Introduction
Emerging markets are diverse and can require separate market entry and market development strategies. This paper will look at these opportunities through the lenses of the Value Flame at the Base of the Pyramid, and illustrate the model via a case study, to explore the potential of shifting paradigms in regard to emerging markets and to identify a leap in value for both consumers and producers. The purpose of this paper is to show that multinational corporations should stop viewing profit potential from emerging markets coming solely from the traditional strategy of sourcing lower cost / higher quality products from these areas, but also increasing revenue and global market share by designing and selling offerings in collaboration with the market. The BOP cannot be accessed by just modifying current global approaches, but instead companies must create a totally new approach. A standard Western marketing mix offering will not work with this group.

Literature Review
Nearly 75% of the world’s population lives in the emerging economy countries, and the mobilization of technology and capital has increased globalization and fostered a paradigm shift in international business (Cavusgil, 1997). Indeed, globalization has been defined as the most powerful force for social good in the world today (Bhagwati, 2004) and changes in the international economy and in domestic economies are moving toward creating one world market (Berger, S. 2006). To analyze the issue of the potential of Emerging Markets, we will briefly review four models: the Bottom Of the Pyramid (BOP), BoP Protocol, Blue Ocean Strategy (BOS), and Value Flame at the Base of the Pyramid (VFBOP). In these models the emphasis is biased towards a global economy of satisfying consumer needs (Omar & Williams, 2009), since a company has opportunities to serve both high-end developed markets as well as low-end developing ones.

Bottom of the Pyramid 1.0, 1.1 and 2.0.
Nearly 70% of the world’s population (over 4 billion) are what Prahalad and Hart (2002) defined as the potential of emerging markets. These consumers are not tapped into global distribution channels and have little discretionary income. Perhaps the world’s largest market, the BOP is ignored today by many traditional global market strategies. Although individual consumers had yearly purchasing power of less than $1,500 USD, this market as a whole represented over $2.5 trillion, which equals almost 90% of that of the entire developing world - a huge un-tapped market of consumers (Prahalad, 2006). Keeping in mind that BOP consumers are extremely value conscious, Simanis and Hart (2008) challenged that to be successful at the BOP requires co-invention and business co-creation where the BOP becomes a business partner, whereas in successful global product distribution competition for customers had traditionally focused on increasing market share within existing markets.

Since Prahalad’s initial work (BOP 1.0) there have been studies that provide contrasting perspectives of BOP markets, referred to as BOP 1.1 and 2.0. London and Hart (2004) suggest developing a global capability by leveraging existing market strengths. Tukker (2005) concludes that BOP economies offer great opportunities to develop sustainability by experimenting with wholly new production and consumption systems while Karnani (2007) valued buying from BOP producers. Karnani (2007) indicated caution is recommended, as the BOP market is currently generally too small.
to profitably attract most MNCs; rather the opportunity is tailored more for small to medium local companies. Crabtree (2007) questions the profit-making proof in the BOP strategy, although acknowledging positive fundamental capabilities. Landrum (2007) finds that although Prahalad’s examples of innovation are market-specific, and his claim of poverty eradication is not fully supported, the overall intent of Prahalad’s analysis is to challenge corporations to be innovative and creative. Other critiques include the environmental effect (Bendell, 2005); elimination of deprivation (Crabtree, 2007); value of corporate social responsibility (Hopkins, 2005; Jenkins, 2005); new BOP models (Jose, 2006); lack of systematic measurement (London, 2010) and the negative effect of the entrepreneurial process (Webb et al, 2009).

Simanis and Hart (2008) proposed a BoP Protocol 2.0 (fig. 1 below) utilizing an embedded process of co-invention and business co-creation to utilize the BOP as a business partner, centered on two principles: Mutual Value whereby each stage of the process creates value for all partners, and Co-Venturing, in that the company and BOP communities work in equal partnership to develop the business. BOP 2.0 also gains importance as a result of the global financial crisis, which impacts the BOP in terms of “smaller-and-smaller slivers of a shrinking pie” (Chen, 2009), while microfinance institutions (MFIs) have been a countercyclical development tool as developing countries tighten credit (Magnini and Powers, 2009). Other studies have analyzed the explanation of consumption patterns in the BOP (Subrahmanyan & Gomez-Arias, 2008); the design and development of interventions (Kandachar & Halme, 2008); an understanding of stakeholder relationships (Nielsen & Samia, 2008), cross-case sector analysis (UNDP, 2008); and differences between ToP and BoP business networks (River-Santos & Rufin, 2010). Thus the concern exists that BOP is a difficult market to profitably enter.

**The Value Flame at the Base of the Pyramid (VFBOP)**

The suggestion is that there are significant opportunities at the Base of the Pyramid for those willing to align the whole firm to be able to differentiate in drastically new ways. Instead of attempting to redesign marketing strategies previously targeted at the TOP, firms can marry TOP and BOP capabilities and develop a new strategic basis for operating (Williams, et al., 2011). In this paper we extend the VFBOP 1.0 model by inclusion of the BoP Protocol which is more co-venturing focused (Simansis & Hart, 2008), as illustrated in VFBOP 2.0 (fig. 2 below). VFBOP 2.0 utilizes the VFBOP characteristics of BOS Value Innovations, BOP Principles of Innovation, and BoP Protocol as those principles become the initial criteria for the value flame co-creation logic. The VFBOP 2.0 shape of the “flame” will “flicker and change”, not only as it did in VFBOP 1.0 by developing the market and brand mainly through a corporation’s

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**Fig 1. BoP Protocol**

**Fig. 2  VFBOP 2.0**
own efforts; but additionally as companies and communities mutually co-create value and brand identity working in close concert together. Indeed, governmental policies and market conditions may even “extinguish” the flame temporarily. Thus all parties involved must determine which of the two models – VFBOP 1.0 (more company-focused) or VFBOP 2.0 (more co-venturing focused) is appropriate. We propose there is a continuum between the two versions of VFBOP, and that all parties involved must plan and manage accordingly depending upon the situation and environment. The emerging market may begin as VFBOP 1.0 and then evolve into greater co-venturing (VFBOP 2.0); the market may begin as VFBOP 2.0 and then evolve into greater company focused operations (VFBOP 1.0), or fluctuate between the two.

**Methodology**

The paper presents a case study that illustrates how a product or service innovation at the BOP can incorporate the innovation principles of VFBOP, in terms of their development cycle, brand marketing, and distribution methods employed as well as overall corporate-consumer relations. Findings are then assessed against the VFBOP 2.0 characteristics (Append A). Note that some of the principles of innovation overlap. For example, the product in the case operates on 12V DC power, a fact which represents principle #1 (break the value-cost trade-off), principle #7 (conserving resources) and #8 (hostile environment), and we show this as VFBOP #1, 7, 8.

**VFBOP 2.0 Case Study – Chotukool in India**

One example of a product that illustrates the VFBOP approach is a cheap, environment-friendly refrigeration system called Chotukool developed by the Indian company Godrej & Boyce. According to the UN Commission on Sustainable Development, one third of all food in rural India is lost to spoilage. India is a country where only one in five households owns a refrigerator and where refrigeration penetration is only 18% (Subramanaim, 2010). The word chotukool translates in Hindi to mean the ‘small’ refrigerator or Little Cool. About the size of a minibar, the Chotukool looks like a squat cube and is coloured in shades from quiet blue-grey to a striking candy red. With a capacity of 43 litres of volume, it is a solid-state cooler that uses no compressor or refrigerants, instead running on a cooling chip and fan similar to those used in computers. Much like a computer, it can run on battery, inverter or even solar power; requiring 12V DC (VFBOP #1, 7 & 8). Since it also uses high-end insulation, it can stay cool for hours without power (VFBOP #1, 7, 8) – an extremely important product feature in a context where frequent power outages are common (Kumar, 2009). It opens on the top to conserve cold air, and in fact its lid hinges out and removes entirely in two detachable parts (VFBOP #1, 2, 5, 10). Chotukool consumes less than half the power consumed by regular refrigerators, and unlike the normal refrigerator that has 200 parts, the Chotukool has only 20 parts. It is 7.8 Kg in weight and is easy to move or even carry on your head, as some of the village women who played a role in designing it tended to do while on their marketing rounds (VFBOP #3, 14). The Chotukool keeps daily-need food fresh and cool between 5 C to 15 C within the typical ambient home temperature in India of up to 35 C. (Sunderraman, 2010).

The design process for Chotukool has been quite different from the regular process of taking an existing product and tinkering with its features to try and sell to a poorer

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segment of the market. First, it required conscious dedication from the company focused on creating a product for the BOP, which was provided by a board member of Godrej & Boyce - Prof. Bala Balachandran. It also required a product champion and a team of people simply dedicated to the task of innovation, in the form of G. Sunderraman, Vice President, Corporate Development, and Sanjay Lonial, another company executive (VFBOP #3). Initially it was expected that the developmental cycle for the product would be a few months, however this turned out to be a gross underestimate. A market research firm that had been employed to understand the mind of the consumer actually produced very few useful insights for the team. So Sunderraman and Lonial took matters into their own hands and conducted their own version of ethnographic studies, slipping in to the minds of the BOP target consumer. They travelled for months and stayed in villages all over the country, observing what their customers wanted and how they would use a refrigerator (VFBOP #2, 10, 19). Based on their inputs, company engineers came up with several iterations of the refrigerator model. These models were tested in the field to elicit feedback from women in rural communities to improve the product design via an iterative process.

First, it was only too evident that the product would have to be priced low (VFBOP #1, 5). Many of the families visited had an annual salary of Rs. 7,000 or just under US $2,000. They would not be interested in or able to purchase a refrigerator priced at the existing entry level price of Rs.7,000. The Chotukool is clearly targeted at consumers at the base of the pyramid in rural India and in Tier II, III and IV cities. Priced at Rs. 3,250 or US$ 69 it costs almost 35% less to acquire than the cheapest category of refrigerators available in the market, with subsequent savings in operating costs (VFBOP #1, 5, 18). Second, the product would have to be able to work despite power outages, sporadic electric supply and voltage fluctuations (VFBOP #1, 8). It would also have to consume less electricity than regular refrigerators, since electricity is expensive for many families in many parts of India – most families studied spent Rs. 60-70 per month on their utilities bill. Third, in terms of product design, the refrigerator would not need to do deep chilling, as the few families in rural areas who used even second hand refrigerators rarely used their freezers. Also, the product would not be required to keep fresh more than 5-6 bottles of water and about 4-5 kgs of vegetables, as the target consumers rarely bought more than 2 days worth of groceries at a time (VFBOP #1, 7, 19). Fourth, space was an issue for all consumers. Most of them lived in homes that were 150 square feet in size, and where the living room doubled up as bedroom at night. BOP consumers were also a migrant population. So portability of the product would be important (VFBOP #2, 10). Finally, servicing was a constant worry for consumers, so the product would have to be designed in such a way that it had few parts, which could be easily removed and taken to the nearest service dealer (VFBOP #3, 4, 5, 14, 19). As a result, Chotukool has been designed so that each one of its essential components sits in one of the product’s two detachable lids, which can be toted to the nearest service center even by a child (VFBOP #3, 14, 19). The color of the product (ex., candy red) was also decided by women (VFBOP #4, 16, 17, 18) who were surveyed in Osmanabad in the state of Maharashtra in Western India (Subramaniam, 2010).

After gathering as many consumer insights as was possible it became fairly clear to the team at Godrej & Boyce that this product could not be manufactured using the same technology used in regular refrigerators. Therefore Godrej & Boyce abandoned the
usual method of cooling by compressor found in every domestic refrigerator, and instead opted for a technique called thermoelectric cooling. This was the first time that this scientific principle was being applied as a low cost solution (VFBOP #1). This leap in the creative and iterative process of innovation resulted in re-engineering an existing technology well enough to fit the needs of people who needed it the most at the BOP (VFBOP #1, 2, 5, 10, 17), thus potentially making Chotukool a ‘disruptive innovation’ (Bower et al. 1995) (VFBOP #18).

Not only is the Chotukool unique because of the way it has been co-designed (VFBOP #3, 13, 17), but also because it has utilized an interesting marketing, sales and distribution strategy that once again caters to the BOP by creating a demand in a so-far untapped space - therefore going “blue ocean”. Rather than relying on its usual distribution channels, Godrej & Boyce decided to partner with self help groups such as Sakhi Retail, created by Swayam Shikshan Prayog (SSP), a non-governmental MFI (VFBOP #1, 5, 9, 21). Women members of these self help groups are now the new face of retailers for the company (Karunakara et al., 2009). Such a channel for sales and distribution makes sense when it comes to catering to the needs at the BOP. Given the wide regional diversity that exists in India, it is more effective to target consumers in specific locations through small teams of people that they can relate to culturally (VFBOP #1, 4, 9, 16, 20). Also, given that many of the MFIs focus on providing resources to women who tend to be among the poorer citizens of the country, a strategy which focuses on women seems appropriate (VFBOP #1, 9, 17, 20). In India’s gender inequitable culture, women have tended to be sidelined at all levels in the workforce including at the managerial level (e.g. Rajadhyaksha, 2002). Women in rural India have tended to be the most under-served segments of India’s population, despite being a fairly sizeable segment of the total population. Despite many social and economic handicaps, there have been many instances of women in rural areas organizing for social change when provided with the right support. Rural women in India have displayed the motivation to act assertively and go against the status quo when their actions are likely to benefit the entire family, and especially when the men in their community have failed them (Subramaniam, 2006). Such self-reliance is evident from interviews of the women retailers of the chotukool (Phadnis, 2010) (VFBOP # 10, 19).

While Godrej & Boyce appear to have gotten the product design and pricing aspect of their Chotukool plan fairly accurate, distribution continues to be tricky. One of the biggest challenges of using a community-led distribution model for the sale of the Chotukool is the time that it takes to train women retailers and build the networks (VFBOP #15, 16). This has caused delays in the launch of the product (Pinto, 2010), and a nation-wide retail strategy that relies on the community-led model requires building multiple partnerships, which typically results in higher partner management overheads. By pairing cost reduction in the design (thermoelectric cooling utilizing no compressor or refrigerants; DC power operation; minimal, easily replaced parts) and distribution channel (focused on non-governmental MFI; rural women retailers) along with buyer value (portable, space-saving, affordable to acquire and operate; power outage operable; serviceability) an MNC can address a market where previously low penetration rates now offer a vast upside potential. By making rural women the target consumers and by including them in the design and marketing of the product, the Godrej & Boyce Chotukool approach is clearly one that caters to the VFBOP. The
thing that makes Chotukool a breakthrough offering is that it uses people at the base of
the pyramid as consumers, co-designers and marketers of the offering. In that sense it
adopts an inclusive approach to growth.

Discussion of case and VFBOP
In this case study of the Chotukool all four BOS value innovation principles seem to
be satisfied (VFBOP #1-4). All but two BOP principles of innovation appear to be
supported (VFBOP #5,7,10,13-16). There may be implied support for #6 (scalable
and transportable across countries), #11 (platform easily incorporates feature/function
evolution), and #12 (develop infrastructure/technology hybrid solutions), but from the
available information we cannot make this claim conclusively. All BoP Protocol are
supported (VFBOP 17-21). It appears that while this case seems more representative
of VFBOP 2.0 by involving more co-venturing than just VFBOP 1.0, it still is heavily
influenced by VFBOP 1.0 company focus. It is too early to determine the success of
this specific product at the BOP, as well as any ramifications that Godrej & Boyce will
take away from this product development process and the experience gained by co-
venturing with BOP consumer/producers, but preliminarily we are encouraged that
indeed this product/service may be one example of using the VFBOP model to address
both the cost and value criteria, and make a “leap” of differentiation to profitably serve
a potentially valuable marketplace.

Conclusion
The opportunities that emerging economies provide to multinational corporations
within a context of a paradigm shift of international business that includes a market
which offers more manageable risks, higher income growth and increasing consumer
purchasing power lies not only in the market available to source from, but additionally
the market to sell to and to create with. This shifting dynamic allows corporations to
generate profit not solely from reducing costs by utilizing new suppliers offering low
cost and high quality resources; they also offer opportunities to enter new markets and
generate revenues and expand global market share. But to take advantage of this
potential, companies must orient their whole system to ‘leap’ away from their
traditional mindset, by focusing on co-venturing, innovation, and mutual value for all
parties. The 21 characteristics of VFBOP 2.0 can develop the market and brand
identity, with the company and community working together to solve problems. We
propose there is a continuum between VFBOP 1.0 (more company-focused) and
VFBOP 2.0 (more co-venturing focused) and all parties involved in the BOP must
determine which is most appropriate for any given venture, and plan and manage
accordingly depending upon the situation and environment. Through the Value Flame
at the Base of the Pyramid theories it can be seen that enormous opportunities may be
available in these emerging economies.

Possibilities for future research
The VFBOP may operate differently in different parts of the world, and in terms of
class, gender and regional issues. The VFBOP concept should attempt to bring
together the business case and social justice perspectives, and define the factors
involved with the continuum between VFBOP 1.0 and 2.0. In addition to changes in
the marketing mix, future research could analyze whether other modifications to
Western practices are necessary, and research to better define the ‘shape of the flame’.
References


Neilsen, C., & Samia, P.M. (2008), Understanding key factors in social enterprises development of the BOP: a systems approach applied to case studies in the Philippines. *Journal of Consumer Marketing*, 25(7), 446-454


### Table 1: The Twenty-One Characteristics of VFBOP 2.0

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<thead>
<tr>
<th>BOS Value Innovation</th>
<th>BOP Principles of Innovation</th>
<th>BOP 2.0 Protocol</th>
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<td>3. Align all firm activities in pursuit of differentiation.</td>
<td>13. Process innovations are as critical as product innovations. 14. Deskilling work is critical</td>
<td>20. Marry capabilities, build shared commitment</td>
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<td>4. Create and capture new demand</td>
<td>15. Educate consumers on product usage. 16. Interfaces are critical</td>
<td>21. Direct, personal relationships facilitated by NGOs</td>
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