

ORGANIZATIONAL CHALLENGES OF MULTINATIONAL
CORPORATIONS AT THE BASE OF THE PYRAMID:
AN ACTION-RESEARCH INQUIRY

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Organizational Challenges of Multinational Corporations at the Base of the Pyramid: An Action-research Inquiry¹

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Abstract

To what extent and how does a multinational corporation adapt its strategy and organizational capabilities in order to address markets at the Base of the Pyramid? This paper builds on the results of a three-year action-research program conducted with Lafarge, a global building materials company and introduces a strategic framework which opposes two types of approaches of such markets: a licence-to-operate approach, and a business opportunity-seeking approach. The article analyzes how the company moved from the first to the second approach and discusses the implications in terms of organizational capabilities of with each approach.

Keywords: Base of the Pyramid / Multinational Corporation / Action-research

JEL: M14, L21

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1. Introduction

Referring to the four billion people living with less than \$3 000 PPP per year, the “base of the pyramid” (BOP) concept, as introduced by Prahalad and Hart (2002) conveys the idea that provided firms act innovatively in the development of a new product and service offering, there is an alignment between doing business and doing well at the BOP: by purchasing the Multinational Corporations’ (MNC) products, the poor could escape from poverty.

Early articles relating to the concept of “Base of the Pyramid” have emphasized the idea that MNCs own the necessary capabilities to address low-income markets and contribute to poverty alleviation (Prahalad and Hammond 2002, Prahalad and Hart 2002, Prahalad 2004). However, a second generation of articles has begun to highlight the need for MNCs to dramatically change their business model and develop new capabilities, i.e., new ways of assembling their resources and competences (Barney 1991), in order to address this market segment successfully (Hart 2005, Hart and Christensen 2002, Hart and Simanis 2008, Vermeulen et al. 2008). While most of these articles have emphasized the need for MNCs to adapt their capabilities and strategies, there is a lack of documented cases which illustrate over a long period why a company changes its market approach to address this segment and how it gets organized.

To address these questions, the paper builds on the results of a three-year action-research program conducted by the author when employed as a researcher by Lafarge, a global building materials company. The article analyzes the change that took place within Lafarge over the research period (2007-2010) with regard to the firm’s approach to the BOP. While at the beginning of the research period, most top executive managers doubted the idea that the

BOP segment was a business opportunity, comforted in their opinion by a number of failures that the firm faced in developing BOP programs, three years later there was a growing consensus among them that “the market opportunity at the BOP is big”. Several BOP programs had been launched in different countries; in particular, two projects launched as part of the action-research collaboration in Indonesia, impacting more than 800 low-income families. At the end of the research period, the company had set up a dedicated organization to systematically address this segment in 12 countries.

To analyze the organizational change which took place in Lafarge over the research period, the paper draws on an analytical framework proposed by Simons (1995), which distinguishes four types of levers of control which shape the elaboration and implementation of a business strategy. Through these lenses, change within the organization at the business unit and head office level is analyzed, and particular attention is paid to how the action-research contributed to this change.

The paper is structured as follows. The second section reviews articles related to organizational change in the implementation of BOP strategies, and introduces Simons’ analytical framework. The third section presents the research method. The fourth section summarizes the change that took place in the company between 2007 and 2010 and presents the work conducted as part of the action-research with the two pilot programs in Indonesia and at the head office level. The fifth section discusses the organizational challenges in embedding BOP strategies in the organization. The article concludes with a model of the firm’s engagement with the BOP.

2. Theoretical foundations

2.1 Organizational Change in the Implementation of Base of the Pyramid Strategies

Organization change can take many different forms – from the broadest, more conceptual level, such as a change in mindset, culture or strategy, to the most concrete, such as change in organizational charts or job activities (Mintzberg & Westley 1992). While most of the literature has focused on the “concrete” change in activities that is required to address the BOP, this section proposes a more integrative framework for understanding organizational change, both in terms of mindset and capabilities in the implementation of BOP strategies.

Building on the Resource Based View of the firm’s framework, the literature on the BOP has focused on the concrete change in the capabilities of firms starting to address the BOP (London and Hart 2004, Seelos 2008, Vermeulen 2009). This management theory explains that each firm is a collection of unique resources and capabilities that form the basis of its strategy and financial performance (Barney 1991). The capacity of deploying resources (such as knowledge, human resources, networks, etc.) to perform an activity in an efficient way is referred to as a “capability” (ibid). When facing a situation in which the current set of capabilities does not allow the firm to perform on a market, it can choose to acquire new capabilities through joint ventures or company acquisitions, or to develop them through R&D, for example (Sirmon, Hitt and Ireland 2007).

The literature on the BOP has defined two broad ways of managing capabilities when entering markets at the BOP. One form of strategy consists of leveraging existing capabilities by slightly modifying the MNCs’ mainstream business model to deliver products or services in new geographical areas (Seelos 2008, Hart & Simanis 2008). As shown in the first chapter, this approach is more related to a market capture strategy of existing BOP markets.

Rather than redeploying, the second option is for a firm to develop new capabilities which fit market conditions. To do so, firms need to acquire the knowledge and resources that enable them to overcome the challenges in targeting the BOP. London & Hart (2004) demonstrate that strategies targeting the BOP require firms to develop a new capability that they call “social embeddedness” and which they define as “the ability to create advantage based on a deep understanding of integration with the local environment”. Hart & Simanis (2008) show the limits of market capture strategies in terms of impacts on low-income consumers and argue that market creation strategies are preferable over market capture strategies and should be built on tailor-made solutions developed at the local level, by involving low-income people. In the same vein as Hart and Simanis’ articles, most of the literature emphasizes the need for firms to develop new capabilities by innovating for this new market segment (Prahalad 2004, Hart 2005, Hart & Christensen 2002, Simanis 2008).

However, while the literature emphasizes the importance of adapting organizational capabilities to reach the BOP, the case for change suffers from two limitations: first, the identification of triggering factors that set off the change and, second, the magnitude of the change and its impact on the MNCs’ competitive advantages on this market.

The literature on the BOP has emphasized the challenges firms face in trying to address the BOP as a market opportunity. A study by Oslen & Boxenbaum (2009) identifies types of organizational barriers in the implementation of BOP programs. They highlight that in the implementation of programs, conflicting mindsets appear between local units and headquarters. For example, while managers at the local level understand BOP programs in a “trade-off mindset”, the magnitude of the benefits for low-income customers and the profitability of the program, managers from headquarters, mostly in Sustainability departments, only see “win-win” situations in BOP programs. The implementation of BOP programs also implies radical changes to routines in order to implement new business models.

Incentive structures for local managers, as well as performance indicators which manage to capture the social and business dimension of the ventures, are either lacking or inadequate.

While this literature does highlight the challenges involved in change, no article exists that describes how a firm's management begins to become convinced that the BOP market is, in fact, worth overcoming these challenges. In particular, the literature generally takes it for granted that managers perceive the BOP as a business opportunity, and as Oslen & Boxenbaum (2009) suggest, there is a need to understand the change in the mindset and the culture with regard to the BOP.

The literature on the BOP contends that MNCs need to develop local solutions to create markets that serve the poor. However, the development of local solutions on each market is somehow at odds with the competitive advantage of MNCs which derive from their capacity to develop global knowledge, transfer it across countries, replicate solutions (Winter and Szulanzki 2001) and achieve global scale efficiencies (Bartlett and Ghoshal 1989). The question of to what extent a firm needs to adapt its capabilities to systematically address the BOP is then central to understanding the possibility for MNCs to address such markets on a large scale.

This question echoes a central and longstanding theme in the literature on organizational change and learning, namely the need for firms to either exploit current resources or explore new opportunities. To confront a new environment, should a firm explore new capabilities to adapt its business model and enter a new market, or should it exploit its existing capabilities by slightly adapting them? This tradeoff between *exploitation* and *exploration* has received significant attention since this conceptual distinction was first introduced by March (1991). Exploration refers to the search for innovative ideas, flexibility and discovery. In contrast, exploitation is defined as “the focus on core competencies and existing resources” (ibid). The subsequent literature on exploration and exploitation has emphasized the risks of focusing too

heavily on either alternative. Exploration shifts the company away from its core competences. This can be destructive, with search and change “leading to failure, which leads to even more search, and so on” (Levinthal and March 1993). This risk exists for MNCs, who may get lost on the road to the BOP by repeatedly inventing products and solutions disconnected from their core business, thus with the difficulty of embedding the solution within the portfolio of products and the mainstream organization. Conversely, the focus on the exploitation of existing capabilities leads to core rigidities that render the firm unable to adapt to the environment (Leonard-Barton 1992). In the case of BOP programs for MNCs, such rigidity is illustrated by projects insufficiently innovative to meet BOP consumer needs.

Strategic management researchers have attempted to find solutions on how to combine sufficient exploration to ensure the organization adapts to its new environment and sufficient exploitation to ensure the needed performance. It has now become a tautology to say that firms need to be *ambidextrous*, meaning being able to combine exploration and exploitation activities in order to change successfully (Gupta et al. 2006; O’Reilly & Tushman 2004).

2.2 Understanding organizational change through Simons’ control systems

To understand the triggering factors to change (“why?”) and the magnitude of change (“how much?”), it is then important not only to focus on the concrete change in the organization but also in the mindset which are often neglected in organizational change studies. To do so, Robert Simons’ levers of control provide an interesting framework for analysis. In his 1995 seminal book, Simons defines an analytical grid of a firm’s strategy which describes both the cognitive framework (mindset, culture) which leads to the formulation of a strategy and the organizational capabilities which are leveraged and controlled for the implementation of this strategy. Altogether, the “belief”, “boundary” and “management control” systems of Simons

provide a comprehensive framework for analyzing a change in strategy (Arjaliès & Ponsard 2010).

First, Simons' grid captures how an organization ensures through *management control systems* that managers comply with the implementation of an intended strategy. *Diagnostic control systems* exist in order to get the job done by measuring how managers' actions contribute to the implementation of the strategic plan. This takes the form of reporting tools, key performance indicators (KPIs) and incentive schemes to reduce the uncertainty related to the alignment of daily practices with top management decisions. In March's (1991) terminology, these systems ensure that the organization exploits its existing capabilities (Simons 2010). In contrast, Simons (1995) labels *interactive control systems* the processes and decisions that give managers sufficient flexibility to envision a new positioning of the firm, which in turn may result in the emergence of new strategies. This can be illustrated by the self evaluation of objectives, or by the allocation of specific budgets or reward schemes dedicated to "out of the box" thinking. This approach to management control is there to ensure that the organization explores new capabilities (Simons 2010).

Simon's two other forces allow putting management control systems in a wider analytical framework. These two systems contribute to framing the strategic domain of the firm by creating the cognitive framework within which actions are permitted or not. *Boundary systems* set the "rules of the competition for the company, by the core area on which managers have to focus search and attention" (p.157). The positioning of the firm within its industry chain and how it defines its core business is an example of a boundary system. Finally, belief systems encapsulate the core values of the firm and "empower and expand opportunity seeking" (ibid). The idea that innovation is key to the development of a firm, or that safety is a core value, are examples of belief systems. Through the lens of Simons' four levers of control, the article analyzes the change in Lafarge's approach to the BOP and its triggering factors. What are the

changes in the boundary and belief systems needed to engage at the BOP? How does this happen? Does a diagnostic control system (resp. interactive) impede (resp. favor) the development of BOP programs?

3. Research context and method

3.1 Research context

Lafarge is a leading global company in the building materials industry, with cement, aggregates, concrete and gypsum production operations in 78 countries. The company has been cited and awarded many times for the interest it pays to sustainable development issues (Acquier 2007). As far as social aspects are concerned, the company has also been involved in housing projects for underprivileged people both in northern and southern countries. For example, the company had a partnership agreement with nongovernmental organizations (NGOs), including Habitat for Humanity, with whom it worked to build houses in Poland, Romania and the US. In many countries (e.g., Nigeria, Cameroon, Morocco, India), as part of its Corporate Social Responsibility practices, the company provides housing to families living close to its production sites. The company provides materials free of charge and some of its employees also volunteer in the construction process.

Up until 2007, Lafarge had a certain amount of experience in developing projects targeting low-income consumers in China, India and South Africa, but none of these projects had become a major opportunity for the firm. Two of them even had to be terminated. At the same time, a program was launched by Cemex, one of Lafarge's main competitors, and addressing the BOP segment was gaining in popularity. Known as Patrimonio Hoy, this initiative consisted of providing access to microcredit to low-income consumers who can then purchase materials and build their house progressively (a description of this program is provided in the

appendix). Started in 1998, this initiative has reached 30 000 customers per year and is said to have generated approximately 10 million dollars of sales for Cemex (Segel et al. 2006).

In this context, I proposed the idea of building a research collaboration on the topic of the BOP to the Vice President of Strategy and Development. The research question was then formulated as follows in the research project description: “Evaluate the business potential of the BOP segment for Lafarge and gain a better understanding of the business models at work: what makes these projects successful or not, and to what extent can they be scaled up and duplicated?” I was then placed under the responsibility of this person.

3.2 Action-Research

Action-research (AR) is a research method which aims to “contribute both to the practical concerns of people in an immediate problematic situation and to the goals of science by joint collaboration within a mutually acceptable framework” (Rapoport 1970: 499). This means that the researcher is embedded in the organization and contributes to generating the phenomena that are intended to be analyzed through his/her research activities. Under this methodological paradigm, hypothesis and data are then not only obtained but also created through collaboration between the researcher and organization’s members (Aguinis 1973, Susman & Evered 1978). The term “action-research” was coined by Kurt Lewin in 1946, in reaction to the lack of interest in the fact that traditional science was not helping to resolve social issues such as minority problems, anti-Semitism, fascism and poverty. The concept became popular in the 1970s when it was presented as an alternative research method to “correct the deficiencies of positivist science” (Aguinis 1973). Susman & Evered (1978) posit: “there is a crisis in the field of organizational science. The principal symptom of this crisis is that as our research methods and techniques have become sophisticated, they have

also become increasingly less useful for solving practical problems that members of organizations face.” Action-research then built on the idea that it should be future-oriented, meaning that the researcher would contribute to bringing about change in the direction of a “more desirable future” (ibid).

The action-research collaboration with Lafarge started in 2007 and the research contract terminated at the end of 2010 – the period focused on here. During the course of the AR period, due to the number of interactions with colleagues and external parties, interviews were not recorded. To overcome this limit, a strong emphasis was placed on written documents in order to analyze people’s reactions and to more easily identify the change taking place in the perception of the topic. The content of the main documents and their impact on the organization is presented in appendix. Two types of documents can be identified and are listed: Lafarge internal documents (notes, presentations, excel sheets) and research documents (scientific articles, notes, conference presentations). For each document, an indication is provided about how it was used in the research activities and/or in the actions taken by the company.

4. Lafarge and the BOP: 2007 versus 2010

4.1 A long road to the BOP consumer

According to UN Habitat (2008), over one third of the urban population lives in a dwelling that poses a risk for life and health. For those on low incomes, a house is more than a shelter – it is a productive asset in which home-based enterprises can be developed to contribute to the family’s revenues. A house can also be used for collateral and can constitute an intangible asset giving the family social status in the community and a base for self-confidence.

While access to housing is a key dimension of poverty, the role of a building materials producer is less evident. Lafarge's business model (as for most large cement manufacturers) is focused on the production of materials (cement and concrete), and the company mainly sells to local distributors on the "door step" of its production sites, without entering the distribution chain itself. The notion of "customer" for a building materials company is then applied to contractors or distributors who purchase large quantities from the plant, or to the masons who buy the product from retailers' stores. Thus, the BOP end-user, who lives nearby remote retail stores and who buys in small quantities for progressive home improvement or extension, generally remains outside the scope of firms' marketing studies.

Building materials producers are often criticized by NGOs and governments of some emerging countries for the high cement prices charged to the end-user. In most developing countries, building material producers remain the only private and (often) foreign company involved in the construction value chain, thus concentrating the attention. The response to these criticisms that tends to highlight the difficulty for a building materials company to contribute to a major and stable reduction of construction cost turns out to be challenging for at least two reasons. First, cement is sold through distributors who transport and store it before selling it to the end-user. Thus, the ability for the firm to influence price strongly depends on the intermediaries in the value chain. Second, cement is only one material among others, representing only up to 15% of the total cost of construction. Consequently, any change in cost of cement would have no effect on the cost of construction.

Taken together, these challenges contribute to framing the "belief system" about this topic, as an external constraint linked to the firm's licence-to-operate.

Prior to the research intervention, the BOP issue was mostly perceived as a social issue that the firm tried to address in some areas by implementing programs intended to satisfying local expectations.

In 2005, the South African subsidiary entered into a partnership agreement with the government to provide cement and concrete for government housing projects (a full description of the case is provided in the Appendix). The government pledged to deliver over two million houses for those on low incomes by 2010. Lafarge's role was to supply cement at a fixed price and to provide a number of additional services (on-site construction manager, safety and HIV training, etc.). The company also worked with the South African government to develop new housing construction systems which would speed up the construction process, the new systems requiring more value-added products. Through this partnership with developers and the government, Lafarge supplied materials for the construction of approximately 8 000 houses between 2007 and 2010. This achievement was perceived by management as satisfactory in the way it improved relationships with government authorities, but the ability to grow the number of projects and to convert them into a major business opportunity was judged low. Indeed, because of bureaucracy, government authorities were very slow to pay contractors, causing delays in the delivery of housing.

Prior to the intervention, two projects were launched by Lafarge business units and involved going beyond the mere provision of materials, by entering the construction design itself. However, these two initiatives received no support, and when faced with initial difficulties, were stopped.

In 2006, the various business units operating in China launched a joint project focusing on the construction of a rural, collective house. At that time, the Chinese government had introduced a reform to keep as many people as possible in rural areas to reduce the migration to cities. To

achieve this objective, the government promoted the construction of collective houses in semi-rural areas. Lafarge erected a two-storey show house for this market. However, upon completion, the project had to be abandoned because the construction system proposed by Lafarge did not appear to comply with local regulations.

In 2007, the Indian subsidiary of Lafarge launched a housing solution intended for sale to people living in rural India. This bricks and mortar house was designed to be very low-cost. The house's design was straightforward so that it could be built by rural masons lacking the necessary skills to build more complex houses. However, a few months after the launch, the first customers began complaining about cracks appearing on the walls. As a result, the business unit had to repair and rebuild a number of houses. The failure in India brought home to business unit managers and group executives why Lafarge should not go downstream and set up as a constructor to promote low-income housing, and should instead consider the BOP as a corporate social responsibility (CSR) imperative.

In the terminology of Simon's levers of control, the "belief system", i.e., how the BOP segment was perceived, relied on the idea that it was a constraint external to the firm's business model. Responses which were accepted were then public-relation programs, in the countries where the firm wanted to particularly demonstrate its sense of citizenship. However, as these programs were perceived as reducing margins, they were not expected to become a mainstream practice. Moreover, in 2006, Lafarge's top management placed strong emphasis on the core activities of cement and concrete production, as the company had recently sold its specialty materials as roofing divisions. As a consequence, when attempts to address the BOP as a business that went beyond the "boundary" of the firm were launched, i.e., the core set of activities, business units received no support.

At the end of the research period, the perception of the BOP had dramatically altered. Demonstrating a change in the “belief system”, the term “affordable housing” was now used to refer to the business opportunity with low-income people – perceived as very large, both in northern and southern countries. Top management strongly supported these initiatives when visiting countries identified as being in line with the new strategic priority that the firm was putting on new business development. In turn, several businesses started to launch affordable housing programs as part of their marketing or sales activities in India, Honduras, France and Algeria. The differences between the two situations are summarized in table 1.

Insert table 1 here

4.2 Action-Research at the subsidiary level

In September 2007, the general manager of Lafarge’s business unit in Indonesia asked for support from Lafarge’s Strategy department to identify how business models could be developed to address what was then called “low-cost housing”. The initial meetings confirmed that the idea was to develop projects to address the needs of low-income families and help them improve their standard of living. While the business unit was experiencing troubles with the communities surrounding its plant, it was made clear that the goal of the program was not to address CSR issues.

A first visit to the field was organized in December 2007. Two markets were proposed for study: one in the northernmost part of Indonesia (Banda Aceh), and the other in the capital of North Sumatra (Medan). Prior to the market assessment in the two areas, a method of market assessment was defined, which built on the results of a consulting mission undertaken by

Ashoka. This protocol proposed several dimensions that should be covered to gain the full picture of the housing issue and possible solutions in the area: land and property rights, distribution and marketing, construction techniques and financing. Questions were prepared to obtain pieces of information for each of these dimensions. In the field, interviews were conducted with approximately 30 key respondents on each market, including homeowners, commercial banks, microfinance institutions, masons, building material retailers, local and international NGOs, as well as village leaders and local ministry representatives. Internal interviews were also conducted with the people at the headquarters of the BU in charge of sales and logistics, communication and CSR, and also at the plant with the plant manager, production manager and general affairs officer. After this first period of market assessment, the business unit's management decided that both areas should continue being investigated. A member of the marketing staff was appointed to further investigate opportunities in the Medan area.

The next paragraphs describe the two programs that were developed in the business unit. For the program in Medan, my role consisted of accompanying and challenging the local resources, once the first visits were conducted. Regarding the program in Aceh, I was responsible for its development and implementation from the beginning up to the handover in late 2010.

4.2.1 Case 1: Social housing in Medan

Medan is the capital city of the northern part of Sumatra Island and home to the headquarters of Lafarge Cement Indonesia.

In late 2007, the Sales department set up interviews in the city with developers operating in the area. Developers explained that they were reluctant to build houses for low-income people

since in order to receive subsidies, they had to build houses at a maximum price of about US\$ 5 000. As they were unable to produce a large quantity of houses at this price, they used only to construct a few houses between major construction projects – periods in which their contractors and masons were unoccupied. The idea that emerged from preliminary meetings with developers was to jointly design a low-cost house which could be built faster, reduce wasted time and save products. Ultimately, this should improve margins and maintain the price below the maximum amount set by the government. One of Lafarge’s sales staff proposed the idea of a new kind of concrete block designed to facilitate construction. The blocks would connect like Lego, with a special connection in the corners enabling the fast pouring of concrete. Although this idea grabbed the attention of the developers, it was finally rejected, as neither Lafarge Indonesia nor the developers had the necessary resources to devote to its development. Additionally, neither wanted to assume the responsibility associated with a new construction technique.

In March 2008, a second phase of interviews was conducted with building material retailers. The objective was to assess the feasibility of replicating what one of Lafarge Indonesia’s main competitors, Holcim Indonesia, had implemented in Central Java to help certain retailers enter the business of selling predesigned low-cost houses. The retailer – considered a franchisee of Holcim for this operation – introduced a new sales point in its store where people could come and design their house with a salesperson, receive a housing loan estimate and be given a list of items they could buy from the same store. After one year of operations, sales were disappointing, but the idea of designing simple houses and partnering with retailers had caught the attention of Lafarge Indonesia. To test the feasibility on Lafarge markets, interviews were conducted with a number of retailers in the mountain city of Berastagi. Retailers expressed their interest in extending their business beyond material distribution by proposing a number of predesigned houses. However, due to the area’s topography, no simple

design could be modeled and plot specificities would have to be taken into account for each house. Interviews were also conducted in the city of Medan, but local retailers showed very little interest, being sufficiently occupied with their current customer base.

Finally a third round of interviews ended with better results in July 2008. Under the initiative of the marketing staff, meetings were organized with Real Estate Indonesia – a professional association of developers. Negotiations ended with the signature of a Memorandum of Understanding in late 2009 between the association, the Indonesian government, the local municipality and Lafarge Indonesia. The agreement involved securing the construction of 5000 houses for the province of North Sumatra where Lafarge is the market leader. Under this agreement, Lafarge accepted to guarantee the supply of cement and no special discount was granted to the developer. Throughout the year 2010, 820 houses were built, generating approximately half a million dollars of cement sales for the company.

In late 2010, the visit of the construction sites showed that houses delivered through this program were considered by Lafarge sales team as being good quality, but some were already starting to show cracks in the walls before the handover. Photos of the houses are provided in the appendix.

4.2.2 Case 2: Microfinance for housing in Banda Aceh

The second market study took place in Banda Aceh, the northernmost city on Sumatra Island. This area had been affected by the tsunami that hit Indonesia and other countries in December 2004. In the aftermath, the international community initiated an unprecedented humanitarian effort, with more than six billion dollars dedicated to the economic and social recovery of Aceh. This led to NGOs reconstructing over 120 000 houses. When the survey started in

December 2007, many NGOs were still occupied with the last housing constructions in the area.

In December 2007, a first round of interviews was conducted to evaluate the initial idea proposed by the business unit management of a “low-cost house” solution. It appeared that local developers were already fully occupied by their work with NGOs and were not looking to new house designs or technical innovations. Moreover, interviews with a series of homeowners and village leaders indicated that people were not searching for new houses, as the NGOs were still offering their services to build additional houses.

In March 2008, a second round of interviews with homeowners showed that people were looking to improve their house, most houses having been received free of charge after the tsunami. Post-tsunami dwellings measured approximately 36 square meters, on average, and were initially designed to shelter a family of two to three people. Since the tsunami, families had grown, and houses were occupied by an average of 4.5 people. Initial houses were composed of a main room, a bedroom, an outdoor kitchen attached to the house, and in most cases, a latrine. Beneficiaries of certain NGO housing criticized the quality of construction: thin, unresisting plywood walls and poor quality ceilings. They also complained about the absence of a sanitation system, contributing to the contamination of water sources and paddy fields. At the time, the local bureau for reconstruction (a government agency) estimated that around 15% of the houses built by NGOs were unoccupied, mostly because of quality issues. Moreover, 85% of house renovation objectives had not been achieved three years after the tsunami. Renovation and the extension of houses rapidly emerged as a major issue.

Microcredit has frequently been cited as a solution to enable impoverished populations to extend and improve housing. Microcredit, i.e., the provision of small amounts of money with limited or no guarantee, has mainly been used to enable poor people to develop small

businesses and increase their income. Over 100 million households have benefited from microcredit for small businesses (working capital, small machines, etc.). Some innovative microfinance institutions (MFIs) have started to propose microcredit for financing home extensions and renovation “one room at a time”. Such loans are larger in size (up to \$1 500) and with a longer tenure (up to three years), compared with the business loans habitually offered by MFIs (normally \$500 over six months). Customers generally use the loans to purchase construction materials and occasionally pay labor costs. This system has already been introduced by one of Lafarge’s competitors in the cement industry, Cemex, in Mexico, with a program entitled “Patrimonio Hoy”. In ten years, the company has opened about 100 offices providing microcredit to low-income families for home extensions. Customers can also receive advice on design and construction techniques (a detailed description of the case is provided in the appendix).

To test the idea of implementing a similar program and to evaluate the feasibility of and interest in such a solution, a third series of interviews was organized in July 2008. These took the form of an open workshop with more than 60 stakeholders, including homeowners, international and local NGOs, commercial banks, microfinance institutions and development experts. Two types of possible partnerships emerged and were proposed to the business unit in the second half of 2008. One option was to work with commercial banks (e.g., Bank Rakyat Indonesia, Bank Bukopin, BTN, ATN, etc.) who could go down to the market and expand microfinance activity. Since these banks already counted amongst Lafarge’s financial partners, partnerships would have been relatively easy to negotiate, thanks to cultural proximity and business interests. However, since they mostly collect savings, with lending activity being limited to bankable people (civil servants, and formally employed people), the main challenge was to encourage their interest in doing business with poor people, as they were still reluctant to propose microloans. The second option was to work with smaller banks

more closely connected with the poor, both in urban and rural areas. These banks mostly work with customers who are non-bankable for commercial banks, and offer microcredit to individual entrepreneurs for the development of small businesses. However, these MFIs rely on customer savings and lack the further financial resources necessary to diversify credit products and introduce housing microcredit.

A company called Bisma was also invited to participate in the workshop. Founded and owned by Care Indonesia, a subsidiary of the internationally-reputed NGO, the company's activity mainly entails investing in MFIs and helping the poor. Bisma was created to manage the donations received by Care Indonesia for the development of microfinance, as a professional and private arm dealing with microfinance institutions.

To further develop the microfinance mechanism, a survey was developed with Bisma's assistance, aimed at better understanding the housing needs of low-income families, their difficulties in implementing construction projects and their interest for microfinance for a housing product. The survey took the form of a questionnaire (face-to-face interviews) and was administered by a number of MFIs who had participated in the workshop to both customers and non-customers. It showed interesting results. Out of the 280 respondents, 84% had an income under \$3 000 per year and 80% had a construction project in mind which they wanted to implement in the months to come, but could not do so because of a lack of savings. The survey also highlighted that 80% of respondents could afford a loan of \$1 500. In addition, it appeared that 86% would prefer to build their extension using masons. In brief, the survey supported the idea that microfinance could work on this market.

In spring 2009, a partnership agreement was signed between the parent company Lafarge and Care France, the French subsidiary of the international NGO. Part of the partnership agreement was to develop projects targeting the BOP. As a first joint project, a request was

made to the Fondation de France, the French public entity in charge of hosting philanthropic funds, to obtain funding for the pilot in Banda Aceh. The granted fund of 200 000 euro was actually the remaining capital of the solidarity fund that Lafarge had created in 2005 to finance NGOs' intervention in the aftermath of the tsunami.

Along with a representative of Care France, a final assignment was organized in July 2009 to clarify the details of the program. The social ambition of the program was discussed by the NGO and Lafarge: it was agreed that priority for microcredit should be given to those customers who wanted to either build a room for their small business or build rooms with a health-related impact (kitchen, bathroom, sanitation). It was also decided that MFIs would prioritize people living in NGO-donated houses.

The sharing of roles was outlined as follows: Bisma would receive the provided capital and manage it as a revolving fund by investing in MFIs. To do so, Bisma would evaluate the MFIs applying to be part of the program, train them and provide the funding progressively, as the MFIs grant the housing loans. Lafarge Indonesia would train masons to whom borrowers would have access for home improvements. The MFIs would identify borrowers, evaluate their profile and manage microcredit payments and disbursement. Care Indonesia would evaluate over the next three years the impact of the program on the lives of the borrowers and masons, following an impact assessment methodology.

By the fall of 2009, five microfinance institutions had applied for the first investment. After assessment, they received monies enabling them to propose housing microcredit to their customers. The first microcredit loans were granted in January 2010. An assessment in March 2010 showed that MFIs were granting loans very slowly: in three months, just 12 had been accepted. It appeared that no communication tool had been developed by the MFIs, which limited customer awareness about the program. The following months were dedicated to

reinforcing their marketing skills, with training and documentation provided by Bisma. In September 2010, a second assessment showed that 50 applicants had made a request for a loan to fund home improvements and that 40 loans had finally been accepted (examples of projects are provided in the appendix). A close look at the microcredits indicated that their intended purpose had been respected: a quarter of the projects were having a direct impact on people's incomes and the average daily income of borrowers was about two dollars per day. The other lesson learned was that 20 to 30% of the loans had been used for the purchase of cement. From a business standpoint, it was then clear that the system could have a commercial interest by generating new cement sales. To turn this into a profitable business, the main challenge was to reduce Lafarge's share in the total invested capital, and also to accelerate the disbursement pace of the MFIs. The program had thus far been managed overseas. However, in fall 2010, a new person was recruited as part of Lafarge Indonesia to manage the program locally and oversee its implementation.

4.3 Action-Research at the Head office level

The perception of the BOP topic within Lafarge before and after the research period has dramatically changed. At the beginning and following the field visit in Indonesia, the concept that could be developed in Aceh was proposed to certain top executives. The feedback at the time was that "the idea was interesting", but the program was too small in terms of sales potential to warrant devoting time to its implementation. The main question regularly asked by executive managers was, "is it social or business?", meaning whether the BOP segment should be addressed through philanthropic programs or through business programs. Two years later, there was a consensus that the "BOP opportunity is big" and strategic.

The following paragraphs identify the change in Simons' levers of control and the triggering factors which contributed to that change.

Three phases can be identified in the change which occurred at Lafarge with regard to the perception of the opportunity at the BOP.

4.3.1 2007-2009: Raising awareness about the market and social opportunity

Benchmarks of a number of initiatives carried out by competitors or peer companies were produced as part of the action-research to get the attention of the management on the BOP topic. The first note produced in February 2008 illustrated how Cemex had implemented a successful program.

In June 2009, an article was prepared for a scientific publication to introduce the differences in the strategies of firms with regard to the BOP segment. The goal of the article was to help managers, through a typology of engagement with the BOP, overcome confusion about whether the BOP was a philanthropic/public relations issue or a business opportunity. The research work involved analyzing case studies external to the firm, interviewing managers of Lafarge's previous BOP projects and interrogating external managers of other BOP programs (Danone, Essilor, EDF).

Based on the lessons learned in these case studies, and building on further research conducted on the Cemex case, a memo was prepared in February 2009 presenting how a project such as the one being developed in Aceh could be implemented on a larger scale through the construction of a special financing vehicle. The document had no impact regarding the involvement of Lafarge with the BOP, but the meeting concluded with the idea that "there was no opposition to the launch of the project in Aceh".

In September 2009, a meeting was organized between several of Lafarge's executive managers and the Vice President of Danone, in charge of their "social business" project with Grameen in Bangladesh. During this meeting, the VP explained how Danone was seeking to address a social mission through its business, and how this social mission was embedded within the organization. A discussion occurred about the role of Lafarge's products in alleviating poverty, showing that Lafarge managers were not convinced that the company's products could contribute to such "a big goal".

In December 2009, the VP of Strategy & Development commissioned a consulting mission to benchmark the "societal engagement" of other CAC 40 companies and to interview internal top managers to understand their perception of such an approach by Lafarge. In this framework, interviews were conducted with 20 top executives, including all members of the executive committee, several regional managers and functional directors. At first, it appeared that the interviewees had no idea of successful approaches to the BOP segment that had been undertaken by competitors (such as Cemex Patrimonio Hoy). The notion of engaging with the BOP was associated with certain philanthropic activities that the firm had previously implemented and to the projects in China and India which had failed.

However, it also appeared that a possible approach to the BOP market, building on the experience of competitors and peer companies, was welcomed by most interviewees. This was reflected in the responses to the closed questions about the reasons why Lafarge should consider reinforcing its "social approach", which were asked at the end of the first or second interview with each participant. In order, high-scoring answers included, "the need to strengthen the loyalty and pride of Lafarge employees", "the opportunity to learn from new business models" and, "the market opportunity at the BOP". The reason ranked the lowest was, "the pressure from NGOs". Interviewees also highlighted how approaching the BOP was aligned with the humanist values of the firm.

Following this consulting mission, a note was prepared about what Lafarge could do to “reinforce its societal engagement”. This document presented a complete framework for building on a proposal of a social mission for the firm, and the activities that could be launched to implement this vision. It articulated, in particular, how other companies managed to develop programs embedding a social and economic mission and how addressing the housing needs of the BOP could be the equivalent in the case of Lafarge. The note received positive feedback from the CEO, who requested a more detailed proposal so he could take a decision within a few months.

In 2010, to sensitize parties to the topic of housing, an initiative was launched by one of the top managers in cooperation with a business school that supported the development of “social business” in France. As part of this initiative, a team of directors from the French cement business unit of Lafarge and several top managers from head office was formed with the goal of identifying what “access to housing” would mean for Lafarge in France. Visits to slums located in the vicinity of Paris and meetings with NGOs and social entrepreneurs trying to solve the housing issue were organized and contributed to sensitizing parties to the topic.

4.3.2 2009-2010: Experimenting BOP programs on a small scale

The two programs launched in Indonesia in 2009 contributed to the sensitization of top managers at head office. For this, the ability to work at the two levels – head office and the business unit – was strategic. The culture of the company particularly values the voice of local managers who deal with the day-to-day business. At some point in their career, all top managers must have gained experience of local operations management, and understand the value of being grass-rooted. Thus, in this culture which favors the say of local managers,

being able to demonstrate in the field what a BOP approach means is something that is particularly important for influencing the perception of top management.

The ability to launch the project in Aceh was key to successfully demonstrating on a small scale what the BOP approach means, and two main factors were useful to achieve this. The first was related to the action-research context. In the framework of the CIFRE contract, the company is tied to investigating the topic over a definite period of three years and this gives the necessary timeframe to progressively convince management about the opportunity of launching the test on a small scale. The other factor which enabled the project's launch was the opportunity to present it in the wider framework of the CSR partnership with the NGO, Care France. The support of the NGO to push this project through, along with their comments in Lafarge's sustainable development reports asking for more action in the BOP area, convinced head office managers in charge of CSR-related topics, internally. As the program had demonstrated a successful initial collaboration between the two parties, it became integrated in the partnership's action plan. In this context, funding was accepted. The ability to present it as a societal experiment, while also contributing to the understanding of a core business question, contributed to the approval of the project launch.

In 2010, the first results of the two programs launched in Indonesia contributed to the change in the perception of the BOP, by concretely illustrating the impact on the lives of low-income populations and by illustrating on a small scale the profitability of the underlying business models.

Once the project was launched, visits of top managers were organized so they could meet with people benefiting from microcredit in Aceh or visit the construction site in Medan. Photos and stories about the microcredit illustrated how the projects were contributing to changing the lives of the participants. While in 2009 there had been a number of reactions about "how

cement can contribute to well-being” (September 2009), comments from top managers at head office had changed.

For both projects, cement was sold without any special discount to retailers in Aceh and distributors in Medan. This dimension mattered to illustrate that the BOP approach for Lafarge was not related to product downgrading or price reductions (as embedded in the notion of “low-cost housing”), but was linked to a change in the group of partners and the business model. This change was also reflected in the terms employed to talk about low-income consumers. At the beginning of the research period, the most frequently used term was “low-cost housing”, which focused attention on the assumed necessity for the firm to reduce its product price to grasp the market. The phrase, “base of the pyramid”, then began to be increasingly used between the researcher and the client systems and the term was immediately picked up by local staff in the business unit. At head office, although a number of people considered the term too pejorative, the “BOP” concept positively framed the idea of a market opportunity. Thereafter, the term “affordable housing” started to be used in 2010, integrating the needs of those in emerging countries, for which the term BOP had been coined, and low-income people in developed countries

4.3.3 2010: Building the business case for a wider engagement

The arguments covering the BOP opportunity have been widely publicized, but exact figures about what it means for a company to engage with low-income customers remain hard to evaluate. The first documents produced in the action-research were based on the same type of broad arguments (and were mostly based on the WRI report). The first step towards a finer analysis was the identification of market segments based on the results of the initial empirical

inquiries in Indonesia. Following this, a method of calculation was developed, building on the hypothesis tested in the pilots in Indonesia (consumption of cement per microcredit, etc.).

The launch of a dedicated “Affordable Housing” team in 2010 enabled Lafarge to better assess the size of the BOP market opportunity, propose how it should get organized, and initiate a number of projects in various countries. The goal of this project, placed under the responsibility of the VP of Strategy & Development, was to identify the potential financial value of addressing the BOP in a more systematic way, and make recommendations to the executive committee on how to address such a market. Presentations were made to the executive committee in March and June 2010 showing different market segments and the market opportunity. In particular, the project enabled a more precise formulation of the size of the market (a figure of 2 billion euro), and framed the demonstration of the opportunity in a way similar to other business opportunities: market size, expected volumes of sales, internal rate of return, etc. The results of the two pilots, although limited in size, contributed to showing that there were opportunities for additional sales by developing supplementary services.

In November 2010, a new note was prepared detailing the possibility to scale up the project in Aceh by developing the financing vehicle already mentioned in the February 2009 note. This time, the document built on the results of the research papers prepared on the challenges of mainstreaming microfinance and the role of socially responsible investment. The note also integrated illustrations of the microcredits generated by the pilot in Aceh and showed both the potential sales that would generate the promotion of housing microfinance and the number of people potentially impacted. It also received strong, positive feedback from the CEO, which led to a further investigation of the issue in the context of the new strategic plan.

In late 2010, there was a growing consensus among top executives that “the market opportunity at the BOP is big”. At that time, top management also decided to launch a corporate program whose goal would be to develop the Group’s revenues through unusual approaches. The affordable housing topic then became part of the projects identified for their potential contribution to this program in preparation.

5. Discussion

The organizational change in Lafarge took the form of a shift in the “belief system” surrounding the BOP segment. However, the two Indonesian cases provide illustrations of the challenges in embedding BOP programs in the organization, depending on the market strategy. This allows an appreciation of the difficulties involved in transforming BOP programs into more generalized programs.

5.1 The influence of local market characteristics on the choice of BOP market strategy

The two programs in Indonesia illustrate a different approach to the BOP market. The project in Aceh, based on microfinance, illustrates a market creation strategy: by a series of efforts (building a network of MFIs, developing their capabilities, training masons, channelling the funding and following the impact) the company intends to create the market. In the case of the program in Medan, where a project with developers had been implemented, the approach refers more to a market capture strategy: a developer was willing to build houses for low-income people and the company developed the appropriate offer through its existing capabilities to capture the market.

The experiments with Lafarge in Indonesia show that the choice between these two approaches was strongly influenced by the conditions of the local markets facing the firm. Indeed, the story of the construction of the two projects demonstrates that the choice of business model was strongly influenced by the local market conditions prevailing in each city. For example, in Aceh, free houses given by NGOs impeded the use of the business model that had been developed in Medan with real estate developers building individual houses for low-income people. The selected program of microfinance for housing built on the distribution of land titles by NGOs after the tsunami which were used as collateral.

5.2 The influence of management systems on the choice of BOP market strategy

With regard to performance objectives, the two programs in Aceh and Medan differ in their capacity to generate revenues for the local unit over a short-term period. The time for the microcredit program to pay off in terms of new cement sales for the company is longer than with social housing: while 800 houses had been built in a one year timeframe of the partnership, generating approximately half a million dollars of cement sales, fewer than 40 microcredit loans had been granted, accounting for approximately 20 thousand dollars of sales.

Market capture programs are more easily integrated in diagnostic management control. Indeed, the program with developers in Medan which involved limited change in the business model was aligned with the local managers' performance objectives of short-term financial results. As a consequence, integrating this approach in a local marketing strategy was highly feasible for local managers, as it was compliant with their performance measurement system (diagnostic system). The program was fully integrated within the existing organization with

the signature of the partnership by the communications department and sales follow up by the logistics and sales departments.

The program in Aceh and the difficulty to get it integrated in the BU action plan shows how a very innovative program with a long-term pay off does not fit in a diagnostic management control. The program ended up being managed from overseas by me with limited interaction with the marketing and sales staff of the business unit up until the last year of the research period.

At the beginning of the research period, the management control that prevailed in Lafarge was mostly diagnostic, with a clear focus on the KPIs related to the strategic focus on cement and cost reduction. Consequently, Lafarge's local management was driven by the achievement of short-term objectives transcribed in the organization through the different KPIs and financial reporting. Bonus schemes and business performance indicators were also designed in the direction of these financial objectives. At head office, too, the comments on the first note in mid-2008 were mostly about "how many tons of cement sales" the pilot project in Aceh would generate.

At the end of the research period, no change had occurred in the management systems, but the customer innovation program was allowing local managers to propose and implement more innovative initiatives. The microcredit program in Aceh thus began to attract the attention of local managers. When head office started to show support for this type of approach by sharing the cost of a local manager for the Aceh program, the initiative became integrated in the marketing plan of the business unit a few months later.

These two cases show that in a predominantly diagnostic approach, market creation programs are unlikely to be developed by business units, as they may be perceived as downgrading performance indicators in the short term. In contrast, market capture programs fit well with

the expected performance captured by a diagnostic system, and find their place more easily in such a context. In a predominantly interactive approach, market creation programs are encouraged.

5.3 BOP market strategy and the firm's boundary

The development of the two BOP programs in Indonesia raised questions about the extent to which the company should change its core activities in order to address BOP markets – questions which formed part of the reactions to the notes produced from 2008 to 2010.

The program in Aceh was examined to determine whether Lafarge should adapt its business by entering the credit market through the provision of microcredit to low-income families. However, the reaction, “Lafarge is not a bank”, was frequently heard. In the case of Medan, the principal issue was about going downstream in the value chain to partner with developers and take more responsibility with regard to the construction deliverable. The failure in the attempt to propose a new construction mode is meaningful. Indeed, the development of a new construction mode by a cement company is perceived as shifting the distribution of responsibility in the value chain: while a cement manufacturer is primarily responsible for cement consistency in the delivery, the house design is part of the developer's responsibility. Having a cement manufacturer proposing and promoting a new design raises the question of who holds the responsibility of the construction modes in case of cracks or collapse. In Medan, the program implemented with developers ended up being more focused on supply assistance than on the construction itself, so that the business unit could stick to its core activities, and avoid undertaking new responsibilities.

The development of the two BOP programs questions the boundary that the organization has set up to delimitate what falls within or outside its scope. At the beginning of the research

period, the strategic focus of Lafarge was put on cement production and cost reduction, which clearly delineated the boundary on the core business. However, during the research period, two major moves were undertaken by the head office to test the prevailing “boundaries”. First, the launch of the Sustainable Construction projects (and the Affordable Housing project at the corporate level) was intended to promote the prescription of products to avoid substitution effects in the shift towards green construction solutions. As with the Affordable Housing project, this initiative was another testing of the firm’s boundaries in order to grasp new business opportunities.

In initiating this testing of the boundaries, the role of the head office is determinant. As illustrated with the programs initiated in China in 2006 and India in 2007, a business unit has limited ability to endeavor a change in the set of accepted activities. This issue was summarized by a general manager of a cement business unit in another country to whom the idea of developing a microcredit program was proposed: “It is a new job. Lafarge wants to go in that direction, so I expect to receive a message from the CEO saying I must do so, too.” The launch in the second semester of 2010 of the customer orientation program sent a signal to the business units that innovation in their operations is better accepted and that it should create new business opportunities. The interest that the CEO expressed several times for this topic, and in particular when visiting business units, also started to provide top management support to local managers. This contributed to initiating a change in the “boundaries” within which local managers were expected to work, allowing them to innovate, not only with their traditional customers (distributors, developers, etc.) but also with the end users, including low-income people.

Through market creation BOP programs, the firm thus creates a number of learning opportunities to determine the capabilities that it should acquire in order to improve its performance. In this sense, market creation approaches facilitate organizational learning and

change. However, the possibility for these market creation programs to exist is strongly linked with the performance system at work in the company.

6. Conclusion

The action-research brought about change at Lafarge with regard to the BOP – it moved from a philanthropic to a business issue. The two cases developed also demonstrate how this shift in perception constitutes a first step in organizational change. Indeed, while perception matters, the boundaries set up and the management control systems in place also have a strong influence on the type of BOP strategy that can be implemented. When the boundaries are strictly defined, and when performance is measured against inflexible and top-down-defined KPIs, market capture strategies are more likely to occur. On the other hand, when boundaries can be trespassed in order to test new a strategic positioning for the firm, and when performance systems provide enough flexibility to managers, BOP market creation programs are feasible.

Insert table 2 here

The article also illustrates that in the choice between the two approaches, local market characteristics have a strong influence. This means that the type of program that should be designed by a company in order to address the BOP market is not defined in advance, but should result from the analysis of the local market.

Two strategic options are then possible: the firm can decide to focus only on one type of approach, and adapt its organization accordingly. However, adopting market creation

approaches only poses a risk for the firm in that motivation can disappear as the programs do not deliver short and medium-term pay-offs. Conversely, adopting market capture strategies only can lock the firm within its set of capabilities, leading it to miss the opportunities of organizational change that BOP market creation approaches enable.

The literature on organizational change raises the question of *ambidexterity* in developing programs that sufficiently exploit the capabilities of firms to guarantee sustainability, and adequately explore new capabilities to ensure that the programs contribute to adaptation. Given this, the question of ambidexterity applied to the BOP context deserves more attention. Both the programs in Aceh and Medan would benefit from a more ambidextrous approach. The program in Medan would benefit from the introduction of the innovative construction systems starting to be developed at head office, that would contribute to improving quality and reducing the environmental footprint of houses. On the other hand, the innovative program in Aceh could leverage the existing relationship that Lafarge has at head office to connect it with funding from investors, and reach a larger scale. In this analysis of ambidexterity, particular attention should be paid to the relationship between business units and head office in the implementation of BOP programs: this is a key dimension addressed by this action-research program.

References

- Acquier, A., 2007. Les modèles de pilotage du développement durable: du contrôle externe à la conception innovante. Doctoral dissertation.
- Aguinis, H., 1993, Action Research and Scientific Method: Presumed Discrepancies and Actual Similarities, *Journal of Applied Behavioral Science*, Vol. 29, No.4, pp. 416-431.
- Arjaliès D-L, Ponssard J-P.,2010. A managerial perspective on the Porter hypothesis. The case of CO2 emissions, in: Ponssard, J-P., Crifo, C. (Eds), *Corporate Social Responsibility: from Compliance to Opportunity?*. Editions de l'Ecole Polytechnique, Paris.
- Barney, J., 1991. Firm resources and sustained competitive advantage. *Journal of Management*.17: 99 – 120.

- Bartlett, C. A., Ghoshal, S., 1989. *Managing Across Borders: The Transnational Solution*. Boston: Harvard Business School Press.
- Gupta, A., Smith, K., Shalley, C., 2006. The Interplay between Exploration and Exploitation, *Academy of Management Journal*, Vol. 49, No. 4, 693-706.
- Hart, S., 2005. *Capitalism at the Crossroads: The Unlimited Business Opportunities in Serving the World's Most Difficult Problems*. Wharton School Publishing.
- Hart, S, Christensen, M., 2002. The Great Leap. Driving Innovation from the Base of the Pyramid. *MIT Sloan Management Review*(Fall 2002): pp. 51-56.
- Hart, S, Simanis, E., 2008. *Beyond Selling to the Poor: Building Business Intimacy Through Embedded Innovation*, Working paper.
- Leonard-Barton, D., 1992. Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, 13: 111-125.
- Levinthal, D., March, J., 1993. The myopia of learning. *Strategic Management Journal*, 14: 95-112.
- London, T, Hart, S., 2004. Reinventing strategies for emerging markets: beyond the transnational model. *Journal of International Studies*, 1-21.
- March, J., 1991. Exploration and exploitation in organizational learning. *Organization Science*, 2: 71-87.
- Mintzberg, H., Westley F., 1992. Cycles of organizational change, *Strategic Management Journal*, Vol. 13, pp. 39-59.
- O'Reilly, C., Tushman, M., 2004. The ambidextrous organization. *Harvard Business Review*, April: 74-83.
- Prahalad, CK., 2004. *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits*. Wharton School Publishing.
- Prahalad, CK, Hart, S., 2002. The fortune at the bottom of the pyramid. *Strategy+Business*, 26 (First Quarter): 2-14.
- Prahalad, CK, Hammond A., 2002. Serving the world's poor profitably, *Harvard Business Review* 80(9): 48-57.
- Rapoport, R., 1970, Three dilemmas of action research, *Human Relations*, Vol.23, pp. 499-513
- Segel, A., Chu, M., Herrero G., 2006. *Patrimonio Hoy (case study)*. Harvard Business School Publishing.
- Seelos, C., 2008. *Corporate Strategy and Market Creation in the Context of Deep Poverty*. Gold Prize Essay in the 2008 essay competition sponsored by IFC and Financial Times.
- Simanis, E., 2008. *Base of the Pyramid Protocol Version 2.0*, Accessed February 20th, 2009. <http://BOP-protocol.org/docs>

Simons, R., 1995. *Levers of control: How Managers use Innovative Control Systems to Drive Strategic Renewal*. Harvard Business School Press.

Sirmon, DG., Hitt, A., Ireland D., 2007. *Managing Firm Resources in Dynamic Environments to Create Value: Looking Inside the Black Box*. *Academy of Management Review* 32(1): 273-92.

Susman G., Evered R., 1978. *An Assessment of the Scientific Merits of Action Research*, *Administrative Science Quarterly*, Vol.23, pp.582-603.

Vermeulen, E., 2008. *Building dynamic capabilities for the base of the pyramid: a closer look at firm practices*, in: Kandachar, P., Halme, M., *Sustainability Challenges and Solutions at the Base of the Pyramid*. Greeleaf Publishing.

Winter, S., Szulanski, G., 2001. *Replication as Strategy*, *Organization Science*, Vol. 12, No 6, pp. 730-743.

Tables

Table 1

Lafarge's perception of the BOP in 2007 and 2010

| | 2007 “Not a business opportunity” | 2010 “A business opportunity” |
|----------------------------------|--|--|
| Belief system | BOP is part of CSR activities | “Affordable Housing” as a business opportunity |
| Boundary system | Focus on core business and cost reduction | Aligned with new strategic focus on new business development |
| Management control system | BOP programs downgrade key performance indicators | Becoming more interactive: Innovative programs in some countries Top management support and dedicated organization Leveraging R&D capabilities |

Table 2

A strategic framework of a firm's engagement with the BOP

| | STAGE 1 Compliance approach | STAGE 2 Business approach | |
|---------------------------|---|--------------------------------------|-----------------------------|
| Belief system | BOP as a philanthropic and public-relations issue | BOP is as a possible business | |
| Boundary system | Not in the company core business (no support) | Inflexible boundary | Flexible boundary |
| Management control | Not aligned with control systems | Dominant diagnostic system | Dominant interactive system |
| BOP strategy | Isolated programs with no support | Market capture strategy | Market creation strategy |