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Cycles of poverty and consumption: the sustainability dilemma

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Abstract

Purpose – The purpose of this paper is to discuss the dilemma of global sustainable economic development and poverty alleviation in the context of the environmental concerns.

Design/methodology/approach – A range of recently published literature focusing on the bottom of the pyramid (BoP) is reviewed. The arguments that are in favor and against the notion of poor being a "market" are examined. The implications of increased consumption by the poor even while the developed countries maintain their levels of consumption are discussed.

Findings – This paper argues that current levels of consumption by the developed world is not sustainable even as the world's poor begin to consume more to maintain a reasonable standard of living. New business models and models for sustainable development are called for.

Research limitations/implications – Sustainable development is an extremely complex issue and it is impossible to address this complexity in a single article.

Practical implications – The paper challenges businesses to develop new business models that have more stringent constraints imposed on them.

Originality/value – This paper challenges the current norm of unbridled growth. The paper calls for academicians and practitioners to develop new models.

Keywords Poverty, Sustainable development, Consumption, Economic growth, Globalization **Paper type** Conceptual paper

Imagine a "state of the world" speech to be delivered by an imaginary world leader seeking re-election. Would such a leader have much to say that would cause a majority of the global population to vote for him or her? We doubt it. More than half the world is poor and does not have access to clean water, energy, health services, education, employment, and reasonable housing. They do have access to disease, malnutrition, and poor sanitation.

The 2008 Copenhagen Consensus Report and the United Nations Millennium Development Goals (UNMDG) focus on several priorities for the future. These priorities appropriately focus on the causes and the consequences of global poverty and global warming. These challenges are closely connected. For instance, the rising sea levels caused by climate change could displace 200 million people, most of them poor (Stern, 2006). Taking a different perspective, economic development efforts focusing on poverty alleviation are likely to further exacerbate the problem of global warming. There is an urgent need to find new and integrated solutions. There is an urgent need to act.

In this paper, we discuss the issues of global sustainable development and some of the enterprise-based solutions that have been proposed in the recent past. In particular, we examine the relationships between sustainable development, poverty alleviation,



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environmental challenges, resource constraints, and consumption patterns and argue that we, as a human race, will need to make hard choices taking into consideration not only the benefits to ourselves, but also the costs to others.

It is estimated that almost four billion of the world's 6.5 billion people live on a meager \$2.00 per day (Prahalad and Hammond, 2002). While some of these four billion people have some hope, there are about a billion people who belong to the poorest countries that are failing – they see little hope of escaping poverty (Collier, 2007). Shepherd (2007) estimates that 420 million people are chronically poor and under current conditions are unlikely to ever break out of their poverty traps – they see no hope at all. Meanwhile, we see in the popular media an increasing number of examples of wealth accumulation by a few in amounts beyond comprehension. For example, the world's most expensive home sale (95 million US\$) took place in the USA in June 2008 (Clough, 2008). Of the world's population, 1 percent owns 40 percent of the world's wealth according to a UN study (Davies et al., 2008). While the last five years have seen unprecedented levels of global wealth creation, the number of chronically poor people has increased (Addison et al., 2008). This increase has taken place even while the UNMDG called for a 50 percent reduction in global poverty by the year 2015 (Addison et al., 2008). Our philosophical or ideological leanings notwithstanding, we should all be outraged by this situation. Obviously, prior attempts to alleviate poverty have failed. We need new solutions and we need them now.

As noted earlier, global warming is the other crisis we face. This issue has received a lot of attention in the recent past and there is no need to belabor the point in this paper. However, even though the United Nations Intergovernmental Panel on Climate Change (IPCC) asserted in their 2008 report that there is a 90 percent likelihood that global warming is caused by human activity, it still continues to be debated. While we agree with the IPCC assertion, we do not believe the debate is worth the effort. We take the position that global warming is a reality and we need to act on it. Both the global issues discussed here are neither unique nor new. Our concern is that there are no clear solutions being proposed. While notions like the triple-bottom line (TBL) (Elkington, 1994, 2004; Elkington *et al.*, 2006) have become part of the common lexicon and are laudable, we are concerned that they do not address the issues on a sufficient scale and quickly enough. To further compound the dilemma, we have succeeded in doing tremendous harm to the environment even while only one-third of the world's population has truly benefited from economic development.

In the following pages, we will briefly review the literature that focuses on enterprise-based solutions to poverty and climate change. We will then discuss the adequacy of these solutions given the magnitude of the problem and finally examine the dilemma of addressing economic growth and poverty alleviation on one side and the need to halt and possibly reverse the damage that has been done to our environment on the other side.

Traditional approaches to poverty alleviation has essentially focused on the role of government and non-governmental organizations in providing infrastructure, welfare programs, and programs to generate employment. However, more recent approaches have begun to emphasize the role of business in achieving sustainable development. For instance, the United Nations launched the Global Compact initiative in 2001 based on the recognition that businesses need to play a key role in sustainable development. The UN invites businesses and academic institutions to become members of the Global Compact

by signing a declaration to support its ten principles and report annually on them. The Global Compact has been attracting an increasing number of business participants from several countries and its membership currently stands at 5,600 businesses from 120 countries (UN Global Compact, 2008) signaling a recognition by businesses that they can play an important role in sustainable development. Similarly, the International Business Leaders Forum (IBLF) was started in 1994 by the Prince of Wales with the mission of "putting business at the heart of sustainable development" (IBLF Mission Statement, 2008). The IBLF has about 100 members representing some of the world's leading companies. The World Business Council for Sustainable Development has 200 members from 35 countries and is another chief executive, led initiative linking business with sustainable development and focuses on finding solutions to a range of issues from climate change to poverty.

Along with these developments, academicians in business schools and other researchers have introduced concepts like the TBL (Elkington, 1994; Elkington *et al.*, 2006). The TBL emphasizes the need for companies to assess themselves not only on their financial performance, but also on their social and environmental impact. By including these aspects of performance, companies demonstrate their commitment to satisfy the needs of multiple stakeholders (Senge, 2000) rather than the traditional approach of focusing on the maximization of shareholder wealth (Jensen, 2000). In essence, the TBL expanded the role of business beyond financial value creation to incorporate social and environmental outcomes. Elkington (2004) points out that he and his colleagues have been working towards TBL outcomes in response to the 1987 Brundtland Commission Report. They believe that sustainable development can only be achieved through the integration of the three dimensions of the TBL.

Prahalad and his colleagues (Prahalad and Hammond, 2002; Prahalad and Hart, 2002) proposed that most of the business world has ignored the world's poor who constitute a huge market – a fortune at the BoP. Their proposition has now attracted a lot of attention and has been the subject of conferences, articles, and books (Seelos and Mair. 2007). Prahalad and his colleagues argue that products and services need to be designed specifically for this market and that new business models that incorporate the enhancement of the earning capacity of the poor is an essential part of the equation. They point out that the poor have just enough income to support their day-to-day needs and are forced to make purchases in small quantities which, in turn, raises the per unit price (to them). Businesses need to develop products and services that are uniquely suited to these markets. Economies of scale (because of the large market) would enable businesses to decrease their production costs and offer these products and services to the poor at more affordable prices thereby improving their quality of life For businesses facing intense competition in traditional markets which are saturated, the poor constitute a new market segment and an avenue for growth. Prahalad and his colleagues use several examples from emerging economies like Brazil and India as evidence in support of their proposition.

In a sharp contrast to Prahalad's thesis, Karnani (2007, 2008) argues that the fortune at the BoP is merely a mirage. Karnani argues that, in reality, the poor have very limited resources and purchasing power to actually generate a fortune for the companies doing business with them. He claims that BoP proponents inflate the size and the purchasing power of this market and therefore economies of scale essential to serving these markets cannot be achieved. This is further compounded by higher distribution costs to these markets particularly in rural areas. Karnani objects to the notion of a fortune at the BoP

on both normative and pragmatic fronts. He asserts that on a macro scale, the limited anecdotal evidence provided by Prahalad and his colleagues is not representative of the conditions and capabilities of the poor. From the normative perspective, he is particularly concerned that Prahalad sees nothing wrong with the poor spending their limited financial resources to purchase luxury goods even while they do not have access to basic hygiene, clean water, and education. Karnani sees these as bad choices. He argues that instead of viewing the poor as consumers, we need to see them as producers, workers, and entrepreneurs and that a mix of entrepreneurship, jobs, and education will provide the help needed to move them out of extreme poverty. Karnani is particularly concerned that a consumption-based approach in a market where people are poor, have limited education, and suffer from poor health is simply setting them up for exploitation. He suggests that the BoP approach does not fully comprehend the magnitude of the problem of poverty on a global scale. While enterprise-based solutions might help to some degree, they are in general misguided. For instance, microfinance has become a popular prescription to address poverty. Most of the recipients of microfinance set up small businesses that are engaged "in subsistence activities with no prospect of competitive advantage" (Karnani, 2007, p. 104). Overall, Karnani goes on to argue that the impacts might be negative – in the absence of external controls, the poor might be exploited and by shifting the burden of development to businesses, the governments of these developing and emerging economies are being let off the hook and absolved of their responsibilities.

The arguments and propositions of Prahalad and his colleagues as well as Karnani have their merits. While both positions are concerned about the future of the poor, one of them emphasizes consumption and the role of the enterprise and the other emphasizes production and the importance of infrastructure. In the following paragraphs of this paper, we will present arguments to suggest solutions that take into consideration the positive aspects of their arguments. We will also bring into focus the limits to growth that need to be an integral part of any solution to poverty. As noted in our earlier review of the TBL literature, there is a need to bring into focus the issue of limited resources and the environmental impact of increased consumption. As noted by Galeotti (2007), there is a positive relationship between economic growth and environmental problems. This relationship is well understood and formed the basis of the Kyoto Protocol where most of the developed countries agreed to reduce their carbon emissions by 5 percent by 2012, while the emerging economies were not expected to do the same so that they would not be constrained by the imposition of limits.

The inclusion of environmental issues into the poverty alleviation debate brings to the foreground the current and urgent concerns with regard to global warming. These issues have received ample attention in the popular press. The IPCC 2008 report and the *United Nations Human Development Report* 2007-2008 have been explicit about the potential consequences of climate change (United Nations Development Program, 1998). We will therefore simply emphasize at this point that this is an important consideration in the context of poverty alleviation. As a case in point, let us consider the current global energy situation. The price of oil rose at an unbelievable rate in mid-2008. Many experts attributed this rise in the price of oil to the increasing demand for oil in the rapidly developing and growing economies of China and India. These countries are being successful at bringing their people out of poverty, which in turn has an impact on the environment. For example, while economic growth in India doubled, air pollution levels increased eightfold

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(Myers and Kent, 2004). Meanwhile, concerns about global warming have generated huge investments in ethanol plants, which in turn have caused a diversion of food (mostly corn) to fuel. As a result, corn prices have gone up. Since corn is also used as animal feed, this diversion of food to fuel has heavily impacted the price of meat and dairy products. Prices of food have raised globally setting up yet another arena for competition for resources. Rising food prices affect the poor in particular because they have to spend a large proportion of their income on necessities. Thus, the unintended consequence of an attempt to address global warming through the substitution of fossil fuels with bio-fuels has a negative impact on the poor. Since the sunk costs in ethanol plants are high, the barriers to exit are also high making a rectification of this situation very difficult.

Thus, the insidious relationship between poverty and the environment presents us with a dilemma of dealing with two major global issues. We need to break away from traditional linear responses to both problems and find solutions that can be sustained in the long-term. In order to develop these responses, we conceptualize the overall issue as tension between a poverty trap and a consumption trap that is perpetuated by resource constraints and the environmental consequences of our actions.

The poverty trap

We have so far discussed poverty in a very general sense along with some of the most recent developments that advocate the role of business in poverty reduction. Poverty entraps the poor in a vicious cycle (Sachs, 2005; Shepherd, 2007). They lack access to education and other basic resources like food, water, and energy. This lack of access to resources and consumption opportunities results in entire households being forced to spend most of their time working at low level jobs or gathering basic necessities in order to survive each day. This decreases their ability to access basic education and other capability building resources that will enable them to break out of the poverty trap. This lack of capability building traps the poor in poverty even at times of economic growth (Shepherd, 2007). There are also many structural reasons that cause the entrapment of the poor. For instance, the lack of infrastructure, particularly clean water, hygiene, and energy, are critical. Many suggest that this is a failure of governments around the world (e.g., Sachs, 2005; Karnani, 2007; Shepherd, 2007). Figure 1 shows a visual representation of the main causes that lead to a vicious circle of poverty that traps the poor at the individual

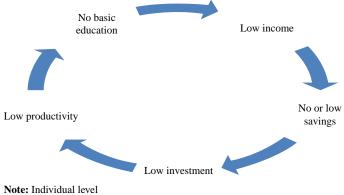


Figure 1.
The vicious circle of poverty

Source: Barke and O'Hare (1991, Figure 1, p. 43)

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level. A poor person cannot obtain sufficient food and has poor health and diet and is unable to get an education and therefore cannot work efficiently resulting in low productivity, leading to low income and no savings, and the circle continues. New solutions that will empower the poor financially, enabling them to break out of this poverty trap while positively impacting society and the environment, are urgently needed.

The consumption trap

On the other side of the spectrum, we note a pattern of increasing consumption with rising income levels. This pattern of consumption by the rich and the emerging middle class seems to be a trap in itself. While consumption and technological advancement are necessary for economic growth and development, the improvements (or seeming improvements) in technology cause us to want the latest products and this often leads to unnecessary and unwanted consumption, resulting in waste and pollution. According to the 1998 Human Development Report, the concentration of wealth in the hands of a few has led to highly disproportionate levels of consumption. While this tendency to consume may make sense at the individual level and promote economic growth in the relative short term, it has the potential for environmental disaster at the global level in the long term (Myers and Kent, 2004). However, while consumption improves the standard of living of the consumer and contributes to growth in gross domestic product (GDP), (for example, personal consumption expenditure makes up almost 70 percent of US GDP), it does not always increase the quality of life nor maintain the ecosystem on which economic agents depend. With rapid technological innovation and the accompanying planned product obsolescence, there is always the better product available and continuous inducement to buy a new model even while the old model works perfectly well. According to Myers and Kent (2004), there is a positive relationship between affluence and consumption and between affluence and environmental degradation.

Connecting the dots

Poverty, consumption, and the environment are interconnected and any attempt at affecting one has an impact on the other. They operate as a complex system and generate difficult problems for us to solve. As attempts are made to assist people out of poverty, the overall global levels of consumption will obviously increase and threaten the environment. However, it obviously does not make sense to leave people in poverty!

Perhaps, the dilemma can best be explained with an example. Tata Motors, an Indian automobile company launched the Tata Nano, a small car priced at \$2,500. This raised the concerns of environmentalists the world over. A review of some of the blogs (www.treehugger.com) indicated a debate over the advisability of such a car which was targeted at households who normally transported a family of four (husband, wife, and two young children) on a two-wheeler like a scooter or motorcycle. The car would be a safer mode of transport for such a family. The debate essentially focused on tension between the rights of a relatively poor person to own a small car and thus have access to safe transport and the environmental impact of many additional cars on the road. One of the comments made in relation to this issue focused on the morality of those who have three to four cars in their driveways raising questions about the new found ability of people in emerging economies to purchase only one small car. This example epitomizes the dilemma we face. How can the billions of poor people improve their standard of living and quality of life without exacerbating the disastrous environmental situation we have

on hand? Furthermore, is it possible for those who have a "good" standard of living to maintain it, while the poor improve their standards? We do believe there are limits to growth and that consumption has to be meaningful. We have endangered the planet with two-thirds of the world's population spending just \$2.00 a day or less.

As noted earlier, there are two traps that people of the world are caught up in - the poverty trap, that people would like to escape, but cannot due to external factors and the consumption trap, that people may not like to escape and in fact pursue with escalating commitment to a lifestyle of wasteful consumption. How, therefore, can we address the problems of poverty and the environment in a situation of finite resources even while we minimize the negative impacts on the environment?

According to the theory of marginal analysis and marginal utility, we have maximum social welfare and optimal consumption and production for the consumer and producer, respectively, when marginal benefit and marginal cost are equal. We are constantly faced with decisions that require us to make choices, which lead to changes in our current conditions both at the individual level as well as at the global level. Every choice we make has marginal benefits and marginal costs. If we are to help the poor break out of the poverty trap such that they avoid getting caught in the consumption trap, it is necessary to constantly compare the marginal benefits and marginal costs of every choice that is made. A simple rule to economic reasoning that will satisfy the TBL condition of economic, social, and environmental benefit is to weigh the marginal benefits and the marginal costs to society of our individual consumption choices. For businesses to be competitive and also satisfy the TBL, it is also important that they adopt the same reasoning. As long as the marginal benefits exceed the marginal costs of a consumption choice, then increasing consumption would be the better option. Failure to do so would lead to an inefficient outcome and keep people caught in the poverty trap. As income levels grow and consumption increases, enabling consumers to break out of the poverty trap, there is a fine line which if exceeded moves them into the consumption trap where marginal costs become greater than marginal benefits. This is equivalent to little or no personal savings and unnecessary and wasteful consumption. To be in balance with consumption and the environment, it would be optimal to consume where marginal benefit and marginal cost are in balance. In other words, a different approach to maximizing social welfare is to minimize consumption and increase personal individual savings. Growth in personal savings for consumers will provide businesses with more opportunities for investment in eco-friendly production which in turn would provide society with opportunities for sustainable development with minimal impact on the environment.

It is essential to distinguish for the purposes of this paper between levels of analysis. The line at which marginal costs exceed marginal benefits will differ at the individual and societal or global levels. It is aggregate levels of consumption at the global level that have the potential to trigger external costs that individual consumers may not see. Thus, even though we as individuals may feel that we are being reasonable in our consumption levels and demonstrate care to minimize our impact on the environment, by recycling and reusing, it is possible that with sufficient consumers we may still impact our environment negatively. It is critical therefore that we understand and pay attention to both local and global implications of our actions. A different and more sustainable path to economic growth is to reduce wasteful consumption, increase personal savings, and grow sustainable economies. To return to the issue of poverty and consumption, it becomes clear that as poverty alleviation efforts become stronger, we need to pay

- It will be essential to adopt consumption levels in developed economies that leave
 enough environmental room for populations from emerging economies to raise
 their consumption to a reasonable level. In other words, the developed world in
 particular and the wealthy from all over the world will need to reassess their
 consumption habits to enable sustainable economic development. This is perhaps
 the hardest choice we will have ahead of us. However, the consequences of not
 paying attention to this issue will be dire not just from an environmental
 standpoint it has implications for the future of world peace and more balanced
 economic development.
- We need to engage in activities that will enable consumer durables to last longer. Daly (1996) argued that we need to move from maximizing production efficiency to maximizing maintenance efficiency. For example, the costs of maintenance of household appliances are extremely high and often even the cost of diagnostics exceeds the cost of a new purchase. Consumers therefore have no incentives to repair appliances. High maintenance costs coupled with short product life spans and intended product obsolescence have a devastating effect on the environment.
- Products and services need to be designed so that they will have minimal impact on the environment. McDonough and Braungart (2002) discuss the importance of design with no waste. Products designed with their "cradle to cradle" design principles replenish the earth's resources for reuse. For example, McDonough and Braungart (2002) indicate that ants continue to be incredibly industrious and productive and have been around for millions of years, yet their production continuously enriches the group as well as the environment. In contrast, the technological progress of more than a century of industrialization has been accompanied by a decline in the ecosystem even while a majority of the world's population is trapped in poverty. In general, we have ignored the many lessons nature has to offer.
- Poverty alleviation is not a choice it is a moral imperative. However, we need to work on it with future generations in mind. We believe the poor can teach us lessons on how to conserve resources and use them wisely. They do that everyday to maximize the productivity of the minimal resources they have access to. We need to find ways to document and disseminate innovative ways of doing more with less in a sustainable manner. For example, the Dabbawalas (Anonymous, 2008) of Mumbai have made a name for themselves with their organizational skills, their high levels of productivity, and a miniscule carbon footprint combined with close to zero error rates. They have become an example and a case study for leading business schools in the world.
- Enterprise-based solutions to poverty will help speed up economic development
 for the poor. However, such solutions need to recognize that the poor who are
 intended to be the beneficiaries of such development are the people with the best
 understanding of their local conditions. They need to be part of the process
 of creating solutions. Externally imposed solutions have a high potential for
 failure. Development needs to be facilitated, not imposed.

- Enterprise-based solutions to poverty and environmental imperatives will require the development of new business models. The challenge for businesses will be to develop business models with an extra set of self imposed constraints derived from the values of sustainability. When these constraints are based on values, the likelihood that they will be violated is low. If the fortune at the BoP (as proposed by Prahalad) turns out to be a mirage (as suggested by Karnani), businesses will simply walk away from these markets and the urgent need to alleviate poverty. Instead, we need them to persist and make the models work and contribute to the TBL.
- It makes sense to combine Karnani's and Prahalad's recommendations. Locally based enterprises that create and provide infrastructural services like energy and water may help create the generative capacity in poor areas to enable them to engage in activities that improve their standard of living and their quality of life. For instance, E + Co helps finance energy entrepreneurs to bring clean affordable energy to the world's poor. These enterprises help generate employment, provide clean energy and give an impetus to the development of the area in a financially sustainable manner (www.eanco.net).

Overall, we believe that poverty must be addressed in a manner that protects and restores our environment. This can only be achieved in a sustainable manner if we pay attention to the TBL and all resources are preserved and regenerated. One critical and difficult step in this effort is to take a hard look at our own consumption patterns in the light of global poverty and global warming and make choices and sacrifices that are essential at this time. Moderation in consumption with concern for the quality of life of others is critical.

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