

## Working Paper

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# Fortune at the Bottom of the Pyramid: A Mirage How the private sector can help alleviate poverty

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# **Fortune at the Bottom of the Pyramid: A Mirage**

## **How the private sector can help alleviate poverty**

### **Abstract**

Poor people – at the bottom of the pyramid (BOP) – represent a very attractive market opportunity. The ‘BOP proposition’ argues that selling to the poor can simultaneously be profitable and help eradicate poverty. This is at best a harmless illusion and potentially a dangerous delusion. This paper shows that the BOP argument is riddled with fallacies, and proposes an alternative perspective on how the private sector can help alleviate poverty. We need to view the poor as producers, and emphasize buying from them, rather than selling to them. The only way to alleviate poverty is to raise the real income of the poor.

Widespread poverty is an economic, social, political and moral problem. Eradicating, or at least alleviating, poverty is an urgent challenge. For many decades, various institutions have tried to address this challenge: local governments, developed country governments, international organizations (such as the World Bank and the United Nations), aid foundations and non-governmental organizations. So far, the intellectual discourse has been largely in the fields of public policy and development economics.

More recently, management experts and business schools have entered this arena. CK Prahalad has been one of the pioneers of this movement, and he is certainly the most visible and prolific writer in this field. Thus, we focus on his 2004 book as the most visible work incorporating the ideas about ‘the bottom of the pyramid’ (BOP). The BOP proposition can be summarized as follows:

1. There is much untapped purchasing power at the bottom of the pyramid.  
Private companies can make significant profits by selling to the poor.
2. By selling to the poor, private companies can bring prosperity to the poor, and thus can help eradicate poverty.
3. Large multinational companies (MNCs) should play the leading role in this process of selling to the poor.

It is argued that selling to the poor can simultaneously be profitable and eradicate poverty. The profit motive alone is enough to drive companies to do good; Prahalad (2004, p.6) rejects corporate social responsibility as the basis for BOP initiatives. Thus,

there is both glory and fortune at the bottom of the pyramid. This is, of course, a very appealing proposition and has drawn much attention from senior managers, large companies and business schools.

The BOP proposition is indeed too good to be true. It is seductively appealing, but it is riddled with fallacies. There is neither glory nor fortune at the bottom of the pyramid – unfortunately, it is all a mirage. This paper will argue that the BOP proposition is both logically flawed and inconsistent with the empirical evidence. This has serious implications for both firm strategies and public policy. I will propose an alternative perspective on how the private sector can help alleviate poverty. Rather than viewing the poor primarily as consumers, we need to focus on the poor as producers; we need to emphasize buying from the poor, rather than selling to them. The only way to alleviate poverty is to raise the real income of the poor.

### **Target Market**

Poverty is, of course, a matter of degrees and involves subjective judgments. In 1990 the World Bank defined the ‘extremely poor’ as people living on less than \$1 per day at purchasing power parity (PPP) rates. This definition is probably too conservative.

Another commonly used poverty line is \$2 per day at PPP in 1990 prices (equivalent to \$3.10 in 2006 prices). At this level of ‘moderate poverty’, the basic needs of survival are met, but just barely. Virtually all discussion of poverty in development economics and public policy uses a poverty line somewhere in between \$1 to \$2 per day. The first of the

Millennium Development Goals adopted by the United Nations is to reduce poverty by half using the \$1 per day measure. Prahalad (2004, p.4) uses the \$2 per day criterion; I will use the same definition in this article.

Prahalad (2004, p.4) states that there are more than 4 billion people with per capita income below \$2 per day at PPP rates.<sup>1</sup> The World Bank estimates the number at 2.7 billion, in 2001. Most researchers argue that the World Bank already over-estimates the number of poor people, with some researchers estimating the poor at 600 million (The Economist, 2004). Surprisingly, Prahalad (2004, p.33) even claims that “the poor as a market are 5 billion strong.”

On page 21 of the same source we read claims that the BOP potential market is \$13 trillion at PPP. This grossly over-estimates the BOP market size. The *average* consumption of poor people is \$1.25 per day (The World Bank, 2005). Assuming there are 2.7 billion poor people, this implies a BOP market size of \$1.2 trillion, at PPP in 2002. Even this is an overestimate. From the perspective of a multi-national company from a developed country, profits will be repatriated at the market exchange rates, not at PPP rates. In that case, the global BOP market is less than \$0.3 trillion, compared to the \$11 trillion economy in the US alone – making the BOP a difficult place to look for a fortune.

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<sup>1</sup> Actually there is much confusion in the BOP field here. Prahalad and Hart (2002) state that there are 4 billion people with per capita income below \$1500 per year. Prahalad and Hammond (2002) assert there are 4 billion people with per capita income below \$2000 per year. Prahalad (2004, p.4) states that there are more than 4 billion people with per capita income below \$2 per day. I adopt the \$2 per day criterion to be consistent with the vast previous literature in development economics. How to alleviate poverty depends on the definition of poverty. People who consume less than \$2 per day have very different needs and

## No Fortune

Not only is the BOP market quite small, it is unlikely to be very profitable, especially for a large company. The costs of serving the markets at the bottom of the pyramid are very high. The poor are often geographically dispersed (except for the urban poor concentrated into slums) and culturally heterogeneous. This dispersion increases distribution and marketing costs and makes it difficult to exploit economies of scale. Weak infrastructure (transportation, communication, media, and legal) further increases the cost of doing business. Another factor leading to high costs is the small size of each transaction.

Poor people are, of course, price sensitive. “Companies assume that poor people spend only on basic needs like food and shelter.” Prahalad and Hammond (2002) disagree, stating that “such assumptions reflect a narrow and largely outdated view of the developing world. ...In fact, the poor often do buy ‘luxury’ items.” The poor spend about 80% of their meager income on food, clothing and fuel alone (Gangopadhyay and Wadhwa, 2004). This clearly does not leave much room for luxuries!

Companies following the BOP proposition often fail because they overestimate the purchasing power of poor people and set prices too high. Virtually none of the examples cited by BOP proponents support the recommendation that companies can make a fortune

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priorities than people who consume \$2 to \$6 per day; adopting the higher poverty line would obscure these differences.

by selling to the poor. Several of the examples that apparently support the BOP proposition involve companies that are profitable by selling to people well above the \$2/day poverty line, but who seem poor to a Western researcher.

### **Casas Bahia**

The case of Casas Bahia has been cited as an illustration supporting the BOP concept. The firm has become a large retailer in Brazil by “converting the BOP into consumers. ... Casas Bahia carries and sells top-quality brands: Sony, Toshiba, JVC, and Brastemp (Whirlpool). There is a misconception that because customers are poor they do not desire quality products” (Prahalad, 2004, page 131). Now, it is undeniably true that poor people desire quality products; the problem is that they can not afford such products. As mentioned earlier, Prahalad defines the BOP to be income below \$2 per day. But, he also states that the Casas Bahia customers have an “average monthly income twice the minimum wage (R\$400)”, that is equivalent to income of \$800 per month at PPP (Prahalad, 2004, p. 119). Even assuming only one earner per household and four people in a household, this implies per capita income of \$6.66 per day, well above the \$2 per day poverty line.<sup>2</sup> The company is a big, profitable retailer but has little to do with the BOP proposition if the poverty line is defined as Prahalad does.

### **Iodized Salt**

Iodized salt is an effective and inexpensive way to prevent iodine deficiency, especially in developing countries. A problem is that some of the iodine in salt is lost in the process

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<sup>2</sup> Elsewhere, Prahalad (2004, p. 119) also states that Casas Bahia customers have a family income of above R\$2,000 per month, which would imply a per capita income of above \$16.66 per day.

of storage, transportation and cooking. Hindustan Lever Limited (HLL), the Indian subsidiary of Unilever, has developed a proprietary micro-encapsulation technology to stabilize the iodine content in salt. Prahalad (2004) cites the case of Annapurna salt marketed to the bottom of the pyramid by HLL.

But, the fact is that the penetration of Annapurna salt among the poor is miniscule.<sup>3</sup> Annapurna salt is priced at Rs. 7.5/kg (equivalent to \$0.85/kg at PPP), the same as the market leader Tata salt; whereas numerous small regional producers sell iodized salt at Rs. 2/kg (Prahalad, 2004, page 181). At a price premium of 275%, not too many poor people see it as a bargain. Annapurna may be a profitable business based on a good product embodying a valuable technology, but it is not an example supporting the BOP proposition.

### **Coca-Cola**

Balakrishna and Sidharth (2004) applaud Coca Cola in India for launching in 2003 its low-price, affordability strategy, which hinged on raising the overall consumer base by offering carbonated soft drinks in smaller pack sizes of 200 ml at Rs. 5, which is equivalent to \$0.57 (at PPP). This is 'affordability' for the Indian poor?! Coca Cola's BOP initiative is certainly not helping the poor. Nor is it helping Coca Cola. Facing declining profits, the company reversed this low-price strategy in August 2004 (Bhattacharya, 2005).

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<sup>3</sup> The branded salt market in India accounts for only 20-30% of the total market; the rest of the market is served by the unorganized sector. Annapurna is the second largest with a market share of 35% of the branded sector, which implies a share of 7-10% of the total market. Given the price premium of the branded salt, it is unlikely that many poor people buy branded salt.



## **Ice Cream**

“Amul, a large Indian dairy cooperative, found an instant market in 2001 when it introduced ice cream, a luxury in tropical India, at affordable prices (2 cents per serving). Poor people want to buy their children ice cream every bit as much as middle-class families, but before Amul targeted the poor as consumers, they lacked that option” (Hammond and Prahalad, 2004). Actually, according to Amul’s website in 2006, their cheapest ice cream sells for Rs. 5 – equivalent to \$0.57 (at PPP) for a 50ml serving (a rather small serving). Not too many poor people living on less than \$2 per day will find this ice cream a bargain.

Till Amul entered the Indian ice cream market in 2001, HLL was the largest firm in this market. Prahalad and Hart (2002) commend Hindustan Lever for radical innovation that allows ice cream to be transported across the country cheaply in non-refrigerated trucks, and thus reach the BOP market. The reality is that in 2002 Hindustan Lever decided to compete on differentiation rather than on price, and brought its focus down to six cities only (Kamath, 2002; Bhattacharya, 2004). After this change in strategy towards the very top of the pyramid, HLL made a profit in the ice cream business for the first time ever.

## **Single Serve Revolution: A Dud**

The single most mentioned example in the BOP literature is shampoo sold in sachets to the poor. "A single-serve revolution" is sweeping through poor countries, as companies

learn to sell small packets of various products such as shampoo, ketchup, tea, coffee, biscuits, and skin cream. It is interesting to note that the pioneer of this revolution was CavinKare, an Indian start-up firm which first introduced shampoo in sachets in 1983, and not MNCs such as Unilever and P&G with their technological and marketing prowess. “A rapidly evolving approach to encouraging consumption and choice at the BOP is to make unit packages that are small and, therefore, affordable” (Prahalad, 2004, page 16).

This is a fallacy. Companies might prefer to sell small packages at lower profit margins to encourage trial and brand sampling. The poor might prefer small packages because of convenience and managing cash flow. The poor find it difficult to save money due to lack of security and lack of banking services. The poor might not have the money to buy a bottle of shampoo, but could buy shampoo sachets for occasional use. This does create value for the poor, and can thus lead to increased consumption. But, it does not increase ‘affordability’, which is a function of per unit price. A customer might be ‘fooled’ into thinking a smaller package is more affordable.<sup>4</sup> Small packages also increase consumption by facilitating impulse buying. It is common for *paanwallas* (small kiosks selling tobacco and other sundry products) in India to sell single cigarettes resulting in increased consumption. In Malaysia, ‘samsu’ (the generic name for cheap liquor) is sold in small bottles of 150ml.

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<sup>4</sup> This is the reason why supermarkets in the USA are required to display per unit price in addition to price per package.

Even though small packages create value by increasing convenience, they definitely do not increase ‘affordability’. The only way to increase real affordability is to reduce the per unit price. By the BOP logic, an easy way to solve the problems of hunger and malnutrition would be to sell food in smaller packages thus making it more affordable to the poor! HLL sells Annapurna salt in a small package size to target the BOP market, but at exactly the same unit price as larger packages. (Recall that Annapurna salt sells at a 275% price premium to unbranded salt.) It is not surprising that small packages of Annapurna “have been slow to penetrate mass markets; however, they have been successful in surprise niche markets such as college students living in hostels” (Pralhad, 2004, page 186).

Pralhad (2004, page 57) recognizes the negative impact of the proliferation of single serve packages on the environment. He then optimistically dismisses the problem by arguing that MNCs have both the incentives and resources to solve the environmental problem. But, it has been over twenty years since the first introduction of shampoo in sachets, and companies have not yet solved the environmental problem caused by plastic packaging. This problem is exacerbated in poor villages and slums where trash collection facilities are grossly inadequate.

### **Financing schemes**

“More BOP consumers in Brazil are able to buy appliances through Casas Bahia because the firm provides credit even for consumers with low and unpredictable income streams. ... Casas Bahia is able to provide access to high-quality appliances to consumers who

could not otherwise afford them” (Prahalad, 2004, page 17). The BOP proposition again falls prey to a fallacy: providing credit does not change the affordability of a product, even though it may provide some other value to the poor. The finance term for Casas Bahia ranges from four months to one year, with an average of six months. The customer can choose between saving money for six months and buying the appliance later, or buying now and repaying the loan over the next six months. The financing scheme does provide value: instant gratification; for the privilege of this instant gratification, the consumer pays an interest rate of over 4% per month. It does not change whether the customer can really ‘afford’ the appliance.<sup>5</sup> People with “low and unpredictable income” would be well advised to save and pay in cash; this will enable them to do a better job of comparison shopping too.<sup>6</sup> It is not surprising that many of Casas Bahia’s customers do not understand well how to unbundle the purchase price and the interest cost and instead focus on the monthly installment payment (Aparna, 2005).

### **Role of MNC**

An important element of the BOP proposition is that MNCs should take the lead role in the BOP initiative to sell to the poor (Prahalad and Hart, 2002). In fact, to the extent that there are opportunities to sell to the poor, it is usually small to medium sized local enterprises that are best suited to exploiting these opportunities. Markets for selling to the poor usually do not involve significant economies of scale. Markets at the BOP are

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<sup>5</sup> The only way many people can buy a house is to get a long term mortgage loan. That argument does not apply to a 6-12 month loan to buy a television.

<sup>6</sup> In a similar vein, consumer groups in the USA advise low income people not to buy appliances from ‘rent to own’ stores (for example, Consumers League of New Jersey, 2006).

often geographically and culturally fragmented; this combined with weak infrastructure makes it hard to exploit scale economies. Products sold to the poor are often less complex reducing the scale economies in technology and operations. As examples, bicycles are less scale intensive than motorcycles; fans are less scale intensive than air-conditioners; unprocessed food is less scale intensive than processed food. Products sold to the poor are also usually less marketing and brand intensive, further reducing scale economies. It is interesting, and not accidental, that in spite of the BOP emphasis on MNCs, virtually all the examples cited in Prahalad's (2004) book are fairly small or local organizations, but not MNCs.

Through their decades of on-the-ground experience in poor countries, MNCs have probably already realized that there is no fortune at the bottom of the pyramid, or that they have no competitive advantage here, and thus have avoided major investments in this illusory market. This may be a good thing, since MNCs might otherwise inhibit the emergence of local private entrepreneurs who provide economic as well as non-economic benefits to society (e.g. as community leaders).

### **Harmless Illusion or Dangerous Delusion**

I have argued that the BOP market is quite small. Moreover it is not a very profitable market. This is not to suggest that there are no success stories of selling to the poor. But these are isolated instances. Opportunities for profit by selling to the poor are not nearly as pervasive as the BOP proposition argues. It is interesting to note that the BOP

proposition emphasizes opportunities for significant profits, and yet cites many 'supporting' examples of not-for-profit organizations. If a private company is motivated not by economic profits, but by social responsibility, then of course there are many opportunities for marketing to the poor. Yet, Prahalad (2004, p.6) explicitly rejects corporate social responsibility as the basis for BOP initiatives.

The BOP proposition is based on a mirage. There is no fortune to be made by selling to the poor. Even if the BOP proposition is an illusion, we should perhaps try the solution given the high stakes involved. Or, is it true that the BOP proposition can hurt the very people it is trying to help? In that case the BOP proposition is actually a dangerous delusion. Which is it: a harmless illusion or a dangerous delusion?

### **Exploitation of the Poor**

The BOP proposition suggests that the consumption choices available to the poor can be increased by targeting various products and services, such as shampoo, iodized salt and televisions, at the BOP. Holding the poor consumer's income constant, the only way he can purchase the newly available product is to divert expenditure from some other product. Still, this increased choice will increase his welfare, assuming he is a 'rational' consumer. However, as a practical matter, this is unlikely to result in a significant change in his poverty situation. Additionally, if for some reason, the poor consumer is irrational in his resource allocation choice, the BOP initiative might even result in reducing his welfare. The BOP initiative could result in the poor spending money on products such as

televisions and shampoo that would have been better spent on higher priority needs such as nutrition and education and health. Prahalad dismisses such arguments as patronizing and arrogant; how can anybody else decide what is best for the poor? He argues that the poor have the right to determine how they spend their limited income and are in fact value-conscious consumers; the poor themselves are the best judge of how to maximize their utility. This is free market ideology taken to an extreme, and is a potentially dangerous aspect of the BOP proposition.

The poor in fact are vulnerable by virtue of lack of education (often they are illiterate), lack of information, and economic, cultural and social deprivations. A person's utility preferences are malleable and shaped by his background and experience, especially so if he has been disadvantaged. We need to look beyond the expressed preferences and focus on people's capabilities to choose the lives they have reason to value. Amartya Sen (2000, page 63), the Nobel Prize economist, eloquently states:

“The deprived people tend to come to terms with their deprivation because of the sheer necessity of survival, and they may, as a result, lack the courage to demand any radical change, and may even adjust their desires and expectations to what they unambitiously see as feasible. The mental metric of pleasure or desire is just too malleable to be a firm guide to deprivation and disadvantage. ... Social and economic factors such as basic education, elementary health care, and secure employment are important not only in their own right, but also for the role they

can play in giving people opportunity to approach the world with courage and freedom.”

There are very few micro-level studies on the purchasing behavior of the poor. In an excellent survey on the choices the poor make, Banerjee and Duflo (2006) show that the poor “could easily save more without getting less nutrition by spending less on alcohol, tobacco, and food items such as sugar, spice and tea.” The data suggest that the poor lack self-control, yield to temptation, and spend to keep up with their neighbors. In this they are no different than people with more money, but the consequences of bad choices are more severe for the poor. Efraymson and Ahmed (2001) tell a moving, but not uncommon, story of Hasan, a rickshaw puller, who spends \$0.20/day on tobacco. When asked if his three children ever eat eggs, he exclaimed, “Eggs? Where will the money come from to buy them?” If Hasan didn’t buy tobacco, each of his children could eat an egg a day, or other nutritious foods, and be healthier as a result. For more affluent people the consequences of smoking are not as bleak as children’s malnutrition.

We should not romanticize the poor as ‘value conscious consumers’ (Prahalad, 2004, p.1). The problem is that the poor often make choices that are not in their own self interest. We examine below the consumption choices of the poor in the context of two products: alcohol and whitening cream.

## **Poverty and Alcohol**



Alcohol consumption is a financial drain for the poor. The poor in India spend about 3% of their household income on alcohol and tobacco (Gangopadhyay and Wadhwa, 2004). Baklien and Samarasinghe (2004) in their in-depth field study find that “over 10 % of male respondents report spending as much as (or more than!) their regular income on alcohol.” Sadly, the poorer people spend a greater fraction of their income on alcohol than the less poor. Aside from the direct financial cost, alcohol abuse imposes other economic and social costs such as work performance, health, accidents, domestic violence and child neglect. There is much evidence showing that alcohol abuse exacerbates poverty.

Should the poor have the right to consume, and even abuse, alcohol? Yes. Is it in their self interest to do so? Undoubtedly, no. Should companies have the right to profit from sale of alcohol to the poor? Yes, but even in rich, capitalist economies the governments put some constraints on this right, such as ‘sin taxes,’ restrictions on advertising, and sale to minors. Yet, legal and social mechanisms for consumer protection are often very weak in developing countries, and even more so with regard to poor people.

### **Whitening Cream**

Hammond and Prahalad (2004) cite the example of a poor woman expressing pride in being able to use a fashion product, Fair & Lovely, a skin cream marketed by Unilever. “She has a choice and feels empowered.”

One TV advertisement for Fair & Lovely aired in India “showed a young, dark-skinned girl’s father lamenting he had no son to provide for him, as his daughter’s salary was not high enough – the suggestion being that she could not get a better job or get married because of her dark skin. The girl then uses the cream, becomes fairer, and gets a better-paid job as an air hostess – and makes her father happy” (BBC News, 2003). The All India Democratic Women’s Association campaigned against this and another advertisement as being racist, discriminatory, and an affront to women’s dignity. Ravi Shankar Prasad, Minister of Information and Broadcasting, said “Fair & Lovely cannot be supported because the advertising is demeaning to women and women’s movement” (The Economic Times, 2003). Unilever has since discontinued these two advertisements in India.

Indian society, like many others, unfortunately suffers from racist and sexist prejudices. This leads many women to use skin lightening products, sometimes with negative health side-effects (Browne, 2004). Hammond and Prahalad (2004) argue that the poor woman “has a choice and feels empowered because of an affordable consumer product formulated for her needs.” This is no empowerment! At best, it is an illusion; at worst, it serves to entrench her disempowerment. Women’s movements in countries from India to Malaysia to Egypt obviously do not agree with Hammond and Prahalad, and have campaigned against these products. The way to truly empower this woman is to make her less poor, financially independent, and better educated; we need social and cultural changes that eliminate the prejudices that are the cause of her deprivations.

Should women have the right to buy Fair & Lovely? Yes. Should Unilever have the right to make profits by selling these products? Yes; Unilever after all did not create the prejudices that feed the demand for this product. Yet, it is likely that the company helps to sustain these prejudices, however unwittingly. In any case, we should impose some constraints on this right in terms of truth in advertising, full disclosure of ingredients in the product and its potential side effects. Even in rich capitalist countries, governments impose restriction on free markets to protect consumers in various ways, such as regulations related to labeling disclosure, truth in advertising, and marketing to minors. Consumer movements are active in areas where there are no legal restrictions, such as the recent pressure on McDonald's to introduce healthful meals. Such consumer protection, both legal and social, is inadequate in the developing countries. This is even more true in the context of selling to the poor, who often lack the information and education needed to make well informed choices.

The BOP proposition is not satisfied with just giving the company the right to sell skin lightening cream. It goes further and commends the company for empowering women and helping eradicate poverty. This position is morally problematic.

### **Raise Income**

Not only is there no fortune, there is not even glory at the bottom of the pyramid. It is a fallacy to claim that there is much 'untapped' purchasing power at the BOP. The poor, in fact, obviously consume most of what they earn, and as a consequence have a low

savings rate. Contrary to the BOP argument, getting the poor to consume more will not solve their problem. Their problem is that they cannot afford to consume more.

The only way to help the poor and alleviate poverty is to raise the *real* income of the poor. There are only two ways to do this: 1) lower prices of the goods that the poor buy, which will in effect raise their income, and 2) raise the income that the poor earn.

### **Lower Prices**

One way to alleviate poverty is to reduce the prices of the goods and services the poor buy (or would buy), thus increasing their effective income. To have a significant impact on the purchasing behavior of the poor, the BOP proposition calls for price reductions of over 90%. This is too ambitious a target and rarely achieved; let us consider instead price reductions of at least, say, 50%

There are only three ways to reduce prices: 1) reduce profits, 2) reduce costs without reducing quality, and 3) reduce costs by reducing quality. If it is true that the average profit margin in a market is well over 50%, we should certainly endeavor to make the market more 'efficient' and reduce monopoly profits resulting in significant price reduction. Even allowing for the fact that the poor are often subject to local monopolies, this must be a rare situation. Therefore, the only realistic way to reduce price to the consumer is to reduce cost of the producer. The BOP proposition is adamant that we should not reduce quality in this process.

Unless all current producers are grossly inefficient, business process redesign will not reduce cost by over 50% without reducing quality. A significant improvement in technology could reduce costs dramatically. Good examples of this are found in the areas of computers, telecommunications and various electronic products. It is difficult to find examples of such dramatic cost reduction in other product categories. Thus it is not surprising that the BOP proposition repeatedly uses the same examples. Note that the ultimate impact on the real income of the poor due to these major price reductions is quite low because the poor spend only a small part of their income on such electronic products. Rather they spend over 80% of their income on food, clothing and fuel – products that have not benefited from such dramatic technological changes in a long time.<sup>7</sup>

At times the BOP proposition exaggerates the price reduction achieved, by making inappropriate comparisons. A frequently cited example in the BOP literature is the Aravind Eye Care System, a not-for-profit organization in India. It has been claimed (Prahalad, 2004, page 29) that Aravind has reduced the cost of a cataract operation to \$25 to \$300 compared to \$2,500 to \$3,000 in the USA. Aravind is an excellent organization that has reduced costs through scale economies, specialization and process design. But, the above comparison exaggerates its achievement. First, to be consistent, Aravind's costs should be converted into dollars at PPP rates, not at financial exchange rates (Prahalad, 2004, page 269). Second, several factors lead to high health care costs in the USA such as high labor costs for doctors, nurses and para-medics, high administrative costs due to the third party payment system, and malpractice insurance. Most estimates

suggest medical treatment costs in India are about one-tenth of those in the USA (Marcelo, 2003). Comparing Aravind's costs to costs in the USA is irrelevant. For example, the cost of a haircut in a small Indian town is similarly dramatically lower than in the USA. This does not imply any breakthrough achievement by the Indian hair salon.

The appropriate comparison is between Aravind and a hospital in India. Private hospitals in India charge about \$350 for cataract surgery (Puri, 2003); this is about what Aravind charges its patients who are not indigent. It is, of course, true that Aravind subsidizes the poor patients, asking them to pay only \$30 (and more if they can afford it). The surgeons and staff work grueling hours for pay comparable to government hospitals because they are highly dedicated to the cause. Still, retention is a problem and a quarter of the staff defect annually to better paying jobs in the private sector (Miller, 2006). Overall, Aravind is clearly more efficient than a typical hospital in India. All this is not to detract from recognizing Aravind as an innovative organization, but the BOP proponents exaggerate the price reduction achieved by it.

### **Cost-quality trade-offs**

Contrary to the BOP proposition, it is often necessary to reduce quality in order to reduce costs; the challenge is to do this in such a way that the cost-quality trade-off is acceptable to poor consumers. A good example of this logic is the low-price detergent introduced by Nirma in India. In 1969 Karsanbhai Patel started a small business to sell a cheap detergent powder he had formulated in his kitchen. The quality of Nirma was clearly inferior to that of Surf, the product marketed by Hindustan Lever, the Indian subsidiary of

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<sup>7</sup> The 'Green Revolution' in the 1940s to 1960s did significantly reduce agricultural costs.

Unilever. “Nirma contained no ‘active detergent’, whitener, perfume, or softener. Indeed tests performed on Nirma confirmed that it was hard on the skin and could cause blisters” (Ahmad and Mead, 2004). Largely because of this Nirma sold at a price about one-third the price of Surf. Nirma rapidly became a success. In 1977, Surf had a market share of 31 % compared to 12% for Nirma. Ten years later in 1987, the market share of Surf had come down to 7% while that of Nirma had gone up to 62%. Contrary to the BOP proposition, the poor do like inexpensive, low-quality products! This is not because they cannot appreciate or do not want good quality. They simply cannot afford the same quality products as the rich; so, they have a different price-quality trade-off. They are even willing to put up with a detergent that sometimes causes blisters!

Most often, reducing costs while reducing quality does not require a major technological advance. Prahalad and Hart (2002) admire the R&D prowess of Unilever to harness state-of-the-art technology to serve the poor. Yet in this famous example of Nirma, it was a lone chemist who formulated the product in his kitchen.

Nirma is a perfect example of a win-win situation. The company has created a large market and made significant profits. The poor are better off now that they can buy an affordable detergent. In a real sense they are economically better off. We need more products like Nirma. Unfortunately, examples like Nirma are not common.

Selling inexpensive, low-quality products does not hurt the poor (as long as they understand any tradeoffs related to safety). Insisting on not lowering the quality actually

hurts the poor by depriving them of a product they could afford and would like to buy. The BOP proposition argues that selling low quality products to the poor is disrespectful. Quite the contrary, imposing our price-quality trade-off on the poor is disrespectful of their preferences. The myth is that low-quality implies terrible, shoddy, or dangerous products. It is better to think of quality as a relative concept.

### **Quality broadly defined**

Garvin (1987) develops a framework for analyzing quality by considering eight dimensions of quality: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. To further expand this concept, other dimensions might be added such as availability, timeliness, convenience, and customization. The customer takes into account all these dimensions and arrives at a subjective judgment of the overall quality of the product (or service), and is, by definition, willing to pay a higher price for a product with higher quality – this is the price-quality trade-off. Holding technology and firm capabilities constant, it costs more to produce higher quality products – this is the cost-quality trade-off. To profitably serve the poor, the firm needs to make the cost-quality trade-off in a manner consistent with the price-quality trade-off made by the target customer.

The BOP proposition correctly celebrates the ‘shared access’ model as a way to make products more affordable to the poor. A successful business model is for the poor to share or rent products such as cell phones. The poor, like the rich, would prefer to



exclusively own a cell phone; but the poor make a price-quality trade-off and opt to share a phone.<sup>8</sup>

### **The Poor as Producers**

I argue for the need to view the poor primarily as producers, not as consumers. Rather than emphasizing selling to the poor, we should emphasize buying from the poor. By far the best way to alleviate poverty is to raise the income of the poor. The BOP proposition focuses on the poor primarily as consumers; it does however sometimes cite examples of organizations that treat the poor as producers. In discussing solutions to poverty, it is useful to conceptually separate the role of the poor as consumers and producers.

The best antidote to poverty is economic growth. There is much evidence linking poverty reduction to economic growth – the so called ‘trickle down’ or ‘multiplier effect’. But, the trickle down effect may be too little and too slow. We need to target programs specifically at poverty reduction rather than just wait for the general multiplier effect to kick in. The recent political changes – disillusionment with market liberalization and a drift to the populist left -- in several South American countries (such as Venezuela, Bolivia, and Nicaragua) support such a direct emphasis on poverty reduction.

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<sup>8</sup> The rich too make similar trade-offs, witness the growing business of fractional ownership of vacation homes and private jets.

## **Microcredit**

The Nobel Peace Prize for 2006 was awarded to the Grameen Bank in Bangladesh and its founder Muhammad Yunus, a pioneer of the microcredit movement. The Nobel Committee affirmed that microcredit must play "a major part" in eliminating poverty. Microfinance has been around for a long time, and there has been much proliferation. The pioneers in the field of microfinance were charitable social organizations that by intent have been barely profitable, but did seek to be sustainable. More recently, large banks and insurers have been attracted to this field by the potentially lucrative market; ICICI Bank, cited by Prahalad (2004) is a good example. The United Nations, having designated 2005 as the International year of Microcredit, declares on its website, "currently microentrepreneurs use loans as small as \$100 to grow thriving business and, in turn, provide their families, leading to strong and flourishing local economies."

Given this intensity of interest in microcredit and the resources devoted to it, it is reasonable to ask how profitable it is and whether it is really an effective tool for eradicating poverty. While some institutions are clearly profitable, industry-wide data is much less positive. Of 7,000 microfinance institutions, fewer than 100 claim financial self-sufficiency (Prahalad, 2004, p. 293) – presumably an even smaller fraction is economically profitable.

Microcredit often yields non-economic benefits for its clients, such as increasing self-esteem and social cohesion, and empowering women. It also helps the poor smooth consumption over periods of cyclical or unexpected crisis. But, that is not enough; the

key issue is whether microcredit helps eradicate poverty. *The Economist* magazine (2006) concluded that while “heart-warming case studies abound, rigorous empirical analyses are rare.” In a literature survey, Khawari (2004) concluded that, while the empirical evidence is mixed, microcredit probably does reduce poverty. Based on a survey of households in Bangladesh, Morduch (1998) concluded that microcredit does not result in the alleviation of (income) poverty, but rather has an impact on the reduction of vulnerability. A few studies have even found that micro-credit has a negative impact on poverty; poor households simply become poorer through the additional burden of debt (Hulme and Mosley, 1996). However, most studies suggest that microcredit is beneficial but only to a limited extent (The Economist, 2006). The reality is less attractive than the promise.

Why is microcredit not more effective? The problem lies not with microcredit but rather with microenterprises. The United Nations’ declaration that microentrepreneurs use loans to grow thriving businesses leading to flourishing economies is hype. A client of microcredit is an entrepreneur in the literal sense: she raises the capital, manages the business and is the residual claimant of the earnings. But, the current usage of the word ‘entrepreneur’ requires more than the literal definition. Entrepreneurship is the engine of Joseph Schumpeter’s dynamism of ‘creative destruction.’ An entrepreneur is a person of vision and creativity who converts a new idea into a successful innovation, into a new business model. Some clients of microcredit are certainly true entrepreneurs, and have created thriving businesses – these are the heart-warming anecdotes. But the vast majority of microcredit clients are caught in subsistence activities with no prospect of

competitive advantage. The self-employed poor usually have no specialized skills and often practice multiple occupations (Banerjee and Duflo, 2006). Many of these businesses operate at too small a scale. The median business operated by the poor has no paid staff; most of these businesses have very few assets as well. With low skills, little capital and no scale economies, these businesses operate in arenas with low entry barriers and too much competition; they have low productivity and lead to meager earnings that cannot lift their owners out of poverty. There is little evidence to support Prahalad's (2004, p.1) assertion that the poor are 'resilient and creative entrepreneurs.'

This should not be too surprising. Most people do not have the skills, vision, creativity, and persistence to be true entrepreneurs. Even in developed countries with higher levels of education and infrastructure, about 90% of the labor force are employees rather than entrepreneurs. Even with greater availability of financial services in developed countries, only a small fraction have used credit for entrepreneurial purposes. Most clients of microcredit are not microentrepreneurs by choice and would gladly take a factory job at reasonable wages if possible. We should not romanticize the poor as 'creative and resilient entrepreneurs'. The International Labor Organization (ILO) uses a more appropriate term: 'own account workers.'

## **Employment**

Creating opportunities for steady employment at reasonable wages is the best way to eradicate poverty. There is much empirical evidence showing that "creating decent employment opportunities is the best way to take people out of poverty. In addition, there

is a strong link between productivity and decent work” (ILO, 2005). In development economics there is much theoretical and empirical support for the increasing preponderance of wage labor in a developing economy. It is instructive to look at the pattern of poverty and employment over time in China, India and Africa (which together account for about three-quarters of the poor in the world) – see Tables 1 and 2, based on World Bank and ILO data (Majid, 2005)

**Table 1. Incidence of poverty**

	<b>People below \$2/day Late 1980s</b>	<b>People below \$2/day Late 1990s</b>
<b>China</b>	67.4%	50.1%
<b>India</b>	83.2%	78.8%
<b>Africa</b>	76.1%	76.1%

**Table 2. Employment pattern**

	<b>Employment/Population Late 1980s</b>	<b>Employment/Population Late 1990s</b>
<b>China</b>	51.0%	58.7%
<b>India</b>	29.5%	35.8%
<b>Africa</b>	33.4%	30.1%

In China, where the incidence of poverty has declined significantly, a large and growing fraction of the population is employed. In Africa, where the incidence of poverty has remained unchanged, a small and shrinking fraction of the population is employed.

India’s performance lies somewhere in between. India’s efforts at poverty reduction have been hampered by its poor performance in job creation, even though it has achieved

reasonable economic growth. India's 'jobless growth' is the result of a distorted emphasis on capital intensive and skill intensive development path (Kochhar, 2006). Capital intensive sectors, such as heavy manufacturing, and skill intensive sectors, such as information technology, will not solve India's poverty problem. The trickle down effects of general economic growth are too little and too slow. India needs to emphasize growth in labor intensive, low-skill sectors such as light manufacturing, garments and tourism. Seven world-class Indian Institutes of Technology do not compensate for 40% illiteracy rate!

### **Productivity**

Many people who have jobs are still stuck below the poverty line – the working poor. Whether an employee is 'poor' or not depends on her wages, size of the household, and the income of other household members. It is not enough to create jobs; we also have to increase productivity such that the wages are high enough to enable the employees to rise above poverty.

**Table 3. Working Poor**

	<b>Working poor/Employment Late 1980s</b>	<b>Working poor/Employment Late 1990s</b>
<b>China</b>	79.6%	35.2%
<b>India</b>	75.0%	62.0%
<b>Africa</b>	63.4%	65.4%

On this dimension too, India's performance is mediocre and the situation in Africa is dismal, as Table 3 indicates (Majid, 2005). One cause of this poor growth in productivity in India is inadequate scale economies in its enterprises. The average firm size in India is

less than one-tenth the comparable size in other emerging economies (Kochhar, 2006).

The emphasis on microcredit will only make this problem worse.

Rather than lending \$200 to 500 women so that each can buy a sewing machine and set up a microenterprise manufacturing garments, it is much better to lend \$100,000 to an entrepreneur with managerial capabilities and business acumen and help her to set up a garment manufacturing business employing 500 people. Now the business can exploit economies of scale, deploy specialized assets, and use modern business processes to generate value for both its owners and employees. Banerjee and Duflo (2006) points out that microentrepreneurs “do very little to create jobs for others. This of course makes it harder for anyone to find a job and hence reinforces the proliferation of petty entrepreneurs.”

There is, of course, no magic solution for increasing employment and productivity. Both the private sector and the government have a role to play here. Small and medium sized enterprises provide most of the jobs and generate most of the new employment in the development process. However, in various sectors of the economy, large enterprises are needed to exploit economies of scale. Companies can focus on growth in labor intensive industries, and increase labor productivity by achieving scale economies and upgrading the skills of employees. The profit motive alone is enough to drive companies in this direction.

### **Role of Government**

Governments need to facilitate the creation and growth of private (small, medium and large) enterprises in labor intensive sectors of the economy, through appropriate policies (such as de-regulation), infrastructure (such as transportation), and institutions (such as capital markets). Lack of good infrastructure results in geographically fragmented markets and firms that are too small to exploit scale economies. Small and medium sized enterprises need financing options – both debt and equity -- in the range of \$10,000 to \$1 million that are almost non-existent in developing countries (Shell Foundation, 2005). Reform of capital markets will enable many more local entrepreneurs to create jobs that employ the poor.

Poverty cannot be defined only in economic terms; it is about a much broader set of needs that permit well being. Development can be seen as a “process of expanding the real freedoms that people enjoy” (Sen, 2000). “The point is not the irrelevance of economic variables such as personal incomes, but their severe inadequacy in measuring many of the causal influences on the quality of life and survival chances of people”. The BOP proposition focuses on companies, marketing and prosperity; it sees the social, cultural and political benefits at best as by-products of economic gains. In contrast, I think that social, cultural and political freedoms are desirable in and of themselves, and also enablers of individual income growth. We should emphasize the role of the government and public policy in cultivating and safeguarding these other (non-economic) freedoms.



Virmani (2006) concedes that the improvement in social indicators in India has not kept pace with economic growth and poverty decline. This is the result of government failure to “fulfill the traditional, accepted functions of the government like public safety and security, universal literacy and primary education, public health education, provision of drinkable water, sanitation drains and sewage facilities, public health (infectious and epidemic diseases), building road, and creating and disseminating agricultural technology.” These functions have a direct and significant impact on productivity. While there has been a distinct shift in political ideology of the world towards an increasing role of the market (as opposed to the government), providing the above functions still needs to be in the public domain, especially in the context of helping the poor. There is much controversy around the issue of privatizing these functions, especially in countries with ‘failed’ governments (Oxfam, 2006). Even with privatization it is difficult to eliminate the role of the government. For example, if water supply is privatized, the government probably needs to regulate the rates or ensure that the poor have enough purchasing power to buy water.

### **Create Efficient Markets**

The poor often sell their products and services into inefficient markets and do not capture the full value of their output. Any attempt to improve the efficiency of these markets will raise the income of the poor. Amul, a large dairy cooperative in India, is a great example of this approach. Amul collects milk from 12 million farmers twice a day from 100,000 villages. It started by selling milk, but has since forward integrated into more value added products such as butter, milk powder, cheese, ice cream, and pizza. More recently

it has even entered direct retailing through franchising parlors. Amul is owned by the poor (it is a cooperative), and buys from the poor (the farmers, who are its members); however, its customers are mostly from the middle and upper income groups, and export markets.

Another example along similar lines is e-Choupal, an initiative of ITC in India (Prahalad, 2004). Based on an innovative business model, e-Choupal has brought efficiency to the system for moving soybeans from the individual farmer to oil processing plants. It has reduced the role of, and the rents captured by middlemen in this process. ITC views the poor farmers as producers. “Our e-Choupal is fostering inclusive growth and *enhancing the wealth creation capability of marginal farmers*” (emphasis added) says Y.C. Deveshwar, Chairman of ITC (The Hindu, 2006).<sup>9</sup>

### **Downside of the BOP Proposition**

Even if not intentional, a by-product of the BOP proposition is its de-emphasis of the role of the state in providing basic services and infrastructure. Actually, the BOP proposition goes even further. Prahalad is quoted as saying “if people have no sewage and drinking water, should we also deny them televisions and cell phones? ... It is absolutely possible to do well while doing good” (Time, 2005). The poor surely have a right to buy televisions; the issue is whether it is in their self interest to buy televisions. Prahalad and Hammond (2002) argue that the poor accept that access to running water is not a

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<sup>9</sup> E-Choupal is being extended to include supermarkets, which views the farmers also as consumers.

“realistic option” and therefore spend their income on things that they can get now that improve the quality of their lives.

Why do the poor accept that access to running water is not a realistic option? Even if they do, why should we all accept this bleak view? Instead, we should emphasize the failure of government and attempt to correct it. Giving a ‘voice’ to the poor is a central aspect of the development process. That is what the civil society is attempting to do (for example, Oxfam, 2006). Private companies at a minimum should not drown out the voice of the poor. For example, it is plausible that sustaining a social movement to empower women is more difficult in the pervasive presence of sexist advertisements, such as those for Fair & Lovely. Self-regulation by the private sector might be the solution.

Prahalad and Hammond (2002) describe the impressive extent of business activity in the slums of Dharavi (in Mumbai). “The seeds of vibrant commercial sector have been sown.” But, we should be cautious about celebrating this entrepreneurship too much. Sharma (2000) in her emotive book about Dharavi states that while enterprise in the midst of deprivation is to be admired, there is absolutely “nothing to celebrate about living in a cramped 150 sq. ft. house with no natural light or ventilation, without running water or sanitation.” The UN-Habitat estimates that in Dharavi there is one public toilet for every 800 people. This poses a bigger problem for women because of anatomy, modesty and susceptibility to attack. Televisions are not an adequate substitute for lack

of sanitation. Even if we concede that televisions help the poor to escape the burden of their bleak lives and thus provide some value, how do they help *eradicate* poverty?

To solve the problem of poverty, we need to go beyond increasing the income of the poor; we need to improve their capabilities and freedoms along social, cultural, and political dimensions as well. The role of the government is critical in some of these dimensions. By emphatically focusing on the private sector, the BOP proposition detracts from the imperative to correct the failure of government to fulfill its traditional and accepted functions such as public safety, basic education, public health, and infrastructure, all of which increase the productivity and employability of the poor, and thus their income and well-being.

### **Beyond the Hype**

The BOP proposition is characterized by much hyperbole and very weak research methodology. The fortune and glory at the bottom of the pyramid are a mirage. The fallacy of the BOP proposition is exacerbated by its hubris. Prahalad (2004, page 45) states that all the examples used in his book challenge the current paradigm. Selling appliances on credit – as does Casas Bahia – is not even a novel idea, let alone a new paradigm. Microcredit was pioneered by Muhammad Yunus forty years ago in 1976, long before ICICI came along. But, Prahalad (2004, page 10) is not content with changing paradigms, and asks us to change “our genetic code”!

The Millennium Development Goals adopted by the United Nations member states target the halving of extreme poverty in 25 years. Finding this pace too slow, Prahalad (2004, page 112) states “I have no doubt that the elimination of poverty and deprivation is possible by 2020.” But why be satisfied with only poverty eradication when so many other problems plague the world? Prahalad and Hammond (2002) argue that the BOP initiative will not only eradicate poverty, but also cure economic stagnation, deflation, governmental collapse, civil wars, and terrorism. And all this in 15 years!

Solving the crisis of poverty requires recommendations supported by logical analysis rooted in data, not exhortations based on unsupported assertions and hyperbole. The poor deserve no less.

### **Conclusion**

Private companies should try to market to the poor. However, the profit opportunities are modest at best and we suggest a cautious approach. Large companies that require scale economies should be even more hesitant. The best opportunities exist when the firm reduces price significantly by innovatively changing the price-quality trade-off in a manner acceptable to the poor.

The private sector can help alleviate poverty by focusing on the poor as producers. One way to do this is to make markets more efficient such that the poor capture more of the value of their outputs. Certainly the best way for private firms to help eradicate poverty

is to invest in upgrading the skills and productivity of the poor, and to help create more employment opportunities for them. This is the win-win solution; this is the real fortune at the bottom of the pyramid.

## References

- Ahmad, P.S. and J. Mead. 'Hindustan Lever Limited and Project Sting.' Darden Business Publishing, 2004.
- Aparna, K.Y. 'Casas Bahia.' ICFAI Center for Management Research, 2005.
- Baklien, B. and D. Samarasinghe. Alcohol and poverty in Sri Lanka. FORUT, Norway. Report available at <http://www.forut.no/index.php/15703-1>. 2004.
- Balakrishna, P. and B. Sidharth. 'Selling in rural India.' *The Hindu Business Line*, 16 February, 2004.
- Banerjee, A. and E. Duflo. 'The economic lives of the poor.' *Journal of Economic Perspectives*, 2006.
- BBC News. 'India debates 'racist' skin cream ads.' *BBC News*, 24 July, 2003.
- Bhattacharya, Sindhu. 'The ice-cream punch.' *The Hindu Business Line*, 24 June, 2004.
- Bhattacharya, Sindhu. 'Coke's challenge.' *The Hindu Business Line*, 14 July, 2005.
- Browne, K. 'An unhealthy idea of beauty.' *Ms*, Spring 2004.
- Consumers League of New Jersey. Website <http://www.clnj.org/index.htm>, 2006.
- Efroymsen, D. and S. Ahmed. 'Hungry for tobacco.' PATH Canada, 2001.
- Gangopadhyay, Shubhashis and Wilima Wadhwa. 'Changing pattern of household consumption expenditure.' Society for Economic Research & Financial Analysis, New Delhi, The Planning Commission, Government of India, 2004.
- Garvin, David .A., 'Competing on the Eight Dimensions of Quality.' *Harvard Business Review*, 1987
- Hammond, A. and C.K. Prahalad. 'Selling to the poor.' *Foreign Policy*, 2004.
- Hulme, D. and P. Mosley. Finance against poverty. Routledge, 1996.
- ILO. 'World Employment Report, 2004-05'. International Labor Organization, 2005.
- Kamath, Vinay. 'HLL tastes the cream finally.' *The Hindu Business Line*, 21 August, 2002.
- Khawari, Aliya. 'Microfinance: Does it hold its promises? A survey of recent literature.' Discussion Paper 276. Hamburg Institute of International Economics. 2004.
- Kochhar, K. et al. 'India's pattern of development: what happened, what follows?' *Journal of Monetary Economics*, 2006.
- Majid, N. 'On the evolution of employment structure in developing countries.' Employment Strategy Papers, International Labor Organization, 2005.
- Marcelo, R. 'India Fosters Growing 'Medical Tourism' Sector'. *The Financial Times*, 2 July, 2003.
- Miller, S. 'McSurgery: A Man Who Saved 2.4 Million Eyes'. *The Wall street Journal*, 5 August, 2006.
- Morduch, J. 'Does microfinance really help the poor? New evidence from flagship programs in Bangladesh.' Harvard Institute of International Development and Hoover Institution, Stanford University. [http://www.wws.princeton.edu/~rpd/downloads/morduch\\_microfinance\\_poor.pdf](http://www.wws.princeton.edu/~rpd/downloads/morduch_microfinance_poor.pdf). 1998.
- Oxfam. In the public interest. Oxfam International, 2006.
- Prahalad, C.K. Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits. Wharton School Publishing, 2004.
- Prahalad, C.K., and A. Hammond. 'Serving the world's poor profitably.' *Harvard Business Review*, 2002.

- Prahalad, C.K., and S.L. Hart. 'The fortune at the bottom of the pyramid.' *Strategy + Business*, 2002.
- Puri, N. 'FICCI seminar on Medical Tourism.' Available at <http://www.ficci.com/media-room/speeches-presentations/2003/dec/maxhealthcare.pdf>. 2003
- Sen, A. *Development as Freedom*. Anchor Books, 2000.
- Sharma, K. *Rediscovering Dharavi: Stories from Asia's Largest Slum*. Penguin Books India, 2000.
- Shell Foundation. *Enterprise Solutions to Poverty*. Shell Foundation. 2005
- The Economic Times. 'Ban for the buck.' *The Economic Times*, 2 April, 2003.
- The Economist. 'More or less equal.' *The Economist*, 11 March, 2004.
- The Economist. 'Macro credit.' *The Economist*, 19 October, 2006.
- The Hindu. 'ITC to invest \$1 b in e-Choupal infrastructure.' *The Hindu*, 4 January, 2006.
- Time. 'Selling to the Poor.' *Time*, 17 April, 2005.
- Virmani, Arvind. 'Poverty and hunger in India: what is needed to eliminate them.' Working Paper No. 1/2006-PC, Planning Commission, The Government of India, 2006.
- World Bank. *Data and Statistics Website*. <http://web.worldbank.org/wbsite/external/datastatistics>. The World Bank, 2005.