C.K. PRAHALAD

Co-author of the International Bestseller
COMPETING FOR THE FUTURE

THE FORTUNE AT THE BOTTOM OF THE PYRAMID

ERADICATING POVERTY THROUGH PROFITS

Enabling Dignity and Choice Through Markets

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The Fortune at the Bottom of the Pyramid

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Preface

This book is a result of a long and lonely journey for me. It started during the Christmas vacation of 1995. During that period of celebration and good cheer, one issue kept nagging me: What are we doing about the poorest people around the world? Why is it that with all our technology, managerial know-how, and investment capacity, we are unable to make even a minor contribution to the problem of pervasive global poverty and disenfranchisement? Why can't we create inclusive capitalism? Needless to say, these are not new questions. However, as one who is familiar with both the developed and the developing world, the contrasts kept gnawing at me. It became clear that finding a solution to the problems of those at the bottom of the economic pyramid around the world should be an integral part of my next intellectual journey. It was also clear that we have to start with a new approach, a "clean sheet of paper." We have to learn from the successes and failures of the past; the promises made and not fulfilled. Doing more of the same, by refining the solutions of the past—developmental aid, subsidies, governmental support, localized nongovernmental organization (NGO)–based solutions, exclusive reliance on deregulation and privatization of public assets—is important and has a role to play, but has not redressed the problem of poverty.

Although NGOs worked tirelessly to promote local solutions and local entrepreneurship, the idea of large-scale entrepreneurship as a possible solution to poverty had not taken root. It appeared that many a politician, bureaucrat, and manager in large domestic and global firms agreed on one thing: The poor are wards of the state. This implicit agreement was bothersome. The large-scale private sector was only marginally involved in dealing with the problems of 80 percent of humanity. The natural question, therefore, was this: What if we mobilized the resources, scale, and scope of large firms to co-create solutions to the problems at the bottom of the pyramid (BOP), those 4 billion people who live on less than $2 a day? **Why can't we mobilize the investment capacity of large firms with the knowledge and commitment of NGOs and the communities that need help? Why can't we co-create unique solutions?** That was the beginning of my journey to understand and motivate large firms to imagine and act on their role in creating a more just and humane society by collaborating effectively with other institutions.

It was obvious that managers can sustain their enthusiasm and commitment to activities only if they are grounded in good business practices. The four to five billion people at the BOP can help redefine what "good business practice" is. This was not about philanthropy and notions of corporate social responsibility. These initiatives can take the process of engagement between the poor and the large firm only so far. Great contributions can result from these initiatives, but these activities are unlikely to be fully integrated with the core activities of the firm. For sustaining energy, resources, and innovation, the BOP must become a key element of the central mission for large private-sector firms. The poor must become active, informed, and involved consumers. Poverty reduction can result from co-creating a market around the needs of the poor.

We have to discard many of the "for and against" views of the world. For example, "are you for globalization or against it" is not a good question. Globalization, like all other major social movements, brings some good and some bad. Similarly, global versus local is not a useful debate. The tensions are real. Very early in my career, I learned that even within the multinational corporation (MNC) that is not a settled debate.

Similarly, the debate between small (e.g., microfinance) and large (e.g., multinational firms) is not a useful debate either. Large business can bring efficiency. NGOs can bring creativity to solve the problems that face us all. Certainly, I wanted to avoid the paternalism towards the poor that I saw in NGOs, government agencies, and MNCs.

This book is concerned about what works. This is not a debate about who is right. I am even less concerned about what may go wrong. Plenty can and has. I am focused on the potential for learning from the few experiments that are going right. These can show us the way forward. I do not want the poor of the world to become a constituency. I want poverty to be a problem that should be solved. This book is about all of the players—NGOs, large domestic firms, MNCs, government agencies, and most importantly, the poor themselves—coming together to solve very complex problems that we face as we enter the 21st century. The problem of poverty must force us to innovate, not claim "rights to impose our solutions."

The starting point for this transition had to be twofold. First, we should consider the implications of the language we use. "Poverty alleviation" and "the poor" are terms that are loaded with meaning and historical baggage. The focus on entrepreneurial activities as an antidote to the current malaise must focus on an active, underserved consumer community and a potential for global growth in trade and prosperity as the four to five billion poor become part of a system of inclusive capitalism. We should commence talking about underserved consumers and markets. **The process must start with respect for Bottom of Pyramid consumers as individuals. The process of co-creation assumes that consumers are equally important joint problem-solvers.** Consumers and consumer communities will demand and get choice. This process of creating an involved and activist consumer is already emerging. The BOP provides an opportunity to turbocharge this process of change in the traditional relationship between the firm and the consumer. Second, we must recognize that the conversion of the BOP into an active market is essentially a developmental activity. It is not about serving an existing market more efficiently. **New and creative approaches are needed to convert poverty into an opportunity for all concerned. That is the challenge.**

Once the basic approach was clear, the opportunities became obvious. The new viewpoint showed a different landscape and a focus on early and quiet attempts by some firms to explore this terrain. Unilever and its Indian subsidiary, Hindustan Lever Limited, was one such early experimenter. Around 1997, I found a kindred spirit in colleague Professor Stu Hart at the University of Michigan Business School (UMBS), who was approaching similar problems from a sustainable development perspective. We produced a working paper called "The Strategies for the Bottom of the Pyramid." Needless to say, not a single journal would accept the article for publication. It was too radical. Reviewers thought that it did not follow the work of developmental economists. Nobody noticed that we were offering an alternative to the traditional wisdom of how to alleviate global poverty. Thanks to the Web, various revisions of the working paper circulated freely. Surprisingly, a number of managers read it, accepted its premise, and started to initiate action based on it. Managers at Hewlett-Packard, DuPont, Monsanto, and other corporations started a venture fund and dedicated senior managers' time and energy to examine this opportunity. Meanwhile, the Digital Dividend conference organized by Dr. Allen Hammond and the World Resources Institute in Seattle in 1999 provided a forum to examine these ideas in depth. I have not looked back. Since 1997, I have used every possible platform—academic, managerial, and governmental—to push the idea of the BOP as a market and a source of innovations. During the last five years, slowly at first but now more rapidly, a large number of NGOs, academics, and managers have started to discuss the need for an alternate approach to poverty alleviation and the potential role of the private sector and entrepreneurship as one of the critical elements.

The publication of the two articles, "The Fortune at the Bottom of the Pyramid," in *Strategy+Business* (January 2002) with Stu Hart, and "Serve the World's Poor, Profitably" in the *Harvard Business Review* (September 2002) with Allen Hammond, facilitated the process of widespread discussion within corporations. Today, the discussion is not about "whether" but how fast and where. We have come a long way.

In the fall of 2002, several MBA students at the UMBS came to me and said that they would like to work with me on BOP issues and that they were intrigued by the ideas they had seen in print as well as my message in numerous lectures on campus and outside. I was not easily convinced. I imposed extraordinary demands on them to convince me that they really cared. They convinced me overwhelmingly. They were ready to travel, explore opportunities, and endure the painful task of assembling convincing evidence. That was the start of the now widely accepted XMAP projects (a variant of International Multidisciplinary Action Projects [IMAP], which UMBS has long supported with faculty mentoring.) The X in XMAP stood for experimental. The enthusiasm of the students, especially Cynthia Casas and Praveen Suthrum, provided the glue and helped see the project through administrative difficulties. I am grateful to all the MBA students whose dedication made this book possible.

The book is in three parts. In Part I we develop a framework for the active engagement of the private sector at the BOP. It provides the basis for a profitable win–win engagement. The focus is on the nature of changes that all players—the large firm, NGOs, governmental agencies, and the poor themselves—must accept to make this process work. Part II describes 12 cases, in a wide variety of businesses, where the BOP is becoming an active market and bringing benefits, far beyond just products, to consumers. The cases represent a wide variety of industries—from retail, health, and financial services to agribusiness and government. They are located in Peru, Brazil, Nicaragua, Mexico, and India. They represent a wide variety of institutions working together—subsidiaries of MNCs, large domestic firms, startups, and NGOs. They are all motivated by the same concern: They want to change the face of poverty by bringing to bear a combination of high-technology solutions, private enterprise, market-based solutions and involvement of multiple organizations. They are solving real problems. The BOP consumers get products and services at an affordable price, but more important, they get recognition, respect, and fair treatment. Building self-esteem and entrepreneurial drive at the BOP is probably the most enduring contribution that the private sector can make. Finally, decision-makers do not often hear the voices of the poor. We tend to make assumptions about how they feel. Part III (video stories on CD) is an attempt to tell the story primarily from their perspective. Each of the research teams—MBA students—went with video cameras and recorded their conversations with the BOP consumers as well as with the company managers. We collected well over 100 hours of video as part of the research. We present 35 minutes of the story from the point of view of the BOP consumers, the so-called poor. They are the primary storytellers. They tell us in their language—from Portuguese to Hindi—their view of what the involvement of the private sector and the resultant transition have meant for them. The three parts—the rationale for and the approach to private-sector involvement, the in-depth case studies, and the voices of the BOP consumers—are all an integral part of the book. They are intended to focus not only on the intellectual but also on the emotional arguments for encouraging private-sector engagement.

No research of this nature can be done without the active support of firms and managers. They gave us open access, their time, and their insights. Their enthusiasm was infectious. None of us who was a part of the research need any more convincing. We do know that the entrepreneurship and inventiveness of dedicated managers can bring a sea of change rapidly. That is true across the world. We could not have documented the richness of the transformation taking place at the BOP through the efforts of dedicated management teams without an unstinting effort by the students. The names of the students who were involved in developing the cases stories are given at the end of the book.

Research of this nature, on the cutting edge, cannot take place in an academic institution without the active support of the dean. Dean Robert J. Dolan bet on the initiative. Associate Dean Michael D. Gordon remained a constant source of encouragement to me and to the students in all stages of the project, from obtaining enough video cameras to providing substantive inputs to the research. His deep belief and commitment to the research agenda were critical to the project. Several of my colleagues provided support. I owe special thanks to Associate Dean Gene Anderson, Associate Dean Izak Duenyas, and colleagues Andy Lawlor and Jan Svejnar, former Director of the William Davidson Institute.

It was fortuitous that Kofi Annan, Secretary General of the United Nations, constituted a special commission on Private Sector and Development under the auspices of the United Nations Development Program and its Administrator Mark Malloch Brown. As a member of the Commission, I had a chance to share my ideas with the members of the Commission and staff and found a very useful platform for dialogue. Nissim Ezekiel, Yann Risz, Sahb Sobhani, Jan Krutzinna, and Naheed Nenshi showed great willingness to debate and challenge many of the ideas presented in this book. I have benefited from their dialogue. It is my hope that the body of work represented in this book influenced the thinking of the Commission as well.

No project of this size can be done without the active support of a wide variety of people. Cynthia Shaw (UMBS) and Fred Wessells provided editorial assistance in reducing the mountain of data we had collected on each case story into a manageable document. Russ Hall provided additional editorial support and helped in considerably improving the case studies and the text. Many of my colleagues, including Prof. M. S. Krishnan, Prof. Venkat Ramaswamy, Prof. Michael Gordon, and Ron Bendersky (Executive Education, UMBS) helped with detailed suggestions for improving the text. Hrishi Bhattacharyya (Unilever), Allen Hammond (World Resources Institute), and Jeb Brugmann and Craig Cohon (Globalegacy) provided useful insights. The Prentice Hall team has been exceptional in its support and belief in the message. Jerry Wind (Wharton) accepted the idea of this book with great enthusiasm. The editorial team led by Tim Moore and including John Pierce and Martin Litkowski was remarkable in their support. Their commitment to this book has been a source of strength. Patti Guerrieri was always willing to help and produced yet another revision of the manuscript with patience and quiet competence. Kimberly Ward (UMBS) oversaw the entire project, and Brian Greminger worked magic with the videos. Both of them, by their dedication to the students and to the overall project, were a source of inspiration. Finally, the students stayed with the project for over a year, always managing to do more and accommodating what must have appeared to be random demands on their time.

The biggest supporters of this project were my family. Our children, Murali Krishna and Deepa, and the latter's husband, Ashwin, kept me going when I was willing to give up the idea of writing a book-length manuscript. As always, my wife, Gayatri, was my source of strength. She deeply believed in the cause and accompanied me to a wide variety of on-site visits, be it Jaipur Foot or the Shakti Amma. She willingly created the space and time for me to work on this project.

It is my hope that this book will provide the impetus for a more active engagement of the private sector in building the marketing ecosystems for transforming the BOP.

C. K. Prahalad
San Diego

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About the Author

C. K. Prahalad

"...he may well be the most influential thinker on business strategy today."

BusinessWeek

Internationally recognized as a specialist on corporate strategy and value-added of top management in multinational corporations, he has consulted with many of the world's foremost companies. In addition to being the Harvey C. Fruehauf Professor of Business Administration at the University of Michigan, he serves on the board of Directors of NCR Corp., Hindustan Lever Ltd., and the World Resources Institute.

A prolific author as well, his book, *Competing for the Future* (co-authored with Gary Hamel), was a national bestseller and was the Best Selling Business Book of the Year in 1994. He also co-authored *Multinational Mission: Balancing Local Demands and Global Vision* (in 1987 with Yves Doz) and *The Future of Competition: Co-Creating Unique Value with Customers* (in 2004 with Venkat Ramaswamy).

He has been named among the top ten management thinkers of the world in every major survey for over ten years.

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3

BOP: A Global Opportunity

We have described the process by which large firms can create products and services that are ideally suited for the BOP markets. It is natural to ask whether the managerial energy required for these innovations is justified. Although there are opportunities for growth in BOP markets, are these opportunities attractive enough for large firms (including MNCs) to go through the changes that are required in their internal systems and processes? To challenge their dominant logic? Similarly, will the social and developmental benefits of such business growth be substantial enough for NGOs and community organizations to give priority to market-based approaches?

I believe the answer is an unambiguous "yes." Based on emerging evidence, we can identify four distinct sources of opportunity for a large firm that invests the time and energy to understand and cater to the BOP markets:

1. Some BOP markets are large and attractive as stand-alone entities.

2. Many local innovations can be leveraged across other BOP markets, creating a global opportunity for local innovations.
3. Some innovations from the BOP markets will find applications in developed markets.
4. Lessons from the BOP markets can influence the management practices of global firms.

The benefits of operating at the BOP, therefore, do not just accrue in local markets. We describe each one of these opportunities next.

Engaging the BOP

There are two ways in which large firms tend to engage the BOP markets. The traditional approach of many MNCs is to start from the business models honed in the developed markets—the top of the pyramid and their zone of comfort. This approach to the BOP market inevitably results in fine-tuning current products and services and management practices. There is growing evidence that this approach is a recipe for failure. MNCs and large firms have to start from a deep understanding of the nature and the requirements of the BOP, as outlined in Chapter 2, and then architect the business models and the management processes around these requirements. This approach to the BOP market will not only allow large firms to succeed in local markets but will also provide the knowledge base to challenge the way they manage the developed markets. Let us consider some examples.

BOP consumers in Latin America are careful in their use of diapers. They use one or two changes per day compared to the five or six changes per day common among the top of the pyramid consumers. Because they can afford only one or two changes, they expect a higher level of absorbency in the diapers and an improved construction of the diaper that will accommodate additional load. This means that the firms have to technically upgrade the quality of their diapers for the BOP consumers compared to the products they currently sell to the rich in those markets. Needless to say, the new product built for the BOP market is higher in quality and provides a better price–performance proposition. Similarly, detergent soap, when used by BOP consumers in India washing their wares in running water, becomes mushy. About 20

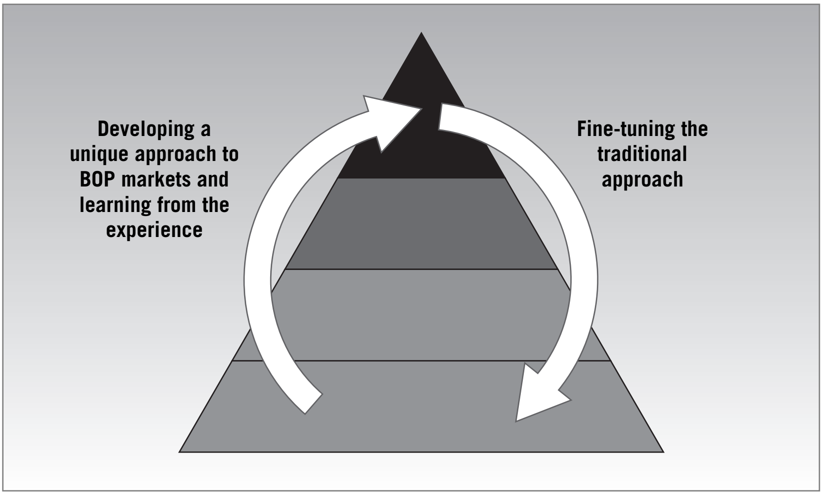

Figure 3.1 Learning from the BOP.

to 25 percent of the detergent soap can be lost in the process. Therefore, HLL developed a soap with a coating on five sides, which makes it waterproof. The coated soap saves 20 percent wastage even in a hostile user environment. The innovation is of interest to the rich as well. Access to clean water is a major concern at the BOP. Polluted water (particulate, bacterial, and viral pollutants) is common. Boiling water is the only current alternative to eliminating the bacterial and viral pollutants. A focus on solving this problem has to start with a cost target that is no more than the cost of boiled water. Further, the system has to create a quality level that is better than boiled water (removing sediments). The process is of interest to the rich as well.

The quality, efficacy, potency, and usability of solutions developed for the BOP markets are very attractive for the top of the pyramid. The traditional MNC approach and the approach suggested here—top of the pyramid to BOP and from the BOP to the top of the pyramid—are shown in Figure 3.1.

As the foregoing examples illustrate, the demands of the BOP markets can lead MNCs to focus on next practices. **The BOP can be a source of innovations for not only products and processes, but business models as well.** Let us start with the growth opportunities in local, stand-alone BOP markets first.

Local Growth Opportunities

Some of the local BOP markets are very large. Large population base is one indicator of the size of the market opportunity at the BOP, not necessarily the per-capita income. For example, China, India, Indonesia, Brazil, Mexico, Russia, South Africa, and Nigeria can potentially be very large emerging BOP markets. If an industry or a firm finds the "sweet spot"—meaning the right business model and the right combination of products and services—these markets could have explosive growth. Consider growth opportunities in China. China today is the world's largest producer of steel. The growth of the appliances, building, and auto markets has created an insatiable appetite for steel. China's steel capacity is estimated at 220 million tons compared to 110 million tons in Japan and 90 million tons in the United States. China has also an installed base of over 250 million cell phones. That is larger than the installed base of the United States. China is also one of the largest markets for televisions, appliances, and autos. The growth spurt in China is without parallel. Similarly, India is at the very early stages of a growth spurt in a wide variety of businesses such as two-wheelers (4.8 million during the fiscal year 2002–03), housing loans, and wireless. The housing loan business went from a low of Rs. 19,723 crores during fiscal 1999–2000 ($ 4.4 billion) to Rs. 51,672 crores ($ 11.5 billion) in 2002–2003. During the latter part of 2003, India was adding about 1.5 million telephone subscribers/month.

Needless to say, this growth was not all derived from the very poor. There are a lot of emerging "middle"-class customers here, but most of them earn less than $1,500 per capita ($6,000 per family of four). This growth is not funneled by the top of the pyramid. What is it that MNCs learn in these markets? The lessons for Samsung and LG (South Korean suppliers of cell phones to India), not just for Reliance and Tatas (Indian providers of service), is that they have to adjust to rapid growth, not 2 to 5 percent per year, but perhaps 50 to 100 percent per year.

Learning to Grow

BOP markets can collapse the time frames taken for products, technologies, and concepts to diffuse in the system. Many of the drivers of change and market growth—deregulation, involvement of the private sector in BOP markets, digitization, ubiquitous connectivity and the

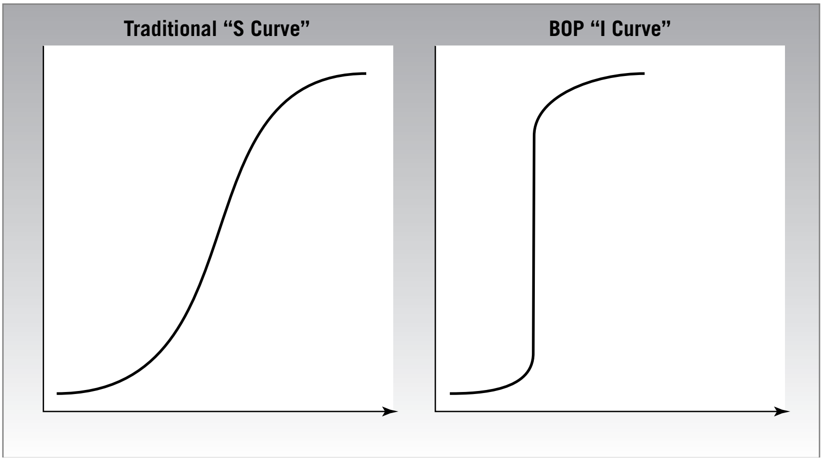

Figure 3.2 Traditional and BOP Growth Patterns. *Source:* M. S. Banga, CEO, HLL.

attendant change in the aspirations of people, favorable demographics (a young population), and access to credit—are simultaneously present in BOP markets. These drivers interact. The result is the challenge to the "S curve" that is the model for the diffusion of new products and services in the developed world. The changes that played out over 15 years in the developed markets are being collapsed into a short period of just three to five years in many BOP markets. M. S. Banga, CEO of HLL, suggests that the real challenge in BOP markets is that managers have to cope with the "I curve." The entire management process in most large firms is geared for slow growth, if at all. The I curve challenges the status quo. The S and the I curves, the two approaches to diffusion of innovations (products and services), can be conceptualized as shown in Figure 3.2.

This is good news and bad news. A cell phone today is a telephone, a camera, a watch, a computer, and a partial radio and TV. Why would one need a traditional watch (other than as an ornament) if one had a cell phone? The I curve can rapidly propel some innovations and can equally rapidly destroy some traditional markets.[1]

Rapid growth can also make new demands on firms. For example, HLL wants to build a network of 1 million direct distributors. This means the recruitment and training of about 30,000 to 40,000 people every month. Evaluating applicants; identifying those who could make good HLL distributors; training them in products, businesses models, and the values of the company; and inducting such a large number into the system create new demands on the process of management. Very few firms around the world have experience in inducting this many new recruits (independent distributors) per month.

Local Innovations and Global Opportunity

The micro encapsulation of iodine in salt to preserve the iodine in the harsh conditions of transportation, storage, and cooking in India has found market opportunities in Africa, especially in Ivory Coast, Kenya, and Tanzania. Iodine Deficiency Disorder (IDD) is common across the developing world, and the solution found in India has been transported across other similar markets with IDD by Unilever. Similarly, during the late 1980s, in response to the growing success of Nirma, a local entrepreneurial startup in the detergent business that created a new category, focused on the BOP markets, HLL launched Wheel, intended for the same market segment. Wheel today is one of the largest brands in the HLL portfolio in India ($150 million). The BOP market has grown rapidly. BOP markets in India account for a total of 1.0 million tons of detergents, compared with 300,000 tons for the top of the pyramid. More important, the lessons learned in India were not lost on Unilever. It wanted to protect BOP markets in countries such as Brazil, Indonesia, and China. It took the lessons from developing Wheel in India—from the formulation, manufacturing process, packaging, pricing, distribution, and advertising and promotion—to Brazil. It introduced a similar product oriented toward the BOP called Ala. The product was a runaway success. The product was available in 2,000 small neighborhood stores in less than three months. The detergent team that developed the new business model for the BOP in India also went to Brazil and China to help build the distribution systems that were critical for the success of the business.Today, India is seen as a laboratory for similar "India-like" markets within Unilever. Product ideas and concepts are tried out in India with a global BOP market in mind. Similarly, the idea of single-serve units has become a global phenomenon in the BOP markets. The growth in fast-moving consumer goods businesses in Bangladesh, Nepal, Pakistan, and China has been fueled by similar requirements.

The success of Grameen Bank in developing microfinance in Bangladesh as a successful commercial operation has led to global interest in the process. Grameen Bank was totally focused on BOP customers. The average loan size was less than $20 when it started. There are more than 17,000 microfinance operations that are variants of the Grameen concept around the world, including in the United States. The microfinance revolution now has its own global conference every year.

The success of Jaipur Foot is now exported to a wide variety of countries with similar requirements. The primary demand in all these countries for prosthetics is from BOP customers. They have been available in 19 countries, from Afghanistan to Vietnam. The Aravind Eye Hospital, in a similar vein, is training doctors to establish a low-cost, world-class delivery system for eye care in South Africa, Cambodia, and Vietnam. In an interesting twist of the traditional view of capabilities, the cost and quality advantages of cardiac care in India are allowing it to negotiate terms for the possibility of moving a portion of the patients from the National Health System in the United Kingdom to India. The total cost of the trip for the patient and an accompanying family member, the stays in India, and the cost of patient care will be less than the cost in the United Kingdom. More important, the quality of care is equally good or better. There are no delays in accessing care.

The Indian pharmaceutical industry had to learn to serve the BOP market. Prices were regulated by the government. Further, affordability of the public health system forced very low prices. It also forced them to develop methods for reverse engineering. Controversial as it is, the Indian pharmaceutical industry is able to deliver drugs coming off patents in the United States at a fraction of the cost charged by the established drug companies. However, the focus on the BOP has allowed these firms to invent cost-effective ways to manufacture, test, and distribute.

BOP Solutions for Developed Markets

In the rural areas of countries such as Peru, providing high-quality health care is difficult. More difficult is the surveillance of outbreaks of infectious diseases. These remote regions must be kept under constant surveillance to avoid the spread of disease, be it cholera or SARS. However, these locations are not well-connected for constant communications. PCs are rare, and telephone lines are a luxury. The question for public health professionals in such a situation is simple:

How do we connect remote areas to a real-time surveillance system so that the spread of infectious diseases can be monitored using devices that are currently available on location (often simple telephones)? This implies that the system must be simple and device-agnostic. Remote locations must be connected to a central node so that planners and policymakers are fully informed. Such a system, originally developed for Peru, is finding successes in the United States. The system, originally created by Voxiva, was based on three premises:

1. The system, to be robust, must be based on any device that is available: telephone (landline or wireless) or PC. The local community must know how to use the device. The telephone is the most widely used device for communications.
2. The remote populations were either illiterate or just moderately literate. The system had to deskill diagnosis at the point of patient contact. The chances of having a trained and experienced doctor in remote regions in the Andes are low. However, the quality of the diagnosis must be world-class.
3. The system must be reliable and available in real time so that senior members of the health care system are able to react immediately to emerging problems of infectious diseases. Early detection of health problems and rapid response (reaction time) are critical components of the system.

The system was first deployed in the remote regions of Peru and was a success. Similar problems confront the United States. The CDC and the FDA have to prepare to remotely monitor outbreaks of diseases caused by terrorists or problems in food quality that must be traced rapidly. Blood banks have to be monitored for stock and quality. When the FDA and CDC were looking for a system to help them with remote, real-time surveillance, they found the Voxiva system to be the best. Both of them are now Voxiva customers. Further, as the U.S. Department of Defense was inoculating soldiers with smallpox vaccine as a preventive measure, it needed a system for monitoring soldiers for possible adverse reactions to the vaccine. Voxiva, with its capabilities, was the obvious choice. Voxiva has moved on to sell its platforms for the detection of SARS, HIV, and other public health problems. The underlying platform is low-cost, robust, and simple, needs few skills, and can be grafted onto an existing telecom network.

Lessons for MNCs from BOP Markets

The most interesting lesson for MNCs from operating in the BOP market is about costs—for innovation, distribution, manufacturing, and general "costs of organization." **Because the BOP forces an extraordinary emphasis on price performance, firms must focus on all elements of cost.** Shortage and the cost of capital force firms in BOP markets to be very focused on the efficiency of capital use. MNCs tend to impose their management systems and practices on BOP markets and find that it is hard to make a profit. The choices are simple: Change the management systems to cut costs or lose significant amounts of money. The lessons learned from BOP markets by MNCs are covered in the following sections.

Capital Intensity

The judicious use of capital is a critical element of success in BOP markets. For example, HLL works with negative working capital. It focuses on reducing capital intensity in plants and equipment. By focusing on a judicious mix of outsourcing to dedicated suppliers, it not only reduces its capital intensity but creates several small and medium-size enterprises that can conform to the norms and standards set by HLL. HLL, as the only customer to these suppliers, can and does influence their operations. Second, a senior management focus on logistics and distribution is critical for reducing the capital needs of the business. HLL serves 850,000 retail outlets in one of the most difficult distribution terrains. The sales data from every retail outlet is collected and processed in a central processing facility. All the retail outlets are serviced frequently. Finally, a focus on revenue management allows for reducing the capital tied up in receivables. HLL is able to collect revenues in real time as the goods leave the warehouses of their suppliers. The suppliers might provide credit to the dealers and retailers. HLL as a manufacturer can reduce its capital intensity. The results can be compelling. For example, the system for focusing on capital first initiated with the introduction of the detergent Wheel to the BOP provided evidence of how many more opportunities for value creation can be unearthed by serving the needs of the BOP. A comparison of the financial performance of Nirma (the local competitor), HLL in the top of

Table 3.1 Economic Value Creation at the BOP

	Nirma	HLL (Wheel)	HLL (Surf)
Sales ($ Million)	150	100	180
Gross margin (%)	18	18	25
Return on capital employed (%)	121	93	22

Notes: The bottom line can be very profitable. Low margins/high unit sales. Game is about volume and capital efficiency. Economic profit vs. gross margins.

Source: John Ripley, Senior Vice President, Unilever PLC.

the pyramid market with Surf, and HLL in the BOP market with Wheel, is shown in Table 3.1.

It is important to separate gross margins from return on capital employed (ROCE). The real economic profit is in the effective use of capital.

A similar situation exists at the Aravind Eye Hospital. It uses the most modern equipment available in any facility in the world. It costs are dramatically brought down by its ability to use the equipment effectively, as it specializes only in eye care and every doctor and nurse team performs an average of 50 surgeries per day. Only 40 percent of its patients pay. A cataract surgery costs $50 compared to $3,000 to $3,500 in the United States. In spite of these differences, Aravind's ROCE is in the 120 to 130 percent range. Aravind is totally free of debt. The revenues for the year 2001–2002 were Rs. 388.0 million ($86 million) with a surplus (before depreciation) of Rs. 210.5 million ($46.5 million). This would be the envy of every hospital in the United States. The productivity and the volumes at Aravind are the basis for this level of profitability. Every doctor accounts for 2,000 operations per year, compared to a national average of 300 in India. The four locations in the Aravind system process more than 1.4 million patients (including 1,500 eye camps) and perform 200,000 surgeries. They operate with about 80 doctors and a total staff, including paramedics, counselors, and others, of 1,275.

With an ITC e-Choupal, it costs the company about Rs. 100,000 ($2,100) per kiosk installation. The company saves about Rs. 270 per ton on the acquisition of soybeans. The payback period can be as low as one full season. The recovery of that investment requires an acquisition target of about 4,000 to 5,000 tons from a single kiosk (a cluster of villages is supported by the kiosk). Adding additional services such as selling seeds, fertilizers, and crop insurance can enhance the profitability of the system. The economic returns can be significant.

Sustainable Development

BOP markets are a great source for experimentation in sustainable development. First, resources such as water, energy, and transportation are scarce and expensive. Automotive and two-wheeler manufacturers are learning that the BOP customers are very attuned to the total cost of ownership and not just the cost of purchase. The miles per gallon—the efficiency of energy use—is a significant determinant of market success. Similar demands are imposed on water use.

BOP markets can also represent an emerging problem. Single-serve packaging is advantageous to create the capacity to consume at the BOP but can also lead to a major environmental problem. More than 13 billion single-serve packages are sold annually in India and this trend is growing rapidly. Although plastic bags appear attractive, they are not biodegradable. MNCs involved in the BOP markets have the ability and the motivation to find solutions to the problem of packaging in emerging markets.

Innovations

As we discussed in depth in Chapter 2, the process of innovation for the BOP forces a new set of disciplines. First, the focus is on price performance. **Innovations must become "value-oriented" from the consumer's perspective. The BOP focuses attention on both the objective and subjective performances of the product or service.** Markets at the BOP also focus on the need for 30 to 100 times improvements in price performance. Even if the need is only for 10 to 20 times improvement, the challenge is formidable. The BOP can become a major source of innovations. Consider, for example, the need for user-friendly interfaces. Biometric authentication systems such as fingerprint and voice recognition are emerging from the BOP markets, as we saw in the case of PRODEM FFP in Bolivia and Elektra in Mexico. Logistics and distribution requirements are an integral part of the innovation process at the BOP.

Serving the BOP forces a new business model on MNCs. Management systems developed for a price performance level cannot be fine-tuned to cope with the demands of the BOP markets. Although MNCs are slowly adapting to the needs of the BOP, very few have consciously focused attention on examining the implications of their own operations in the BOP for their global operations. So far the attention has been on outsourcing from the more cost-efficient locations such as China, Taiwan, Thailand, the Philippines, and India. A $50 CD player is not just about wage rates, but a totally different way of approaching manufacturing.

The I curve has different implications for scaling. The timing of investments, investment intensity, and the pace of market and distribution development become crucial, as is the rate at which costs must be brought down to fuel growth of the market.

The Costs of Managing

ICICI Bank manages, with 16 managers, a portfolio of 200,000 customers at the BOP. The entire network of management consists of a hierarchy shown in Figure 3.3.

There are only 16 managers (employees) from the ICICI side. Each project manager oversees the work of 6 coordinators. Coordinators are women who are experienced in the development of self-help groups. They are identified and are asked to be coordinators. They helped project managers in approval of loans and help develop new SHGs. The coordinator oversees the work of promoters. The primary responsibility of the promoters is the formation of new SHGs. She must form 20 groups

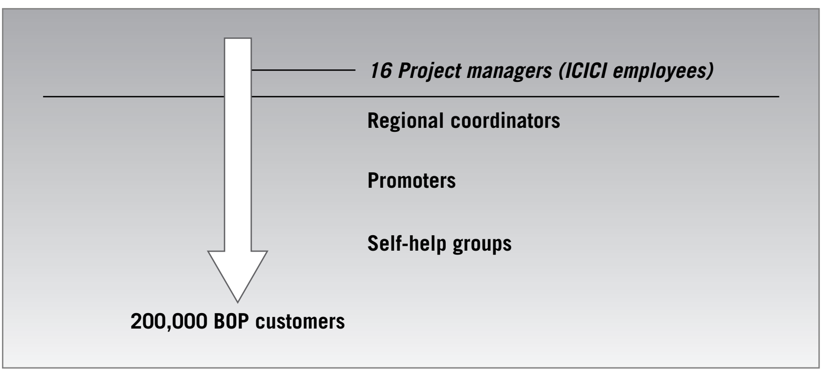

Figure 3.3 The cost of management.

per year. She is financially compensated for the successful formation of new groups. The promoters understand the village culture because they are part of it. They carry credibility because they have been part of a successful SHG. They speak the language of the groups that they deal with. They are also identified from the local communities. As a result, the organizational system that is built in this case is quite unique.

1. The basic unit of analysis is the SHG with 20 members. Loans are given to the SHG and the group decides how to partition the money it receives as loans. The SHG is responsible for paying back the loan and the interest. The bank does not lend to individuals. As such, the credit-worthiness of the SHG depends on how well it can enforce compliance among its members. They all understand that what is at stake is the access to cheap and reliable capital, compared to all the alternatives including the local moneylenders. Therefore, the SHG does credit analysis, project evaluation, monitoring of the use of funds, collection, and reinvestment. The control is totally local and the SHG is empowered. From this perspective, ICICI Bank takes little risk.
2. Market development is also handled by SHG veterans. The promoters are from SHGs and their territories are clearly demarcated. As a result, the person promoting the idea is closest to the community that the bank wants to reach. The promoters are paid an incentive based on the number of SHGs formed by them in good standing.
3. The regional managers or coordinators are also from local communities in which they work. Their work is primarily focused on training and supervising the promoters and evaluating the quality of the SHGs as they are formed.
4. The concept of the structure and the management process is built from the bottom up. There is distributed leadership. The role of the company employees in the day-to-day running of the SHG is minimal. The general sales and administration costs of this system are about 5 to 10 percent of the costs of a typical bank. That makes the system cost-effective and makes small transactions profitable. Further, this also allows for rapid scaling. ICICI increased from 2,000 SHGs in 2002 to 10,000 in 2003.

The SHGs and the direct distribution system we have described, such as Shakti Amma, represent an extraordinary innovation that both cuts costs and risks for the firm and at the same time creates an empowered group of new entrepreneurs with sustainable, rising income opportunities. **Business management skills, technology, and contacts are pushed down to the local grassroots level.** The SHGs perform several of the functions that the firm would have handled in the traditional approach to managing. For example, the SHG, by validating the individuals who will get the loan, by checking the nature and viability of the project, and by taking responsibility for monitoring the progress of the project is, in essence, an extension of the traditional firm. The SHG helps co-create value for the firm—in this case, ICICI. The bank does not have direct contact with the individuals, but monitors the loan indirectly through the SHG. This represents a new model of relationship between the firm and its consumers. The quality of the SHG is the guarantee of the investment. However, the SHG, being so close to its members—same village, same group, frequent meetings, visibility of progress of projects, and, most important, the ability to assess behaviors—is in a great position to alter the risk profiles of the loans. The large bank gains local responsiveness capability at low (or no) cost. The same is true of the Shakti Amma system. The local entrepreneur knows her village and its needs and can also influence the buying decisions of the villagers. She is at once the salesperson, the supplier, the trusted advisor, and the educator for the village. She is the one who can convince the villagers that iodized salt will be a healthy option for the family. HLL is now experimenting with connecting these individual distributors through an Internet network. The I-Shakti project will create the most dramatic opportunity for the BOP consumers to influence the firm and its decisions regarding product features, costs, availability, and the business model in general.

What we see here is the convergence of the traditional roles of the firm and the consumer and the distributor and the consumer. Functions such as advertising, credit management, risk analysis, and market development are assumed by the consumers-entrepreneurs and the consumer-entrepreneurial community (SHG). The boundaries of the firm expand beyond its legal parameters and begin to engage and empower the large and heretofore economically isolated segment of developing country societies known as the “informal sector.” The resources that are available to the firm expand even more dramatically. Access to the 10,000 SHGs is, in its simplest form, a huge resource multiplier to the firm. Whether it is resource leverage through selective access, local knowledge, risk reduction, or reduction in capital needs, the firm benefits. This is at best a win–win situation. The local communities take charge of what they want. They make their own decisions and choices. They are accountable and therefore feel a sense of empowerment and self-esteem. They know they can deal with the large firm on an equal basis. Although the resources are limited for the SHG, the bank cannot unilaterally make decisions. In that sense, there is less asymmetry in power.

Learning to Live in a Network of Relationships

MNCs working at the BOP learn rapidly that they have to learn to live with a wide variety of relationships with a large number of institutions. For example, in the case of selling iodized salt, HLL learned very fast that its efforts would impact public policymakers and officials in the health department. NGOs focus on local communities and in many cases conflict with industry practices. HLL had to learn to cope with the agendas of the various parties that might be involved and work with them effectively in a cooperative mode. The case of soap, intended to reduce diarrhea, was more interesting. HLL had to deal not only with state governments and NGOs, but also with the World Bank, which wanted to partly fund the program of education and distribution. It also wanted to be involved in the evaluation of results. As such, the firm had to learn to cope with the differing priorities, time scales, decision cycles, and perspectives of both the causes of the problem and the nature and efficacy of the solution. The reactions of the various groups can vary from open hostility toward the MNC to a willingness to cooperate. At the end of the day, however, MNCs learn how to transform their ideals of good corporate citizenship and social responsibility into their core business of delivering value on a day-to-day business basis. Social sector organizations learn how to scale their still-marginal efforts at "social enterprise" into viable business models serving a mass market.

BOP markets represent 80 percent of humanity. It is reasonable to expect that 4 billion people in search of an improved quality of life will create one of the most vibrant growth markets we have ever seen. Private-sector involvement in development can be a win for both the BOP consumers and the private sector. All of us can learn. The flow of ideas, knowledge, and innovation will become a two-way street—from the developed countries to the developing as well as the reverse. MNCs can help BOP markets to develop. They can also learn from BOP markets.

In the next chapter, we discuss how the large firm can create a private-sector ecosystem and act as a nodal firm. This ecosystem is a prerequisite for developing markets at the BOP.

Endnote

1. Paul Glader. "China Feeds Desire for Steel Abroad," *Wall Street Journal*, March 31, 2004.

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