Taking Base of the Pyramid Strategies to Scale

A NextBillion.net Featured Series

By Allen Hammond

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About the Series:

Taking Base of the Pyramid Strategies to Scale is a series of eleven blog postings that debate a radical new approach to scaling BoP business models, which its proponents call a "transformative sector strategy." In the series, Hammond introduces the conceptual framework for this new development model and provides examples of the strategy in action from the Health and ICT sectors. Six BoP experts comment on the strategy in subsequent guest commentaries, followed by a fifth concluding post from Hammond. This series originally appeared in May 2008, on NextBillion.net (www.nextbillion.net), a website and blog about how business drives positive social and environmental change in low-income communities.

About the Authors:

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Ryan Gunderson writes about sustainable, scalable solutions to end global poverty on his Riches For Good blog. A finance professional with an MBA from the University of Michigan's Ross School of Business and seven years of Fortune 500 experience, Ryan is transitioning to part-time work to allow him to pursue his goal of helping 1 million people out of $1-a-day poverty. He welcomes help in reaching his goal and can be reached at richesforgood@yahoo.com.

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John Paul is a Co-Founder and former Managing Editor of Nextbillion.net. He has performed field research in Nepal and Ghana, and has spent a year living in India working for n-Logue Communications, an IIT-incubated business that is setting up rural Internet kiosks throughout the country. He has also consulted for USAID's Last Mile Initiative, a global program to expand the access of the rural poor to communications. He is currently finishing up his MBA at Cornell University, where he has focused on private-sector solutions to global poverty with the school's Center for Sustainable Global Enterprise (http://www.johnson.cornell.edu/sge/).

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Taking BoP Strategies To Scale Pt. 1:
An Introduction to Transformative Sector Strategies

By Allen Hammond

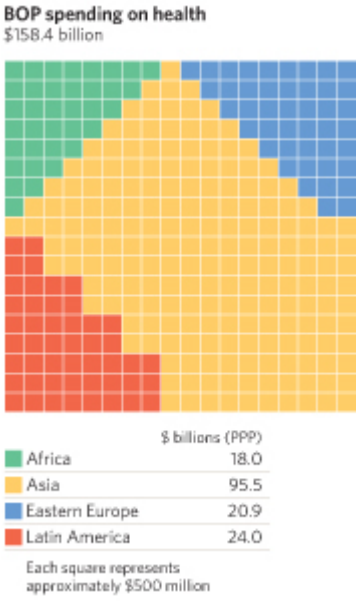
"It doesn't exactly keep me up at night, but I do think about it a lot." Jacqueline Novogratz, head of Acumen Fund, and I were talking about getting to scale - about expanding private sector business development and investment aimed at empowering and providing basic services to the poor to the point of making a real impact.

I felt exactly the same, and I've had similar conversations with colleagues at Santa Clara University, at Ashoka, at private investment funds, and elsewhere. Ever since we finished our report on The Next 4 Billion, the numbers haunt me. How do you meet the unmet needs of four billion people?

Convincing a dozen multinational companies to take this market seriously isn't enough. Doubling or quadrupling the capacity of the organizations that mentor social enterprises and BoP-serving small and medium businesses won't do it either. Even investing hundreds of millions of dollars in individual enterprises in this sector doesn't guarantee success. I think the goal has to be to transform whole sectors in ways that catalyze mainstream investment in BoP economic activity and unleash market forces. To get there, I think we need a more systematic approach.

A Next-Generation BoP Approach: Transformative Sector Models

In this and subsequent posts, I'm going to suggest one such approach that I and my colleagues at WRI and elsewhere have been developing for several years, and that we are now starting to take into the field. I'm proposing this scaling model tentatively, and asking for feedback and for comparisons to other scaling models.



The approach builds on the perception that there is a growing amount of public and private capital available to fund BoP strategies - almost every month now I hear about a new BoP private equity fund - and the conviction that the bottleneck is a shortage of solutions in the form of investable enterprises. In venture capital jargon, what's missing is the "deal flow." And I'm suggesting that the way to create that deal flow and unleash a rising tide of investment is to focus not on individual entrepreneurs, not on individual companies, but on economic sectors.

Our approach is to seek to understand deeply the critical problems and opportunities of individual BoP sectors - whether healthcare or housing or connectivity - and identify transformative business models that can be scaled and widely replicated in many countries by many different actors. I think that focusing on the sector - and then either helping existing enterprises to adopt the transformative model or incubating new enterprises to embody it - is a more systematic approach to meeting needs, increasing service delivery, and empowering the BoP. And if the solutions are truly transformative, then supporting the first half-dozen test cases may be all that is needed before the market itself begins to drive the change.

Of course, finding transformative solutions for a sector and implementing them in half-a-dozen countries is hardly easy. I think it will take catalytic civil society actors, skilled entrepreneurs, pioneering investors, and enlightened (or very strategic) corporations working together to make this happen. But let me

introduce a couple of examples to make these ideas a bit more concrete.

"Last Mile" Solutions with Real World Impact

One example starts with the huge benefits that come from access to mobile phones, and the reality that most rural BoP households still either have no access or can't afford the high prepaid charges (as detailed in this recent NYT piece). Suppose there was a dramatically lower cost way to provide that service to hundreds of millions of people, especially in rural areas that do not yet have coverage, using a technology that is unfamiliar to mobile phone companies.

In fact, there is just such a solution, one that could put modern communications tools - and soon, mobile phone banking services - in the hands of even the poorest and most remote communities at a profit to the provider. So how might we catalyze widespread adoption of this solution? Our approach has been to pilot this new "last mile" model for rural connectivity, which we have marketed to leading mobile phone companies in developing countries.

A second example is a franchising concept that could provide a similar "last mile" solution for rural and peri-urban healthcare - in effect, filling in key missing pieces of national healthcare distribution systems and bringing better service-or even eventually world class care, thanks to new technology and "remote practice" approaches - to many underserved low-income households. What is potentially transformative is that the solution bridges the huge gap in functional healthcare infrastructure and the acute shortage of doctors, nurses, and pharmacists in many rural areas, enabling access for underserved communities.

I will be fleshing out both of these examples in subsequent posts this week to show how the potential for this transformative sector strategy is already being demonstrated in practice.

Taking BoP Strategies To Scale Pt. 2: Connecting Rural Communities

By Allen Hammond

A Last Mile Model for Rural Connectivity

Son Tay commune, Quang Ngai Province. I was sitting across a table in a remote rural outpost of Vietnam, negotiating (via a translator) with the manager of a local radio station about access to his tower. He asked a series of technical questions and seemed satisfied with the answers, but then he wondered aloud: "Can we get Internet access here?" He didn't just want it for the radio station, it emerged, but for the surrounding small community - even though nobody there yet owned a computer. The manager understood that internet access could help transform their opportunities. And when we agreed to mount a small antenna to serve the community, the tower was ours.

The negotiation was part of a two year long process to pilot a novel approach to rural connectivity. It involved building an advanced, broadband network in three communes (groups of villages) in a very poor province in central Vietnam to provide Internet-based phone service and Internet access. Quang Ngai Province has no Internet access for its million-plus population outside of the provincial capital, and phone ownership is about 3 percent.

But the province does have an AUSAID-funded rural development project (RUDEP) that had built trust by doubling farmer's incomes in many communes, and optical fiber to every district capital (owned by the national electric utility, EVN, which also owns a mobile phone company, EVN Telecom). Ultimately all of these became partners in the effort,

as did USAID's Last Mile Initiative, Intel and other equipment providers.

Why Advanced Technology Is Worth More To the Poor

The technology involved is both familiar and yet amazing. It's WiFi, just like the wireless unit in your home or the hotspot at Starbucks. Yet this is also advanced WiFi mesh that can provide service several kilometers from the hot spot, works autonomously to maintain signal quality and routes traffic in the most efficient way. Another version of advanced WiFi technology can also send lots of data - the voice traffic and Internet data from dozens of villages, up to 100 Mbits per second-over distances of 50 kilometers, so that even remote areas can be connected (over several links if necessary) to high speed modern networks. The phones involved would be WiFi-enabled mobile phones - in effect, low-cost smart phones - that worked on either the WiFi network (in the commune) or the mobile network (in town).

Why build such an advanced, cutting-edge network - not easy to find even in affluent areas of the United States - in a remote, rural place like central Vietnam? Because it also very inexpensive and enables services that low-income, rural people need, in ways that are very beneficial to those users, but that are also affordable and profitable to the service provider - here, EVN Telecom, a mobile telephone company.

Our analysis, based on actual costs from the pilot in Vietnam, suggests that providing rural coverage with this technology would be dramatically less costly to the telco. Compared to building conventional mobile networks and their expensive cell towers, this new approach would lower the investment required by 80 percent and would lower network operating costs by at least 50 percent, and yet would likely expand the number of actual customers far beyond the modest penetration typical for mobile phones in BoP communities.

Plus the telco can sell Internet access to cybercafés, schools, government offices, and small businesses, over the same network. From the perspective of the users, it also looks like a good deal, because local calls - about half of normal calling patterns in rural areas - would be free. In central Vietnam, free local calling would save many a five kilometer walk to commune headquarters and could be a good reason to buy a phone. Voice-enabled information services in local dialects - how to raise pigs, for example, knowledge that can lead to prosperity in Quang Ngai - and, fairly soon, mobile phone banking, a critically-needed service in rural areas, would likely become available.

Catalyzing a Transformation

If rural areas don't get built out by the mobile companies, they will lose out on the huge benefits of mobile phone banking. And if mobile companies continue to base their expansion plans on familiar cellular technology, many rural communities are likely to get left behind, simply because the business logic of that expansion doesn't work - there may be no return on investment from a $100,000 cell tower in a sparsely-populated rural area. Not to mention the fact that this would lock in a costly, climate-unfriendly dependence on fossil fuels to power the networks. But mobile companies are making money with their current approach, and are comfortable with it, so how to get them to change?

The Vietnam pilot provides part of the answer by inviting the companies to "kick the tires" and see it in operation. Putting together an ecosystem of suppliers backed by a familiar corporate name - Intel, in this case, which is supporting both WiFi and next-generation WiMax wireless equipment - is also part of the answer. Building demand at local levels can help too- officials of Quang Ngai Province are already getting calls from communes not part of the pilot asking when they can get "their" WiFi networks, and the provincial government has discussed building a province-wide network itself, if the telco doesn't roll it out commercially.

Marketing is key; pushing the hard business logic of lower cost and higher profits, pointing out that WiFi networks with their solar power supplies offer a chance to "green" the mobile buildout, persuading the

number three company in a market that this is the way it can leapfrog over the number one company in numbers of customers. Hopefully, the timing is right. Mobile companies everywhere in the developing world are coming to grips with the fact that virtually all of their future customer growth will come from rural areas, that diesel fuel prices are not likely to drop anytime soon, and that there is significant demand for Internet services even in rural areas.

The bet is that if a few companies adopt this approach and prosper, then market forces will bring many others on board and a growing number of voice-based applications can bring new productivity to rural communities - in short, sector transformation. And if so, rural communities will finally be connected to the global economy.

Imagine what a difference it would make in the outlook and expectation of the next generation of children in rural areas if they grow up with Internet access - regardless of whether that access is by computer or by broadband-enabled phone.

In the next post, I will describe how an innovative model for health care delivery could create transformative sectoral change of an equally great magnitude.

Taking BoP Strategies To Scale Pt. 3: World-Class Healthcare for the World's Poor

By Allen Hammond

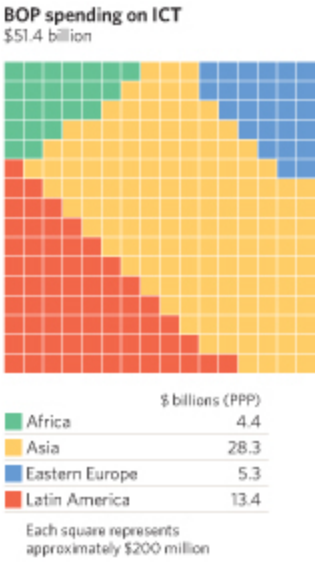
Last Mile Health Care Delivery

Talk to people in the rural communities of southern Mexico, in the new urban communities on the southern edge of Bogota, or in almost any village in rural Africa about getting decent access to healthcare, and their answer is the same: it usually costs more to get to a clinic, a doctor's office, even a pharmacy, than the cost of the service itself. In Bogota, most of the government-supported health services are in the north of the city, such that it can cost people in these new refugee communities a day's work plus bus fare across town and back to get help. Lack of access defines part of the last mile health care dilemma, and that means distributional business models, such as franchising, can be important.

Talk to Health Stores in Kenya, an enterprise trying to staff small pharmacies with nurses, and another part of the problem becomes clear: the sheer lack of doctors, nurses, and pharmacists in emerging markets. There are not anywhere close to the number of skilled professionals needed to cover rural areas, and these health workers overwhelmingly refuse to live either in rural areas or in urban slums. So technologies, organizational models, and legal changes that enable local diagnosis and remote practice by doctors and pharmacists could play a critical role.

Still a third factor leaps out from the data in The Next 4 Billion report that shows clearly that low-income households spend between a third and a half of their out-of-pocket health care expenditures on drugs. They typically don't go to doctors or clinics or hospitals, but rather to pharmacies or some other source of medicines and seek to self-medicate. That means they often get a guess as to what's wrong with them instead of a diagnosis.

Compounding the problem are informal supply chains in many countries that sometimes provide poor quality, fake or simply expensive medicines. In the Philippines, for example, many rural people often buy drugs from a convenience store at two to three times the pharmacy price. So building a disciplined pharmaceutical supply chain that extends to most communities could help with quality and access. With onsite diagnosis and remote practice tools, it could also become a key piece of the missing infrastructure for last mile health care delivery.



Taking Good Intentions To Scale

As it happens, there are at least four instances of a franchise pharmacy model-in Kenya, Ghana, Mexico, and one state in India--that could address these problems. None of them have yet scaled, and none of them have put all the pieces together, but they show interesting strengths. As franchises, they can expand with modest capital investment, can enlist local business talent who know the communities to be served, and can use surprise audits, secret shoppers, and other well-established approaches to ensure a disciplined supply chain with no fake drugs; so part of the value proposition (and the brand) is "drugs that work."

Selling mostly or exclusively locally-produced generic medicines, these franchise pharmacies can often be the low-cost provider. Because they typically focus on the most common healthcare problems, they stock a modest range of medicines, preventive commodities, reading glasses, and similar goods - making it easier to push distribution out to more remote communities.

With an IT logistics system (deployed in Mexico, not in the others), they can ensure that they never run short of the medicines most people need-another part of value proposition. What makes such distribution platforms potentially even more valuable, however, is the advent of new diagnostic tools designed for the BOP; these include a DNA-based diagnostic tool that can detect the major fever diseases and STDs, for example. These new diagnostic tools are inexpensive, do not require electric power or refrigeration and can be operated by para-professionals, feature color-coded readouts, and give results in a few minutes at a cost of perhaps $.50 per test. Paired with a franchise pharmacy, they offer much improved targeting of medicines and, presumably, better health outcomes - as well as another line of business for the pharmacy unit.

As remote practice tools and services expand, the pharmacy platform, especially with an IT connection, may prove even more valuable, enabling not just remote supervision of the local unit by a licensed pharmacist or doctor, but also a simple x-ray or sonogram taken locally to be read at a central hospital or radiology practice while the customer waits. They would then know whether rest and medicine would take care of the problem, or a trip to a doctor or hospital is required. GE has already launched a new, portable electrocardiograph that weighs just three pounds. Add cataract screening, monitoring basic vital signs, infectious disease surveillance, and the result could be a transformation of rural health care.

At a national scale, these franchise pharmacy chains can be sizeable, profitable, businesses that create local jobs and wealth. And there is ample opportunity to replicate the model in many countries.

In my next post, I will summarize common links between the two seemingly disparate business models in the health and ICT sectors that I have discussed here and in my previous post, identifying the common business DNA that makes for a transformative sector solution.

Taking BoP Strategies To Scale Pt. 4: Building New Business DNA for the BoP

By Allen Hammond

Searching for Transformational Models in New Sectors

If building the missing infrastructure could transform rural connectivity and health care, what about access to clean drinking water, especially for smaller rural and peri-urban communities? That's a proposition that WRI and Santa Clara University's Global Social Benefit Incubator are researching. There are some promising models in the field, such as Water Health International, that are beginning to scale. There are a number of additional enterprises, five of which will be mentored intensively in this year's incubator class. There are some promising new filtering technologies that use less energy than existing technologies, as well as other interesting approaches that have yet to be applied in emerging markets; we are undertaking a detailed comparison of both existing and newer technologies.

A number of community-initiated business models have produced good results, but they aren't easily replicable and don't scale. So we are analyzing both franchising and public-private partnership business models. Many of the elements that make rural connectivity and rural health care promising appear to be present in the water sector. It is too early to say what will emerge out of the research, but the scale of the unmet need is clear - a billion people without access to clean drinking water.

And after water, why not BoP energy? Our preliminary thinking is that there at least three sub-sectors of interest: Off-grid power and lighting, from mini-hydro to LED lighting; efficiency improvements in energy-using devices, such as cook stoves and motorbikes; and locally-grown, produced, and consumed biofuels that don't compete with food. We know of prototype enterprises and projects in each sub-sector, some of them already beginning to scale. We believe that the recent, rapid evolution of technology options will continue and can be adapted for the BoP. And we know that the unmet need is very large.

I believe that very similar approaches exist for BoP financial services and low-cost housing, as well as for rural connectivity and health care as described in earlier posts, even if the details of the transformative models remain to be fully elaborated and tested. Think of it as building the fundamental organizational infrastructure for delivery of basic services-and doing so quickly enough to make a perceptible difference globally within ten years.

Building New Business DNA for the BoP

Regardless of the sector, the businesses that can provide these services have to be built one country at a time-but because they have a common genetic code, many actors and many sources of investment, not to mention competitive market forces, can play a role, once the model is proven and well-established. These transformative sector models have in common new business models, new technology, sometimes new public-private hybrid investment strategies. Most importantly, they are built on an understanding of the real needs of BoP communities.

Does that mean that development projects to build BoP markets or improve value chains or remove barriers to enterprise are useless? Of course not. Or that corporate CSR efforts oriented toward the BoP are beside the point? Not at all, especially if they lead ultimately to greater business investment. Does it mean that efforts to nurture small-scale social entrepreneurs are wasted? Absolutely not, that's where

many critical new ideas and a supply of seasoned entrepreneurs will come from.

But it may mean that these are, in a sense, preliminary or transitional activities: They cannot replace the need to scale and, more fundamentally, to transform the way our economies and our societies function. And if that is the case, then perhaps it's time to focus more directly on the scaling process - and on creating the deal flow and mainstream investment processes that will be required.

In our work at WRI, we have started by studying in some detail both the structure of BoP markets - the unmet needs, and how poor people spend their money, as described in our joint report with the IFC, The Next 4 Billion: Market Size and Business Strategy for the Base of the Pyramid. Likewise, we have studied what works in those markets, documenting the business models and trying to understand why they work, and how the activity meets real needs (see, for example, the What Works case studies in the Resources section of this site). Then we try to add to those business models expert knowledge about policy barriers, emerging new technologies, and financing strategies.

Finally we - it is always a joint activity by a number of partners - try to combine all of this intellectual capital to identify the low-hanging fruit, the opportunity that is potentially both scalable and replicable - in effect, the new business DNA that we call a transformative sector strategy. And the final step is to take these new approaches into the field in whatever way proves possible, and demonstrate what they can do.

Join Us in a Collaborative Approach

The essence of our sector transformation strategy is to demonstrate transformative new models in a number of countries, in the belief that market forces will then bring many more actors and investors into the picture to replicate, adapt, and improve the model. We admit that this approach is not a fully-proven strategy. So we invite comments and questions about our sector transformation approach as a scaling strategy for the BoP. We also invite all those who read NextBillion.net to send us examples, field experience, and other pertinent information on any of the sectors described above - especially for the BoP water and clean energy sectors. And we offer to share what we are learning to help others working in these sectors find better ways to scale.

Guest Post: Thoughts on the Transformative Sector Strategy

By Brian Trelstad

Al Hammond's enthusiasm for the bigger picture is refreshing. His transformative sector strategies are a bit of a departure from the norm for someone like me, who spends most of his time evaluating individual investments and, as a result, often loses the forest for the trees. I am surprised, however, to hear that this topic doesn't keep Jacqueline up at night, as the entire Acumen Fund team is constantly thinking about how to take businesses - even those serving upwards of a million people - to the next level of scale.

Our strategy is to find great models like Medicine Shoppe or Water Health International and build them into profitable companies that are providing critical goods and services to the poor at scale (defined as 1 million plus customers). It's also critical for us to share the lessons and insights gleaned from the investing/management experience with the private capital markets and public sector to help shape the next generation of investment strategy and public policy.

It's helpful to think through the sector strategy and ask what each player's role is. Furthermore, we can

use the strategy to understand how this kind of approach might allow the whole to become greater than the sum of the parts. We know that inventors and entrepreneurs are impatient and are not going to wait to collaborate. They want to get things done, change the world and innovate. So asking them to partner is a bit like herding cats; let's view them as a resource to be tapped, but not a force to be marshaled.

A group of entrepreneurs in a specific geography or sector will allow clusters to form, and an ecosystem of innovation might enable these small and growing businesses to learn from one another, to adapt, and to partner for more effective growth. We are seeing this in India, where the dimensions of a health care delivery ecosystem have begun to develop and where we have supported three low-cost hospital chains, a pharmacy targeting urban slum dwellers, and a cross-subsidized ambulance service that offers "ambulance access for all".

Then there are the intermediaries like Acumen Fund, Root Capital, E+Co and New Ventures, which provide patient capital to these impatient people. Our role is to try to make these investments as successful as they can be by providing investment capital, insights, access to networks and - most importantly - help in finding the right people. Talent, not capital, seems to be the most binding constraint in the sector, and I would encourage the WRI team to be thinking clearly about what it takes to scale sectors until the stock and flow of trained professionals (e.g., nurses, network engineers, teachers, masons) is either sufficient or can be readily addressed as scale begins to take off. The beauty of microfinance is not that there were millions of surplus loan agents just waiting for sales and collection jobs, but that the job itself is eminently teachable.

The intermediaries need help in a few places. Foundations must continue to experiment and to support the patient capital providers, because in some sectors it will be a long time before we hit commercial viability. Hopefully that will happen sooner than the 30 years it took microfinance to tap into the global capital markets. Foundation support is also critically important in terms of supporting experimentation and impact assessment work. WaterHealth International, for example, has 85 operating community water systems. Before they scale to manage thousands of installations and replicate to another part of the world, we are working with them to document the health benefits of clean water provision. We are also working with IDEO to see if there are low-cost transportation and water storage devices that can keep the water clean during that "last mile" Al writes about.

We also need help in establishing links to the policy communities and to the established businesses who might take the bets we have placed on the table and find ways to take them to scale. Businesses, be they local telcos or multinationals, are increasingly interested in this space, but are naturally wary of putting big bets on single sector approaches. They are actually risk averse, and so need to be coaxed into understanding the nature of the commercial opportunity and the risk of the investments they might make.

Trusted thought leaders like Al and WRI can help companies navigate what will be a growing number of opportunities to "invest" in ways that people with skin in the game can't do objectively. We really do believe that WHI is the answer to community scale water treatment and we would say that even if we didn't own part of the company and weren't desperate for it to be successful. Really, trust us. We are totally unbiased. (You see my point).

Finally, the link to the policy community is where it gets harder for us as intermediaries to navigate. There is real potential at the national and international level to craft good policy that can promote sectoral change. People who happen to enjoy working with entrepreneurs, however, typically don't enjoy watching legislation get made, nor do we enjoy sitting through long-term strategic planning sessions for the eradication of malaria. We need help connecting with the right policy makers and sharing our insights in ways that move the dialogue forward. A more robust dialogue between policy makers, business and investors could be a platform for significant change, and the more specific the agenda, as Al lays out, the more likely there will be movement.

Sadly, however, it might be a bit optimistic to think that most governments have the capacity to make good public policy that uses resources cost-effectively and promotes solutions that have an immediate impact on the well-being of millions of their citizens. Perhaps if the United States, the world's richest

country can find a way to provide health insurance to 44 million low-income Americans, then the Government of Kenya can also find a way to enable (not even build) a nationwide system of WiFi-enabled, solar-powered, high-quality, low-cost health clinics.

But we must forge ahead anyway, aware of the contradictions, sure of our convictions, and all the smarter from our mistakes. To quote F. Scott Fitzgerald, "The test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time, and still retain the ability to function. One should, for example, be able to see that things are hopeless and yet be determined to make them otherwise."

Guest Post: Show Me the Income

By Ryan Gunderson

"The biggest reason most poor people are poor is because they don't have enough money." Why did Paul Polak find the need to write that embarrassingly obvious statement in a book? Because the development community has a long history of overlooking the concept. My initial reaction to Allen Hammond's series on transformative sector strategies is that he is perpetuating the common mistake of ignoring income generation. One of his sentences particularly strikes a wrong chord with me: "How do you meet the unmet needs of four billion people?" To me, the appropriate question is "How do you help people raise their incomes so they can afford to meet their unmet needs?"

Consider his phone example for a minute. Hammond shares a reasonable level of detail about how WiFi networks can be built relatively affordably in rural areas, theoretically at a profit to companies. (I will ignore for a moment that in his example he implies a regional government may be more interested than its for-profit partners in expanding its WiFi network). But Hammond does not talk convincingly, in my opinion, about how phone and Internet access will help raise individuals' incomes. He mentions that a phone user could solicit information about how to raise pigs, and he mentions that quality of life would improve from less walking.

Although I do not question the quality of life improvements that come from technology, I need more concrete details to convince me of the income proposition to individuals. For example, other than pig raising information, what types of income generating content will be available? Who will develop the content that will be relevant to local geographies in their local languages? Where is the market research or pilot that shows individuals actually value such content? Would a large percentage of the population actually buy phones, or would a few buy and rent out to others, similar to the Grameen model in Bangladesh? I am not convinced the model is sustainable, nor am I convinced of a causal relationship between telecommunications and higher incomes.

Similar to telecommunications, enhanced health care offerings would bring tremendous quality of life improvements to the rural poor and could help with productivity as well. But Hammond's health care example relies heavily on a strong telecommunications infrastructure. How will inhabitants of rural dollar-a-day communities increase their incomes so they can afford telecommunications and improved health care? It's a classic chicken versus egg scenario, and I believe income generation has to come first in order for market-based solutions to work sustainably.

In summary, I agree with Hammond on the need for sustainability, scalability, affordability, and market development, but I am unconvinced that the transformative sector strategy, as currently introduced, will have a large favorable impact at the base of the economic pyramid. Specifically, I believe that as a result of asking the wrong question, Hammond's solutions are incomplete and do not explicitly address income generation.

Guest Post: Taking the BoP Movement To The Next Level

By Sagar Gubbi

When I first read the BoP article by C.K. Prahalad and Stuart Hart three years ago, it triggered several thoughts in my mind and I remember having endless discussions with my friends on the ideas put forth in the article. Reading through Allen Hammond's posts this week on 'Transformative Sector Strategies', I have experienced a sense of déjà vu, with a lot of thoughts being triggered in my mind all over again. If the work carried out by people like C.K. Prahalad, Stuart Hart and others was responsible for triggering widespread interest in the BoP, WRI's model, outlined in Al's posts, has the potential to take it to the next level.

If the previous level saw the birth of Social Venture Funds, Social Entrepreneurs and Corporations targeting the BoP, this new model can create financially successful enterprises and corporations making a real world impact on the triple bottom line. The model's focus on developing sector-specific scaling strategies can make BoP businesses more evolved and, in a way, more mainstream.

The rural connectivity example from Vietnam, cited in Al's second post, is a very interesting experiment and the results are very encouraging. A similar pilot project is being tried out in India by Ericsson - the Gramjyoti rural broadband project. It is India's first 3G wireless network (based on Wireless CDMA/HSPA technology) and it is being pilot-tested in 18 villages and 15 small towns near Chennai in Southern India. The results of this pilot are not yet available, but the Gramjyoti business model is quite interesting since Ericsson has tied up with domain experts (Apollo Hospitals, Edurite Technologies and Turner Entertainment) to offer healthcare, e-learning and entertainment services to BoP customers through the Gramjyoti network.

The rural healthcare examples, cited by Al in his third post, also throw up some very interesting results and the combination suggested - franchise pharmacy and remote diagnostics - has a definite potential to bring quality healthcare to the BoP. Bangalore-based Vaatsalya Healthcare has already implemented the distributed system model and works closely with Neurosynaptic (which manufactures "ReMeDi" range of low-cost remote medical diagnostic equipment) to offer healthcare services to its BoP customers.

The challenge now is to put this model into practice worldwide. Perhaps, the most important aspect of scaling up and replicating such sectoral strategies is adaptability. The BoP in each country, probably in each region in a country like India, has its own needs. For example, how to offer affordable internet access to a rural community, where mobile phone penetration is already high? The Wi-Fi service implemented in Vietnam can be a good solution here, if it is packaged as an attractive alternative to mobile phones, by offering Skype-style internet-based calling facility and value-added infotainment services.

Another important aspect that needs to be understood is the interplay between the different sectors. As in the Gramjyoti example, connectivity can be the backbone for other sectors such as healthcare and education. In such a scenario, scaling strategies for these sectors can be evolved in parallel. However, in a BoP community which has no power supply, the energy sector scaling strategy should evolve before connectivity. The energy sector, especially the renewable energy sector, has a lot of potential in itself at the BoP and harnessing the benefits of carbon-trading industry, which is also a market-based solution to a global problem, to subsidize BoP energy offerings, can be a good scaling strategy for this sector.

Transformative sector strategies offer an exciting prospect of rapidly scaling up BoP businesses and I am eager to see these strategies trigger the market to meet the needs of the BoP, not just in connectivity and healthcare, but also in energy, education and agriculture.

Guest Post: The Transformative Sector Approach in Latin America

By Emily Fintel

My immediate reaction to Al's conversation with Jacqueline Novogratz of Acumen is that I too am haunted by the numbers. Within Latin America, which is the focus of our work at AVINA, hundreds of millions of people suffer from a series of market failures that prevent them from realizing many of the benefits that are enjoyed by middle and upper class winners of globalization. I completely agree with Al that the most promising avenues in order to make a contribution of significant dimension are those strategies which have a systematic approach and integrate a diversity of complementary actors in the development of new, socially inclusive business models and the transformation of entire economic sectors.

Working together in the Network for Inclusive Markets, comprised of WRI, AVINA and FUNDES, we have had the opportunity to begin to "test" the implementation of transformative sector strategies in Latin America, and the initial results are encouraging. For me, a large degree of the innovation rests on the fact that the transformative sector approach aims to enable selected economic sectors to generate a market model where inclusive businesses develop organically. This means that the approach is inherently catalytic in nature - once the demonstrative power of businesses that are profitable, environmentally and socially responsible and that improve the quality of life of low-income sectors is known, market forces help to propel the inclusive development of entire sectors. In other words, this approach has the potential to provide participative, more equitable growth in a very efficient, and scalable, way.

One of the most important success factors of this approach is to correctly identify and address the current sets of barriers that limit the more inclusive development of each sector, and in our experience these barriers vary considerably with each local context. For example, when we tried to replicate the model Al implemented in Kenya in Latin America, we found that the franchise pharmacies model, which had proved viable in Mexico, would be much more complex in Colombia for regulatory reasons. In this sense, the challenge is to identify the right technology and business model for each sector and to adapt it effectively to the local reality and constraints.

And this is where I may differ slightly with Al. I don't see the role of development institutions and of social entrepreneurs as "preliminary or transitional activities". My sense is rather that the field, at least in our region, continues to be fragmented, and that we aren't fully capitalizing on the full complementary value that each of these actors and approaches could bring to the table if we were to join forces in the transformative sector approach. This brings me to what our long-time partner, Jim Austin, formerly of HBS and the Social Enterprise Knowledge Network (SEKN), has called, "socially inclusive value networks".

SEKN, conformed of 10 leading business schools in Ibero-America, has been leading case-based research on inclusive business models since 2005, and in their findings some of the most effective transformative business models are the result of intricate co-dependent relationships - socially inclusive value networks - among a variety of different actors including private companies, social entrepreneurs, SMEs, government agencies, academic institutions, local NGOs and others. The key is to analyze at each step in the transformative sector strategy which types of actors and roles are needed - to understand the local conditions, to identify and remove basic constraints, to develop new technological applications which better serve current needs, to develop a scalable business model, and so-on.

Getting this right is quite powerful in that it can then generate a demonstrative effect and initiate a virtuous cycle that allows markets to generate both economic and social value across the sector. Along these lines, I believe it is important for all of us who are operating in this space to contribute toward a broader understanding of the BoP concept. In the light of a transformative sector approach, the difference between what was originally understood only as a market opportunity using a traditional business model (e.g. BoP as consumers of the current model), becomes clearer. The transformative sector approach goes much deeper within each economic sector in order to generate businesses that are profitable,

environmentally and socially responsible and that improve the quality of life of low-income communities.

I have lived outside of the U.S. for nearly 15 years and in Latin America for nine years of that period. The people and initiatives I've had the opportunity to get to know during my travels lead me to believe that Latin America has a significant role to play in the global challenges facing the developing world, especially in creating demonstrative effects and shared learning. Within AVINA and together with our partners throughout the region, we are actively seeking to contribute to this dialogue. AVINA has supported the creation and/or strengthening of nearly 80 inclusive enterprises in the sectors of water, recycling, harvesting, handicrafts, and marine and coasts.

As a next step in these efforts, within the Network for Inclusive Markets we are currently undertaking feasibility and social impact studies for an initial group of inclusive enterprises in the sectors of water, recycling and housing across Latin America. The focus of these studies includes technology trends and innovative business models that can address the barriers and constraints of each sector and that are able to generate demonstrative effects, such as the cases described in Al's blog. We hope this will be contagious not only among the public and private sectors in different countries, but also and more important, among low-income citizens - and that it will contribute to our shared learning as a field.

Only working together will be able to adequately address and respond to the question: what are the most effective ways to stimulate the creation of truly transformative sector strategies among the public, private and social sectors - and together with low-income citizens - in order to promote broad scale social inclusion?

Guest Post: Adapting Scaling Strategies to Local Conditions

By John Paul

The implementation of transformational sector strategies is a compelling idea, and has a number of comparative advantages over the traditional business-only approach. First, focusing on sectors takes a systems view of the problem, allowing for the identification and mitigation of bottlenecks and missing pieces that might have prevented other initiatives from scaling. Second, what is being created is a platform network that can be adapted as needed, as the examples cited of adding IT infrastructure or remote diagnostic equipment to an established distributed healthcare network demonstrate. This ensures the increasing utility, rather than inevitable obsolescence, of what is put in place. Most intriguingly, in some ways what are being developed are human capital networks, in many ways akin to online social networks.

These platforms provide tangible inroads to large populations that many large corporations may otherwise be unable or unwilling to try and serve. The Next 4 Billion report did an excellent job of identifying the potential market. This approach provides one possible roadmap on how to reach it. Viewed in this light, transformational sector strategies enhance, rather than replace, existing efforts to reach BoP markets.

There are two primary areas, though, that I think are worth further examination. First is, how do you make the most of what already exists? Although providing IT services is a greenfield opportunity, other basic services such as healthcare, housing, and energy are already often being met by local entrepreneurs, albeit in an arguably limited or inefficient way. Even so, the current provision does support local livelihoods, and any new transformative sector approach should do its best to integrate them into the new value chain. ITC's eChoupal Initiative adopted this strategy when it hired the local agricultural middleman to manage the produce procurement operations that made their positions obsolete.

While working with existing SMEs is a good idea, understanding the informal economy will also be critical. By relying on and building the capacity of local talent already in place, such a strategy can help

proactively address two of the biggest challenges a scaling BoP business faces: managing human capital and integrating the business with existing local relationships.

Second is the approach taken to "understand deeply the critical problems and opportunities of individual BoP sectors". These sector-specific problems and opportunities will differ between countries and within them, as will the implementation challenges that the business model faces. While I agree that there will be a certain amount of 'DNA' that will be transferable, there will be a trade-off between creating a model that is highly scalable and one that is simultaneously adaptable. Finding this "sweet spot" will take time. WaterHealth's model, for example, was iterated several times before they came up with the business plan they are now scaling internationally.

In my mind, the process of identifying transformational sector strategies is less about starting with a complete business plan, and more about doing business model R&D. The latter takes longer, requires more patient capital, and involves the participation of a host of local partners, but the end result will be a more robust, scalable, and culturally appropriate business model.

One such approach is the Base of the Pyramid Protocol, developed by Erik Simanis and Stu Hart at Cornell University. Designed for use by an established company, the Protocol uses development approaches, such as participatory rural appraisal and asset-based community development, to co-create business solutions with the local communities the company intends to serve. It has already been successfully implemented in India and Kenya, and soon will be used in both Mexico and Flint, Michigan.

Identifying and working with the potential 'winners' among the existing initiatives already in place is another strategy. But here again, it will take time and a local presence to understand the problems and promise associated with each model, as well as the limits to localization, and then develop the transformational sector model that mitigates the key challenges they face. As Al says, this will be hard, but not impossible. And certainly worth the investment.

Guest Post: Platform Strategies for Scaling

By Francisco Mejía

The "sector approach to scale" that Al Hammond is advocating is entirely consistent with the fact that needs are "sector specific": we all have housing, health or education needs. And it is also consistent with the idea that scale can be achieved by taking advantage of the notion that similarities in sector specific market conditions and industry structures might validate "easy" translation of business models from one place to another.

But this approach has shortcomings, one of which we could dub the "lost in translation" challenge. If one tried to replicate the CEMEX Patrimonio Hoy self-construction model from Mexico to Chile or Argentina, one would find that in those markets, self construction is virtually non existent.

Nevertheless, there is another emerging complementary strategy that has the capacity to reach scale faster and more effectively, and needs little translation. We can call it the "platform strategy", as opposed to the sector specific "application strategy" suggested by Hammond. This platform strategy was recently presented by me in a workshop on Utilities and the BoP held at the Ahlers Centers of the University of San Diego Business School.

In this strategy, existing platforms, such as those provided by utilities or logistics companies, and even NGOs, can be used as a launching pad to provide additional goods and services that serve the needs of the BOP. Let me illustrate with a couple of examples.

Ten years ago, the energy company in Bogotá, Colombia was a basket case with 23% distribution losses.

After it was restructured and capitalized by the private sector, the resulting energy distribution company, CODENSA, started a new micro credit program called Codensa-hogar. In just ten years, Codensa-Hogar has provided over 600.000 micro-credits averaging USD 370 each, 35 percent of which were previously unbanked poor, Codensa Hogar and has over 180.000 clients with micro-insurance solutions, 12.000 of which are small shop owners. In just ten years, Codensa became on of the largest microfinance institutions in Colombia. This is scale.

The driver behinds this BoP success story is the fact that Codensa leveraged its client distribution platform (over 2.2 million homes), and "added" value to its basic proposition: energy. In addition, it overcame, in one stroke, the principal-agent challenge faced by microfinance institutions just by the fact that it had, in its bill payment histories, detailed individual credit histories for over 2 million customers.

Utilities such as Codensa (Eletropaulo in Brazil is a similar striking example) have leveraged their capillarity by building massive customer loyalty, transforming millions of lives way beyond what they believed was their core business. These utility platforms should be viewed as a multi-layered opportunity, and not only for the provision of financial services.

Not much prevents a BoP health services insurance providers, or education companies from tapping into platform such as these to reach scale. But the platform concept is not limited to utilities. Small businesses represent approximately 95 percent of enterprises in the region. Most need electricity and have a bill to pay, but all are served by complex logistics and distribution networks. These logistics networks also provide a very intriguing platform that could also be tapped in order to reaching that "last mile" customer. If she can buy a coke or a bar of soap in the most remote location, there is no reason why this network cannot be tapped in order to provide more value added for the BoP.

Jan Chipchase has provided amazing insight on how the BoP uses, adapts and transforms mobile phones almost like transformers which transfer energy from one circuit to another. This is what BoP platforms can do for the BoP scale quandary.

Latin America has gone from less than 10 million subscribers to mobile services in 2002, to over 300 million subscribers now. And it has done this by subverting the previous business model by introducing a prepaid, no contract, billable per second, rechargeable via web business model. This explosive growth cannot be explained only by the technology or the business model itself, but by how this device provides access to markets and information. And now this cell phone platform is starting to change the landscape in many other industries. It is becoming the platform of choice to reach the poor for the banking industry, for example. Now we can think of mobile banking as a means to financial inclusion, and to further lower the cost of remittances for migrants and their families.

When a huge multinational corporation such as Danone entered into the Bangladeshi market, it did so by forging a strategic alliance with the "Grameen ladies" network. Grameen-Danone is a joint venture that combines Danone´s deep technical capacities in providing nutritional products, with the community level distribution network and local trust originally developed by Grameen Bank. In this case, Danone, a massive multinational is tapping into Grameen´s distribution platform.

The concept of platforms, with their reach and capillarity, with their scale and ubiquity, is very much a greenfield in the BoP discussion, and combined with the sector approach suggested by Al Hammond can help crack the code to scale.

Taking BoP Strategies To Scale Pt. 5: Concluding Thoughts

By Allen Hammond

I welcome these thoughtful comments on the transformative sector model I am proposing to scale service delivery to the BoP. Sagar Gubbi thoughtfully extends the sector-based scaling model. His examples illustrate the richness of potential solutions that are springing up and that can be learned from and

replicated across a sector. I think he is correct that any transformative model will need adaptation to local conditions and policies. But mostly his examples encourage me in pushing ahead to implement the approaches I have outlined. The comment by Paul Rigterink on the potential of using a pharmacy platform to also distribute veterinary medicine and thus improve livestock supplies underscores the synergies that a sector approach can generate.

John Paul suggests that the sector approach can adapt to local conditions by integrating existing entrepreneurs or service providers, which is certainly worth considering. In one country, we and our local partners are looking into partnering with and upgrading local outlets that sell medicine informally. However, it is worth noting that the franchise pharmacy in Ghana, which grew by incorporating existing medicine sellers, has struggled in part for just that reason. Paul also suggests an alternative approach, the Cornell strategy of co-creating solutions with local communities, which is interesting but to my mind clearly harder to scale-it lies at the other end of the spectrum from the search for "common business DNA" in a replicable sector model. More field experience will shed light on the degree of localization or common business DNA that is needed.

Acumen Fund is one of the inspiring pioneers of BoP investing, and from the beginning has focused its investments in a few sectors. Brian Trelstad gently points out the inherent complexity of the process of scaling solutions and the multiple actors necessarily involved, and of course, he's right. I confess, I'm one of the "impatient entrepreneurs" he describes. But I also think the time is propitious to push the process of bringing together the ecosystem of actors necessary to scale transformative solutions. As much as I respect Water Health International, for example, our joint research on the sector with Santa Clara University is turning up a range of new technologies, some of which appear more energy-efficient than that used by WHI, as well as a potentially novel financing approach for this sector. A sector approach will enable both existing and new enterprises to scale more effectively.

I share Ryan Gunderson's concerns about job creation and income enhancement, but I think they don't apply to the sector examples I have described. Perhaps he is unaware of the substantial evidence demonstrating how mobile phones have improved access to livelihoods, increased incomes, and accelerated GDP growth in poor communities-some of which has been posted here on NextBillion.net over the years. A forthcoming review of the research literature prepared for the GSMA, for example, finds more than 40 well-documented studies of this impact. Rural connectivity, then, is a primary tool for increasing access to markets, including employment markets, and improving the bargaining power of small producers in generating income from their crops. And mobile phone banking will be the primary means of access to financial services, including remittances, for most of the BoP-also critical to improving savings and raising incomes.

As for health care, surely Gunderson is aware that illness is often the catastrophe that devastates BoP household incomes and drives people deeper into poverty. And what is clear from our own research and from Gubbi's examples is that connectivity can significantly enhance rural health care. I will go so far as to bet that within ten years rural connectivity will be the rule rather than the exception, simply because that is where most of the growth for telecommunications companies in emerging economies will come from.

Avina Foundation and FUNDES have been our partners in exploring the application of some of these sector strategies in Latin America, and as Emily Fintel points out, the preliminary results are encouraging. She also stresses the need for adaptation to local policy conditions and properly takes me to task for seeming to slight social entrepreneurs and development organizations. Again, I plead impatience, as a social entrepreneur, in my desire to mainstream market-driven approaches so as to get to scale.

Finally, Francisco Mejia suggests combining the sector approach with the potential for leveraging existing utility platforms, showing how that can help scale service delivery of products or services very rapidly. This seems well worth considering.

My takeaway from these comments is that there may be more than one way to scale, but that there is wide acceptance of the need to accelerate the process. Whether working with existing enterprises or incubating new ones, the scarcity is of viable-and investable-businesses that provide needed services to low income communities. So it is useful to try new scaling approaches, to share experience, and to debate strategies, but also to get on with the work.

In parallel with this ferment in the enterprise development space, there is also a growing tide of new capital seeking ways to invest in sustainable small enterprise and BoP-serving businesses. Both Acumen Fund and David Green of Ashoka, for example, have raised new investment funds, and I am also part of an effort to organize a new private equity fund to invest in BoP enterprises, especially those that share a common business DNA and are thus potentially replicable. And there are a variety of efforts underway to make it easier for mainstream financial entities to invest in such activities-to transform capital market flows for the benefit of the poor.

If we can put new capital to work by creating a rapidly growing stream of viable businesses that address the needs of BoP households and communities, then perhaps we can in fact catalyze meaningful change. That is certainly the motivation behind the sector strategy approach I have outlined in this series of posts.