise Limited (FHEL) in India, which tried a “middle of the supply chain” intervention. FHEL is a fully owned subsidiary

of the Container Corporation of India Ltd. (CONCOR), incorporated in 2006. Seeing that 30 percent of the fruit and vegetables in India are lost due to poor post harvest management, CONCOR set up FHEL to build a world-class cold storage infrastructure, thereby delivering a complete cold-chain logistics solution to the stakeholders in this area.

FHEL opted to procure and market apples, both domestically and internationally. It also chose to source the apples by going directly to the farmers. FHEL provided pre-harvest and post-harvest assistance to apple farmers in the state of Himachal Pradesh. Pre-harvest assistance included:

- Guidance on proper cultivation to ensure better quality fruit and better yields.
- Testing of maturity and color of apples by trained personnel.
- Picking at appropriate time.

Post-harvest assistance included:

- FHEL-designed cartons for crating and shipping.
- Cold storage facilities.
- Grading and sorting on computerized automatic sorting/grading lines.
- Dispatch of apples to customers.

FHEL has invested more than \$17 million in infrastructure and assistance to farmers since starting operations in 2006. Yet as of January 2009, FHEL is sitting on tons of apples in storage and has no buyers. Why? It failed to address top-of-the-supply-chain issues from the very

beginning. Considering the hype over the huge Indian market for fresh fruit and vegetables, FHEL assumed there would be ample numbers of buyers.

Meanwhile, farmers had switched from their original buyers to FHEL—but because FHEL couldn't sell off its inventory of apples, it couldn't make additional purchases from the farmers. Thus the farmers too were left without a buyer. As a result, they either had to return to the local *mandi* or try to reconnect with previous buyers. With FHEL-provided training, the farmers may now be more efficient growers, but they've lost income and their lives have been disrupted.

Contract Production MODEL 5

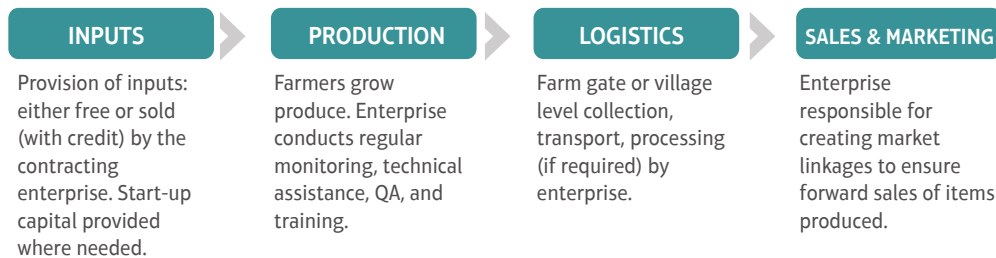
CORE MODEL ELEMENTS

A typical agricultural contract production arrangement has five features:

- **Agreement to future purchase**, usually at a predetermined price. Payment is typically made at the time of purchase, on the spot.
- **Provision of inputs and other resources** such as seeds, fertilizers, and pesticides — or, in the case of poultry, chicks and feed — on credit to each contracted farmer, usually at the village. Technical advice and assistance may also be provided.
- **Technical specifications** that include requirements and standards for farmers' use of inputs, quality assurance, permissible varieties, cultivation and harvesting, and sometimes even packing and shipping.
- **Direct collection**, often from the farm-gate but sometimes delivered by the producers.
- **Onward sale and fulfillment**, in which the contracting enterprise maintains the market relationship and grades, processes, packs, and ships the harvested commodity.

A contract production⁵⁴ deal is generally a simple assured buy-back arrangement (often with pre-negotiated pricing) between an enterprise and the supplier. The contractor usually furnishes a range of inputs and later collects outputs, essentially outsourcing all production to the supplier.⁵⁵ Contract production is an appealing model for engaging low-income segments in supply chains because it makes use of their comparative advantages: low-cost labor and land. When well implemented, the model builds stable networks of suppliers in a way that creates cost and quality advantages for the contractor.

Role of the Supply Chain Organizer in Managing Contract Production



The model has several attractive features that align risks and incentives at the appropriate places in the supply chain. In particular, contract production:

- Transfers risk and capital requirements away from small, low-income suppliers to larger organizations better suited to absorbing them.
- Aligns the incentives of the top-of-the-supply chain organizing entity with those of small producers, enabling the latter to function as an aggregate.
- Covers small producers' cost of participation and reduces their risk by guaranteeing a market for their output, often at a fixed minimum price, frequently above spot-market value.

- Provides a steady cash flow to contract farmers and encourages them to stay with the contract provider.
- Ties small farmers directly to demand sources and eliminates the need to participate in intermediated supply chains with low-margin commodity crops.

Calypso Foods is a specialty fruits and vegetables exporter that has organized its supply chain end-to-end to grow, process, pack, and export processed foods such as gherkins (pickles), pineapples, and sweet corn, mostly for European markets. The company works with about 5,000 farmers, primarily on a contractual basis, and is a private, for-profit firm with revenues of \$6 million in 2008, up from \$4.5 million in 2007.

Calypso's gherkin business includes a network of over 2,000 farmers in southern India. The contract farming area is divided by Calypso into six "clusters," each covering 20 to 25 villages, about 300 acres of land, and several hundred farmers. Clusters are run by an area manager and six field supervisors who are each responsible for three or four villages.

Calypso targets the middle strata of the country's farmer population, with an average landholding of between two and five acres and average monthly household expenditure of Rs. 4,000 (\$80). The land must meet Calypso's standards for soil composition, and participation in the supply chain requires each farmer to allocate up to half an acre for gherkin cultivation. Farmers must also have access to irrigation; in some cases, this may mean willingness to install drip irrigation, for which financing is made available (up to Rs. 5,000, or \$100).

Calypso bears the costs and risks of getting started, especially with a new and unfamiliar crop, and the Calypso model covers all phases of activity in the supply chain. First, it provides inputs, making seeds, fertilizers, and pesticides available to

contract farmers on affordable credit. It also provides technical assistance through field supervisors who visit each farmer twice a week.

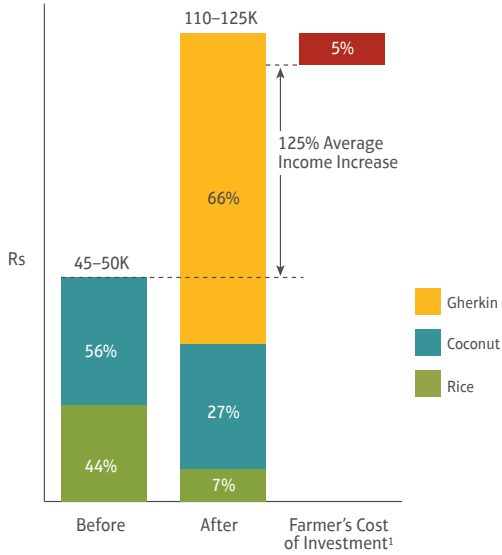
Farmers are paid in installments every two weeks to guarantee cash flow. At the harvest, a Calypso buying team collects crops at a depot in each village. The same plot of farmland can yield two-three harvests a year, but for a single farmer, crop rotation can increase this number. Finally, gherkins are graded, processed, packed, labelled and exported to end distributors.

The cost of inputs and cultivation to Calypso account for about 16 percent of total export production costs, or about Rs. 8 of a Rs. 52 end sale price (per kilogram of gherkin). The benefit to Calypso of this form of sourcing is an assured supply that is less expensive to acquire than if it had to purchase or lease the land, hire the workers, and centrally manage production—Calypso calculates its costs would rise by some 30-40 percent per kilo of gherkin to do so.

The benefit to Calypso of this form of sourcing is an assured supply that is less expensive to acquire than if it had to purchase or lease the land, hire the workers, and centrally manage production

The Calypso model also clearly benefits the farmers, who see up to a 125 percent increase in net annual income, as well as skills upgrades through adoption of GAP-type practices⁵⁶ in cultivation and handling to suit European-supermarket procurement standards.

Gherkin Cultivation Accounts for a 125 Percent Increase in a Farmer's Income



Source: Management interviews and field visits; Monitor analysis.
 Assumes average landholding of 4 acres with 1 acre under gherkin cultivation
¹amortized investment

Farmers also benefit in numerous other ways. They gain experience growing higher-value crops, even though most diversify and continue to grow traditional crops and staples. Buy-back guarantees mean they are insured against income uncertainty and risk arising from market fluctuations. And the model yields second-order income benefits: because gherkin farming is labor-intensive—250 to 300 labor-days per acre—farmers hire other landless workers to help in the fields, thereby generating additional employment and incomes.⁵⁷

Business models similar to Calypso’s are already in use and scaling up in many emerging markets elsewhere for crops that include rice, cotton, flowers, and vegetables. Contract production is profitable for the operator, can be replicated for different crops and products, and provides significant cost advantages—a worthy “solution.”⁵⁸ And at a system level, it efficiently makes credit available where needed and keeps infrastructure investment aligned with market needs.

Downside Risks

Despite its scalability and economic benefits, contract production is tricky to implement, as FAO and others have noted. Assuring a fixed price to participating farmers implies the contractor will assume the entire market-price risk. Calypso guarantees a fixed price market for the entire crop. In Calypso's case, gherkin prices have remained steady since 2004; consequently, it has not had to deal with the potential effects of falling prices, which can obviously complicate relationships with the farmers.

Rising prices pose an additional, potentially more insidious, problem: side-selling. This occurs when suppliers seek short-term advantage and break the contract by selling to third parties, usually at a local spot market. In such instances, the contractor will take the loss (unless its contracts can be enforced—which, given the time, cost, and vagaries of local jurisdictions, may be problematic). And if side-selling is rampant, the enterprise may have trouble meeting its commitments to its customers—an occasional problem for Calypso in its pineapple business.⁵⁹ To curb the practice, a contractor can control input provision so as to penalize the farmer by refusing to re-engage if side-selling occurs. The contractor can also select crops that have no local spot markets—like gherkins, which aren't part of Indians' diets. Such a course may narrow application of this model to niche markets.

“Switching time”—the time taken by farmers to earn a return from the new contract crop—is a third hazard. One contract production scheme, run by Agrocel in Gujarat aimed to convert farmers to organic cotton production, a switchover process that usually takes a non-organic farm at least three years to complete. However, over three-fourths of the small farmers in the scheme couldn't wait the three years for the eventual payback—they switched to BT cotton, a commercial, genetically-modified variety that generates quicker returns. Agrocel's experience illustrates the farmers' low appetite for risk and the short time horizon needed to switch a farmer out of a traditional activity. And all of this happened in a program where the switching costs were already being financed by Agrocel, which was near the top of the supply chain (selling directly on to Marks & Spencer).

CONTRACT PRODUCTION OUTSIDE OF AGRICULTURE: FABINDIA

Direct sourcing deep into the pyramid also works beyond agriculture in sectors where low-cost, distributed labor can be aggregated efficiently. In general, unskilled workers lack resources to invest in training themselves or in financing a switch to better supply chains (or trade) or to producing better quality goods or services. As a result, they hop frequently from job to job in search of the best deal and may not honor a given deal for long.

Several employers have found ways to engage unskilled workers productively. Fabindia is a well-known commercial retailer of clothing, home décor, and other goods in urban India. It set up 17 Community Owned Companies (COCs) to coordinate supply from more than 13,000 individual craft artisans who make clothing, housewares, and other goods to Fabindia specifications. The retailer has increasingly pushed the quality-assurance function down to individual COCs, much as agricul-

tural models push the grading and sorting function further down the chain.

The arrangement between the parties is not exclusive, although Fabindia provides incentives to the COCs to refrain from side-selling. In fact, unlike the traditional artisan co-operative arrangements, Fabindia co-owns these COCs with their supplier artisans—in each COC, 25 percent of the shares are reserved for artisans, which creates incentives for individual workers to join the COC. Consequently, they receive not only payments from the value of the contracted goods but also occasional dividends as their equity appreciates. One reason these arrangements work is because demand is growing so rapidly—Fabindia has expanded from 65 stores in 2007 to its current 97—that the retailer can absorb all the COCs can produce and then some. How the company manages this potential issue if demand slows in the future will bear watching.

Finally, a key issue involves how enterprises might best implement a market-based business model that creates positive income effects for the farmers and also engages low-income segments. Generally, incentives will move contractors in the opposite, less costly direction of contracting with fewer larger suppliers: it's less complicated, requires fewer purchase agreements, has simpler logistics, and so on.

Despite the genuine risks, contract production is a profitable, scalable business model that provides significant positive income effects for low-income farmers.

The bias in contract production will always be towards bigger producers. Monitor investigated several enterprises in India that reached at least some smaller farmers, but the number varied—50 percent of Eurofruits' suppliers, less for Suguna Poultry.⁶⁰

Those wishing to create business models that are both profitable and engage the poor as suppliers need to determine the right product(s) to source and the ways in which the economics of collection might best include smaller producers. We've seen successful ways to make this happen: by first saturating an area with medium-sized farmers and then moving to incorporate smaller farmers on top of existing fixed costs; or by creating local collection depots where small farmers can drop off and combine produce for the supply chain organizer.

Despite the genuine risks, contract production is a profitable, scalable business model that provides significant positive income effects for low-income farmers. Although primarily applicable in specific niche situations, the markets for which it most suited include some of the most rapidly growing in emerging-markets agriculture: fruits and vegetables and poultry are expected to grow at 33 percent over the next five years—nearly 16 times the rate of agriculture in general in the developing world.⁶¹

OTHER INDIAN EXAMPLES:

Agriculture: KBRL, Pepsi, Mahagrapes, DFV, Agrocet; *Poultry:* Suguna Poultry, Pradan, Shanthi

**A CELEBRATED BEE SCHOOL —
HONEY CARE AFRICA**

An innovative, for-profit Kenyan company, Honey Care Africa has grown rapidly to become the largest supplier of high quality honey to East Africa. Founded in 1999, Honey Care now sources directly from some 12,000 farmers, 47 percent of whom are women. For the vast majority of Honey Care's beekeepers, honey offers supplementary income for a low level of effort; most tend four beehives for some 15 minutes every two weeks or so. In the first year, four hives produce a single harvest of some 60 kilograms—which equals about \$80 income against a \$220 upfront investment. After the initial year as the hives become more established, income increases to between \$200 and \$250 per year.

Honey Care organizes every segment of its supply chain end-to-end from the top, helps arrange financing, and provides training and field services for participating farmers. Upon identifying a promising new catchment area, Honey Care sends a representative in to promote its model and reach out to village and farmer organizations and local self-help groups for support in spreading the word. Farmers who offer Honey Care “an expression of interest” are connected

to MFIs or NGOs to borrow the initial capital investment of \$220. Honey Care does not itself finance loans but ensures loan repayment through deductions from farmers' incomes, transferring these directly to the lender.

Farmers receive two-and-a-half days of practical hands-on training through local agricultural colleges, after which they sign a contract in which Honey Care guarantees to buy all their production at prices in line with the Fair Trade Labelling Organisation (FLO) recommendations. Honey Care's field staff services “collection points” located near clusters of villages and brings in the gathered honey. Field staff earnings are partly based on the amounts of honey collected.

As might be expected, side-selling is a substantial challenge for Honey Care. Its beekeepers are liable to migrate to alternative buyers for even a modest premium. Honey Care counters this by committing to “consistent good quality service” to the farmers, who have begun to realize the value of not defecting. Regular interaction with the field staff ensures a measure of oversight and keeps side-selling to the minimum. Honey Care also makes rapid payments, which also helps to keep farmers loyal.

Deep Procurement MODEL 6

CORE MODEL ELEMENTS

Most direct, deep agricultural procurement schemes involve common features:

- **Market linkages** to major buyers with information on pricing, required quality, volumes, etc. passed directly on to producers.
- **Direct purchasing relationships with the farmer**, often through spot-market procurement, with assured payment, and bypassing traditional middlemen and layers in the chain. Pricing is not, however, guaranteed in this business model.
- **Quality assurance** closer to the source, resulting in lower overall costs.
- **Direct collection** that can include spot collection platforms for purchase, arrangements for farmers to deliver directly, or aggregation points where smaller producers can assemble their produce before grading and shipping.
- **Technical assistance** provided through training and instruction on market requirements, with some schemes using extension services or their own training force.

A recurring theme in engaging low-income segments as suppliers is the need to overcome formidable barriers to reaching them. In the case of the rural poor, the obstacles are both geographical—dispersed farms and communities—and organizational—overly complex and inefficient supply chains. In tandem, these barriers mean the proprietor of a small vegetable farm in India, for example, may realize only 25 percent of the eventual market value of his produce. Intermediaries such as transporters, traders, commission agents, and wholesalers typically extract between 30 and 45 percent of the final market value, while spoilage and wastage may account for up to another 30 percent lost.

Costs of Intermediation and Wastage Represent Significant Opportunities to Increase Incomes of Tomato Farmers

SYSTEM COSTS		OPPORTUNITY
Wastage (to first point of sale) ¹	14%	
Commission	3%	42%
Large Wholesalers	25%	

¹includes wastage between farm gate and first point of sale and produce that never makes it to the market.
 Source: Monitor primary research at *mandis*, farmer interviews.

The high supply-chain costs suggest opportunities for direct sourcing from those near the base of the pyramid. Indeed, some prominent private companies—Reliance, ITC, Birla, ShopRite, and the Future Group—are already managing their own supply chains in new retail operations for fresh fruits and vegetables. Other companies like Tata, DCSL, and Mahindra, which traditionally operate in discrete segments, are expanding elsewhere in the supply chain. The most prominent example is ITC’s now famous e-Choupal initiative, which relies on village-based kiosks,

the Internet, and its own collection points to bypass local *mandis* for crops such as soy and wheat, which delivers procurement cost savings to ITC of about 1.5 percent per transaction, spread over millions of transactions.⁶²

So far, these private initiatives are sourcing from relatively large farms and have not fully engaged the poor living further down the income scale. The reason is simple

Several innovators are pioneering financially viable business models that engage small producers in supply chains. These apply not only to agriculture but also to other sectors such as light manufacturing and construction.

economics: it's easier to deal with a few big producers rather than manage many small ones. But several innovators are pioneering financially viable business models that engage small producers in supply chains. These apply not only to agriculture but also to other sectors such as light manufacturing and construction.

In the south Indian state of Andhra Pradesh, the Society for the Elimination of Poverty (SERP), a public agency, organizes more than 800,000 poor women into self-help groups and federations primarily to provide access to credit, banking, and other services. It has also

arranged buyer relationships with two large agencies of the state government, Civil Supplies Corporation (CSC) of India and AP Markfed (a government-created co-operative marketing organization), to procure commodity crops like maize and rice from farmers in the SERP network and sell them on to buyers at the top of the supply chain.

As part of the arrangement, SERP has scattered extremely low-tech procurement centers—usually weighing scales, tarps, quality-assurance mechanisms, and check books—every four to six miles across rural Andhra Pradesh. SERP agents, who

are usually members of self-help groups, staff the centers, procure the crops at established prices, provide quality assurance, and then aggregate their purchases at local hubs for eventual sale to AP Markfed and CSC.

The deep procurement model benefits all its parties. The small farmers receive significant savings on their per-sale transaction costs—up to 90 percent per sale—and fair terms for their produce at collection stations relatively close to their homes. This translates to about a 10-15 percent income effect annually, driven by transaction cost savings. The model also benefits CSC and AP Markfed, which estimates a saving of about five percent over traditional intermediated sourcing.⁶³ At the same time, the model lowers costs by sorting and grading of produce at earlier stages in supply chain. SERP realizes commission revenues to cover the costs of the network and its operations. Finally, the self-help group members who staff the SERP procurement centers find productive employment.

This deep procurement model is highly scalable. Monitor has modeled an enterprise for commercial procurement of fruits and vegetables similar to SERP that would sell directly to bulk buyers—organized retail and agri-processing sectors. The model provides savings to the purchaser at the top of the supply chain (ranging from 17 to 24 percent), income benefit to the small farmer (from 10 to 30 percent, depending on farm size and the portion of a farmer's income that accrues from fruits and vegetables), and profitability for the operator of such a network after three years.

Direct sourcing deep into the base of the pyramid also works beyond agriculture in sectors where low-cost labor can be aggregated efficiently and where there are long, intermediated sourcing chains. In general, unskilled workers lack resources to invest

Small farmers receive significant savings on their per-sale transaction costs — up to 90 percent per sale — and fair terms for their produce at collection stations relatively close to their homes.

A MULTINATIONAL CORPORATION IN THE MILK BUSINESS: NESTLÉ PAKISTAN

Nestlé Pakistan's deep procurement model collects milk directly from 160,000 small Pakistani farmers spread over 125,000 square kilometers of land primarily in Punjab. The end-to-end business takes in 500 million liters of milk a year, and in 2008 turned a net profit of \$20.7 million on revenues of \$456 million. Although Nestlé recognizes smaller farmers involve a higher cost to serve, in many ways it prefers to deal with this group because smallholders "sell everything they can afford to sell" and have less bargaining power. They are thus less likely to defect from the Nestlé system.

Nestlé manages the entire supply chain end-to-end, setting up "Village Chilling Centers" in large villages, spaced out for a maximum of 20 minutes traveling time from the most remote villages—at distances over 20 minutes, unrefrigerated milk will turn. Farmers from neighboring villages come to deposit their milk at the chilling center in the larger village. Most of the chilled milk from village-level centers is collected by tanker trucks and transported to Nestlé factories.

The key link in the Nestlé supply chain is the Village Milk Collection Agent. VMC Agents run the chilling centers and function as the last link in the Nestlé model. They are typically selected by Nestlé in consultation with

the village, and are usually well-respected and somewhat educated members of the community. The selectee is then trained by Nestlé on various milk collection and operational techniques—tasting, analysis, measuring and sampling—so that quality assurance is undertaken at source. The VMC is responsible for collection, storage, and all village level operations, including cash payment to farmers and organizes extension services, delivered by Nestlé staff, who explain vaccination, worming, and basic veterinary services to farmers at no cost. VMC agents are paid on commission, while farmers are paid each Saturday according to the quality of milk—based on fat content and total dissolved solids—from a pricelist on display in the chilling center.

Nestlé faces challenges typical of the business model. First, setting up a deep procurement network is time- and cost-intensive. For example, when expanding into Sind, Nestlé had to conduct its own aerial survey to identify "green patches of land"—validated against census data—to decide where to locate their centers. Secondly, side-selling is a problem, especially with farmers who supply 30-40 liters per day—generally the minimum quantity of interest to alternative buyers. Opportunistic middlemen often offer slightly higher prices, but Nestlé's long record of fair and consistent service to farmers helps surmount side-selling: few farmers actually defect.

in training themselves, or to finance switching to better supply chains (or trade), or to produce better quality goods or services. As a result, they frequently change employers in search of the best deal and may not honor a given deal for long.

Challenges

Although deep procurement has proven successful and scalable in a variety of sectors, and is the business model that most consistently involves large corporate entities, it is not without problems. First, it bypasses traditional intermediaries who have a strong interest in opposing supply-chain innovation. ITC's e-Choupal manages this problem by absorbing intermediaries into its network. SERP handles it through its mission — that is, according to supporters, it creates more than enough social capital in local areas through the self-help groups to drown out complaints by intermediaries. Meanwhile, intermediaries are less critical in fruits and vegetables, as produce is harvested several times per year and usually returns sufficient cash to avoid the need for credit in purchasing the next round of seeds and fertilizer.

Every deep procurement model was preoccupied by the imperative to add volume to the network, with goods and services moving in both directions.

A second issue involves generating sufficient throughput to justify creating and maintaining a procurement network that reaches deep into the pyramid. Although individual procurement centers are each inexpensive, creating a network requires significant fixed cost, especially if circumstances require many hubs and intermediate collection facilities. Thus every deep procurement model Monitor studied was preoccupied by the imperative to add volume to the network, with goods and services moving in both directions. SERP is investigating the sourcing of additional crops as well as using the network for distribution. ITC has recently begun to use its e-Choupal network to push products down the chain — everything from insurance to water filters are being distributed via the Choupal Saagar stores and network.⁶⁴

DEEP PROCUREMENT IN CENTRAL AMERICA: HORTIFRUTI

Hortifruti was founded in 1972 and was acquired by Walmart in 2006. Thirty years ago, it created the “Tierra Fertil” (“fertile land”) program to facilitate agricultural modernization among small and medium producers that today continues to engage the base of the pyramid. The company estimates that, at any given moment it has some 7,000 or so Costa Rican, Honduran, and Nicaraguan families in its network. It also has newer operations in El Salvador and Guatemala, the latter of which is the beneficiary of a relatively recent partnership between Wal-Mart, USAID, and two nonprofit groups to link more small growers to the Wal-Mart supply chain.*

Hortifruti’s business model combines the infrastructure of direct, deep procurement—for market linkage, sourcing, quality assurance, and support—with aspects of a contract production model, typically engaging its producers via informal assured buy-back agreements and supplying them with seed, technology, and know-how. As the level of agricultur-

al development differs within Hortifruti’s area of operations, the company applies different strategies in different countries.

In Honduras, Hortifruti builds around “lead farmers” (also referred to as “preferred partners”) through which it identifies and build the capacity of those farmers best able to meet its quality requirements consistently. Having demonstrated such capacity, lead farmers receive larger and larger orders for product or new products and are encouraged to work with neighboring farmers to meet this demand. The lead farmer thus serves as a node in providing technology, technical assistance, and market access. Hortifruti’s regional operation now has some 250 products, the result of organic expansion, constant identification of new lead farmers, and operations that are low-cost, scalable, and easily sustainable.

Third, it is critical to find a buyer atop the supply chain to guarantee that outputs will be purchased. This is the role AP Markfed performs for SERP and Fabindia for the COCs. Unless overall demand is demonstrably growing reliably, potential guarantors and even participating small suppliers may view such a function as fraught with risk.

A final issue involves, again, the substantial disincentives to work with large numbers of marginal producers. The key to this model is building supply chains that source from the poor but are competitive with those using larger producers. Public agencies like SERP have a mission to elevate the poor, whereas most for-profit enterprises will gravitate to the easier task of building supply chains that engage a few large producers instead of many small ones. As noted, Reliance, ITC, Birla, and other companies tend to deal with larger producers with larger landholdings of between five and ten acres.

OTHER INDIAN EXAMPLES:

Agriculture: Birla's More, ITC Choupal Fresh, Reliance Fresh, Metro; *Dairy:* AMUL, Glaxo SmithKline Beecham

DEEP PROCUREMENT OF CONSTRUCTION LABOR: LABOURNET

Urban labor procurement models providing direct income effect also show promise in the construction and maintenance sectors, expected to be the largest generator of new jobs in India in the next five years. Like agriculture—construction is a highly intermediated business, with multiple participants involved in fulfilling specific roles for each specific construction job. The low end of the building trade requires only modest skill to become a mason, painter, or even crew chief. As such, it is a natural magnet for employment of the rural unskilled or semi-skilled as they migrate to cities and slums. For them to find productive employment—and for general contractors to find them—is often a significant challenge, especially in a high growth environment.

LabourNet, a young enterprise in Bangalore, offers a solution. The firm visits job sites and labor centers, and has registered more than 6,000 workers and foremen as well as many general contractors. When employers need help, they simply contact LabourNet and get immediate referrals to crews that meet criteria for location, skills, and availability. Half of all inquiries result immediately in the hiring of a crew. Meanwhile, LabourNet's database continues to grow.

The direct engagement of construction crews appeals especially to households and smaller job contractors in the lower segments of the industry where there is less margin for adding intermediate contractors and subcontractors. Although the service was initially designed to serve contractors, it has also proved effective for architects, engineers, and others who want to disintermediate long supply chains and find help directly. For its part, LabourNet earns fees from registering users on both sides of the transaction, as well as from transaction fees. Workers receive additional income from more regular work. In addition, LabourNet has created a platform with which it can pre-assure demand for services like accident and health insurance. Individually few construction workers can afford insurance, but with over 3,000 crews registered on the LabourNet platform, the cost of serving this group is dramatically reduced.

LabourNet's intervention is situated in the middle of the supply chain and it is not yet a fully commercially viable enterprise, although it recently converted from NGO to for-profit status. LabourNet is also expanding its business model into different segments, including domestic workers.

Demand-Led Training MODEL 7

CORE MODEL ELEMENTS

Demand-led vocational training and placement brings a heretofore exclusively formal-market model into more informal markets through:

- **Market linkages** to those with jobs to fill that require specific skills and traits for employees or contractors.
- **Pre-assured demand** to ensure that workers are not sourced or trained without knowing where their end placement will be.
- **Retention support**, where the entity tracks and sometimes supports retention efforts to ensure the return on training investment.
- **Certification of quality**, providing employers and trainees with some knowledge of the degree of quality conferred by the training and placement.

For those at the base of the pyramid, the best options for substantially improving incomes and livelihoods are in the formal production or services sectors of the economy. Low-income workers entering these markets, however, inevitably require training in specific job-related skills or more general presentational basics, such as dress, grooming, and the like. States, NGOs, and private firms have developed business models to address these needs. India's rapid creation of Special Economic Zones and attendant support services is a prime and high-profile example.⁶⁵

Despite such programs, poor workers typically have little access to formal-sector training and placement resources. Moreover, training initiatives are rare in growing informal-sector industries like construction, and even at the low end of the formal sector in such industries as textiles, which fans out widely into the informal sector.

Training initiatives are rare in growing informal-sector industries like construction, and even at the low end of the formal sector.

Indeed, in Asia's and Africa's developing economies, the informal sector is often significantly larger than the formal sector. India's informal sector accounts for some 90 percent of all employment.⁶⁶

And if training initiatives are "rare," they're not non-existent. NGOs, private firms, and states are increasingly promoting efforts to provide rural people with marketable skills and thus the possibility of more remunerative employment. We are particularly drawn to business models that offer market-linked third-party training and placement for the lower-income segments. The state of Andhra Pradesh alone has tapped into several different models of this type in outsourcing vocational training for hundreds of thousands of young workers as part of its Rajiv Udyogasri Society, Employment Generation and Marketing Mission (EGMM), and other training and placement initiatives.⁶⁷

The basic outsourced training and placement model is a familiar one at the higher end of job markets. There market-linked third party training and placement happens smoothly and without much need for government incentives or payment. The model is simple: firms that need employees simply pay a third party to locate, train, and place them—an effective, albeit hardly new, approach used widely in India and elsewhere. However, we have begun to see new applications in India. Some rural BPOs, for example, train and engage rural college graduates.

For low-income workers, the question becomes: to what extent can models designed for high-end jobs be modified and adapted to the base-of-the-pyramid job

markets? And more particularly, because poor people generally lack the cash flow or savings to pay for training (not to mention their inability to take time off from current income-earning activities), will another party—either government or employers themselves—pay for the training and placement?

The Indian exemplar in this area is **TeamLease Services** (TeamLease), the country's second largest private employer. Although it has branched into permanent and executive placement, TeamLease is primarily a “temping” agency—hiring, training, placing, paying, and evaluating workers, on order mostly from formal sector client companies. With 20 offices in 18 cities, it has a country-wide presence, serves 1,000 clients with 80,000 employees, and with over 600 locations is able—says its promotional literature—to “reach into the heart of rural India.”⁶⁸ Its model is straightforward and wholly demand-driven. TeamLease:

- Takes requirements from employers, scopes the assignment, lays out an operational process, and identifies and recruits individuals to fill positions.
- Ensures sufficient training before placing the employee and administers payroll and benefits for the duration of the fixed-term assignment. Employees are enrolled in a database against which new client requirements are matched and are generally assured continuous employment.
- Typically focuses on college-educated candidates both in both rural and urban areas and on placing rural workers in urban formal sector jobs.
- Charges recruiting, training, and placement back to the requisitioning firms that will receive newly trained temporary employees.⁶⁹

DEMAND-LED (BUT NOT OUTSOURCED) TRAINING: GUANGSHA CONSTRUCTION

Guangsha Construction, founded in 1992, is China's largest non-state-owned construction company, with 2005 net profits of \$19 million and an output value of \$670.7 million. Headquartered in Hangzhou, the capital of Zhejiang Province, Guangsha Construction is part of Guangsha Holdings Ltd, which claims RMB 16.7 billion (\$2.4 billion) in revenues and 50,000 employees.

One way or another, companies train their new hires—either on the job or more formally. Guangsha is different in that it reaches into the base of China's economic pyramid to train low-skill, low- or no-income rural migrants in marketable construction skills. In the late 1990s, Guangsha began to explore the possibilities of training the temporary migrant workers who make up the majority of its construction-site workforce. The company was particularly concerned about on-site accidents, which it found due largely to workers' ignorance of safety procedures or inadequate training in equipment operation. Guangsha established its own free-tuition schools in 2000 with an initial investment of RMB 30 billion (at the time, \$3.65 billion). This is particularly notable since most construction firms lack any long-term relationship with their primarily informal sector workers, and therefore have no incentive to invest directly in their skills.

At Guangsha, vocational school “campuses” are now established on each construction site of over 5,000 square meters. In the first five

years of operation, Guangsha put over 750,000 workers through its schools. Guangsha also founded and funded the Guangsha College of Applied Construction Technology, a three-year non-degree granting institution that has a Facebook site to attract English-language teachers.

Guangsha's training program appears wholly demand-led, driven by construction-site requirements. It engages rural migrants essentially as semi-permanent day-laborers, on a project-by-project basis, but will grant a contract only to those who receive training. To be awarded their certificate and get a contract, workers must pass four exams: one on legal codes, two technical courses and a safety course. Guangsha says that 90 percent of students get their certificate on the first attempt and the remainder on their second attempt. The certificate is valid for one year, but if the worker changes projects before then, retraining is required for the new project. As an incentive to do well—and to promote employee retention among top performers—Guangsha gives cash bonuses to the top 10 percent in any given training group.

Retained workers will thus be retrained each year or at the beginning of a new project—whichever comes first. Workers who stay with Guangsha will be able to progress up the skills ladder as, project by project, they receive successively higher-levels of training. Ultimately, consistent high performers who qualify as skilled workers will be offered permanent, full-time contracts—a rare step largely confined to higher-level jobs such as project manager.

TeamLease executives claim their employees earn on average three times the minimum wage, thus offering a significant income benefit for the average emigrating rural “fresher.”⁷⁰

Despite the company’s focus on the formal sector—for example, banking, IT, and other service industries—TeamLease is extending its model to the lower end of the formal sector and to quasi-formal sector trades, like security, housekeeping, and retail sales. (Company Chairman Manish Sabharwal has called sales “the most blue collar white-collar job...(and)...most amenable to quick training.”)⁷¹ Perhaps most important for low-income groups, TeamLease established a blue-collar employment unit in 2006 and is moving down-market into informal-sector manufacturing and manual service trades.⁷²

TeamLease actually places more than 10,000 candidates a month, or one every four minutes or so, around the clock.

TeamLease also aggressively advocates on behalf of market-based solutions to ameliorate India’s poverty and unemployment woes. It supports labor-law reforms to boost job creation and endorses a vigorous flow of rural-to-urban migration to draw rural workers into the labor market.⁷³ It is also a strong proponent of public-private partnerships and has teamed with several Indian states and volunteer organizations on job-creation and training initiatives.⁷⁴

One particular virtue of the TeamLease model is that it doesn’t result in frustrated, unemployed trainees, as is the case in many government or other programs that may provide comparable training but seldom line up jobs for alumnae. TeamLease actually places more than 10,000 candidates a month, or one every four minutes or so, around the clock. And a good percentage of the training it provides is rudimentary “fit-and-finish”—“last-mile unemployability” issues, in company parlance—on such things as quality of spoken English, accent neutralization, personal hygiene, and dressing for work. Another part is basic IT training on popular business software.⁷⁵

None of this is particularly new or path-breaking apart from the scale at which TeamLease operates and the ambitions of its senior executives, who mix public-spirited zeal unabashedly with commercial motives. With imagination and a measure of risk-taking, the TeamLease model has the capacity to expand further down the economic pyramid to the quasi-formal sector and even more deeply into the informal sector, either in single commercial enterprises or in partnership with public sector agencies. Moreover, the model itself is manifestly scalable, and salaries for temporary workers are converging with those of “perm” employees⁷⁶—a fact that will loom larger as both skilled and entry-level temps become a more attractive option amid the labor-market churn of a fluctuating economy.

The model nevertheless has inherent limitations. Although demonstrably successful in the high-end formal sectors and promising to succeed at the very top of the quasi-formal and informal sectors, the model has yet to be adapted compellingly to industries that might employ workers in lower income segments. These will be almost exclusively rural, less literate, and less skilled. Programs servicing the base of the pyramid will need to focus on construction, textiles, commercial driver services, and other more informal sector positions. For occupations like construction, where jobs will be of limited duration (to project completion) and seldom for a single employer consecutively, employer incentives to pay for skills and placement will be slim. Other occupations—security, driver services, and textiles—hold greater promise but remain fraught with risk.

OTHER INDIAN EXAMPLES:

Security: TOPS Security; *Low-End Formal Sector:* STRiVE; *Rural BPO:* DesiCrew, Byrraju Foundation

IL&FS'S PROJECT SEAM: ANOTHER CAUTIONARY TALE

Infrastructure Leasing & Financial Services Limited (IL&FS), an Indian development and finance company that ventured into the training arena, discovered the difficulties of applying the TeamLease business model to sectors with high levels of informality. IL&FS founded Project SEAM to train and place 500,000 poor youth in the garment-manufacturing sector over a five-year period. Project SEAM recruited some 5,000 trainees for a pilot running of its month-long training course, brought in third party skills certification, and, like TeamLease, guaranteed placement into textile industry jobs with companies that “ordered” new employees. So far, so good.

But the IL&FS model failed the test of sustainability, mainly due to two familiar dysfunctions: unreliable government and unenforceable contracts. Government was slated to pay two-thirds of the program's costs and the requisitioning industrial clients the remaining third. In practice, however, IL&FS bore more

than 70 percent of the costs. Trainee costs of Rs. 20,000 a month (US\$400) far exceeded the projected monthly Rs. 6,500 (US\$130) per trainee. Moreover—and more crushing—industry participants, who had guaranteed jobs for the trainees, refused to pay even their third of the costs and instead argued the government should pick up the tab.

Meanwhile, underlying the dispute is the hard economic fact that a large proportion of textile employees in the “compliant” textile sector stay in their jobs for about a year to learn the trade, and then shift to the more lucrative—and more informal—“non-compliant” sector in the textile clusters of India. This retention issue diminishes or altogether eliminates any incentive firms might have to pay a third party to source and train these workers.

What the Models Teach



AROUND THE WORLD today many market-based initiatives are working at the base of the economic pyramid. Unfortunately, few of these will deliver the desired impact in a commercially sustainable manner or achieve large scale. This should not be surprising: simultaneous achievement of ambitious social and commercial objectives is inherently difficult. Indeed, the two goals have often been considered incompatible. And yet the two can be reconciled, as the successful market-based solutions we've just described are proving.

Other parties—investors, entrepreneurs, NGOs, public policy makers—that wish to replicate successful business models would do well to take account of the general lessons they teach. Here are some routes to commercial viability and large scale.

ROUTES TO COMMERCIAL VIABILITY

For every formal new product or service launched low-end markets, an informal product or service already exists that has evolved in a lower quality, more expensive, but frequently better tailored to the needs of the poor. This sets a bar for marketers to these segments that is often invisible or ignored, and several lessons we've observed may help get past it.

Lessons in Serving the Poor as Customers

Price products to match customer cash flows. Cash flow is king: business models that ignore the irregularities of cash flows in low-income segments are unlikely to suc-

TEACHING AND LEARNING IN UTTAR PRADESH

Education is highly valued in India, where many low-income people are willing to pay for private schools to help their children.

ceed. The issue here is not just that the poor have limited amounts of cash. It's that they have unpredictable, lumpy cash flows. This in turn drives a general aversion to paying higher prices, even for products and services that pay for themselves relatively quickly. Unless the ticket price is sufficiently low and the payback period sufficiently brief, there will be no sale.

Provide tailored products the poor genuinely want. As others point out, with a few exceptions, products—just like business models—need to be tailored specifically for low-income markets.⁷⁷ IDE found this out painfully after developing a superior treadle pump for small farmers but selling less than 600,000 units in 16 years. The reason? Low-income farmers prefer diesel pumps because they work well enough and the terms for using them are familiar, flexible, and easier to manage. Marketing for IDE remains its biggest challenge, as they find new ways communicate why its pumps are better and offer competitive terms for obtaining them.⁷⁸

Be wary of building a proprietary distribution channel. Even as a product must be tailored, entrepreneurs need to recognize that building a proprietary distribution channel is time-consuming and expensive. The key is to exploit the existing channels of others. Most low-income markets for socially beneficial products and services simply cannot support the cost of establishing and running a separate channel at any scale, as NEST and others have discovered to their profound regret. Despite the obvious

Cash flow is king: business models that ignore the irregularities of cash flows in low-income segments are unlikely to succeed.

obstacles, many social enterprises continue to attempt building their own and thus destroy the economics of their offering.

“Low-cost provider” is the only viable strategic position. This is a close corollary of the two preceding observations.

Most enterprises targeting the poor lack the luxury of “early adopters” who will pay high prices to be *avant garde* and who generate “buzz” by projecting the product’s appeal (and cross-subsidize efforts to achieve econo-

mies of scale in production that will lower costs). For those working in low-end markets, the only viable strategic position is a classic “low cost provider” posture, leading to the lowest, or near-lowest, price. A low-cost provider has little-to-no margin for testing concepts with more affluent customers, while the lack of early adopters increases pressure to “get it right the first time.”

Just because they need it doesn't mean they want it. To assume otherwise is a trap for the benevolent and a classic blunder of development assistance. To substitute an opinion about “what helps them most” for what low-income people actually say they're willing to buy flouts basic tenets of business and marketing. Yet our study found many examples of enterprises and inventors who focus on the development of novel technologies, products, and services the poor are presumed to need and want. Like the NEST solar lantern or the Venus burner, products well-designed for low-income markets often still fail to sell in significant volume, flouting Business 101 in obvious ways: by misperceiving what low-income consumers want to buy when they can afford it or have access to credit; and by misunderstanding their cash flows, or absolute ability to pay.

WHAT CUSTOMERS SAY

“I know I pay a lot for renting the diesel pump, but I can pay it back much later — even up to a year later. I know the dealer very well.”

“I can only afford cattle because I have a dairy loan. I want other products to be offered in the same way.”

“We want gold on credit. Everyone in our village does.”

Source: Monitor Focus Groups, Andhra Pradesh and Uttar Pradesh, Feb-May 2008.

As Suppliers Or Producers

Success starts at the top of the supply chain. The most successful and scalable business models all featured a similar attribute: they were set up tooth-to-tail by an organizational “brain” at or near the head of the supply chain. For the poor, this shifts the alignment of risk to the party best able to bear it. For the enterprise overall, the top has the clearest access to market signals on pricing, quality, trends, and so on, and is able to translate market needs directly downstream to small producers. The top can also align incentives down the chain, provide quality assurance, offer intermediate infrastructure unavailable in publicly shared systems, and even provide training.

The most successful and scalable business models all featured a similar attribute: they were set up tooth-to-tail by an organizational “brain” at or near the head of the supply chain.

In contract production, for example, Calypso Foods provides credit, covers switching costs, and supplies essential equipment. Such models have implications for policy-makers and donors keen to help the poor gain access to markets: it suggests that interventions may do well to target those who are capable of effectively and economically organizing supply chains at the top in addition to working directly with poor producers well down the line.

Take account of sizable potential switching costs. From numerous rural supplier focus groups, we noted a strong aversion to “switching” in general, and to switching crops, products, and primary livelihood in particular. Most poor producers live hand-to-mouth, and are therefore often deeply averse to new uncertainty—regardless of the potential payoff in terms of income down the line. Getting low-income suppliers to make a switch—whether to a new crop or a new livelihood—will be a large expense for the enterprise and poses a similarly sizable risk due to problems in retaining trained workers in low-end markets.

Retention of trained workers is a potential “make or break” issue. The flip side of switching costs is retention. Because successful, integrated models led from the top of

the supply chain often rely on heavy investments in recruitment, training, switching costs, and inputs, enterprise efforts to retain suppliers become critical. A weak retention capability—and the resulting need to overspend on training new hires—might easily destroy the economics of any low-end supplier-side business models.

Credit is central to engaging the poor rather and not just a bolt-on externality. In some areas a market-driven model might succeed without addressing the credit requirements of a low-end market supplier. But at least in India, many such suppliers are already indebted to informal sector moneylenders or agricultural middlemen, have limited risk tolerance for switching, and thus need a business model that includes some type of in-house credit, or covers switching costs, or both. For all the attention microcredit has received in recent years, credit remains in short supply in most emerging markets. In Andhra Pradesh, for example, Monitor found that more than 85 percent of all borrowers from microfinance institutions and self-help groups had multiple sources of debt. Even so, borrowers reported they wanted more credit, which they say they can afford.

Aggregation can transform poor people into viable economic entities and thus worthwhile to involve in a supply chain or to target for infrastructure or finance.

As Both Customers And Suppliers

Aggregating consumers or suppliers may be the key to making a market. Several of our business models use aggregation with great success—to achieve scale, reduce cost, reduce risk, or some combination of all these. Indeed, aggregation is not a new idea—co-operatives have been implementing it for centuries. But new business models are aggregating in novel ways—take, for instance, Fabindia’s COC supplier groups. Microfinance pools groups of customers to diminish risk and reduce transaction costs through group cross-guarantees. Similarly, in some new assured demand models (see text box below), the advance aggregation of sufficient customers for housing fundamentally changes the economics of construction for the developer, lowering the cost and making financing available. The pay-per-use model

AGGREGATION IN ACTION: ASSURED DEMAND IN URBAN HOUSING

The paucity of individual purchasing power at the bottom of the pyramid has led to novel thinking about aggregating demand, and thus sweetening low-end markets as economic opportunities for savvy entrepreneurs. But too little purchasing power isn't the only disincentive to business at the bottom of the pyramid. Potential market entrants also perceive too much risk and too high a cost to serve.

An emerging business model that promises to scale this trinity of obstacles is "assured demand." Offering suppliers the guarantee of satisfactory demand overcomes the main barriers to low-end market entry: volume and value of customers, and cost to serve. This assured-demand model isn't really new—it has been a mainstay of the co-operative movement and it lies at the heart of the prepaid mobile phone model. What's new is an expanding variety of applications, from financial services to housing.

The simplest assured demand model consist of two agents—a supplier and an aggregation of customers that, as individuals, would have no practical access to the offered product or service. An agreement assuring the supplier that the customers will make the specified purchase completes the basic arrangement. The assured-demand deal might involve purchasing anything several people want but cannot individually afford: a sack

of grain, a piece of farm equipment, a bridge that spans a seasonal floodway, or housing.

Working with a range of constituencies, Monitor helped to develop more complex assured-demand models involving urban housing construction and finance. These require the inclusion of at least a third party—a financier—and often a fourth, the employer/guarantor of the aggregated individual customers, who facilitates, and vouches for, their ability to make payments. In the example that follows, an NGO was a required fifth party that facilitated arrangements.

Although India has robust residential construction and housing finance industries, developers and financial institutions overwhelmingly prefer to focus on the higher-income urban markets. The vast majority of urban low-income families live in poor quality rentals, typically single rooms of 100-250 sq. ft., often badly ventilated and lit, with shared toilet and bath, in bad neighborhoods. They face constantly rising rents, unreasonable demands from landlords, and pressure to move every two or three years.

In this context, Taral Bakeri, a respected Ahmedabad developer, partnered with Aashayen, a development-advocacy NGO, to build 800 apartments in two well-designed floor plans—a 210 sq. ft. one-room efficiency and 300 sq. ft. single-bedroom unit,

all with indoor plumbing—for purchase in a nearby suburb. The neighborhood is vibrant and well serviced by public transportation. The least expensive houses in the Vatwa project sell in the range of Rs. 250,000 (\$5,000).

Aashayen worked with Bakeri to line up both customers and financing even before the building plans had been approved. Bakeri built mock-up model apartments that wowed potential low-income buyers and financiers alike. Aashayen approached the prospective buyers' formal-sector employers, who were happy to provide access to what they saw as a good deal for their workers. Employers perceived indirect benefits for themselves as well, in the form of reduced worker absenteeism due to employee or family illness. In the model's defining act, most of the employers agreed to deduct monthly mortgage payments from employee paychecks and to transfer these directly to the financing bank.

The Ahmedabad model benefited all participants:

- Customers in the middle of the income pyramid finally got affordable, good-quality housing—with financing.
- For developer Bakeri, this was a profitable business proposition, with less risk and fewer headaches. He had a pre-financed customer pool and signed contracts before even breaking ground, which es-

entially zeroed out the risk of long sales cycles and cash flow issues and let him focus on construction.

- The financing bank found itself in an attractive new market, with “assured” loan payments, effective collateral, and a potentially highly profitable business.
- And to circle back to those near the base of the pyramid but who may not be in the market for housing: by opening up a low-end market for decent houses, many more construction workers found employment in India's building trades, a rapidly growing sector of the economy and India's largest employer of low-skilled urban labor.

The assured-demand model answers the toughest question easily: it is eminently scalable because it is profitable to all parties. While not at scale yet, we'd expect this business model to scale through replication, with many players using similar approaches and adaptations.

described here pools enough customers to capitalize a community facility and generate lower unit costs than could individually-owned devices. When dealing with populations with low and sporadic cash flows, or with products or crops having small lot sizes, only aggregation can transform poor people into viable economic entities and thus worthwhile to involve in a supply chain or to target for infrastructure or finance.

Talk is easy. Implementation is hard. We can describe good models and promising approaches easily in writing, but in many cases the difference between success and failure, even within a given model, comes down to execution. Consider the need to balance profitability with social return, or the need for most enterprises to organize solutions end-to-end. These two considerations alone complicate and slow down the march to scale. Honey Care has to arrange for credit with a network of NGOs and MFIs, selling relationships with retailers, training through agricultural colleges, certification with international bodies, and also manage the day-to-day operations of collection and distribution with thousands of suppliers. And it has to do it without benefit of being able to cross-subsidize from upper end markets, or being able to pay high salaries for talent. The success of every market-based solution ultimately reflects immense hard work and attention to detail.

There are many actions that entrepreneurs, investors, donors, policymakers, and other interested parties can take to shorten the time to scale.

ROUTES TO SCALE

As happened in microfinance, the path forward is most likely to be blazed by smaller social enterprises and firms growing larger and perfecting their business models, with some large corporations entering where they deem it makes economic sense for them to do so. And, as in microfinance, the route to scale in most instances will be

long, a decade or more. It's worth noting that the first sizable IPO in microfinance took place in 2007, more than thirty years after the industry first began to form.

Many thoughtful and well-meaning parties, however, are justly impatient for solutions to generate results at scale. This slow ramping up is frustrating, unsatisfying, and seems at odds with the magnitude and urgency of challenges like global poverty.

So what can be done? Fortunately, there are many actions that entrepreneurs, investors, donors, policymakers, and other interested parties can take to shorten the time to scale. The route to scale will depend on two factors: **business model maturity**, and the **size of the entity implementing the business model**. Getting to scale will also require overcoming barriers likely to stand in the way.

Business Model Maturity

The maturity of a given business model affects everything: risk, the need for funding, the probability of success. In general, the less mature is the model, the more investment—and, very likely, soft funding—it will require. Financial returns are likely to be lower for less-mature models, though returns also will vary by sector, with higher returns possible in large sectors like education, health care, and water. Social returns to less-mature models can be quite high, however, especially if they operate in sectors and locations where government or other institutions are failing.

The business models discussed above sort into three tiers based on their maturity. The first tier consists of those already proven and in the market today, often operating at or near scale with involvement of large corporations and other established entities. These models include **deep procurement** (Wal-Mart, ITC, Reliance Fresh, AMUL, Nestlé, and others), **no frills/high volume service** (prepaid mobile telecoms—with an added dash of pre-assured demand), and **demand-led training** (Teamlease, Tops Security, and others). These models were not originally designed to serve low-income segments but have proven successful in engaging the poor.

Large corporations are active, with access to mainstream capital and product development, and given the economic value in doing so, the markets are likely to support this without much additional help. For these models the main challenge is to develop adaptations and extensions that ensure they include and reach the lowest-income customers and producers.

A second tier constitutes relatively successful business models that have had some tailoring for low-income markets. **Contract production** and **shared channels** need less development of core elements but may need to deal with some lingering questions. The success of contract production, for example, depends on enforceable contracts, or, where these are lacking, on other ways to hold parties to agreements. For these second-tier models, as with the first tier, another key question is how deeply they can extend into the base of the pyramid, and how well they can work with socially beneficial products that may require some push.

A third tier of business models are the least developed. They offer some proof of concept but achieving large scale and commercial viability will require considerable investment. Yet these promise to produce perhaps the lowest-cost offerings to low-income customers and social returns that over time will be impressive. These business models include **pay-per-use**, which is prevalent in many markets—for instance, Internet Cafes, diesel pump rentals, or other rental models—but lags in other applications for socially beneficial infrastructure and services, and requires further development to ensure that sufficient demand stimulation can be priced into the model. **Paraskilling** has not been widely adopted despite the powerful example of Aravind Eye Care—in part due to regulatory and other barriers in health and education but also to the technical complexity of the model.

Size of Participants

The second factor affecting time to scale is the size of the enterprise implementing the model. As C. K. Prahalad has pointed out, large corporations are well posi-

tioned to achieve large scale quickly in low-income markets. ITC, Teamlease, and the mobile telecom operators achieved scale much faster than their social enterprise counterparts. They did so by making modest adaptations to business models proven in other markets.

Unfortunately, as noted, few large corporations are likely to enter low-income markets eagerly, except in high-fixed-cost sectors, or in industries in which low-income people can become low-cost elements of integrated supply chains. Given this reality, those who would like to hasten market-based solutions to maturity and scale face daunting questions. What support can be provided to develop less mature business models? What interventions can help small innovative enterprises to accelerate their path to scale? And what—if anything—will motivate large corporations to enter and participate, given the opportunities elsewhere and the challenges of engaging low-income markets?

Few large corporations are likely to enter low-income markets eagerly.

Overcoming the Barriers

Answering these questions starts with recognizing common barriers to reaching scale. Looking across the business models, we found seven consistently recurring obstacles:

Distribution is a barrier particularly in reaching the rural poor—whether for product distribution or produce collection—where there are few private or public channels and these are extremely expensive to build (see *Shared Channels Model 4*).

Customer education and awareness create an obstacle primarily for socially beneficial products and services, which aim to address shortcomings of the public education and public health systems in creating demand for “push” services like clean drinking water or family planning. Unlike in higher-end markets, the imperative to offer

a low cost product or service makes it challenging for an individual enterprise to absorb the significant customer education costs required to stimulate demand.

Cost of aggregation is a barrier for those engaging the base of the pyramid either as suppliers or as customers. Microfinance was able to internalize this cost into its model, but MFIs only aggregate small numbers of borrowers; the cost of putting together large networks of small vegetable farmers, on the other hand, can far outweigh the benefit of using a group that would otherwise be the lowest cost producers.

Fixed costs, especially for capital assets, creates an obstacle to commercial viability, especially for smaller enterprises. Several models like LifeSpring Hospital and Gyan Shala schools have worked around this by renting capital facilities, but for other models the capital cost of fixed assets means that full cost recovery is nearly impossible.

Capital and credit are barriers to scale for most smaller enterprises, whether or not they serve the poor. However, the barriers are higher in low-income markets because poor people lack sources of credit or a financial cushion to cover input costs, switching costs, or anything more than daily purchases. In middle markets, enterprises are often able to extend credit to customers. In low-income markets, this is rarely possible, in part because the enterprises themselves lack the capital and credit, and in part because external sources are unavailable to the poor, as well.

Human capital is a significant barrier in many models, especially those that aim to serve rural low-income segments. Many enterprises told us about the difficulty of finding and retaining labor, especially skilled labor like doctors or professionals. Because of the imperative to keep costs and prices low, there is little room in the models to pay high salaries, and many entrepreneurs have had to become very creative in figuring out ways not only to segment their customers but also their labor market for the talent they need.

System effects greatly complicate the work of many market-based solutions, since in most cases markets are much less developed and there is no surrounding ecosystem to plug in to—there are no petrol stations already existing to accompany the new cars being manufactured. Put differently, all the scale success stories like Aravind Eye Care had to undertake to organize the entire value chain end-to-end: this is expensive, time consuming, and burdens models that otherwise must be low-cost.

Nonetheless, scale is achievable, and potentially faster than we've seen so far. We do not have to be satisfied with settling for a decade or more to reach scale, but it will require concerted and sustained activity and investment from a variety of players, including first and foremost all those entities working on the ground in low-income markets to pioneer and develop business models. Beyond the actors directly implementing market-based solutions, effort will be required from other parties, namely commercial investors, impact investors, traditional aid donors and philanthropists, and large corporations. Finally, building successful market-based solutions will benefit from support from government in the form of business-enabling policies and regulations, better subsidy regimes, SME policies, and other rules of the road.

Scale is achievable, and potentially faster than we've seen so far.

For all enterprises but the largest, as with all endeavors to build commercially sustainable activities, it goes without saying that growth capital—in varying forms—is the number one requirement. Enterprises need capital to develop a business model or concept, test it, and expand those that look promising. In addition to sufficient capital, each class of entrant or participant will need specific help to overcome the obstacles to reaching large scale.

Actions to increase the odds of success for **smaller social enterprises** may include the following:

- *Make capital available* in smaller, more patient, and flexible chunks—both to grow businesses and validate business models. This requirement points to a strong role for Impact Investors (see next section), donors, and philanthropic capital.
- *Combine capital with technical assistance* in integrated facilities to assist with everything from social marketing models to improving the business model, customer understanding, or the capabilities of inexperienced management teams.
- *Turn fixed asset costs into variable costs*—remove the imperative to invest in fixed assets, enable enterprises to rent or lease assets in tandem with service roll-out by moving the capital costs to the books of an entity that can better afford to absorb the cost and raise the appropriate capital. This will improve the odds for many models that can be operationally sustainable but not full cost sustainable.
- *Address regulations* that discriminate against small and medium enterprises in terms of access to finance, ability to compete, subsidized competition, and other activities that distort the playing field.

For **large corporations**, these actions may help:

- *Develop new models of aggregation, training, sourcing, and retention*, which will make it easier and less costly or risky for them to involve smaller producers in supply chains or reduce cost to serve low-income customers
- *Encourage and provide incentives to corporations to share, extend, and adapt existing channels*, since often they are the owners of the best networks even to rural areas, and this will often cost less and take less time than building new channels from scratch.

- *Consider the benefit of putting public-purpose funding into private enterprise.* Where corporations can provide a service at scale better than government or others, selectively provide smart fixed-cost incentives to enter markets or move into adjacent spaces, develop products, modify business models, organize value chains from the top down, adapt a channel, or engage the poor in supply chains.⁷⁹

For **all enterprises**, regardless of size, there are several key actions that can help overcome the obstacles:

- *Develop shared assets that address barriers to scale.* These might include marketing and channel activation assets, so that enterprises do not need to internalize the cost of customer education on public health benefits; shared channel resources that multiple players can use; shared understanding of low-income customers and their habits; or shared social infrastructure (e.g., self-help group federations). All of the above are elements that can eliminate the need for individual market-based solutions to internalize the costs of delivering a public good.
- *Cultivate impact investors* so that appropriate sources of capital are available, creative instruments and guarantees are in place to allow funds to flow in, financial and hard social metrics are in place, and relevant benchmarks are set. This should include both primary capital provided to enterprises, and secondary instruments such as guarantees, balance-sheet sharing, and other ways to leverage well-capitalized players to reduce and align risk to those most able to absorb it.
- *Rationalize the regulatory and policy environment* to improve the general business environment and SME policy, and reform specific policies and regulatory restrictions that inhibit market-based ventures.

- *Showcase and disseminate what works and what doesn't.* Successful examples, such as those discussed above, should be publicized. Meanwhile, failed examples should also be publicized to avoid wasting time and resources. We found many examples of purported market-based solutions that claimed to work but somehow were missing a revenue source. Worse, we discovered many more examples that were doomed to fail: groups organizing producers or assets in the middle of the value chain with only a hope, not a realistic plan, to sell anything to anyone; enterprises creating their own sales force for a product that costs \$4.00 and is sold every three years; and schemes to sell services to the poor that they did not understand or even know they could get. Such obvious problems should be nipped in the bud.
- *Cultivate the community of interested parties,* which can serve as forums for sharing lessons, finding common ground, sharing costs, building common platforms, advocating for policy change, and more. New groups are just beginning to emerge, for instance, the Aspen Network for Development Entrepreneurs, led by the Aspen Institute, or the Global Impact Investment Network, led by the Rockefeller Foundation.

IMPACT INVESTING EMERGES

A growing group of investors around the world is seeking to make investments that generate social and environmental value as well as financial return. Recently it has become possible to see their disparate and uncoordinated innovation in a range of investing sectors and regions converging to create a new global industry, driven by similar forces and with common challenges. This loose collection of investment activities—which operate in the largely uncharted area between philanthropy and a singular focus on profit—maximization—is still in search of a name. A recent Monitor Institute report, with lead spon-

sorship from the Rockefeller Foundation, names the activity impact investing, recognizing the double meaning (investing for social and environmental impact, as well as the impact that this new approach could have on investing as a whole). The report, “Investing for Social & Environmental Impact: A Design for Catalyzing an Emerging Industry,” examines how leaders could accelerate the industry’s evolution and increase its ultimate impact through a series of initiatives. The full report and a summary can be found at www.monitorinstitute.com/impactinvesting.

Recommendations and Concluding Thoughts



THE SUCCESS TO DATE of many market-based solutions in helping the poor gives ample reason for optimism about the future impact of these initiatives. Expanding and accelerating their growth will require independent and cooperative actions from an array of constituencies.

Monitor's analysis of successful at-scale business models shows that many benefited from some soft funding assistance. On the one hand, we should always be on the lookout for models that can reach scale and maturity without such support, but we should also acknowledge that many will need it to achieve their objectives.

This should not be seen as a shortcoming but rather as a reflection of the immaturity of the pioneering business models, as well as recognition of two important facts. First, most market-based approaches are aiming to fulfill a public function in a self-sustaining capacity, and certain solutions—e.g., Gyan Shala schools—may prove to be far more efficient uses of government, donor, or philanthropic funds than traditional models of engagement or of government provision.⁸⁰ And second, most of the enterprises in this space are operating in environments in which the full ecosystem needs to be developed end-to-end. If Google had needed to invent the (government funded) Internet in addition to a superior search engine technology, would it have been profitable out of the gate?

So what is to be done? Here follow recommendations and advice to the principal constituencies whose support will be essential to the growth and long-term success of market-based solutions. (See *Be a Business Model Detective*.)

FRUIT AND VEGETABLE MARKET IN AURANGABAD, MAHARASHTRA

New business models that aggregate low-income farmers in efficient supply chains can improve livelihoods dramatically.

For Commercial and Impact Investors

We believe market-based solutions offer promising, even exciting, opportunities to create substantial social change while earning positive financial returns. And we do not rule out sizable returns from greater opportunities, for example, in housing, agricultural supply chains, and health care. But we have observed that many of the parties seeking to invest in India and other emerging markets appear to have a more definite (and higher) expectation of financial returns than specific targets for social returns. This sets up a potential mismatch of expectations.

Globally, the general success of the MFI sector appears to be setting expectations for all of impact investing. In addition to the *Compartamos* IPO in Mexico,⁸¹ several social investment funds have invested in financial sector/MFI-based funds with the promise—and delivery—of good returns in well-performing organizations, usually in the 20—25percent range.⁸² The majority of these — whether in India, Latin

America, or elsewhere — tended to be equity funds expecting relatively large (for this market) deal sizes in the vicinity of \$6 million to \$10 million each.⁸³

The full ecosystem needs to be developed end-to-end. If Google had needed to invent the (government funded) Internet in addition to a superior search engine technology, would it have been profitable out of the gate?

Bearing in mind that MFIs are at least a decade ahead of most of the business models we have profiled, these expectations must be tempered for the new breed of next-generation market-based solutions. Many of these are still small, with total operating budgets of less than \$3 million. Their needs for capital

can range from equity, to debt, to working capital or even grants, depending on the task required to get to scale or commercial viability. And the amounts required are likely to be substantially lower than the \$4 million floor contemplated even by many impact investors. Investors will need generous amounts of patience, a willingness to tolerate some unpredictability in returns, and perhaps some new vehicles for

BE A BUSINESS MODEL DETECTIVE: A DOZEN QUESTIONS EVERYONE SHOULD ASK

It all sounds great after an hour's conversation—the enterprise seems to be reaching large numbers of poor people, has a high growth rate, delivers a huge social benefit and attractive returns on investment. But when the research team makes an eyes-on field visit, a closer look may expose the stories as hyperbole. One useful antidote to the “one hour effect” is to be sure to ask the right questions.

Target Group

1. Are the customers or suppliers/producers/workers really from the lowest income segments?
 - What is the spread of the income effect or access effect?
 - Are higher income groups cross-subsidizing the model to make it work for poor people?
2. If the customers or suppliers are not in the lowest income segments, how might the (presumably otherwise compelling) business model be modified to serve them? What are the costs to reach and aggregate these participants?

Product or Service

3. Is this enterprise's product or service one poor customers will pay for? Do low-income people say they want it, or has someone decided they need it? Does the enterprise need to “push” the product? If yes, how, and how can the channel absorb the cost of the push?
4. What substitutes exist for the product? How else do poor customers satisfy the demand the product or service offers?

5. What is the price, and how does it match up to irregular and unpredictable cash flows?

Economic Viability

6. Does the business model promise to be self-sustaining—at least covering its costs—in the long term? What is the revenue model? The distribution model? How strong are the market linkages to end buyers and their preferences?
7. What are the incentives for the participants in every segment of the supply chain?
8. How is retention managed, and what are the incentives for retention?

Capital Model

9. What type of financing will the enterprise use and how will it be invested? Is subsidy or soft funding required? How sustainable or replicable is its source of capital?

Scale

10. How specialized or diversified are the operations, and what portion of the end-to-end value system does the enterprise address, either directly or indirectly?
11. How scalable is the enterprise? What's the marginal cost of adding customers or suppliers? Are systems in place to add customers or suppliers at low cost? Is this sufficiently replicable that it could scale as a cluster of enterprises?
12. What's the product's addressable market? Is this a niche that limits the scale of the opportunity?

both finding and making relatively small commitments efficiently. In some cases, they will surely realize lower financial returns than they could get in more mature segments and business models, albeit with robust social returns.

For Donors, Philanthropists, and Sources of Soft Funding

This category of actors will have a fundamental catalytic role to play.⁸⁴ This is the only source that can reliably and consistently serve long-term patient-capital needs, tolerate lower-than-market returns, and cushion sub-scale enterprises as they develop their business models and generate social returns in anticipation of corresponding financial returns.

Investors will need generous amounts of patience, a willingness to tolerate some unpredictability in returns, and perhaps some new vehicles for both finding and making relatively small commitments efficiently.

Success may require a re-orientation of some traditional models of promoting enterprise. For instance, an ability to invest in and encourage large corporations to take a role will be an essential part of any toolkit. For many philanthropies, however, this raises justifiable qualms and legal issues, and most aid donors are not equipped to make these kinds of investments.

Any serious discussion of soft financing to support market-based solutions should center primarily—though not exclusively—on four areas that emerge from Monitor research as especially critical:

1. *Providing flexible growth capital to help an enterprise to scale*, particularly for smaller enterprises where the transaction size will be too small for an Impact or commercial investor to manage economically. This could be in the form of direct capital, or—more likely—in the form of supporting wholesale vehicles that can make these retail level investments through either direct capital or indirect support such as guarantees or creative use of larger entities' balance sheets.

2. *Supporting efforts to reach the lowest income segments.* For all the promise of the business models described in Section II, most are viable primarily in markets in which the poor have at least some level of income or assets. For most of these models to reach into the poorest groups, some support from soft funding sources will be necessary.
3. *Building the capacity of the enterprise.* In a world where most of the enterprises are small and have to operate at the lowest cost point possible, capacity building is often a luxury. Soft funding can help address key one-time costs, whether for enterprise-level capabilities, business model development, product development, or technical assistance to dismantle barriers to scale or viability.
4. *Directly advancing the field and its infrastructure,* as described above and, perhaps most importantly, defining and driving an impact metrics effort that will help refine understanding of what works and what does not.⁸⁵

For Government and Policy Makers

Keys to overcoming some barriers to scale lie in the hands of government, so it will fall to government to unwind these barriers. For instance, in most emerging markets, the business environment is treacherous for any enterprise, whether targeting the poor or not. India ranks 122 on the global Doing Business ratings. Brazil fares a bit worse at 125, and Philippines stands at 140. Improvements here would have broad benefits, and not just to market-based solutions to poverty.

Beyond that obvious and needed role, however, there is also a need to reform specific policies and regulatory restrictions that inhibit market-based ventures. Such restrictions impede business models in key sectors like health, education, and even job training and skilling. For example, in India, educational requirements such as minimum qualification requirements for teachers, restrictions on for-profit involvement in schools and schools chains, and monopolies on school certification systems inhibit the flexibility for entrepreneurs to provide a potentially superior offering to the urban and rural poor.

In addition, states are uniquely positioned to do more to create or promote the creation of shared assets. The state already supports the creation of a range of *pro bono publico* assets for use across multiple purposes and groups. These can serve as ready-made vehicles for aggregation and thereby create viable units of customers or suppliers who otherwise lack economic power. Examples include self-help group federations and co-operatives, which externalize the cost of aggregation for specific enterprises. Creating or mandating the creation of shared *physical* assets, like telecommunications towers, can address fixed costs and aggregation costs, too.

Finally, national, and even state or provincial, governments can direct their purchasing power to create sufficient “anchor” demand so that enterprises that serve the poor can economically invest in building out important assets or service provision.

There is a need
to reform specific
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market-based ventures.

An example would be vouchers for school or health care facilities that guarantee their purchase of a specified volume of pay-per-use water, thereby ensuring a sufficiently high use rate for the vendor to reach breakeven or make a profit.

WHERE WILL ALL THIS WORK BEST?

Although most of the study and many of the examples are drawn from India, we view these business models as applicable to a broad range of countries that in our estimation possess the proper conditions. And as examples herein from Mexico, Philippines, Kenya, Laos, Peru, and elsewhere show most of the developing world exhibits a pronounced interest in this field.

In brief, we believe market-based solutions will fare best in countries possessing:

- *Sizeable National Markets.* India sets the standard for a “national market of the poor,” with 700 million or more opportunities to sell to the base of the pyramid or to buy its products. But other national markets need not be so large. Although we would scarcely expect to find hives of low-end market-driven innovation in countries like Namibia or Fiji, with their small dispersed populations, diverse developing countries like Kenya, with a population of 38 million, or even a surprising Laos, with 6.8 million,⁸⁶ have proven to be hospitable grounds for developing and proving out business models that reach and engage the poor.
- *A reasonably well-functioning private economy.* This will exhibit a natu-

ral corollary—relatively little state control of the economy—and thus a robust level of small-and-medium enterprise formation, indicating that socially-oriented SMEs will the opportunity to experiment promising business models. Along with this should be an active informal sector that already provides goods, services, and supply chain participation privately to the poor, signaling the poor’s willingness to pay for a range of products and services.

- *A robust civil society.* The presence of strong, vibrant attributes of civil society—rule of law, enforceable contracts, domestic order, non-governmental organizations, and voluntarism—is a good indicator of receptivity to market-based approaches. A high density of NGOs is helpful, as many new approaches are often incubated first not by firms or the state, but by civil society groups.

Countries where one might expect to see a significant amount of base-of-the-pyramid-oriented enterprise, where the business models highlighted above might scale well, include (but are not limited to) Argentina, Bangladesh, Brazil, Colombia, Egypt, Ghana, India, Indonesia, Kenya, Mexico, Morocco, Nigeria, Philippines, South Africa, and Thailand.

CONCLUDING THOUGHTS

Market-based solutions to social challenges are still in their earliest days. Relatively few business models are demonstrably successful and many continue to show more promise than hard results.

Few doubt that engaging the poor as customers and suppliers presents an exciting—and significant—opportunity to establish new paradigms that might work alongside other models to bring genuine social change in financially sustainable ways. While the opportunities will be large, they may still not be large enough in many sectors to attract large corporations, especially in bigger emerging markets with large middle classes. However, even though the returns will not be outsized, the opportunities—financially and otherwise—will certainly be large enough to catalyze a range of activity from smaller or even medium-sized purpose-built enterprises. This segment of smaller promoters will drive the field in the coming decade,

and the key task will be to identify the most promising of the lot, help and hasten their growth, challenge conventional expectations, and enlarge the boundaries of commercial and social enterprise.

Whatever doubt there is about financial returns and opportunity size, the vast potential to provide positive social returns should elicit no doubt.

Whatever doubt there is about financial returns and opportunity size, the vast potential to provide positive social returns should elicit no doubt. The potential of

paraskilling models to lower costs and make essential services available to even the poorest at high quality; of pay-per-use models to provide safe water and reliable, less costly energy; of livelihood models like contract production to improve dramatically improve incomes—these are not the stuff dreams are made of but are realizable opportunities. Market-based solutions shouldn't substitute wholly for other efforts in government and civil society, but they can supplement them to improve affordability, quality, access, and incomes for the poor.

The key will be to focus on the development of promising business models that can achieve scale. We've identified seven such models for consideration, and we have no doubt others are out there, largely unexplored but with similar catalytic potential. The field must now set about the hard task of validating and refining these models and testing them at scale, to see if they are as robust as they appear to be.

We conclude this report by pointing to the profound and critical role impact investors and providers of “soft” funding can play in helping build the field—especially now in its early days of development. Those investors will be best positioned who possess the patience, risk tolerance, and social motivations to invest in business models that can scale and thus fulfill the promise at the base of the pyramid. That promise remains large and bright.

Appendix, Acknowledgements & Notes



Appendix: Overview of the India Study

In the course of doing the study, we examined more than 270 market-based solutions—some housed within the same organization (e.g., Byrraju Foundation’s different programs in education and clean drinking water) but most in distinct organizations. In most cases we did primary research—at a minimum, holding a one hour (or more) interview to understand the enterprise, the business model, the customer base, their barriers to scale, social benefit, etc. In many cases we went back to clarify more, and in the case of 36—ranging from ITC e-Choupal in Madhya Pradesh to Biogas Bank in Gujarat to VisionSpring in Andhra Pradesh—we conducted extensive field visits. In selected other cases, however, we relied on secondary research, although it should be noted that in this field that there are relatively few secondary sources for most small market-based solutions. Nonetheless, wherever possible, we supplemented primary research with available secondary research.

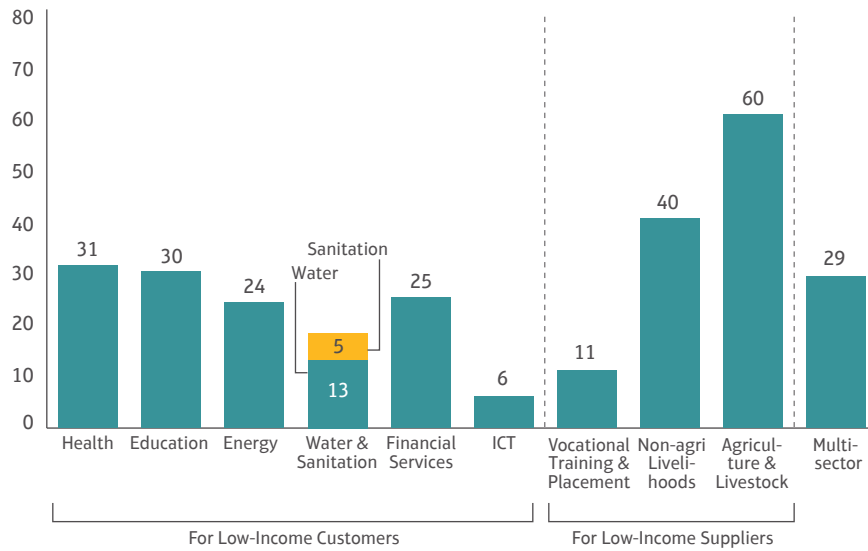
Description of the Sample

Of the more than 270 market-based solutions we profiled, 134 engaged the poor as customers, overwhelmingly in health, education, financial services and energy. A further 111 engaged the poor as suppliers, largely in agriculture, livestock and other non-farm livelihood interventions. Finally, 29 initiatives were multi-sector or cross-sector.

HOUSING IN MUMBAI

New assured demand business models promise improved affordable housing for urban low-income renters.

Number of Initiatives Profiled by Sector



Less than 20 percent of all market-based solutions were either at or near scale—a statistic that reveals much about the state of the field. This finding was consistent whether the organization was engaging the poor as customer or as supplier. This held true despite the fact that over 55 percent of the enterprises had been in operation for at least five years. Few large corporations were in this space—in fact,



BASIX Loan Officer interviews, Andhra Pradesh

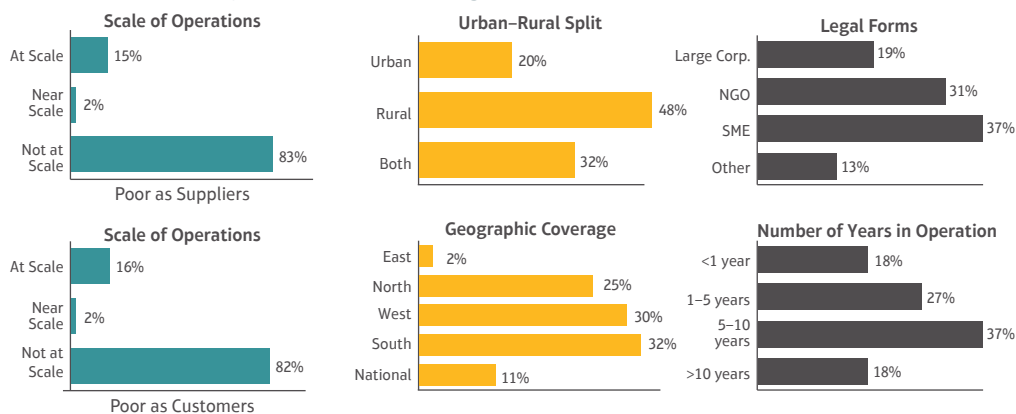


SERP Self-Help Group research, Andhra Pradesh

we found that over two-thirds of the market-based solutions we encountered were structured either as SMEs (37 percent) or as NGOs (31 percent).

Geographically, our sample had a strong rural bias, which is unsurprising since more than 80 percent of poor people in India live in rural areas. About half of the market-based solutions in our study concentrated on rural areas, and a further 32 percent covered both rural and urban areas. Regional representation also was balanced, with the exception of the East. The survey reflected activity in roughly equivalent proportions in the South (32 percent), West (30 percent) and North (25 percent) of India.

Initiatives Profiled by Scale, Location, Legal Form and Duration



In-Depth Field Research

After mapping the field, we also did a comprehensive multidimensional investigation of three dozen market-based solutions to understand the business models in detail, including field visits, in-depth management and organizational interviews, focus group discussions, observation of business transactions and activities, and economic analysis of business model. In the course of these field visits, we did everything from assess competitive offerings and substitutes to interview sales force members to interview customers or small suppliers. Beyond interviews with various

players in the market-based solution value chain—for instance, MFI loan officers to understand their incentives—we spoke to over 600 customers and small farmer (or other) suppliers, in focus groups and survey settings. These interactions were not designed to be statistically significant in the way that large sample national surveys are, but rather were focused on understanding key issues with preferences, economics, buying behavior, and other more qualitative concerns. These initial data, however, have been borne out subsequently by further interactions—for instance, our housing focus group findings have now been backed up by more than 2,000 additional customer interactions.

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Notes

- 1 C.K. Prahalad and Stuart L. Hart coined the celebrated synonym for the global poor, “the bottom of the pyramid,” in their seminal journal article, “The Fortune at the Bottom of the Pyramid,” and subsequent writings by Prahalad and associates. See Prahalad and Hart, “The Fortune at the Bottom of the Pyramid,” *strategy+business*, Issue 26, First Quarter 2002, <http://www.cs.berkeley.edu/~brewer/ict4b/Fortune-BoP.pdf>, accessed Feb. 13, 2009.
- 2 World Bank working paper “Global Poverty and Inequality: An overview of the Evidence, Ferreira and Ravallion” (http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2008/05/19/000158349_20080519142850/Rendered/PDF/wps4623.pdf), accessed Feb. 26, 2009.
- 3 In the past decade, estimates of the number of food-insecure worldwide have fluctuated between 800 and 925 million, consisting mostly of structural \$1-a-day poverty. See; for example, the UN Food and Agricultural Organization’s *The State of Food Insecurity in the World*, 2005 at <ftp://ftp.fao.org/docrep/fao/008/a0200e/a0199e.pdf>, accessed December 22, 2008, and Food and Agriculture Organization briefing paper “Hunger on the Rise: Soaring Prices Add 75 Million People to Global Hunger Rolls,” accessed Feb. 27, 2009.
- 4 According to World Bank estimates. See World Bank, *World Development Indicators 2006* (Washington, D.C.: IBRD/World Bank, 2006). <http://devdata.worldbank.org/wdi2006/contents/cover.htm>, accessed Feb. 23, 2009.
- 5 Other experts have proposed similar propositions and models. See in particular John Elkington and Pamela Hartigan, *The Power of Unreasonable People: How Social Entrepreneurs Create Markets That Change the World* (Cambridge, MA: HBS Press, 2008).
- 6 Henry Chesbrough, *Open Business Models* (Boston, MA: Harvard Business School Press, 2006) p. 2. Chesbrough continues, “It creates value by defining a series of activities from raw materials through to the final customer that will yield a new product or service with value being added throughout the various activities. The business model captures value by establishing a unique resource, asset, or position within that series of activities, where the firm enjoys a competitive advantage.” Note that much of the literature in the social enterprise field focuses on business models as the legal status of the enterprise, i.e. NGO vs. for-profit vs. co-operative vs. hybrid. Monitor’s view is that the business model must reflect how value is created and captured, regardless of legal structure.
- 7 In Indonesia, Bank Dagang Bali, c. 1970; in Brazil, ACCION, c. 1973; and in Bangladesh, the celebrated Grameen Bank, 1976.
- 8 We recognize that many microfinance practitioners also—or only—make individual loans, but as the format originated with group lending, we begin our analysis there.
- 9 The “small product” business model was famously covered in Prahalad’s example of shampoo sachets and other consumer products prevalent in rural areas all over the developing world.
- 10 See, for example, Connie Bruck, “Millions for Millions,” *The New Yorker*, October 30, 2006 for the running debate between Grameen Bank founder Muhammad Yunus and eBay founder Pierre Omidyar over how best to serve the poor in the microfinance space.
- 11 See Ministry of Textile Annual Report 2006-07 (<http://texmin.nic.in/annualrep/AR06-07-01.pdf>), accessed February 27, 2009 ICRA Textile Sector Analysis Report 2008, accessed February 27, 2009 ASSOCHAM, Cygnus Textile Industry Report—full citations, (http://www.cygnusindia.com/images/textiles_TOC.pdf), accessed February 27, 2009). The pervasiveness of informality is also apparent from that fact that, in 2006, informal pickle manufacturers in India were estimated to account for some 25 percent of the overall fruit-and-vegetable processed-foods market.
- 12 Monitor research in agricultural supply chains suggests that the poor pay a penalty of from 50 to 75 percent vis-à-vis large farmers to sell their products into the public mandi system of agricultural procurement. The “bottom-of-the-pyramid penalty” is discussed in Allen Hammond, William J Kramer, Julia Tran, Rob Katz, Courtland Walker, *The Next 4 Billion: Market Size and Business Strategy at the Base of the Pyramid*, (Washington DC: International Finance Corporation/World Resources Institute, 2007).
- 13 Aneel Karnani wrote in “The Fortune at the Bottom of the Pyramid: A Mirage,” that the market at the bottom of the pyramid is generally too small monetarily to be very profitable for most multinationals. Abstract: SSRN.com/so13/papers.cfm?abstract_id=914518, accessed Dec. 18, 2008. He argues that viewing the poor as producers is a more productive approach. As the organization of this report demonstrates, Monitor believes both approaches offer merit and must be considered.
- 14 Hammond et al, *Next 4 Billion*, taking the sum of the market for BOP1500, BOP1000, and BOP500, which covers just over 60 percent of urban India, and a higher proportion of rural India.

- 15 IDTechEx, <http://www.eweek.com/c/a/Enterprise-Applications/Report-Global-RFID-Market-Hit-5-Billion-in-2007/>.
- 16 In-Stat: <http://www.instat.com/press.asp?ID=1413&sku=IN0501830ID>.
- 17 Infonetics, including software and hardware. Cisco systems is the market leader with 38 percent share. <https://www.infonetics.com/pr/2007/ms07.sec.4q06.nr.asp>.
- 18 Lyra Research, “Chinese Laser Printer Market to Surpass \$5 Billion in 2010, Says Lyra Research,” <http://www.lyra.com/PressRoom.nsf/a6df7dce4a0ca65f85256d160061e4eb/1b7de37379ba76788525721f0057937d?OpenDocument>.
- 19 Education segment sizing data from CLSA Report, March 2008, Indian Education: Sector Outlook.
- 20 Polaris Institute, http://www.polarisinstitute.org/india_and_the_regulation_of_bottled_water, accessed Jan. 23, 2009.
- 21 The company recently announced plans to double capacity.
- 22 Shenhua Chen and Martin Ravallion, “The Developing World Is Poorer Than We Thought, but No Less Successful in the Fight against Poverty,” World Bank Policy Research Paper 4703, August 2008. http://www-wds.worldbank.org/external/default/WDSCContentServer/IB/2008/08/26/000158349_20080826113239/, accessed Jan. 3, 2009.
- 23 Some solutions will target those above the 60 percent line, but if they are addressing underserved markets where the poor can be customers the study continued to include them.
- 24 Even within this basic definition there can be some variation; for instance, whether a solution should have revenues cover only operating costs or also be fully able to cover payback of fixed costs.
- 25 By “enterprise” we refer to companies, NGOs, and other entities engaged in operating market-based or demand-led solutions.
- 26 Other interested parties ranging from World Resources Institute to University of Michigan to IFC to Indian School of Business have identified a number of other business models that warrant similar investigation.
- 27 For instance, the study found interesting applications of “third party pays” models (Planet Read in India, Playpumps in South Africa), or B2B services/management companies (Indian Schools Finance Company), but lacked the scope or resources to investigate them in depth.
- 28 This assumes an average monthly income in India of someone in the bottom 60 percent of the income distribution to be Rs. 3,500/month (\$70).
- 29 According to a World Bank Report discussion paper titled “India—Private Health Services for the Poor,” 2005 (<http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/RadwanIndiaPrivateHealthFinal.pdf>), accessed March 3, 2009. Whether this fact is due to the government’s failure to deliver comparable competitive services or to the sheer willingness, ability, and determination to pay, both, or some other factor is simply not clear.
- 30 This figure does not include all children in a family going to private school—Monitor field research indicates that in a typical low-income family, of five children, one might go to private school, two to government school, and three remain at home to contribute to the family’s income.
- 31 From Monitor analysis on NRS (2005) data, we determined that the cutoff income for the bottom 60 percent of customers in India is approximately Rs. 3,400 and therefore two weeks wages comprise approximately Rs. 1,700. The cost of the lantern is Rs. 1,500.
- 32 The Byrraju Foundation runs “holistic” rural development programs in Andhra Pradesh, India, and according to its website “improves the lives” of nearly 3 million people in 200 villages.
- 33 Byrraju is one of at least four operators in India that use a similar model. The others include Water Health International, the Naandi Foundation, and Poorvi Enterprises.
- 34 Monitor Group interviews. See also Andy Schroeter, “Sunlabob Rural Energy Ltd, Lao PDR Rental of PV systems provides quality lighting in remote Laos villages,” The Ashden Awards for Sustainable Energy (2007), http://www.ashdenawards.org/files/reports/Sunlabob_2007_Technical_report.pdf, accessed Jan. 19, 2009.
- 35 According to a WHO-UNICEF joint report, India has made significant strides in provided access to safe drinking water: in 2004, 86 percent of the country had such access, as opposed to 70 percent in 1990. See Meeting the MDG drinking water and sanitation target: the urban and rural challenge of the decade (Geneva: WHO Press, 2006) http://who.int/water_sanitation_health/monitoring/jmpfinal.pdf, accessed Jan. 2, 2009.
- 36 For education in India, see James Tooley and Pauline Dixon, *Private Schools for the Poor: A Case Study from India* (Reading, UK: C&BT, 2003).
- 37 CFW Shops and Well-Family Midwife Clinics, respectively.

- 38 LifeSpring is the only private hospital that has a partnership with the state government (Andhra Pradesh) to provide free vaccinations.
- 39 ANMs undertake an 18-month diploma program, the GNM course is three and a half years, and requires a higher-level secondary-school education.
- 40 Leigh L. Linden, "Complement or Substitute? The Effect of Technology on Student Achievement in India," 2008, unpublished working paper http://www.columbia.edu/~ll2240/Gyan_Shala_CAL_2008-06-03.pdf, accessed Jan. 4, 2009.
- 41 Most Gyan Shala junior teachers work two shifts per day, thereby earning about Rs. 2,000 a month for a household where they are typically not the sole wage earner.
- 42 The design team does the administration as well as the design and refinement of the teaching process. We therefore assume that they spend their time evenly between these two tasks and hence 50 percent of its cost is attributed to the teaching process.
- 43 NCERT Survey Data from Geeta Gandhi Kingdon, "The Progress Of School Education In India," *Oxford Review of Economic Policy*, Volume 23, Number 2, 2007, p. 186.
- 44 Ernst and Young, *The Great Indian Retail Story*, (Mumbai: Ernst and Young, India, 2006), [http://www.ey.com/Global/assets.nsf/Sweden/The_Great_Indian_Retail_Story/\\$file/The%20Great%20Indian%20Retail%20Story.pdf](http://www.ey.com/Global/assets.nsf/Sweden/The_Great_Indian_Retail_Story/$file/The%20Great%20Indian%20Retail%20Story.pdf), accessed March 10, 2009. The report points out that 80 percent India's 12 million retail shops employ only household labor: retail has traditionally been one of India's easiest paths to self-employment.
- 45 The inevitable point of comparison, China, took 15 years or so to grow its formal retail sector from 5 percent to 20 percent. Ernst and Young, *The Great Indian Retail Story*.
- 46 The desire to create livelihoods and jobs through building a proprietary direct sales force is a frequently observed tendency among social enterprises, but this almost always leads to a higher priced—and therefore—less competitive product. There are many social innovators who continue to strive for solutions that address both the poor as customer and as suppliers or producers in the same approach. Monitor's research suggests that these approaches have, at best, limited usefulness and, for the most part, should focus on one side of the equation or the other.
- 47 Sa-Dhan, "A Snapshot of Microfinance in India," June 2008, <http://www.sa-dhan.net/Adls/ResMaterials/08-06-percent20snapshotpercent20ofpercent20Indiapercent20Microfinancepercent20Quickpercent20summary.doc>, accessed Jan. 5, 2009. Sa-Dhan is India's principal MFI professional association.
- 48 Hindustan Unilever Ltd. describes Project Shakti as seeking "to create income-generating capabilities for underprivileged rural women, by providing a sustainable micro enterprise opportunity, and to improve rural living standards through health and hygiene awareness." It operates through rural self-help groups, which provide channels through which numerous HUL products are distributed. <http://www.hllshakti.com/sbcms/temp15.asp?pid=46802261>, accessed Jan. 29, 2009.
- 49 Insurance does not cover very expensive procedures such as chemotherapy or some treatments of serious burns.
- 50 We are indebted to Dr. Sanjiv Phansalkar of Sir Dorabji Tata Trust for this example.
- 51 Even without restrictions, however, it might not make sense for financial services entities to get into the business of moving and carrying large amounts of inventory.
- 52 The Construction Equipment Association—India Knowledge Base and Introduction: (http://www.coneq.org.uk/India_%20Introduction.pdf), accessed March 3, 2009.
- 53 We did not look at self-employment, largely because it is outside the MBS construct as we establish it, and also to avoid debates about "voluntary" versus "necessary" entrepreneurship. Additionally, the MFI sector's emphasis on livelihood generation has made vast investments in this regard over the last decade in India.
- 54 "Contract" is something of a misnomer in that, in informal economies, formally executed and enforceable contracts are rare and arrangements typically more of the "handshake" variety. We nevertheless use the term as broadly indicative of mutually agreeable arrangements that yield predictable outcomes for both producers and outsourcing parties.
- 55 While the concept of contract production is not new, we are deepening our understanding of variants that achieve scale. Note that contract production may be highly regulated in some countries. In India, for example, the model has flourished recently because most state governments amended farm produce marketing regulations to permit direct access to farmers by private (non-state) actors through direct marketing, contract farming, and establishment of markets in private/co-op sectors.

- 56 According to the UN Food and Agriculture Organization website, “Good Agricultural Practices” (GAP) codes, standards and regulations have been developed in recent years by the food industry and producers’ organizations, but also governments and NGOs, aiming to codify agricultural practices at farm level for a range of commodities. Their purpose varies from fulfillment of trade and government regulatory requirements (in particular with regard to food safety and quality), to more specific requirements of specialty or niche markets.” http://www.fao.org/prods/gap/index_en.htm, accessed Jan. 26, 2009.
- 57 In fact, wage rates for landless workers in the Calyso cultivation areas in Karnataka went up over 100 percent in 2007-08.
- 58 Indeed the model is not only scalable but replicable—diverse players ranging from Pepsi (potatoes), DFV (bananas), KBRL (rice), Suguna Poultry and Pradan (chicken), Agrocel (cotton), and many others—are implementing this already at or near scale.
- 59 Calyso has experienced significant seasonal side-selling of between 10-25 percent of total produce in its pineapple business.
- 60 Small farmers were defined as having less than two acres of land.
- 61 Source: Datamonitor Report “Fruit & Vegetables—Global Industry Guide;” FAO Report, “World Agriculture: towards 2015/2030.”
- 62 Most of the interest and coverage of e-Choupal has been rooted in the excitement over the use of computers in the business, especially around giving current pricing information. The more relevant dimension of e-Choupal, however, is the direct sourcing, and the fact that broad acre crop farmers who participate in it realize an income effect of about 7-10 percent by participating in a shorter chain. The majority of that income effect is from cost savings vs. participating at the mandi, i.e. from savings in marketing costs, increased area of crop, and better and cheaper inputs,” but a small amount of it is from the realized price increases of about 5 percent on average. See Dresdner Allianz Research, Jan. 2005; ICA Economic Study, e-Choupal: impact and effect (2007).
- 63 SERP only charges 1-1.5 percent brokerage.
- 64 At one point, ITC experimented with selling Eureka Forbes’ Aquasure water filter via its Choupal Sagaar stores but ultimately discontinued the pilot.
- 65 According to Indian government figures, as of September 30, 2008, Indian SEZs employed 362,650 people. Ministry of Commerce & Industry, Department of Commerce, “Fact Sheet on Special Economic Zones,” [http://www.sezindia.gov.in/HTMLS/Fact percent20sheet percent20on percent20SEZs percent20as percent20on percent2018th percent20November percent20- percent20Copy.pdf](http://www.sezindia.gov.in/HTMLS/Fact%20sheet%20on%20SEZs%20as%20on%2018th%20November%20-%20Copy.pdf), accessed Dec. 15, 2008.
- 66 Estimates for India vary significantly. Edward Luce apparently citing International Labour Organization figures, sets the informal—or, in Indian parlance, the “unorganized” sector—at 93 percent of total employment. Working with official Indian statistics and a broad definition of “informal,” K.P. Kannan and T.S. Papola arrive at an informal sector of 88 percent. Edward Luce, *In Spite of the Gods: The Strange Rise of Modern India* (New York: Doubleday, 2007), pp. 47-48; ILO, *World of Work Report 2008* (ILO: Geneva, 2008) 120-121; Kannan and Papola, “Workers in the Informal Sector: Initiatives by India’s National Commission for Enterprises in the Unorganized Sector (NCEUS),” *International Labour Review*, Volume 146 Nos. 3-4, (2007), pp. 321-329.
- 67 According to the The Hindu Business Line, February 15, 2008, the Rajiv Udyogasri Society had in three years trained more than 450,000 individuals and placed more than 300,000. <http://www.thehindubusinessline.com/2008/02/15/stories/2008021551782300.htm>, accessed Dec. 15, 2008. The Rajiv Udyogasri Society’s site <http://www.rajivudyogasri.gov.in/JobMelaServ?from=getNaj&pag=ind>, accessed Dec. 15, 2008.
- 68 TeamLease Website and Press Kit, <http://www.teamlease.com/>, accessed Dec. 17, 2008.
- 69 “TeamLease Staffing Solutions,” TeamLease promotional brochure, April 2006.
- 70 “Survey: Business in India—Still in the way: Red tape continues to make life hard for business,” *The Economist*, June 1, 2006; TeamLease executives often repeat this claim.
- 71 Aruna Viswanatha, “Andhra leads the way with sales jobs for rural youth,” liveMint.com posted Oct. 12, 2008, <http://www.livemint.com/2008/10/12230653/Andhra-leads-the-way-with-sale.html?d=1>, accessed Dec. 16, 2008.
- 72 TeamLease Contract Service (TLCS) was founded in 2006. “TeamLease to create 2,000 blue-collar jobs,” *Business Standard*, March 28, 2007

- 73 According to TeamLease Co-Founder and Chairman Manish Sabharwal, “In the short run we can’t take jobs to people; we need to take people to jobs. This means creating the processes, institutions and framework for labour migration. This is sacrilegious to the many who believe that keeping people in villages is a policy imperative because of urban decay and quality of life.” Manish Sabharwal, “Ending the Ovarian Lottery,” *The Economic Times*, May 28, 2008.
- 74 See, for example, “Teamlease and Rajasthan government place 5,000 candidates at ‘Livelihood Mela’” March 17, 2008; http://www.domain-b.com/companies/companies_t/TeamLease/20080317_livelihood_mela.html; “TeamLease job hotline to impart skills training” August 13, 2008, <http://www.dnaindia.com/report.asp?newsid=1182933>; “Team-Lease taps voluntary organizations,” *The Hindu Business Line*, June 24, 2006, <http://www.thehindubusinessline.com/2006/06/24/stories/2006062401490500.htm>, accessed Dec. 17, 2008.
- 75 “Manish Sabharwal, “In Five Years, 25 percent of the World’s Workers Will Be Indian,” *India Knowledge@ Wharton*, April 19, 2007, <http://knowledge.wharton.upenn.edu/india/article.cfm?articleid=4186> , accessed Dec. 17, 2008.
- 76 *IndiaPRWire*, “TeamLease releases Annual Temp Salary Primer 2008,” April 1, 2008, <http://www.indiaprwire.com/pdf/pressrelease/200804018450.pdf>, accessed Dec. 17, 2008.
- 77 We should point out: plenty of non-tailored products are sold to the poor all the time: fertilizer, televisions, foodstuffs, and batteries are all mass-market products and sell well. But for socially beneficial products and services there is less luxury to sell the non-tailored article.
- 78 IDE recently received a large grant from the Bill and Melinda Gates Foundation to refine its marketing and increase penetration of its treadle pumps, which has an addressable market of 35-50 million farmers.
- 79 This does not advocate subsidizing large corporations for everything or indeed for most things.
- 80 This points strongly, however, to the need for well-developed social impact metrics, so that those who are injecting soft funding into private sector models can know with much better precision what the result of their investment is, in both financial and social terms.
- 81 In April 2007, the Mexican non-profit MFI Compartamos (“let’s share” in Spanish) went public in an enthusiastically received IPO, prompting an international debate in the microfinance and development communities over how far microfinance should go toward becoming “big business.” Compartamos reached one million borrowers in 2008.
- 82 Data sources: ShoreCap: Jean Pogge, “Easy Does It: Sourcing Deals Through Collaboration,” PRI Makers Network, January 2008, p. 6 www.primakers.net/files/EasyDoesIt.ppt, accessed January 14, 2009; Jean -Philippe de Schrevel, “BlueOrchard Private Equity Fund,” World Microfinance Forum, October 1 2008, p. 5 www.microfinanceforum.org/cm_data/Jean-Philippe_de_Schrevel.pdf, accessed Jan. 14, 2009; Paul DiLeo and David FitzHerbert, *The Investment Opportunity in Microfinance*, Grassroots Capital Management, LLC, June 2007, p. 24.
- 83 DiLeo and FitzHerbert, *The Investment Opportunity in Microfinance*.
- 84 Monitor will issue a white paper on this topic later in 2009, “The Role of Soft Funding and Government in Market-Based Solutions” on its website www.mim.monitor.com.
- 85 Note that the Global Impact Investing Network has this task high on its agenda.
- 86 Kenya: <https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html>
Laos: <https://www.cia.gov/library/publications/the-world-factbook/geos/la.html>.

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