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Serving the World's Poor, Profitably

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Consider this bleak vision of the world 15 years from now: The global economy recovers from its current stagnation but growth remains anemic. Deflation continues to threaten, the gap between rich and poor keeps widening, and incidents of economic chaos, governmental collapse, and civil war plague developing regions. Terrorism remains a constant threat, diverting significant public and private resources to security concerns. Opposition to the global market system intensifies. Multinational companies find it difficult to expand, and many become risk averse, slowing investment and pulling back from emerging markets.

Now consider this much brighter scenario: Driven by private investment and widespread entrepreneurial activity, the economies of developing regions grow vigorously, creating jobs and wealth and bringing hundreds of millions of new consumers into the global marketplace every year. China, India, Brazil, and, gradually, South Africa become new engines of global economic growth, promoting prosperity around the world. The resulting decrease in poverty produces a range of social benefits, helping to stabilize many developing regions and reduce civil and cross-border conflicts. The threat of terrorism and war recedes. Multinational companies expand rapidly in an era of intense innovation and competition.

Both of these scenarios are possible. Which one comes to pass will be determined primarily by one factor: the willingness of big, multinational companies to enter and invest in the world's poorest markets. By stimulating commerce and development at the bottom of the economic pyramid, MNCs could radically improve the lives of billions of people and help bring into being a more stable, less dangerous world. Achieving this goal does not require multinationals to spearhead global social

development initiatives for charitable purposes. They need only act in their own self-interest, for there are enormous business benefits to be gained by entering developing markets. In fact, many innovative companies—entrepreneurial outfits and large, established enterprises alike—are already serving the world's poor in ways that generate strong revenues, lead to greater operating efficiencies, and uncover new sources of innovation. For these companies—and those that follow their lead—building businesses aimed at the bottom of the pyramid promises to provide important competitive advantages as the twenty-first century unfolds.

Big companies are not going to solve the economic ills of developing countries by themselves, of course. It will also take targeted financial aid from the developed world and improvements in the governance of the developing nations themselves. But it's clear to us that prosperity can come to the poorest regions only through the direct and sustained involvement of multinational companies. And it's equally clear that the multinationals can enhance their own prosperity in the process.

Untapped Potential

Everyone knows that the world's poor are distressingly plentiful. Fully 65% of the world's population earns less than $2,000 each per year—that's 4 billion people. But despite the vastness of this market, it remains largely untapped by multinational companies. The reluctance to invest is easy to understand. Companies assume that people with such low incomes have little to spend on goods and services and that what they do spend goes to basic needs like food and shelter. They also assume that various barriers to commerce—corruption, illiteracy, inadequate infrastructure, currency fluctuations, bureaucratic red tape—make it impossible to do business profitably in these regions.

But such assumptions reflect a narrow and largely outdated view of the developing world. The fact is, many multinationals already successfully do business in developing countries (although most currently focus on selling to the small upper-middle-class segments of these markets), and their experience shows that the barriers to commerce—although real—are much lower than is typically thought. Moreover, several positive trends in developing countries—from political reform, to a growing openness to investment, to the development of low-cost wireless communication networks—are reducing the barriers further while also providing businesses with greater access to even the poorest city slums and rural areas. Indeed, once the misperceptions are wiped away, the enormous economic potential that lies at the bottom of the pyramid becomes clear.

Take the assumption that the poor have no money. It sounds obvious on the surface, but it's wrong. While individual incomes may be low, the aggregate buying power of poor communities is actually quite large. The average per capita income of villagers in rural Bangladesh, for instance, is less than $200 per year, but as a group they are avid consumers of telecommunications services. Grameen Telecom's village phones, which are owned by a single entrepreneur but used by the entire community, generate an average revenue of roughly $90 a month—and as much as $1,000 a month in some large villages. Customers of these village phones, who pay cash for each use, spend an average of 7% of their income on phone services—a far higher percentage than consumers in traditional markets do.

It's also incorrect to assume that the poor are too concerned with fulfilling their basic needs to "waste" money on nonessential goods. In fact, the poor often do buy "luxury" items. In the Mumbai shantytown of Dharavi, for example, 85% of households own a television set, 75% own a pressure cooker and a mixer, 56% own a gas stove, and 21% have telephones. That's because buying a house in Mumbai, for most people at the bottom of the pyramid, is not a realistic option. Neither is getting access to running water. They accept that reality, and rather than saving for a rainy day, they spend their income on things they can get now that improve the quality of their lives.

Another big misperception about developing markets is that the goods sold there are incredibly cheap and, hence, there's no room for a new competitor to come in and turn a profit. In reality, consumers at the bottom of the pyramid pay much higher prices for most things than middle-class consumers do, which means that there's a real opportunity for companies, particularly big corporations with economies of scale and efficient supply chains, to capture market share by offering higher quality goods at lower prices while maintaining attractive margins. In fact, throughout the developing world, urban slum dwellers pay, for instance, between four and 100 times as much for drinking water as middle- and upper-class families. Food also costs 20% to 30% more in the poorest communities since there is no access to bulk discount stores. On the service side of the economy, local moneylenders charge interest of 10% to 15%*per day,* with annual rates running as high as 2,000%. Even the lucky small-scale entrepreneurs who get loans from nonprofit microfinance institutions pay between 40% and 70% interest per year—rates that are illegal in most developed countries. (For a closer look at how the prices of goods compare in rich and poor areas, see the exhibit "The High-Cost Economy of the Poor.")

The High-Cost Economy of the Poor

When we compare the costs of essentials in Dharavi, a shantytown of more than 1 million people in the heart of Mumbai, India, with those of Warden Road, an upper-class community in a nice Mumbai suburb, a disturbing picture emerges. Clearly, costs could be dramatically reduced if the poor could benefit from the scope, scale, and supply-chain efficiencies of large enterprises, as their middle-class counterparts do. This pattern is common around the world, even in developed countries. For instance, a similar, if less exaggerated, disparity exists between the inner-city poor and the suburban rich in the United States.

Cost	Dharavi	Warden Road	Poverty premium
credit (annual interest)	600%–1,000%	12%–18%	53X
municipal-grade water (per cubic meter)	$1.12	$0.03	37X
phone call (per minute)	$0.04–$0.05	$0.025	1.8X
diarrhea medication	$20	$2	10X
rice (per kilogram)	$0.28	$0.24	1.2X

It can also be surprisingly cheap to market and deliver products and services to the world's poor. That's because many of them live in cities that are densely populated today and will be even more so in the years to come. Figures from the UN and the World Resources Institute indicate that by 2015, in Africa, 225 cities will each have populations of more than 1 million; in Latin America, another 225; and in Asia, 903. The population of at least 27 cities will reach or exceed 8 million. Collectively, the 1,300 largest cities will account for some 1.5 billion to 2 billion people, roughly half of whom will be bottom-of-the-pyramid (BOP) consumers now served primarily by informal economies. Companies that operate in these areas will have access to millions of potential new customers, who together have billions of dollars to spend. The poor in Rio de Janeiro, for instance, have a total purchasing power of $1.2 billion ($600 per person). Shantytowns in Johannesburg or Mumbai are no different.

The slums of these cities already have distinct ecosystems, with retail shops, small businesses, schools, clinics, and moneylenders. Although there are few reliable estimates of the value of commercial transactions in slums, business activity appears to be thriving. Dharavi—covering an area of just 435 acres—boasts scores of businesses ranging from leather, textiles, plastic recycling, and surgical sutures to gold jewelry, illicit liquor, detergents, and groceries. The scale of the businesses varies from one-person operations to bigger, well-recognized producers of brand-name products. Dharavi generates an estimated $450 million in manufacturing revenues, or about $1 million per acre of land. Established shantytowns in São Paulo, Rio, and Mexico City are equally productive. The seeds of a vibrant commercial sector have been sown.

While the rural poor are naturally harder to reach than the urban poor, they also represent a large untapped opportunity for companies. Indeed, 60% of India's GDP is generated in rural areas. The critical barrier to doing business in rural regions is distribution access, not a lack of buying power. But new information technology and communications infrastructures—especially wireless—promise to become an inexpensive way to establish marketing and distribution channels in these communities.

Conventional wisdom says that people in BOP markets cannot use such advanced technologies, but that's just another misconception. Poor rural women in Bangladesh have had no difficulty using GSM cell phones, despite never before using phones of any type. In Kenya, teenagers from slums are being successfully trained as Web page designers. Poor farmers in El Salvador use telecenters to negotiate the sale of their crops over the Internet. And women in Indian coastal villages have in less than a week learned to use PCs to interpret real-time satellite images showing concentrations of schools of fish in the Arabian Sea so they can direct their husbands to the best fishing areas. Clearly, poor communities are ready to adopt new technologies that improve their economic opportunities or their quality of life. The lesson for multinationals: Don't hesitate to deploy advanced technologies at the bottom of the pyramid while, or even before, deploying them in advanced countries.

A final misperception concerns the highly charged issue of exploitation of the poor by MNCs. The informal economies that now serve poor communities are full of inefficiencies and exploitive intermediaries. So if a microfinance institution charges 50% annual interest when the alternative is either 1,000% interest or no loan at all, is that exploiting or helping the poor? If a large financial company such as Citigroup were to use its scale to offer microloans at 20%, is that exploiting or helping the poor? The issue is not just cost but also quality—quality in the range and fairness of financial services, quality of food, quality of water. We argue that when MNCs provide basic goods and services that reduce costs to the poor and help improve their standard of living—while generating an acceptable return on investment—the results benefit everyone.

The Business Case

The business opportunities at the bottom of the pyramid have not gone unnoticed. Over the last five years, we have seen nongovernmental organizations (NGOs), entrepreneurial start-ups, and a handful of forward-thinking multinationals conduct vigorous commercial experiments in poor

communities. Their experience is a proof of concept: Businesses can gain three important advantages by serving the poor—a new source of revenue growth, greater efficiency, and access to innovation. Let's look at examples of each.

Top-Line Growth.

Growth is an important challenge for every company, but today it is especially critical for very large companies, many of which appear to have nearly saturated their existing markets. That's why BOP markets represent such an opportunity for MNCs: They are fundamentally new sources of growth. And because these markets are in the earliest stages of economic development, growth can be extremely rapid.

> Markets at the bottom of the economic pyramid are fundamentally new sources of growth for multinationals. And because these markets are in the earliest stages, growth can be extremely rapid.

Latent demand for low-priced, high-quality goods is enormous. Consider the reaction when Hindustan Lever, the Indian subsidiary of Unilever, recently introduced what was for it a new product category—candy—aimed at the bottom of the pyramid. A high-quality confection made with real sugar and fruit, the candy sells for only about a penny a serving. At such a price, it may seem like a marginal business opportunity, but in just six months it became the fastest-growing category in the company's portfolio. Not only is it profitable, but the company estimates it has the potential to generate revenues of $200 million per year in India and comparable markets in five years. Hindustan Lever has had similar successes in India with low-priced detergent and iodized salt. Beyond generating new sales, the company is establishing its business and its brand in a vast new market.

There is equally strong demand for affordable services. TARAhaat, a start-up focused on rural India, has introduced a range of computer-enabled education services ranging from basic IT training to English proficiency to vocational skills. The products are expected to be the largest single revenue generator for the company and its franchisees over the next several years.[1] Credit and financial

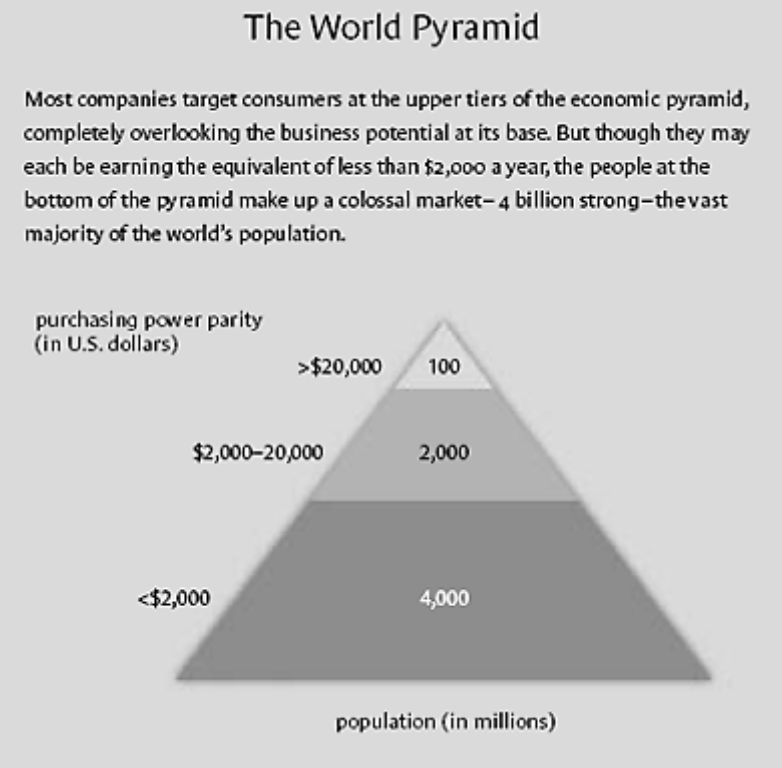
services are also in high demand among the poor. Citibank's ATM-based banking experiment in India, called Suvidha, for instance, which requires a minimum deposit of just $25, enlisted 150,000 customers in one year in the city of Bangalore alone.

Small-business services are also popular in BOP markets. Centers run in Uganda by the Women's Information Resource Electronic Service (WIRES) provide female entrepreneurs with information on markets and prices, as well as credit and trade support services, packaged in simple, ready-to-use formats in local languages. The centers are planning to offer other small-business services such as printing, faxing, and copying, along with access to accounting, spreadsheet, and other software. In Bolivia, a start-up has partnered with the Bolivian Association of Ecological Producers Organizations to offer business information and communications services to more than 25,000 small producers of ecoagricultural products.

It's true that some services simply cannot be offered at a low-enough cost to be profitable, at least not with traditional technologies or business models. Most mobile telecommunications providers, for example, cannot yet profitably operate their networks at affordable prices in the developing world. One answer is to find alternative technology. A microfinance organization in Bolivia named PRODEM, for example, uses multilingual smart-card ATMs to substantially reduce its marginal cost per customer. Smart cards store a customer's personal details, account numbers, transaction records, and a fingerprint, allowing cash dispensers to operate without permanent network connections—which is key in remote areas. What's more, the machines offer voice commands in Spanish and several local dialects and are equipped with touch screens so that PRODEM's customer base can be extended to illiterate and semiliterate people.

Another answer is to aggregate demand, making the community—not the individual—the network customer. Gyan-doot, a start-up in the Dhar district of central India, where 60% of the population falls below the poverty level, illustrates the benefits of a shared access model. The company has a network of 39 Internet-enabled kiosks that provide local entrepreneurs with Internet and telecommunications access, as well as with governmental, educational, and other services. Each kiosk serves 25 to 30 surrounding villages; the entire network reaches more than 600 villages and over half a million people.

Networks like these can be useful channels for marketing and distributing many kinds of low-cost products and services. Aptech's Computer Education division, for example, has built its own network of 1,000 learning centers in India to market and distribute Vidya, a computer-training course specially designed for BOP consumers and available in seven Indian languages. Pioneer Hi-Bred, a DuPont company, uses Internet kiosks in Latin America to deliver agricultural information and to interact with customers. Farmers can report different crop diseases or weather conditions, receive advice over the wire, and order seeds, fertilizers, and pesticides. This network strategy increases both sales and customer loyalty.



The World Pyramid Most companies target consumers at the upper tiers of the economic pyramid, completely overlooking the business potential at its base. But though they may each be earning the equivalent of less than $2,000 a year, the people at the bottom of the pyramid make up a colossal market—4 billion strong—the vast majority of the world's population.

Reduced Costs.

No less important than top-line growth are cost-saving opportunities. Outsourcing operations to low-cost labor markets has, of course, long been a popular way to contain costs, and it has led to the increasing prominence of China in manufacturing and India in software. Now, thanks to the rapid expansion of high-speed digital networks, companies are realizing even greater savings by locating such labor-intensive service functions as call centers, marketing services, and back-office

transaction processing in developing areas. For example, the nearly 20 companies that use OrphanIT.com's affiliate-marketing services, provided via its telecenters in India and the Philippines, pay one-tenth the going rate for similar services in the United States or Australia. Venture capitalist Vinod Khosla describes the remote-services opportunity this way: "I suspect that by 2010, we will be talking about [remote services] as the fastest-growing part of the world economy, with many trillions of dollars of new markets created." Besides keeping costs down, outsourcing jobs to BOP markets can enhance growth, since job creation ultimately increases local consumers' purchasing power.

But tapping into cheap labor pools is not the only way MNCs can enhance their efficiency by operating in developing regions. The competitive necessity of maintaining a low cost structure in these areas can push companies to discover creative ways to configure their products, finances, and supply chains to enhance productivity. And these discoveries can often be incorporated back into their existing operations in developed markets.

For instance, companies targeting the BOP market are finding that the shared access model, which disaggregates access from ownership, not only widens their customer base but increases asset productivity as well. Poor people, rather than buying their own computers, Internet connections, cell phones, refrigerators, and even cars, can use such equipment on a pay-per-use basis. Typically, the providers of such services get considerably more revenue per dollar of investment in the underlying assets. One shared Internet line, for example, can serve as many as 50 people, generating more revenue per day than if it were dedicated to a single customer at a flat fee. Shared access creates the opportunity to gain far greater returns from all sorts of infrastructure investments.

In terms of finances, to operate successfully in BOP markets, managers must also rethink their business metrics—specifically, the traditional focus on high gross margins. In developing markets, the profit margin on individual units will always be low. What really counts is capital efficiency—getting the highest possible returns on capital employed (ROCE). Hindustan Lever, for instance, operates a $2.6 billion business portfolio with zero working capital. The key is constant efforts to reduce capital investments by extensively outsourcing manufacturing, streamlining supply chains, actively managing receivables, and paying close attention to distributors' performance. Very low

capital needs, focused distribution and technology investments, and very large volumes at low margins lead to very high ROCE businesses, creating great economic value for shareholders. It's a model that can be equally attractive in developed and developing markets.

Streamlining supply chains often involves replacing assets with information. Consider, for example, the experience of ITC, one of India's largest companies. Its agribusiness division has deployed a total of 970 kiosks serving 600,000 farmers who supply it with soy, coffee, shrimp, and wheat from 5,000 villages spread across India. This kiosk program, called e-Choupal, helps increase the farmers' productivity by disseminating the latest information on weather and best practices in farming, and by supporting other services like soil and water testing, thus facilitating the supply of quality inputs to both the farmers and ITC. The kiosks also serve as an e-procurement system, helping farmers earn higher prices by minimizing transaction costs involved in marketing farm produce. The head of ITC's agribusiness reports that the company's procurement costs have fallen since e-Choupal was implemented. And that's despite paying higher prices to its farmers: The program has enabled the company to eliminate multiple transportation, bagging, and handling steps—from farm to local market, from market to broker, from broker to processor—that did not add value in the chain.

Innovation.

BOP markets are hot-beds of commercial and technological experimentation. The Swedish wireless company Ericsson, for instance, has developed a small cellular telephone system, called a MiniGSM, that local operators in BOP markets can use to offer cell phone service to a small area at a radically lower cost than conventional equipment entails. Packaged for easy shipment and deployment, it provides stand-alone or networked voice and data communications for up to 5,000 users within a 35-kilometer radius. Capital costs to the operator can be as low as $4 per user, assuming a shared-use model with individual phones operated by local entrepreneurs. The MIT Media Lab, in collaboration with the Indian government, is developing low-cost devices that allow people to use voice commands to communicate—without keyboards—with various Internet sites in multiple languages. These new access devices promise to be far less complex than traditional computers but would perform many of the same basic functions.[2]

As we have seen, connectivity is a big issue for BOP consumers. Companies that can find ways to dramatically lower connection costs, therefore, will have a very strong market position. And that is exactly what the Indian company n-Logue is trying to do. It connects hundreds of franchised village

kiosks containing both a computer and a phone with centralized nodes that are, in turn, connected to the national phone network and the Internet. Each node, also a franchise, can serve between 30,000 and 50,000 customers, providing phone, e-mail, Internet services, and relevant local information at affordable prices to villagers in rural India. Capital costs for the n-Logue system are now about $400 per wireless "line" and are projected to decline to $100—at least ten times lower than conventional telecom costs. On a per-customer basis, the cost may amount to as little as $1.[3] This appears to be a powerful model for ending rural isolation and linking untapped rural markets to the global economy.

New wireless technologies are likely to spur further business model innovations and lower costs even more. Ultra-wideband, for example, is currently licensed in the United States only for limited, very low-power applications, in part because it spreads a signal across already-crowded portions of the broadcast spectrum. In many developing countries, however, the spectrum is less congested. In fact, the U.S.-based Dandin Group is already building an ultra-wideband communications system for the Kingdom of Tonga, whose population of about 100,000 is spread over dozens of islands, making it a test bed for a next-generation technology that could transform the economics of Inter-net access.

E-commerce systems that run over the phone or the Internet are enormously important in BOP markets because they eliminate the need for layers of intermediaries. Consider how the U.S. start-up Voxiva has changed the way information is shared and business is transacted in Peru. The company partners with Telefónica, the dominant local carrier, to offer automated business applications over the phone. The inexpensive services include voice mail, data entry, and order placement; customers can check account balances, monitor delivery status, and access prerecorded information directories. According to the Boston Consulting Group, the Peruvian Ministry of Health uses Voxiva to disseminate information, take pharmaceutical orders, and link health care workers spread across 6,000 offices and clinics. Microfinance institutions use Voxiva to process loan applications and communicate with borrowers. Voxiva offers Web-based services, too, but far more of its potential customers in Latin America have access to a phone.

E-commerce companies are not the only ones turning the limitations of BOP markets to strategic advantage. A lack of dependable electric power stimulated the UK-based start-up Free-play Group to introduce hand-cranked radios in South Africa that subsequently became popular with hikers in the

United States. Similar breakthroughs are being pioneered in the use of solar-powered devices such as battery chargers and water pumps. In China, where pesticide costs have often limited the use of modern agricultural techniques, there are now 13,000 small farmers—more than in the rest of the world combined—growing cotton that has been genetically engineered to be pest resistant.

Strategies for Serving BOP Markets

Certainly, succeeding in BOP markets requires multinationals to think creatively. The biggest change, though, has to come in the attitudes and practices of executives. Unless CEOs and other business leaders confront their own preconceptions, companies are unlikely to master the challenges of BOP markets. The traditional workforce is so rigidly conditioned to operate in higher-margin markets that, without formal training, it is unlikely to see the vast potential of the BOP market. The most pressing need, then, is education. Perhaps MNCs should create the equivalent of the Peace Corps: Having young managers spend a couple of formative years in BOP markets would open their eyes to the promise and the realities of doing business there.

To date, few multinationals have developed a cadre of people who are comfortable with these markets. Hindustan Lever is one of the exceptions. The company expects executive recruits to spend at least eight weeks in the villages of India to get a gut-level experience of Indian BOP markets. The new executives must become involved in some community project—building a road, cleaning up a water catchment area, teaching in a school, improving a health clinic. The goal is to engage with the local population. To buttress this effort, Hindustan Lever is initiating a massive program for managers at all levels—from the CEO down—to reconnect with their poorest customers. They'll talk with the poor in both rural and urban areas, visit the shops these customers frequent, and ask them about their experience with the company's products and those of its competitors.

In addition to expanding managers' understanding of BOP markets, companies will need to make structural changes. To capitalize on the innovation potential of these markets, for example, they might set up R&D units in developing countries that are specifically focused on local opportunities. When Hewlett-Packard launched its e-Inclusion division, which concentrates on rural markets, it established a branch of its famed HP Labs in India charged with developing products and services explicitly for this market. Hindustan Lever maintains a significant R&D effort in India, as well.

Companies might also create venture groups and internal investment funds aimed at seeding entrepreneurial efforts in BOP markets. Such investments reap direct benefits in terms of business experience and market development. They can also play an indirect but vital role in growing the overall BOP market in sectors that will ultimately benefit the multinational. At least one major U.S. corporation is planning to launch such a fund, and the G8's Digital Opportunity Task Force is proposing a similar one focused on digital ventures.

MNCs should also consider creating a business development task force aimed at these markets. Assembling a diverse group of people from across the corporation and empowering it to function as a skunk works team that ignores conventional dogma will likely lead to greater innovation. Companies that have tried this approach have been surprised by the amount of interest such a task force generates. Many employees want to work on projects that have the potential to make a real difference in improving the lives of the poor. When Hewlett-Packard announced its e-Inclusion division, for example, it was overwhelmed by far more volunteers than it could accommodate.

Making internal changes is important, but so is reaching out to external partners. Joining with businesses that are already established in these markets can be an effective entry strategy, since these companies will naturally understand the market dynamics better. In addition to limiting the risks for each player, partnerships also maximize the existing infrastructure—both physical and social. MNCs seeking partners should look beyond businesses to NGOs and community groups. They are key sources of knowledge about customers' behavior, and they often experiment the most with new services and new delivery models. In fact, of the social enterprises experimenting with creative uses of digital technology that the Digital Dividend Project Clearinghouse tracked, nearly 80% are NGOs. In Namibia, for instance, an organization called School-Net is providing low-cost, alternative technology solutions—such as solar power and wireless approaches—to schools and community-based groups throughout the country. SchoolNet is currently linking as many as 35 new schools every month.

Entrepreneurs also will be critical partners. According to an analysis by McKinsey & Company, the rapid growth of cable TV in India—there are 50 million connections a decade after introduction—is largely due to small entrepreneurs. These individuals have been building the last mile of the network, typically by putting a satellite dish on their own houses and laying cable to connect their neighbors. A note of caution, however. Entrepreneurs in BOP markets lack access to the advice,

technical help, seed funding, and business support services available in the industrial world. So MNCs may need to take on mentoring roles or partner with local business development organizations that can help entrepreneurs create investment and partnering opportunities.

It's worth noting that, contrary to popular opinion, women play a significant role in the economic development of these regions. MNCs, therefore, should pay particular attention to women entrepreneurs. Women are also likely to play the most critical role in product acceptance not only because of their child-care and household management activities but also because of the social capital that they have built up in their communities. Listening to and educating such customers is essential for success.

Sharing Intelligence

What creative new approaches to serving the bottom-of-the-pyramid markets have digital technologies made possible? Which sectors or countries show the most economic activity or the fastest growth? What new business models show promise? What kinds of partnerships—for funding, distribution, public relations—have been most successful?

The Digital Dividend Project Clearinghouse (digitaldividend.org) helps answer those types of questions. The Web site tracks the activities of organizations that use digital tools to provide connectivity and deliver services to underserved populations in developing countries. Currently, it contains information on 700 active projects around the world. Maintained under the auspices of the nonprofit World Resources Institute, the site lets participants in different projects share experiences and swap knowledge with one another. Moreover, the site provides data for trend analyses and other

Regardless of the opportunities, many companies will consider the bottom of the pyramid to be too risky. We've shown how partnerships can limit risk; another option is to enter into consortia. Imagine sharing the costs of building a rural network with the communications company that would operate it, a consumer goods company seeking channels to expand its sales, and a bank that is financing the construction and wants to make loans to and collect deposits from rural customers.

Investing where powerful synergies exist will also mitigate risk. The Global Digital Opportunity Initiative, a partnership of the Markle Foundation and the UN Development Programme, will help a small number of countries implement a strategy to harness the power of information and communications technologies to increase development. The countries will be chosen in part based on their interest and their willingness to make supportive regulatory and market reforms.

specialized studies that facilitate market analyses, local partnerships, and rapid, low-cost learning.

To concentrate resources and create reinforcing effects, the initiative will encourage international aid agencies and global companies to assist with implementation.

All of the strategies we've outlined here will be of little use, however, unless the external barriers we've touched on—poor infrastructure, inadequate connectivity, corrupt intermediaries, and the like—are removed. Here's where technology holds the most promise. Information and communications technologies can grant access to otherwise isolated communities, provide marketing and distribution channels, bypass intermediaries, drive down transaction costs, and help aggregate demand and buying power. Smart cards and other emerging technologies are inexpensive ways to give poor customers a secure identity, a transaction or credit history, and even a virtual address—prerequisites for interacting with the formal economy. That's why high-tech companies aren't the only ones that should be interested in closing the global digital divide; encouraging the spread of low-cost digital networks at the bottom of the pyramid is a priority for virtually all companies that want to enter and engage with these markets. Improved connectivity is an important catalyst for more effective markets, which are critical to boosting income levels and accelerating economic growth.

Moreover, global companies stand to gain from the effects of network expansion in these markets. According to Metcalfe's Law, the usefulness of a network equals the square of the number of users. By the same logic, the value and vigor of the economic activity that will be generated when hundreds of thousands of previously isolated rural communities can buy and sell from one another and from urban markets will increase dramatically—to the benefit of all participants.• • •

Since BOP markets require significant rethinking of managerial practices, it is legitimate for managers to ask: Is it worth the effort?

We think the answer is yes. For one thing, big corporations should solve big problems—and what is a more pressing concern than alleviating the poverty that 4 billion people are currently mired in? It is hard to argue that the wealth of technology and talent within leading multinationals is better allocated to producing incremental variations of existing products than to addressing the real needs —and real opportunities—at the bottom of the pyramid. Moreover, through competition,

multinationals are likely to bring to BOP markets a level of accountability for performance and resources that neither international development agencies nor national governments have demonstrated during the last 50 years. Participation by MNCs could set a new standard, as well as a new market-driven paradigm, for addressing poverty.

But ethical concerns aside, we've shown that the potential for expanding the bottom of the market is just too great to ignore. Big companies need to focus on big market opportunities if they want to generate real growth. It is simply good business strategy to be involved in large, untapped markets that offer new customers, cost-saving opportunities, and access to radical innovation. The business opportunities at the bottom of the pyramid are real, and they are open to any MNC willing to engage and learn.

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