

Emerging Economies at the Base of Pyramid



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An analysis of the world's base of pyramid consumers
and a framework for new business ventures.

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EMERGING ECONOMIES AT THE BASE OF PYRAMID – SEAN COLLINS

1.1 EXECUTIVE SUMMARY

The world's Base of Pyramid markets are one of the most exciting new fields of research as it couples the pull of social causes and humanitarianism with market principles and sound business models. This analysis of BoP markets will reflect upon research being done in this field, market viability and considerations when targeting BoP consumers. To set a framework of analysis discussion relates to defining the market, identifying the pressing needs and determining the social implications of business ventures at the BoP. If adequate time is not spent fully understanding the background of these consumers any BoP strategy is doomed to fail. Once a firm groundwork has been established, then things like market viability and successful case studies can be examined. There are currently 8 key markets for BoP consumers ranging from water to energy to information and communications and the key to selling to these consumers is that a strategy be affordable, accessible and socially driven. In analyzing market viability it is also crucial to examine case studies of successful campaigns to target BoP markets as much of the research and theories built around this subject area comes from the successful models built by several key organizations. One of the leaders in this subject field is Grameen Bank which recently won the Nobel Peace Prize for their efforts to rid the world of poverty through their offerings to BoP consumers. In order to develop strategies for organizations looking to create new offerings for BoP consumers it is also vital to establish key requirements and considerations. These include the emphasis placed upon market and consumer research, ensuring offerings sufficiently meet the needs of BoP consumers and establishing a culture of patience around BoP offerings. This broad look at the history, requirements and needs of BoP consumers is intended to serve as a means of directing new organizations seeking to target the BoP with new offerings.

2.1 RESEARCH

I. DEFINITION OF MARKET

The world's base of pyramid (BoP) market represents the largest collection of individuals of any market in the world. Base of Pyramid consumers are defined as individuals making less than \$3,000 per year USD (Hammond, 2007). While this may seem like an insignificant income level for a viable consumer base, the market value is staggering when you consider there are nearly 4 billion people in the world living at this income level. While there is varying estimates as to the total dollar value of this market, all estimates have come in between the range of \$5 trillion to \$12 trillion, impressive as this matches the entire GDP of the United States of America at \$13.8 trillion (BEA, 2008). There is a dedicated group of researchers and institutions that have made this a focus, a brief list is as follows:

- World Resources Institute
- C.K Pralahad
- Stuart L. Hart
- University of Michigan
- Cornell University
- Wharton School of Business

II. NEEDS OF BASE OF PYRAMID CONSUMERS

The dynamics of BoP consumers are drastically different than typical western consumer markets and there are significant challenges that must be overcome. The first of these is their "dependence on informal or subsistence livelihoods" (Hammond, 2007) which reflects the means of economic activity available to these consumers. Typically BoP consumers have very limited access to formal businesses and opportunities and as such rely on ad-hoc means of income generation. This includes farming, labor activities, fishing etc... which tend to have very low income generation opportunities and are also extremely affected by weather and climate. Another challenge faced by BoP consumers is a lack of formal infrastructure. This includes a whole range of issues that includes:

Infrastructure	Financial Services	Economic Outlets
<ul style="list-style-type: none"> Roadways are severely damaged or non-existent in some place. Infrastructure for communication (Phone towers, fiber optics networks) non-existent. 	<ul style="list-style-type: none"> Very limited access to banking and financial services. Stems from a lack of formal measures of identity. New options being developed like microfinancing. 	<ul style="list-style-type: none"> Typical sales markets are often inefficient and corrupt. For example, farmers take goods to market and are forced to accept that day's prices No means of seeking multiple buyers and comparing prices.

The last major issue to touch upon is the poverty premium that affects a huge portion of the purchases for BoP consumers. This relates to the fact that customers with low income levels often pay *higher* prices for goods due to the fact that they do not have multiple purchase options and often have to accept the prices being offered to them. The following table represents some of the incredible premiums paid by different consumers even living within the same city. Dharavi is Asia's largest slum and located in the heart of Mumbai which is one of India's thriving metropolis' (Jacobson, 2006). Warden road on the other hand is one of the most posh and prosperous sections of Mumbai.

The Poor and High-Cost Economic Ecosystems (C.K Prahalad, September 2002)

Item	Dharavi	Warden Road	Poverty Premium
Credit (annual interest)	600–1,000%	12–18%	53.0
Municipal grade water (per cubic meter)	\$1.12	\$0.03	37.0
Phone call (per minute)	\$0.04–0.05	\$0.025	1.8
Diarrhea medication	\$20.00	\$2.00	10.0
Rice (per kg)	\$0.28	\$0.24	1.2

This is probably the most powerful example one can think of as it demonstrates that even within the same city extreme pricing gaps exist to exploit those living in poverty. Residents in Dharavi have no choice about where they receive their water from and often have to pay “water goons” for the ability to receive water. When a huge portion of your total budget is taken up by basic sustenance, additional premiums hurt just that little bit extra.

III. SOCIAL IMPLICATIONS

Although it is a point of debate, targeting BOP consumers has the potential to be one of the most effective means of eradicating poverty in the world. Recently much media has been directed to the concepts of micro-financing and the incredible benefits that have been derived from this service. For individuals living at or below the poverty line there are 4 instances in which large sums of money are required although not often available. (Rutherford, 1999):

- **Lifecycle needs:** Events such as weddings, funerals, education, home-building etc..
- **Personal Emergencies:** Sickness, injury, unemployment, death.
- **Disasters:** Fires, floods, violent weather and manmade events like war.
- **Investment Opportunities:** This includes purchases to expand a business, acquire machinery and improve housing and facilities.

While these are needs that micro financing alone can help meet, serving BOP markets as a whole can have tremendous social impact on those living in poverty. With markets at the BOP being so concentrated, the trickle down effects from additional income is significantly higher than in other income brackets. Whenever new forms of income surface for people at the BoP, these additional funds immediately flow into increasing standards of living. The reason that the trickledown effect is so much more concentrated at this level is because there is very little savings and investment that occurs and most purchases are made within close geographic proximity.

Many organizations have been recognized BOP and microfinance markets for their ability to pull people out of poverty with dignity. Grameen Bank, which was one of the first institutions to offer microfinance loans, is led by Nobel Laureate, Dr. Muhammad Yunus. One powerful quote from the world bank sums up the impact of the power of microfinancing “this business approach to the alleviation of poverty has allowed millions of individuals to work their way out of poverty with dignity” (MuhammadYunus.org). This ability for those in poverty to work themselves out of their situation is one of the most central reasons that this business model has the potential to be so

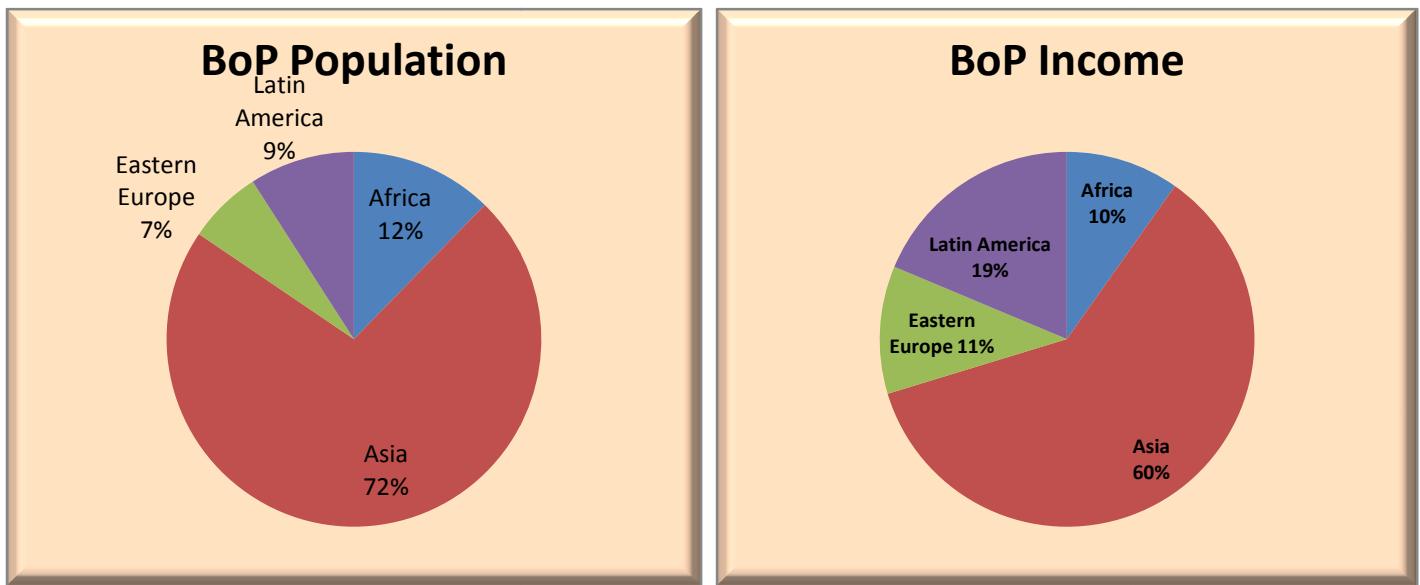
lucrative. It is a basic marketing concept that you must create an environment that motivates individuals towards action. By creating viable business opportunities and coupling this with access to credit services, the environment is set for individuals to take action to change their situation. It is inherent in human nature to constantly seek a higher standard of living, in fact it's one of the main reason we are facing such complex problems on issues like global warming. It is this reason that BOP markets carry such promise, they offer individuals a means of achieving a greater quality of life when such an opportunity has rarely been seen before. Several case studies examining this effect will be developed later but it is important to touch on one now. In Mexico an organization called Cemex offered cement products to BOP consumers on credit and it was a tremendous success. They operated off of this awareness that even the poorest consumer would be willing to adopt products that drastically improve their quality of life, something a cement foundation for one's home can certainly accomplish.

IV. GEOGRAPHIC LOCATIONS

In order to fully understand the needs of the BoP consumer it is important to examine where they are located and what their regional differences are. The following chart identifies the largest BoP markets, income levels and percentages of total population (Hammond, 2007).

	BOP Population (millions)	BOP Share of total Population (%)	BOP Income (millions) PPP	BOP Income (millions) US\$	BOP Share of Total Income
Africa	486	95.1	429,000	120,000	70.5
Asia	2,858	83.4	3,470,000	742,000	41,7
Eastern Europe	254	63.8	458,000	135,000	36.0
Latin Amer. + Caribbean	360	69.9	509,000	229,000	28.2

There are several key points to take away from this information. The first is that the market is heavily concentrated in Asia with 72% of the world's BoP market residing in this continent. While there are a high percentage of people living in poverty in Asia it is still far off from the staggering 95.4% of Africans that live in poverty. It is also important to notice the disparity between population size and income size for the various regions.



While Asia and Africa have significant populations at the BoP they don't represent as large of a total percentage of the income at the BoP. While all BoP consumers by definition make less than \$3,000 per year you can see that the BoP consumers in Latin America and Eastern are relatively better off and on average possess higher income levels than Africa and Asia. It is also important to note that of the entire BoP population nearly 53% are from India and China. Respectively India and China have 1.033 and 1.046 billion people living at the BoP making these key target markets for new ventures targeting the BoP. It is likely for this reason that many of the case studies of successful campaigns come from India. The sheer size of the Indian market is impressive and when coupled with the Indian governments open policies to encourage foreign investment it quickly establishes itself as the most lucrative market.

3.1 MARKET VIABILITY

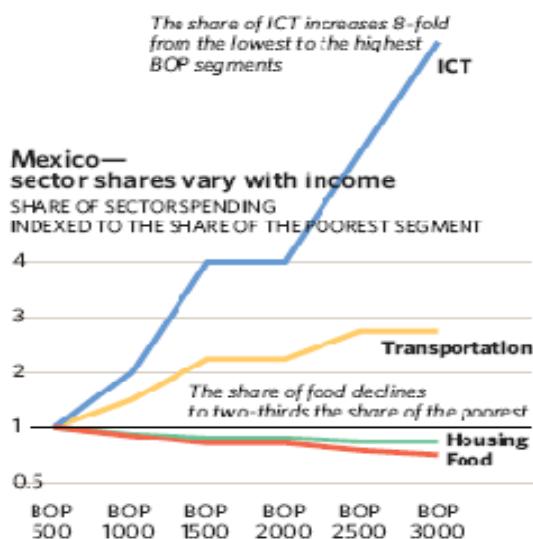
V. INDUSTRY BREAKDOWN

There are 8 distinct markets for BoP consumers that encompass nearly all expenditures. As compiled by the World Resource Institute these are:

- The Health Market
- The Information and Communications Market
- The Water Market
- The Transportation Market
- The Housing Market
- The Energy Market
- The Food Market
- The Financial Services Market

Health Market: Includes spending on doctors, medicine and health products and has a total size of \$154.8 Billion. Many BoP consumers rely on home-based natural medicines.

The Information and Communications Market: The majority of the spending in this \$51.4 billion market comes from phone service. The ICT market also represents the area in which most income is funneled to as individuals move closer and closer to surpassing the \$3,000 income barrier. The following graph shows spending patterns in Mexico for different income levels at the BoP:



The Water Market: This is one of the smallest categories of BoP spending at only \$20.1 billion yet obviously has significant considerations for basic survival and health needs.

The Transportation Market: Previously we established that one of the key needs for BoP consumers is infrastructure and access to the formal economy. The \$179.3 billion transportation market is a testament to this need.

The Housing Market: Housing represents one of the largest BoP markets with a total value of \$331.8 billion. One interesting thing to note is that informal home ownership is one factor that severely limits quality of life for BoP consumers. With no formal land title governments are hesitant to hook up power and water as the land that home occupies technically isn't real. This is a key benefit of micro-financing as it can permit individuals to amass the initial capital to purchase a home with the proper amenities.

The Energy Market: It might come as an initial surprise that the energy market accounts for \$433.4 billion in total spending although when you consider that energy is required for nearly all daily activities it becomes apparent why this market is so large. Energy also represents a status symbol for BoP consumers with nearly all consumers switching to electricity from kerosene or firewood as they near the \$3,000 per year income barrier.

The Food Market: Easily dominating all budgets at the BoP is the food market which represents \$2,894 billion in spending, nearly 7 times as large as the nearest spending category. One interesting thing to note is that spending on food as a percentage share of the overall budget decreases as income increases (Hammond, 2007). One of the reasons for this is that many countries have fairly standard diets across income levels and additional income is usually spent to improve quality of life in other areas.

The Financial Services Market: This represents the newest market for BoP consumers and as such has no formal data for its overall market size. With the case studies of Grameen Bank and other micro-finance institutions it is evident that this market has tremendous potential.

Through this detailed analysis of the major BoP market several conclusions can be drawn. First, spending patterns as consumers move into higher income brackets provides information that is key to success at the BoP. Certain markets like water and food see consumers spend ever shrinking percentages of their budget as income grows. Others like information and communication, transportation and financial services represent primary spending areas for incremental income

levels. It is in these areas that key opportunities lie as they are significant growth markets. Perhaps the highest growth rates of all can be found in the communications industry and with mobile phones in particular. In 2005 alone India had 41.26 million new mobile phone subscribers (Lombardi, 2006) and China passed the 400 million subscriber mark in the same year. While the current subscriber base in India sits at 149.5 million it is expected that by 2011 the market could balloon to 484 million users, a figure that doesn't seem too far off considering that nearly 6 million new subscribers sign on every single month (Clendenin, 2007). These adoption rates have spurned new industries and services for BoP consumers, something that the E-Choupal case study will illustrate later on.

VI. REQUIREMENTS FOR TARGETTING BOP CONSUMERS

At its core a strategy for targeting customers at the BoP can only be effective if it is affordable, accessible and concerned with social well being. Needs of the BoP consumers were previously identified including infrastructure concerns and poverty premiums. Truly effective strategies must seek out BoP consumers where they live and provide valuable, cost effective solutions.

Affordability



- Dharavi/Warden road example demonstrates crushing effects of poverty premiums on BoP consumers.
- Those making \$2/day clearly fit the mold of being cost-conscious customers.

Accessibility



- Some of the biggest issues for BoP consumers relate to accessibility and infrastructure.
- E-Choupal case study will demonstrate positive effects of dramatically increasing accessibility to services

Social Well Being



- All ventures into BoP Markets must possess an inherent desire to "do well by doing good"
- Current strategies focus on price gouging and flawed business models. Value driven, mutually beneficial business models will rule the day moving forward.
- Grameen Bank recently became the first company to receive the Nobel Peace prize for their socially-conscious business model

VII. CASE STUDIES

E-CHOUPAL

A breakthrough technology for India's farming community represents one of the most advanced programs to assist BoP consumers. India's farming industry has an abundance of natural resources but it was incredibly fragmented, had weak infrastructure and was burdened with numerous intermediaries. What E-Choupal did was to cut a swath right through the red tape and infrastructure issues plaguing the industry. E-Choupal was a program instituted by ITC Ltd, which is one of India's largest consumer goods companies. Previously farmers had to take their goods to markets when they were ready and were forced to accept the rates given to them without real access to compare prices. What ITC did was to "virtually cluster all value-chain participants" as they instituted village internet kiosks managed by the farmers themselves. This incredible new access to information allowed farmers to check prices, see weather updates, learn of new farming techniques and purchase supplies all from their local village. Even though ITC offered better prices to the farmers than they could receive anywhere else, ITC still received goods at a lower cost because so many intermediaries were eliminated that weren't adding value. E-Choupal quickly established itself and now has connected 3.5 million farmers with thousands of kiosks across 6 states (ITC Limited). This is a wonderful case of a major producer going right down to the BoP producer and creating a service that adds value to all those involved.

VILLAGE PHONE

The village phone project or Grameen phone project as it is sometime called is often heralded as one of the most successful campaigns to target BoP consumers. This program laid its roots in 1997 and sought to bring mobile phone service to even the most remote areas of Bangladesh. The project was founded by Grameen Phone and Grameen Bank, headed by the previously mentioned Muhammad Yunus. Individuals interested in purchasing a mobile phone could secure a microfinance loan from Grameen Bank. They would then operate this as a mobile pay-phone service, taking it back to their villagers and giving all members of their community access to this technology. Acting as a pay-phone allows the operators to cover the cost of the phone as well as to repay their loan while also leaving room for a healthy profit. This demonstrates the two key components to succeeding at the BoP, affordability and availability. For the villagers, they suddenly gained access to a cost effective means of instantly communicating with friends and relatives in

other villages. The phones were almost exclusively purchased by women and these “Village Phone Ladies” gained access to purchasing phones because of the loans offered by Grameen Bank. This situation represents a typical catch-22 as it is hard to offer loans to customers with unproven credit histories but customers can’t develop credit history without being given credit in the first place. The leap of faith made by Grameen Bank and Grameen phone have earned them international accolades, largely due to the fact that they have created one of the most efficient capital markets in the world with a loan repayment rate of 98.15% (Grameen Bank, 2008). The Village Phone Ladies were able to prosper, earn significant incomes and pull themselves out of poverty while also connecting the communities around them. Currently there are more than 260,000 Village Phone operators in over 50,000 villages with further plans to add 100,000 new operators(Grameen Phone). The plan has been so successful and profitable for all parties involved that it is now being implemented in Uganda and Rwanda among other countries.

CEMEX CEMENT – PATRIMONIO HOY

Cemex is one of the world’s largest producers of cement with operations in over 50 countries and annual production of more than 93 million metric tons of cement (Cemex). Originally founded in Mexico it has grown into a company of significant size and experience only to face serious hardship when the Mexican Peso devalued considerably in the 1990’s. Estimates are that nearly half of Mexico’s 110 million people live on less than \$2/day or at the BoP level. Cemex realized that residents of Mexico were building houses but they were doing it often over the span of 10 years as they didn’t have the money to do it at once. Cemex also realized that one of the limiting factors was that customers had no access to architects or designers due to their prohibitive costs. In order to understand this market fully and develop a viable, long-term strategy both for Mexico’s citizens and Cemex itself they decided to conduct a year-long anthropological study. Here they learned of the length of time it took to build the average house, the lack of knowledge and expertise and the distrust of patchwork solutions from business and government. After conducting this extensive study Cemex launched “Patrimonio Hoy” which was their strategy of how to sell cement to BoP consumers. Patriomonio Hoy operated as follows (Sandoval, 2005):

- Interested customers pay \$14 per week for 70 weeks
- Cemex provides consultation and inspection by architects and designers
- Materials are delivered over the 70 week span to match the construction process

By stretching out the timeframe of the purchase and offering value-added services in design and inspection Cemex created an incredible value proposition for its customers. Customers were able to build the homes they'd only ever dreamed of and were able to do it in 1/10th the time. As of 2005 Cemex had turned a net profit of \$1.3 million US on the project with revenues of over \$42 million (Meghji, 2005). Again this case reflects the key requirements of success in targeting the BoP, affordability and accessibility. Tweaking business models to accommodate BoP concerns can create sustainable, long term business models that have tangible social benefit.

HINDUSTAN LEVER - SHAKTI

Hindustan Lever is another example of a tweaked business model that has resulted in hundreds of thousands of sales. This division of the global consumer goods giant Unilever has been serving the BoP for decades. With a breadth of different consumer goods products, HLL recognized that they were missing out on a significant portion of consumers that didn't have access to their products in rural India. To combat this, Hindustan Level Limited (HLL) began offering smaller portions of a lesser quality detergent called Nirma to rural customers. While it was clearly inferior to their premium Surf brand it was an offering to a market that previously had no purchase options (Bajaj, 2006). Nirma thus had a virtual monopoly as they had created a product with no competitors in a market that had previously never been served. Nirma was able to capture one third of the entire Indian detergent market by 1977 based upon its affordability and accessibility. Recognizing the social benefit and incredible growth potential of the BoP market, HLL launched project Shakti in 2001 in order to turn this market into a major organizational focus and to integrate business interests with national interests (Hindustan Lever Limited). Shakti has developed extensive training programs for the "Self Help Groups (SHGs)" which are the groups of rural women that purchase and sell HLL products in rural India. HLL management graduates spend a minimum of 4 weeks upon graduating on the Shakti project advising SHG's on proper business practices, on-the-job-training and overall support of their enterprises. In return the SHG's have created an entirely new means of selling HLL's consumer goods. On the social front, Shakti has enabled hundreds of women across rural India by elevating them to the status of key bread-winner in their households. Often the Shakti entrepreneurs earn more than double their entire households income creating incentive for more women to come on board for the program. HLL has also set aggressive growth plans for the project with a vision for "1,000,000 entrepreneurs covering 5,000,000 villages and touching the lives of 600 million rural people by the year 2010" (Hindustan Lever Limited).

4.1 CONSIDERATIONS FOR NEW BOP VENTURES

VIII. RESEARCH

When companies are considering entering BoP markets with new offerings it is so important that proper research is done. These markets have not typically been targeted and as such are likely to react differently to product offerings than higher income consumers. With money being so scarce, individuals are often reluctant to take a risk on a new product or service for fear that money will be wasted. Cemex developed a keen understanding for their market by conducting a year long in-depth research study whereby researchers actually lived in the communities they were looking to target to fully understand all aspects of their consumers and their lifestyles. With this wealth of knowledge and understanding they were able to tailor the product to meet the income and timing needs and experience rapid, profitable growth from the time they launched Patriomonio Hoy.

IX. NEED

While this may seem like the most basic of marketing concepts it is important that all products targeting BoP consumers must satisfy a real need. Hindustan Lever's detergent Nirma demonstrated that BoP consumers don't have the same needs as higher income customers. Rural Indians did not require a top of the line detergent, merely an affordable entry level product. Also, the micro financing services offered by Grameen Bank solved the four main financial needs of BoP consumers, lifecycle, personal emergencies, disasters and investment opportunities. The most successful of the case studies demonstrate very-high value propositions for both consumers and organizations. The Shakti project has enabled HLL to tap into an incredible mass of new consumers while also vaulting their entrepreneurs to new levels of wealth and personal status and it is this mutual benefit that is the key success factor to BoP ventures.

X. PATIENCE

This final consideration is likely the most difficult to practice. BoP markets require in-depth understanding, research, correct product offerings, sales venues and often lots of consumer education. HLL had to embark on a large-scale consumer education program for some of their

personal hygiene products to generate consumer demand for products that many BoP consumers had never used before. One of the avenues for this was their “glowgerm” demonstration. HLL had children and villagers wash their hands with water and then had them hold their hands under an ultra-violet light to show how many germs remained on their hands. HLL then provided soap and taught proper hand-washing techniques to the participants. When they saw how it eliminated all germs from their hands it created the awareness and demand for their product where it had previously not existed (Bajaj, 2006). HLL also demonstrated the incredible patience it takes in developing these markets. It began offering products to BoP consumers in 1976 and more than 30 years later they are still learning how to effectively target and sell to this lucrative market. One of the main reasons for the requirement of patience is the mistrust of business at the BoP. When case studies like the privatization of Cochabamba’s water by Aguas del Tunari are examined it is clear why some BoP consumers are wary of foreign organizations. Aguas del Tunari bid on and won the contract to privatize Bolivia’s municipal water services and immediately raised prices over 35% without adding any additional value to consumers. Prices rose to the point where customers who were often making less than \$100/month were paying over \$20 monthly for water service. Aguas del Tunari was a subsidiary of Bechtel and had neglected to do proper social and economic research before implementing their price increases. This led to large scale riots, strikes, uprisings, blockades and eventually Aguas del Tunari being run out of the country with their contract revoked (Finnegan, 2002). BoP consumers need time to develop trusting relationships with organizations, otherwise the backlash can be catastrophic.

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