Profitable Business Models and Market Creation in the Context of Deep Poverty: A Strategic View

by Christian Seelos and Johanna Mair

Executive Overview

The bottom of the pyramid (BOP) in the global distribution of income has been promoted as a significant opportunity for companies to grow profitably. Under the BOP approach, poor people are identified as potential customers who can be served if companies learn to fundamentally rethink their existing strategies and business models. This involves acquiring and building new resources and capabilities and forging a multitude of local partnerships. However, current BOP literature remains relatively silent about how to actually implement such a step into the unknown. We use two BOP cases to illustrate a strategic framework that reduces managerial complexity. In our view, existing capabilities and existing local BOP models can be leveraged to build new markets that include the poor and generate sufficient financial returns for companies to justify investments.

The literature on what is termed the "bottom of the pyramid" (BOP), the vast, untapped market of the world's poorest people, suggests that multinational companies can both serve the poor and make profits. The BOP paradigm estimates a market potential of $13 trillion (Prahalad, 2004). However, the fact that billions of poor people are still waiting to be served while companies constantly look out for new profit opportunities brings to mind the story about the 20-dollar bill supposedly lying on the street, to which an economist famously replied that this could not be because someone would have already picked it up. If the BOP proposition is right, why then is the profit opportunity not picked up by companies on a large scale?

Recent research on BOP models has emphasized the need for multinationals to radically change their approach and to fundamentally rethink every step in their supply chains. Companies are advised to build new resources and capabilities, to implement multiple strategies concurrently, and to partner with multiple constituencies that often have different strategic objectives. We believe that the complexities and potential costs involved in these recommendations constitute severe hurdles to executive decision making and to realizing the financial returns that would justify investments.

In this article, we set out to develop a strategic perspective that is complementary to current recommendations for doing business at the BOP. We propose a strategic framework that scales down many of the hurdles of implementing BOP models. We present two examples that show how business models can be structured across partner organizations and how those organizations succeed in creating a symbiosis of significant economic returns and important social development objectives. These cases demonstrate how companies can leverage their existing corporate capabilities to provide scale to proven and already existing organizations at the BOP and how this can be a platform for building commercial enterprises that create necessary financial returns. Our analysis is grounded in and reflects important insights from the strategy literature, in particular the resource-based view (RBV) and the literature on

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strategic alliances. The unique context of these business models—characterized by deep and widespread poverty—expands our understanding of how strategic factors can be configured to create value. It also provides new impetus for research as well as for executive decision making to improve the lives of the poor and reward companies with the financial returns necessary to justify investments.

Opportunities and Challenges at the BOP

Two questions lie at the heart of evaluating the attractiveness of doing business in underdeveloped markets: first, why and whether to do it; and second, how to do it.

Originating from a joint effort of companies and academics to address these questions, a number of articles and studies have established the case for companies' serving the billions of poor people in developing countries.

A first set of papers, building on a research tradition in marketing, addressed the dilemma of multinational corporations (MNCs) facing saturated markets at home and continuous quests for growth. This line of investigation suggested that MNCs need to overcome their imperialist mindset and consider less developed countries as potential markets (Arnold & Quelch, 1998; Prahalad & Lieberthal, 1998). Applying the income pyramid as a tool to segment markets, these papers emphasized the untapped potential of middle-class markets with income levels up to $5,000 per year in more affluent countries.

Only a few years later, C.K. Prahalad and Stuart Hart recognized that the fortune at the *middle* part of the pyramid might have been oversold and proposed that MNCs should envision market entry at the very bottom of the income pyramid. In a seminal paper they redefined the target group at the BOP in terms of incomes of less than $1,500 per year (Prahalad & Hart, 2002). MNCs were thought to be best positioned to face the particular challenges of selling to the poor and at the same time fighting poverty. Because they can draw from a global resource base and superior technology, MNCs are able to address local customer needs and develop those markets, thus stimulating economic development in poor countries (Prahalad & Hart, 2002). Prahalad and Hammond (2002) further emphasized the "doing good *and* doing well" character of market entry in countries marked by deep poverty. For them, turning the poor into consumers not only provided an effective way to fight poverty but also provided profit opportunities for MNCs through operational efficiencies of size and scale. Low-income households collectively constitute a very large and attractive market, and, by framing the BOP as a business opportunity not as a philanthropic effort, this stream of literature has offered a persuasive reason for doing business in developing countries and has created the necessary incentives for action.

Undoubtedly, the original BOP literature has helped to change perceptions about poverty. By viewing the poor as customers and not merely as recipients of charity the BOP approach has contributed to shifting stifling paradigms about poverty. Case studies used to illustrate doing business at the BOP have demonstrated that the poor are "willing" to consume (London & Hart, 2004; Prahalad, 2004). However, in contrast to developed markets where companies are concerned about the willingness of consumers to pay for products and services, the challenge in markets at the BOP is that customers are willing but often not able to pay. Income constraints severely limit their ability to pay and therefore create major challenges for companies in designing products and managing costs. According to Prahalad, the unique social, cultural, and institutional characteristics of the BOP markets imply that traditional products, services, and management processes will not work and that MNCs need to strive for new levels of efficiency by radically rethinking the whole supply chain (Prahalad, 2004). Very recently, this marketing-oriented perspective on the BOP has encountered criticism for viewing poor people as consumers only. Aneel Karnani, for example, argued that any effort to alleviate poverty needs to consider the poor as producers and companies should therefore revise their supply chains and emphasize buying from them instead of selling to them (Karnani, 2007).

While the first articles and studies on BOP put forward strong arguments for whether and why MNCs should enter low-income markets, they remained relatively silent on how to enter. Subsequent studies complemented the explicit marketing view with a more strategic view on doing business at the BOP. Building on insights from various literature streams, these studies emphasize the need to develop new capabilities and new business models as well as the importance of partnerships. Refer to Table 1 for a summary of the recommendations derived from this body of research on how to enhance value creation and reduce costs of market entry at the BOP.

London and Hart (2004, p. 376), for example, claimed that "successful pursuit of low-income markets requires MNCs to fundamentally rethink their business models." Referring to the multifaceted nature of these markets, they highlighted the need for distinct strategies for lower and higher income segments. These strategies require MNCs not only to rethink their resource and activity configurations but also to develop and acquire new resources and capabilities and forge a multitude of relationships and alliances with local nontraditional BOP partners. Hart and Sharma (2004) echoed this call for the development of radically new capabilities and proposed the use of laboratories to bring about new business models that account for the concerns of fringe stakeholders, i.e., local customers and activist groups.

An important implication of this work is that successful models need to be developed anew for all BOP markets, thus limiting the ability to leverage existing models.

However, existing research does not provide insights into how all these ingredients, capabilities, resources, and partners should be managed and assembled within a given context in order to create value. Furthermore, "selling to the poor" does not eliminate the income constraint as a major hurdle to social and economic development and the creation of more mature markets.

Insights From the Strategy Literature

Strategy is concerned with explaining how above-average performance can be achieved and sustained (Barney, 1995; Rumelt, Schendel, & Teece, 1991). Company performance is measured by financial metrics, and this is no different in BOP markets. Indeed, from the very beginning, the argument for BOP was to find new untapped market space that satisfied the needs for corporations to grow profitably. Several prominent BOP authors, however, argue that traditional views of economic development and business strategy may not be applicable at the BOP (London & Hart, 2004). Our perspective in this article is based on the belief that fundamental insights from business strategy do apply at the BOP and can inform managerial decisions as well as highlight potential hurdles and challenges. Further-

Table 1
Challenges and Hurdles to BOP Recommendations Derived From the Strategy Literature

	Recommendations from BOP Research	Challenges and Hurdles
Ability to Create Value	Multiple strategies aimed at different income levels.	Lack of focus and spreading resources too thin; inadequate capabilities.
	Need for new resources and capabilities.	Value known only in their existing use; value in new uses, particularly in BOP environments, unclear.
	Local access of resources/capabilities.	Resource scarcity and lack of factor markets.
	Fundamental rethinking of business models and supply chains.	Causal ambiguity of finding the right configuration; difficulty of combining many individual factors into a complex business model.
	Multiple partnerships.	Alliances tend to fail; potential for conflict may limit effectiveness and efficiency.
	Selling to the poor.	Creates a focus on cost cutting because income levels are not increased.
Costs	Need for new resources and capabilities.	May take too long to be practical; cost-benefit assessment in new uses difficult.
	Local access of resources/capabilities.	Unclear what information is available to value them correctly and why they would create profits.
	Multiple partnerships.	Governance costs.

more, the strategic insights derived from case studies at the BOP enrich and expand our understanding of business strategy in various contexts.

The resource-based view is considered the dominant strategy perspective explaining firm-level financial performance. According to the RBV, firms achieve above-average performance (a) through the acquisition of resources at a cost below their potential to create financial returns and (b) by deploying and configuring resources into capabilities that create higher than average benefits for customers and allow owners to capture part of that value (Makadok, 2001; Sirmon, Hitt, & Ireland, 2007).

Much of the conceptual work of the RBV is grounded in a competitive environment embedded in existing and mature markets. In countries with large-scale poverty, the environment is very different. Resources from capital markets, product markets, and labor markets are scarce and tend to be concentrated in the hands of a few large organizations (Khanna & Palepu, 1997). Often institutions supporting market exchange, such as property rights or specialist intermediaries, are weak or absent (Peng, 2003). As a result the natural arenas in which entrepreneurs and companies compete to best serve people's needs—i.e. "markets"—are either poorly developed or do not exist. As North pointed out: "Third World countries are poor because the institutional constraints define a set of payoffs to political/economic activity that do not encourage productive activity" (North, 1990, p. 110). Weak institutional arrangements and the absence of many important products and services in poor countries often require companies to build whole new markets rather than entering and competing in existing ones. In this paper, we refer to the term *BOP* as countries where the majority of the population is extremely poor as measured by income levels, but where doing business may also leverage an opportunity to serve people at multiple income levels concurrently.

Accessing and Configuring Resources Into New Capabilities

Resource scarcity at the BOP makes it difficult if not impossible to acquire relevant and valuable resources. Many important strategic resources may not be available or tradable in markets. Even if they are accessible, the value of such resources for use in new ways and unusual contexts is not known ex ante and can be accurately assessed only where they are currently employed (Denrell, Fang, & Winter, 2003). Building new resources and capabilities, as has been suggested by BOP research, is challenged by time compression diseconomies (Dierickx & Cool, 1989), which push the point of expected value creation further into the future. From an investment perspective, these insights make resource allocation decisions difficult. Uncertainty in accurately valuing resources translates into higher discount rates. The delayed future cash flows from building new resources and capabilities must be discounted for longer time periods. This translates into potentially low net present values of BOP business models.

An important constraint to the managerial relevance of the RBV is that we know little about how to configure resources to realize their potential to create value in different types of context (Priem & Butler, 2001). In a new paper, Sirmon and colleagues (2007) put forward a framework for thinking about how to use and create value from resources. The authors pointed out that this process needs to be understood, particularly in less munificent environments where resource scarcity may prolong the effects of poor resource management choices. Nontraditional and uncertain environments increase the difficulties in understanding cause-and-effect relationships and in recognizing appropriate capability configurations as well as predicting their value-creation potential in new uses (Reed & DeFillippi, 1990; Sirmon et al., 2007). This highlights the significant risk of getting it wrong when building business models based on new capability configurations at the BOP and challenges the legitimacy of experimentation in such resource-constrained environments.

Leveraging Existing Resources and Capabilities

Previous research has advised companies from developed economies that enter countries at early stages of economic development to exploit the skills developed in their home markets

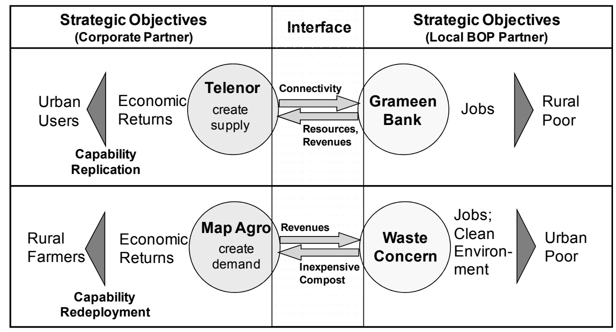
(Wright, Filatotchev, Hoskisson, & Peng, 2005). This can be achieved through replicating or redeploying capabilities, which are both vital strategies in putting mature capabilities to new uses (Helfat & Peteraf, 2003; Winter & Szulanski, 2001). Replication leverages core capabilities to deliver products or services in new geographies. Redeployment transfers a capability to a new market for a related product or service that does not necessarily involve a new geographic location. Strategic moves involving replication and redeployment may thus be valuable in overcoming the constraints of local resource scarcity and the uncertainty about the value of fundamentally new capability configurations at the BOP.

Strategic Alliances

Because of resource scarcity and the fact that resources and capabilities developed in competitive markets may not be adequate for a context of deep poverty, recent BOP research has emphasized the need for partnerships (London & Hart, 2004). The literature on international strategic alliances highlights a substantial failure rate of partnerships and a lack of knowledge about success factors for partner selection (Hitt, Dacin, Levitas, Arregle, & Borza, 2000). Das and Teng (2001) developed a useful framework for analyzing strategic alliances. In their view, alliance performance is dependent on mechanisms to lower uncertainty around partner intentions and partner abilities, and on mechanisms to control for partner behavior thus limiting the probability of undesired outcomes. This highlights the need to find ways to build and maintain trust in partner goodwill and competence. The nonaligned private benefits of partners and differences in their competencies and organizational characteristics including culture, norms, policies, and processes create the potential for conflict. The challenge lies in managing the complexities involved in multiple partnerships that seem required at the BOP. The governance costs involved may be significant and difficult to justify because putting a financial value on the resources and capabilities that partners provide may be difficult if not impossible (Dyer & Singh, 1998).

Table 1 summarizes the main challenges and

Figure 1
Strategies and Organizational Structures of BOP Business Models



hurdles highlighted in the strategy literature as they relate to current strategic recommendations from BOP research. We have separated the arguments into two aspects: ability to create value and costs.

How to Serve the Poor Profitably

We present two case studies that highlight how the challenges and hurdles of BOP models (as identified in Table 1) can be overcome and how markets for new products and services can be created at the BOP.[1] For the analysis of the cases we refer to the term *business model* as a set of capabilities that is configured to enable value creation consistent with either economic or social strategic objectives. We look at business models from two organizational perspectives: (a) models that already exist at the BOP at the level of a single organization, and (b) models that are structured by configuring the capabilities of two partner organizations into an alliance that is able to achieve several strategic objectives concurrently. Figure 1 shows the alliances of two commercial companies (Telenor and Map Agro) whose overall strategic objective is to maximize economic returns from providing commercial products and services, and two existing local BOP business models (Grameen Bank and Waste Concern) whose strategic objectives include maximizing job creation and creating a clean environment

[1] Our perspective on BOP models is based on extensive field work. Over several years we have examined activities at the BOP from the perspective of local organizations with primarily social objectives as well as MNCs and local companies.

(Waste Concern). Telenor and Grameen Bank (Case 1) as well as Map Agro and Waste Concern (Case 2) collaborate around a clear interface in the form of a core input into a local BOP model, either from the supply side (Telenor) or by creating demand (Map Agro).

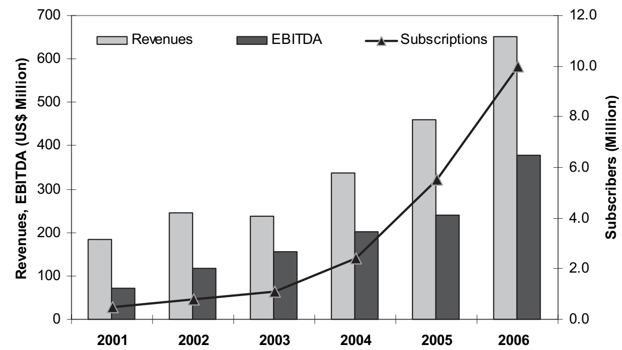
Case 1: Creation of a New Market by Supplying a Key Input to an Existing BOP Model—Telenor and the Grameen Bank

During the 1990s Telenor, the incumbent Norwegian telecommunications company, faced the challenge of saturation in its home market. Tormod Hermansen, then CEO of Telenor, received a call from the Ambassador from Bangladesh asking him to consider building a market for mobile phones in that country. Could Bangladesh, a country known for its overpopulation, extreme poverty, political instability, and corruption, be a platform for a new growth market? "Frankly, we did not know. We really had no clue when we started off," said Ole Sjulstad, Telenor's Senior Vice President for International Mobile Communications.[2] Hermansen remembered:

> I went to the University of Oslo and found the expert on Bangladesh's history, and he could tell us that it was really politically very unstable with a heavy problem of corruption. But the nice thing was that we had teamed up with the only partner that was clean[3] in any respect, namely Dr. Yunnus and the Grameen Bank. And the reason why I dared to follow up on the project—because that was something that very much concerned me personally—was because I had a short meeting with Dr. Yunnus and found out we can do business together. But not only do business but also by teaming up with Dr. Yunnus engage ourselves in development.

The Grameen Bank, founded in 1976 by Professor Muhammad Yunnus, for which he was awarded the 2006 Nobel Peace Prize, provided microfinance to millions of poor in most villages of Bangladesh and had set up a number of other enterprises to create economic opportunities for the poor. In 1997, the joint venture between Telenor and Grameen led to the formation of two separate organizations (Malaviya, Singhal, & Svenkerud, 2004): GrameenPhone was operated by experienced Telenor managers with a strategic objective to maximize financial returns; GrameenTelecom was set up as the administrative interface to the existing Grameen Bank BOP model of providing microfinance and running microenterprises to create jobs for millions of poor people in the more than 60,000 rural villages throughout Bangladesh. GrameenTelecom had a very different strategic objective than GrameenPhone—to maximize the numbers of jobs created for the rural poor—and a very different organizational culture and management structure.

Figure 2
Financial Performance and Numbers of Mobile Subscriptions for GrameenPhone

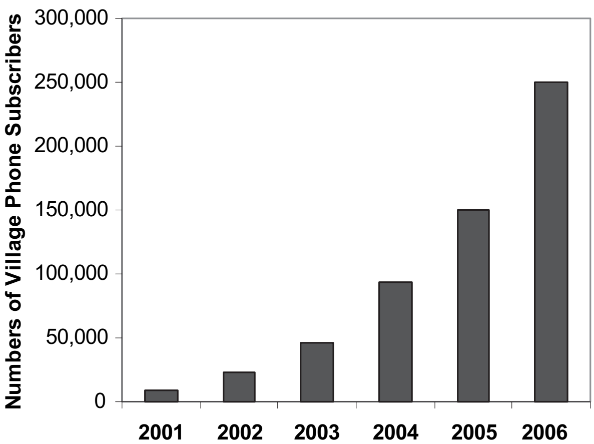


When it started out in 1997, GrameenPhone was one of four companies to receive a license to operate a mobile network in Bangladesh. It became profitable in 2000, passed two million subscribers in late 2004 and passed 6 million in February of 2006. GrameenPhone is now one of the largest private companies in Bangladesh and the second-largest taxpayer, reflecting significant profit levels (see Figure 2). In 2006 it had a market share of over 60% in a country of 150 million people. The still-low penetration rate signifies the potential for further growth. By 2006, GrameenTelecom had created more than 250,000 jobs for microentrepreneurs it calls "village phone ladies" (see Figure 3). Dr. Yunnus explained how poor rural women quickly learned how to operate a mobile phone and generate income from it: "To her this is just another cow. And if that brings money, even the most illiterate person will learn

[2] All quotes in cases 1 and 2 are from personal interviews by the authors; case 1 includes quotes from recorded material available from the authors.

[3] "Clean" in this context means not being involved in corruption.

Figure 3
Numbers of Subscribers* of Grameen Telecom Rural Village Services.



*Subscribers run small businesses providing phone services.

these 10 numbers [the keys of the mobile phone] in 10 minutes . . . . So she looked at it, and she said, 'how do I make money?' We explained everything, she tried a few times, made a few mistakes. Within a week she was ready for business." Reflecting on the company perspective, Mr. Sjulstad said, "We did not know if there actually was a market for Telenor. Why should poor people who stand in flood water and search for food care about mobile phones? But people need to communicate. It allows them to develop their own businesses but also to develop and enrich their social lives." Village phone services allow people to contact relatives abroad, facilitate repatriation payments, save on costly and lengthy trips for administrative and other purposes, and provide many other advantages. This explains the economic model, according to Masud Isa, CEO of Grameen-Telecom: "The villagers save an eight-hour travel day costing 800 taka[4] to make a call and thus have

[4] The exchange rate for the taka to US dollar on October 10, 2007, was 1 taka equaled 0.0146628 USD. So 1,000 taka would be $14.66. Currency

Table 2
Grameen Bank Resources and Capabilities Leveraged by Telenor

	Description	Economic Value
Intangible Resources	• Dr. Yunnus' reputation as a person of impeccable integrity.	• To protect Telenor's reputation it was critical to find the right partner that would resist the corruption prevalent in poor countries.
	• Yunnus' prior success and social and business experience building the Grameen Bank and other Grameen initiatives.	• Important local knowledge reduced uncertainty and search costs and enabled agreement on economic and social objectives.
	• High level of awareness for and trust in the brand "Grameen" by both poor and middle-income people.	• The name GrameenPhone was crucial to get a license and for marketing. Building a new brand would have been very costly.
Tangible Resources	• The Norwegian Agency for Development (NORAD) had already invested in a fiber-optic network for the internal communication of the national railway system, which was never used to its full capacity.	• Ability to acquire a key asset relatively cheaply significantly reduced the investment risk.
	• The rural development strategy opened access to funding provided by the Asian Development Bank, the IFC, the Commonwealth Development Corporation, and NORAD.	• Development organizations bear some of the market risk in return for efforts at social and economic development; this lowered Telenor's cost of capital.
Capabilities	• Special skills in accessing, communicating, and working with the rural poor in more than 60,000 villages in Bangladesh.	• Opportunity for integrating a vastly untapped potential rural market into the overall business model; already drives more than 10% of the revenues of GrameenPhone.
	• Deep expertise in setting up a successful microfinance system, providing loans and ensuring the accountability of individual members of the rural poor.	• Enabled selection of appropriate phone owners and efficient payment collection; microfinance enabled poor people to convert future earnings into current financial ability to buy phones instead of depending on donations.

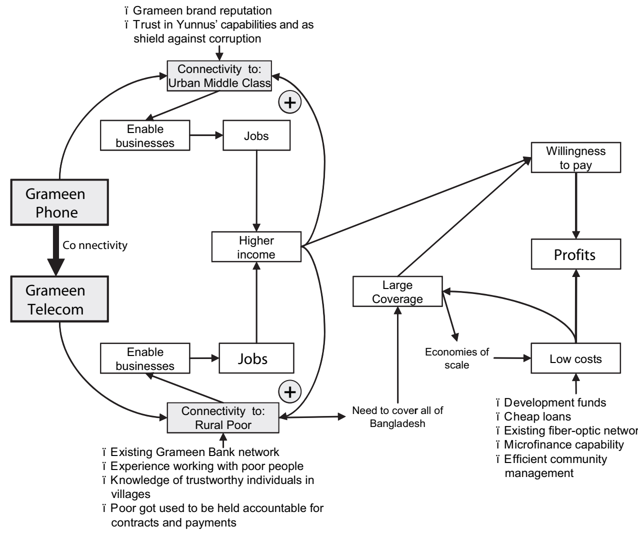
higher income. The phone lady creates income and pays back her loan to Grameen. Everyone profits." For the phone ladies the reward exceeds financial benefits, as Dr. Yunnus illustrated: "She understands the business and each telephone brings her a lot of money. The whole family is excited about it. But not only money comes; she has enormous prestige in the family. Even the richest person in the village has to come to her to make a phone call." GrameenTelecom is financially self-sustainable and provides more than 10% of the revenues of GrameenPhone.

Table 2 lists some of the important resources and capabilities that Telenor could access through the collaboration with Grameen Bank. In a sense, Telenor was able to preempt access to these scarce resources, thus building strong hurdles for imitation by competitors. The other three private companies that received mobile licenses in Bangladesh at the same time as Telenor were less successful and failed to build a dominating market share; the second-largest provider, AKTel, had 28% of the market in 2005.

Mobile communication services are considered a powerful driver of development that goes hand in hand with increased incomes.[5] Creating jobs for the rural poor and making existing businesses more productive helps to build the size of the middle class, who are the main targets for GrameenPhone over time. This constitutes a positive feedback loop for the alliance of Telenor and the Grameen Bank. Hermansen, then CEO of Telenor, summarized: "In Bangladesh we could really do something that was standing on these two legs: the development of the rural areas and at the same time pursuing a more, say, ordinary development of a commercial activity and a market in the urban areas among the wealthier people and the business community."

The fact that GrameenTelecom aimed to serve the rural areas in Bangladesh made building coun-

Figure 4
Business Model of the Alliance between Telenor (GrameenPhone) and Grameen Bank (GrameenTelecom)



trywide coverage a prime objective. This was considered an important driver of customer satisfaction, increasing customers' willingness to pay. This clearly separated the scope and tasks of the partner organizations, according to Hermansen: "GrameenPhone and GrameenTelecom have a very neat form of collaboration. They [GrameenTelecom] recruit the ladies, they organize the telephone shops, the debt collection, and buy discounted air time in bulk. GrameenPhone extends the network, base station after base station, to increase the capacity to allow taking on new customers." Figure 4 summarizes how resources and capabilities are configured to achieve the strategic goals for each alliance partner and thus for the overall business model.

Case 2: Building a New Market by Creating Demand for an Existing BOP Model—Map Agro and Waste Concern

The setting for this case is again Bangladesh, and it reflects the opportunity for existing local businesses or local MNC subsidiaries to create new markets with the help of existing BOP models. In Dhaka, the capital of Bangladesh, with a population of more than 11 million, about 4,000 tons of waste is produced daily. Two reinforcing paradigms have, until recently, prevented effec-

exchange provided by www.xe.com, accessed October 10, 2007, 11:20 a.m. EST.

[5] For example, see Africa: The impact of mobile phones, in the Vodafone Policy Paper Series, Number 2, March 2005. The report can be downloaded from the following website: http://www.vodafone.com/etc/medialib/attachments/cr_downloads.Par.97534.File.dat/SIM_Project_download_3.pdf

tive waste treatment in Bangladesh. First, the private sector failed to see how waste could be exploited for economic gain without significant investment and sophisticated technology. Second, the public sector believed that it had to deal with the problem through centrally managed processes. However, despite spending almost a quarter of its total annual budget on waste removal, the Dhaka City Council (DCC) dealt with less than 40% of the waste. As a result, waste piled up in the streets and in landfill sites, creating a huge number of serious social and health threats, including many diseases, insufferable odor, leakage of pollutants into water sources, methane gas emissions, and "waste pickers" (who were usually women and children) being exposed to toxic and otherwise hazardous substances. In early 1994, two entrepreneurs, Maqsood Sinha and Iftekhar Enayetullah, launched Waste Concern to deal with these issues in a holistic manner. Enayetullah described the concept behind Waste Concern: "Waste is a problem for society for which the market offers no solution. It is therefore dealt with centrally by the government, involving capital- and technology-intensive processes. We thought that waste could actually be a resource that can be exploited for economic gain in a decentralized manner that does not involve significant investment or sophisticated technology." The two entrepreneurs had a simple idea: leverage the high organic content of waste (mainly from food remains) to turn the waste into compost, and sell this as a valuable substitute for chemical fertilizers. Every year, four million tons of chemical fertilizers were being produced in Bangladesh in response to the pressure to feed a burgeoning population, most of them living in poverty. Overuse of chemical fertilizers had drastically lowered soil quality, but farmers had no real alternative while a market for organic fertilizer remained absent. No one, however, initially believed in the idea of turning waste into compost. Enayetullah remembered: "In 1994, we tried hard to convince different government agencies to initiate the project by offering free consultancy services, but they were all skeptical. That's why in 1995 we took the alternative course of setting up a demonstration of our model to convince different social groups." According to his business partner, Sinha, accessing key resources was a big challenge: "The single biggest obstacle for the model was availability of land in the city for such facilities. Public-private-community partnership and the concept of the four R's [reduce, reuse, recycle, and recovery of waste] . . . were absent in Bangladesh before our intervention. To get started, we secured use rights for a small piece of land inside Dhaka city owned by the Lions Club." Waste Concern's model integrated a community-based house-to-house collection system for waste, composting and ultimately marketing and selling the compost as fertilizer.

In the beginning Waste Concern sold its product to home gardeners and small organic farmers. However, a measurable elimination of the waste problem required access to much larger markets in order to create a pull for building scale and cost efficiency. Waste Concern approached the largest fertilizer company in Bangladesh, Map Agro. Sinha remembered: "Initially, Map Agro was not interested. But when we sent a basket of delicious apples produced with organic compost to Map Agro's CEO, we finally got a 'trial contract' that guaranteed annual sales of 200 tons of compost." Strong demand from farmers led Map Agro to invest 2.5 million taka in a purpose-built enrichment factory and to start selling basic and nutrient-enriched organic compost on a larger scale. Current sales are about 10,000 tons per year, and this generates revenues of roughly 60 million taka. The final product was distributed throughout Bangladesh, leveraging the existing dealer network. This new business model constitutes what Waste Concern calls an "urban/rural symbiosis"—food is transported to cities, and its remains constitute a large part of waste that is turned into compost and used again in rural agricultural businesses. In recognition of this success Waste Concern was selected as outstanding social entrepreneurs by the Schwab Foundation for Social Entrepreneurship, founded by Klaus Schwab, President and Founder of the World Economic Forum.

The financials for Map Agro are attractive. It buys compost at 2,500 taka per ton (each ton of compost is equivalent to four tons of processed waste, or 625 taka per ton of waste), and sells pure compost for 6,000 taka and enriched compost for

12,000 taka per ton (equivalent to 1,500 and 3,000 taka per ton of waste, respectively). The economic value created in this model compares favorably to the cost of roughly 2,000 taka per ton of waste treated by the old DCC process (see Figure 5). Already, the new organic fertilizer business constitutes about 25% of Map Agro's overall revenues.

The new business model as shown in Figure 6, extending from waste produced in urban areas to selling compost to rural farmers, created a number of new jobs for the poorest at the community level and lowered their exposure to health threats. This enabled Waste Concern to obtain important strategic resources including funding and technical expertise and support from international organizations for both the pilot phases and for scaling up the numbers and capacities of its composting plants. Waste Concern helped the government deal with a seemingly insurmountable social problem, and in return, the land for housing the compost plants was donated by the government—an important cost driver for the project. Enayetullah commented: "There are three major components to how we replicated the small-scale composting sites. The technology and know-how is supplied by Waste Concern. The funding comes from the Bangladeshi government and UNICEF. The marketing of the final product comes from the private sector." Through collaboration with Waste Concern, the private sector in the form of Map Agro was able to access resources and capabilities at a cost that did not fully reflect their economic value (see Table 3). Sinha explained:

> It is very unlikely that the government would have given land to a business. Land is very expensive, and no one believed that composting would earn the opportunity cost of the land. But opportunity cost was lowered by eliminating pressure on the government budget for waste handling, reduction of necessary landfill sites, and better satisfaction of households with their living environment, which translates into happier voters and improving the value of waste-free land.

Recent developments have provided additional funding to the business model. Under the clean development mechanism (CDM), Waste Concern has set up a new partnership with the Dutch company World Wide Recycling BV (WWR) to jointly develop a landfill gas recovery site. They developed a new methodology to calculate the reduction of methane emissions by composting, which was approved by the United Nations Framework Convention on Climate Change. Enayetullah explains their new project, which also has the backing of two Dutch development banks: "We will start processing 700 tons per day of organic waste collected from different vegetable

Figure 6
Business Model of the Alliance between Map Agro and Waste Concern

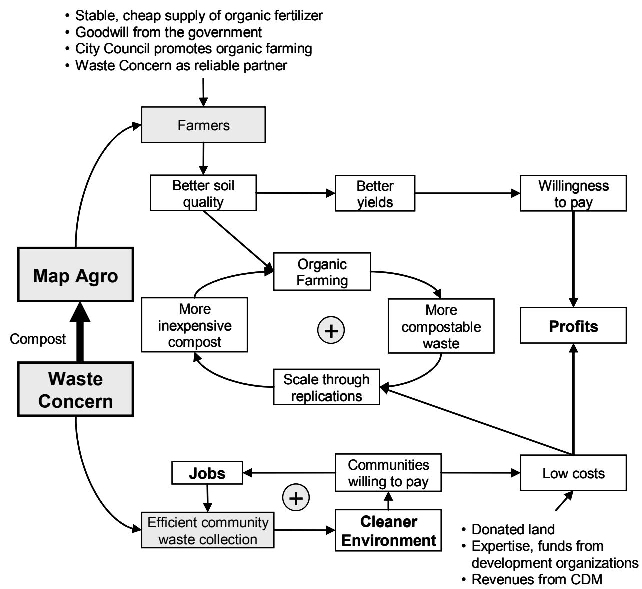
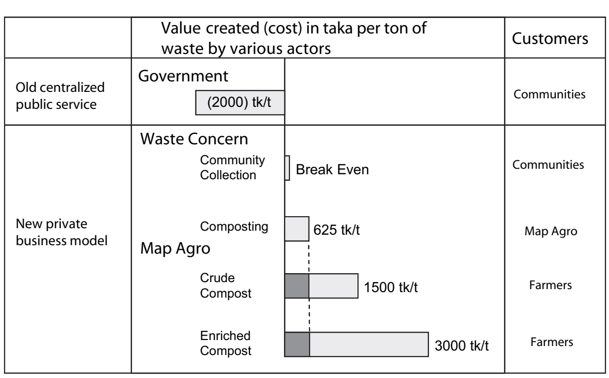


Figure 5
Comparison of Economic Value Destroyed (Old Centralized Waste Management Process) and Created Through a New Private-Sector Value Chain



markets of Dhaka city. Within two years time we plan to market 50,000 tons of compost per day from this CDM-based composting project. This will be a new dimension in waste-related business where international banks and a private company came into a partnership with us and invested in our project. An important point is that they are taking the role of a social business enterprise, not carrying out a conventional CSR [corporate social responsibility] project."

Discussion and Conclusions

Denrell and colleagues (2003), drawing from the work of Herbert Simon, made the following statement on the challenges for companies in recognizing market opportunities: "A complex system is unlikely to emerge if it requires that numerous elements are simultaneously combined. It is much more likely to emerge if it can be assembled via existing subsystems. In this case, the evolution of the system does not hinge upon the chance event that all necessary components emerged simultaneously in the right combination."

The two cases presented in this paper indicate an opportunity for companies to assemble existing building blocks into a new overall business model that is able to serve the poor, increase their incomes, and create profits. We see this as an extension of traditional BOP thinking with its focus on fundamental change of existing business models and value chains as well as a constructive reflection on the recent call for models that emphasize income generation opportunities for the poor as basis for poverty alleviation efforts by companies (Karnani, 2007). Furthermore, we highlight a different BOP perspective where companies do not serve the poor directly but only indirectly by employing company capabilities to provide scale to an already existing BOP business

Table 3
Waste Concern Resources and Capabilities Leveraged by Map Agro

	Description	Economic Value
Intangible Resources	• Waste Concern managers have fine-tuned the supply side business model over many years.	• For Map Agro, uncertainty about economic potential was removed, making business investment less risky.
	• Waste Concern was exposed to public scrutiny through membership in Schwab Foundation and funding by development organizations.	• There were incentives to be a predictable and reliable partner not engaged in corruption.
	• Company gained goodwill from the government for solving a huge social problem.	• This ensured license to operate and secured Ministry approval for agricultural use of compost, which was essential for Map Agro.
Tangible Resources	• Budgetary pressures on government for waste collection and numbers of required landfill sites were relieved.	• Donated land for housing the composting plants removed a key financial obstacle.
	• The social value created in this project attracted funding and expertise from organizations including Lions Club, UNDP, UNICEF, and the Canadian International Development Agency.	• This lowered the total cost of financing and contributed to Map Agro's ability to buy compost cheaply.
	• Greenhouse gas emissions were reduced.	• Access to additional revenues as part of the Clean Development Mechanism under the Kyoto protocol enables buildup of scale and keeps product costs low.
	• Happy residents were exposed to less stench and waste and fewer health hazards, which increased the quality of life and the real estate value of people's properties.	• This increased the willingness to pay for collection services, making the compost supply chain financially self-sustaining.
Capabilities	• Poor community workers were orchestrated into a waste collection and sorting task force.	• The jobs created in this system drive commitment, efficiency, and scale, and are a very low-cost supply of raw material (organic waste).
	• Process for decentralized composting was optimized.	• This extends possible range of short shelf-life compost delivery thus expanding potential market size.

model. Entrepreneurial organizations that have created business models to serve the poor may encounter bottlenecks that limit their scale. Companies that employ their capabilities to remove these bottlenecks enable BOP business models to better fulfill their strategic objectives. In exchange, companies may gain the necessary trust to get preferential access to the resources and capabilities of these organizations at the BOP. Companies can leverage this relationship to build their own business models, serving higher income customers with whom their capabilities are better aligned.

We see this with Telenor, which replicated the capabilities of deploying mobile networks that it had already developed in several countries and provided the handsets and connectivity to give scale to Grameen Bank's business model of creating jobs for the rural poor. Similarly, Map Agro provided an important demand-side factor that was limiting Waste Concern's business model—it created a new market for organic fertilizer by redeploying its capabilities to market and sell to farmers.

Organizations like Grameen Bank and Waste Concern are part of a phenomenon described as "social entrepreneurship" (Seelos & Mair, 2005). They overcome significant hurdles in order to serve the poor and build resources and capabilities to achieve primarily social objectives. These resources and capabilities are relevant to the local BOP context and are often undervalued from an economic perspective. It is the latter point that makes them strategically important for companies that may be considering building a presence in those countries where such entrepreneurs operate. The Grameen brand, loans from development agencies, and existing microfinance capabilities removed important financial hurdles and risk for Telenor. The compost that Map Agro buys from Waste Concern is subsidized through several mechanisms, including government-donated land, funds provided by development organizations, and revenues from the CDM, and thus has large economic potential that translates into significant financial returns for Map Agro.

The cases also contribute to our understanding of how to structure effective alliances between partners with different organizational characteristics and strategic objectives. Using the framework of Das and Teng (2001) we show that in both cases conflict and the need to build goodwill trust is avoided because (a) alliance partners are managed totally independently based on their unique processes, culture, and norms, and (b) the partners explicitly go about maximizing their own private benefits. Telenor gets revenues and additional potential future consumers from the efforts of Grameen to build jobs, which helps achieve Telenor's objective of maximizing financial returns. Grameen can create more jobs when Telenor builds up its business model quickly and is thus able to sustain provision of discounted connectivity to Grameen. The interface, mobile connections per minute against revenues, is easy to measure and requires no sophisticated governance and control structures to align partner interests. Competence uncertainty is limited because the respective competencies can be observed ex ante and the alliance structure allows Grameen and Telenor to continue doing what they do best. This is also an important argument for donor support as the outcome uncertainty of funding development projects is limited. The same set of arguments explains the efficiency and simplicity of the collaboration between Map Agro and Waste Concern. Waste Concern can employ more people to clean up waste if Map Agro sells more organic fertilizer. And the more Map Agro can afford to invest in compost enrichment capacities and build up sales channels, the larger the scale and the more public benefits Waste Concern can provide as this ensures the low cost of the compost. Our cases indicate that maximizing the separate private benefits of alliance partners can create a true symbiosis rather than a potential for conflict.

The cases also demonstrate how several of the strategic challenges of BOP recommendations can be overcome. The need for companies to orchestrate multiple strategies aimed at different income levels is avoided by having two separate organizations operating the pro-poor business model and the higher income business model respectively. Providing scale to existing BOP models and leveraging existing company capabilities avoids the dilemmas of having to access and configure multiple new resources and capabilities into value-creating models. Our framework focuses less on fundamentally rethinking company value chains and building business models from radically new ingredients. Instead, in line with the view of Denrell et al. (2003) quoting Simon, as stated above, the cases suggest that combining large subsystems, in this case viable existing BOP models and the mature capability sets of companies, is potentially much more efficient and effective than putting together a large number of individual factors to form a coherent whole.

Implications for Research

This study contributes to the evolving research on how to manage resources and capabilities in various contexts (Sirmon et al., 2007). Furthermore, we show how resources and capabilities can be configured across separate organizational structures into an overall business model that achieves the respective strategic objectives of the partners involved. Understanding how value can be created from resources in new configurations should enable better informed decisions about resource allocations.

The cases also contribute to a better understanding of how to structure relationships between "strange bedfellows" (London, Rondinelli, & O'Neill, 2005) and the potential limits and challenges of such relationships. Dyer and Singh (1998) pointed out the need for creating relational rents that are more than just arm's-length market relationships. Telenor and the Grameen Bank have invested in relationship-specific assets by adopting the Grameen brand name and a joint equity stake in GrameenPhone. Today, Telenor is still the preferred and exclusive partner supplying mobile connectivity to Grameen. However, we provide only a snapshot in time because the business model is still evolving and will require further research to understand areas of conflict that may emerge with time. In fact, the Grameen Bank is currently in a dispute with Telenor about the existing equity structure that allows Telenor to capture most of the economic value. In contrast, the alliance between Map Agro and Waste Concern has no attributes significantly different from mere market relationships. Waste Concern has recently started to engage with other companies in Bangladesh to diversify its "customer base" and create downstream competition in the value chain. Waste Concern's strategic shift to massively increase its compost production, which is driven by a new agreement under the CDM, has also created the need for demand-side capacity beyond what Map Agro currently provides. This points to an important success factor: that of proactively understanding and coordinating around the long-term strategies of alliance partners. Map Agro could, for example, invest in enough capacity to provide a disincentive to the entry of competitors. Another strategic move could be transforming the current arm's-length relationship with Waste Concern to a real value-added relationship where joint activities and shared social and economic objectives could build the trust and benefits necessary to overcome the reservations Waste Concern might have over a monopoly provider for its products. More research is necessary to understand the long-term dynamics of the models we have described in this paper.

Implications for Practitioners

Economic success depends on the ability of managers to integrate resources into a business model that creates more value than the cost of the resources. Organizations with primarily social strategic objectives can constitute a source for economically undervalued resources and capabilities. The cases show that providing scale to these organizations creates more social value from their resources and at the same time may enable company partners to leverage economic value. However, the numbers of adequate partners with BOP business models and their capacity and willingness to interact with multiple companies may be limited. Muhammad Yunnus, founder of the Grameen Bank, reflecting on his search in the early 1990s for the right GrameenPhone partner company, said:

> We went around, discussed with many companies—American companies, Thai companies, Indian companies, Japanese companies. We were looking for somebody who will understand us. Because we knew this was a business plus. If people come with only business in mind they don't understand our language. What was amazing with Telenor, it immediately

Table 4
Recommendations for Companies Evaluating BOP Strategies

Activities	Rationale	Remark
Scan prospective countries or regions for organizations with business models able to serve the poor, particularly if the product or service can be linked to achieving Millennium Development Goals (MDGs).[6]	Number and types of organizations may indicate crucial institutional and structural aspects of the environment (e.g., homogeneity of culture or language); link to MDGs may indicate opportunities for accessing development resources and funds.	Organizations such as Ashoka or the Schwab Foundation that promote social entrepreneurship provide useful information; poverty reduction strategy papers (World Bank) may also help to understand country development and funding priorities.
Understand the strategic objectives, culture, and organizational structures of these organizations.	Identify those who may be potential partners due to attributes such as size, scope, or longevity; learn to speak their language and respect their identity to overcome their potential lack of trust in corporate intentions.	Social entrepreneurship is now taught in many business schools; case study collections (e.g., www.caseplace.org) are helpful; many organizations are present at the World Economic Forum at Davos or participate in various conferences.
Build relationships with a number of organizations as early as possible.	Help to build up scale and scope; build mutual trust in partner intentions and competencies.	These organizations provide opportunities for hands-on training and employee-development programs; they could constitute a portfolio of small investments as options for building new markets.
Identify important bottlenecks in your model that prevent you from achieving strategic goals, and build your business model around providing the constraining element.	Providing capacity to an existing model eliminates managerial complexity and provides for an easy interface between partners; the centrality of the bottleneck element to the business models of both partners aligns intentions and enables easy performance measures.	The business modeling technique used for the case studies in this paper is useful to understand resource configurations of partner organizations; models also help to identify bottlenecks and design the overall model across partner organizations.
Start your business model design by thinking about replicating your existing competencies to support building markets in foreign countries or redeploying competencies by existing country organizations to build new product markets.	Existing capabilities allow faster time to market and eliminate complexity and uncertainty; they naturally fit higher-income customers to generate revenues while efficiently eliminating the bottleneck in your partners' strategy.	Corporations create real benefits from their unique resources and capabilities because—by definition—this is what they do best; being clear whether and which competencies allow you to act at the BOP is a healthy reality check and may avoid experiments with limited chances for success.
Ensure that the business model supports an increase in the real income of people.	Increase in real income supports positive development spirals that improve the ability of the poor to make consumption choices and expand the customer base for companies.	Try to include job creation explicitly as a positive element and development driver in your business model design; work with organizations whose core strategic objective is job creation.
Monitor the dynamics of the environment and/or the development of the partner's overall model and strategic objectives.	Recognize and address emerging threats to the sustainability of the alliance; evaluate the possibility of building relationship-specific assets or asset configurations; do not become a bottleneck to your partner's future growth and development.	Corporate intelligence functions and gathering feedback from diverse stakeholders may help monitor relevant developments in the political, social, technical, and environmental environment; share insights with your partners in joint strategy sessions.

clicked. They had tremendous respect for what we were saying and went along with us. Even the president of Telenor came to Bangladesh for the opening ceremony. Because he had his heart at this.

Adequate BOP partners may thus constitute scarce resources, and identifying them early may enable companies to preempt market access and reap first-mover advantages.

We also wish to highlight opportunities created by the global efforts to reach the Millennium Development Goals. More than $106 billion was provided as official development assistance in 2005

[6] For a list of examples see Seelos, C., Ganly, K., & Mair, J. (2006). Social entrepreneurs directly contribute to global development goals. In J. Mair, J. Robinson, & K. Hockerts (Eds.), *Social Entrepreneurship* (pp. 235–354). Hampshire, UK: Palgrave Macmillan.

to developing and least developed countries (United Nations, 2006). These funding mechanisms may help overcome important hurdles at the BOP and thus constitute significant strategic resources to companies whose business models are not just satisfying the wants of higher income customers but the fundamental human and social needs of the poor as well. Tormod Hermansen of Telenor comments: “On the one hand we are doing sound business. And you always need to do sound business. On the other hand we are also contributing to development in a much broader sense—a fantastic opportunity for my company. Good business is good development, and good development is good business.”

Unfortunately, textbook solutions for the BOP do not exist. Companies, consultants, development agencies, and academics need to better understand the success factors for companies operating in environments characterized by deep poverty. Although our research is still at an early stage, we encourage informed experimentation by companies. Building on the findings of this study, we suggest a number of activities that may help managers increase their chances for success when considering entering an underdeveloped market and leveraging the economic potential from including a pro-poor element in a firm’s business model. Table 4 summarizes some practical as well as conceptual pointers along the way.

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