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Multinational Corporations' Strategies at the Base of the Pyramid: An Action Research Inquiry

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Abstract Why and how does a multinational corporation adapt its strategy and organizational capabilities to address markets at the base of the pyramid (BOP)? This paper builds on the results of a 3-year action research program conducted with Lafarge, a global building materials company, during which it started to consider the BOP segment as a strategic business opportunity. The article shows how pilot projects and global action networks created as part of the action research in the Indonesian subsidiary and the firm's head office contributed to this change. The paper then discusses the implications of BOP strategies in terms of organizational capabilities.

Keywords Action research · Base of the pyramid · Multinational corporation · Organizational change · Strategy · Global action networks

Abbreviations

AR	Action research
BOP	Base of the pyramid
CSR	Corporate social responsibility
CEO	Chief executive officer
GAN	Global action networks
MNC	Multinational corporation
MFI	Microfinance institution
NGO	Non-governmental organization
KPI	Key performance indicator
RBV	Resource-based view

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Introduction

The base of the pyramid (BOP) concept conveys the idea that the development of new product and services for low income customers can contribute to creating new markets for firms while improving the living conditions of this population segment (Prahalad and Hart 2002). By purchasing products from multinational corporations (MNCs), the poor can escape from poverty (Prahalad 2004).

Early articles relating to the base of the pyramid concept 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 models and develop new capabilities, i.e., new ways of assembling their resources and competences (Barney 1991), to address this market segment successfully (Hart 2005; Hart and Christensen 2002; Simanis 2008; Vermeulen 2008). While most of these articles emphasize 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 the BOP segment, and how it does so.

To help fill this gap, this paper focuses on the case of Lafarge, a global building materials company headquartered in France. In its 2013 Sustainability Report, the company claims that it has developed BOP projects addressing the needs for "affordable housing" in 15 countries since 2011, and that five of these projects are now profitable, contributing to improving the housing conditions of 120,000 people (Lafarge 2014a). This paper focuses on the three preceding years (2007–2010), during which Lafarge began to address this consumer segment. It builds on the results of a 3-year action research (AR) program conducted by the author when employed as a doctoral student[1] by Lafarge. While at the beginning of the research period, most top executive managers were doubtful whether the BOP segment constituted a business opportunity in terms of potential profits (comforted in their opinion by the previous failures faced by the firm when developing such programs), 3 years later the consensus that "the market opportunity at the BOP is large" was growing. Several BOP programs had been launched in different countries; in particular, two projects initiated as part of the AR project in Indonesia, impacting more than 800 low-income families. At the end of the research period, Lafarge had set up a dedicated team whose mission was to launch BOP initiatives in more than ten countries.

To analyze the organizational change which took place in Lafarge over the research period, the paper combines two analytical frameworks. It relies first on Simons' (1995) levers of control (belief system, boundary system, management control) to describe the strategy in relation to the BOP before and after the research period. Change within the organization at the business unit and head office level is analyzed through this lens, and particular attention is paid to how the action research contributed to it. To understand the triggering factors of this change, the paper uses the notion of global action networks (GANs), which refers to groups of stakeholders which can include NGOs, the civil society, and also private companies, who agree to work together to address global issues such as poverty (Waddell 2011). Building on Calton et al. (2013) which show how GANs are essential in creating value at the BOP, the paper analyzes the role of these networks in triggering change in the mindset of the firm vis-à-vis the BOP segment.

The paper is organized as follows. The following section reviews articles related to organizational change in the implementation of BOP strategies, and introduces the analytical framework. The next section presents the research method and context. Then, the article presents in two separate sections the work conducted as part of the action research at the business unit level in Indonesia and at the head office level in France. The subsequent section discusses the organizational challenges in embedding BOP strategies in the organization. The final section draws some implications for practitioners and areas for future research.

[1] The dissertation was conducted within the framework of a research convention, which in the French research setting allows a doctoral student to be hired by a company and work on a doctoral thesis conjointly designed between all parties.

Organizational Change in the Implementation of BOP Strategies

Organizational 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 the organizational chart or job activities (Mintzberg and Westley 1992). Kolk et al. (2014) show that the BOP literature has focused on a concrete change in activities, such as the creation of new distribution channels, products, or services to address the BOP consumer segment. However, this article offers a more integrative framework for understanding organizational change, both in terms of mindset and capabilities, when implementing BOP strategies.

Building on the resource-based view (RBV) of the firm's framework (Barney 1991), the literature focuses on the concrete change in the capabilities of firms starting to address the BOP (London and Hart 2004; Seelos 2008; Vermeulen 2008). The RBV 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 for deploying resources (such as knowledge, human resources, networks, etc.) to perform an activity in an efficient way is referred to as a "capability" (ibid).

The BOP literature defines two broad ways of managing capabilities when entering markets at the BOP. One strategy entails leveraging existing capabilities (such as the existing production facilities or the distribution and sales networks) by slightly modifying the mainstream business models of MNCs to deliver products or services in new geographical areas (Seelos 2008; Simanis 2008). This type of approach is often referred to as a BOP1.0 type of strategy or "market capture" (Arora and Romijn 2012; Simanis 2008; Munir et al. 2010). A frequently cited example is Unilever in India, who addressed the soap and shampoo needs of low-income earners in rural India by repackaging existing products in smaller sachets (Simanis 2008). However, this type of low-innovative approach has been criticized for its ability to successfully reach low-income consumers and makes a positive and long-lasting impact on the lives of BOP consumers (Karnani 2007).

Rather than redeploying, the second option is for firms to develop new capabilities which may be, for example, the creation of a totally new range of products better suited for the BoP, or setting up new routes-to-market to reach this customer segment (Prahalad 2004). To do so, firms need to acquire the knowledge and resources that enable them to overcome the challenges in targeting the BOP. 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 and Christensen 2002; Simanis 2008). As an illustration of a new capability required, London and Hart (2004) demonstrate that strategies targeting the BOP require firms to strengthen their "social embeddedness," which they define as "the ability to create advantage based on a deep understanding of integration with the local environment." Similarly, Tashman and Marano (2010) contend that the context of impoverished economies suppresses the value of organizational resources and capabilities. In line with Vermeulen (2008), they emphasize that firms' capabilities to succeed at the BOP are dynamic, where firms gain agility by leveraging on their environment. Ultimately, the majority of scholars argue that innovative "market creation" strategies, or "BOP2.0", are preferable over market capture strategies and should be built on tailor-made solutions developed at the local level, by involving low-income people (Hart and Christensen 2002; Simanis 2008; Vermeulen 2008; Kolk et al. 2014; Prahalad 2011; Rangan et al. 2011).

Defining the Extent of Change to Succeed at the BOP

While the literature emphasizes the importance of adapting organizational capabilities to sell to the BOP, the case for change suffers from two limitations: first, the magnitude of the change and its impact on the competitive advantages of MNCs in this market, and second, the identification of triggering factors that set off the change. The question how much a company should change to adapt to new markets and context 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. Faced with a new environment, should firms explore new capabilities to adapt business models and enter a new market, or should they exploit 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) (e.g., Andriopoulos and Lewis 2008; Gupta et al. 2006; Martini et al. 2013). 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" (March 1991).

The literature on exploration and exploitation has emphasized the risks of focusing too heavily on either alternative (Levinthal and March 1993). The focus on the exploitation of existing capabilities leads to core rigidities that render firms unable to adapt to the environment (Leonard-Barton 1992). Applied to the context of firms addressing the BOP segment, such rigidity may lead to projects that are insufficiently innovative to meet BOP consumer needs (Simanis 2008). Conversely, exploration shifts firms away from their core competences. 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 Szulanski 2001), and achieve global scale efficiencies (Bartlett and Ghoshal 1989). This never-ending search for solutions 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 in their attempt to sell to the BOP consumer by repeatedly inventing products and solutions disconnected from their core business. This in turn increases the difficulty of embedding the solution within the portfolio of products and the mainstream organization (Simanis 2013). Firms need to align their BOP initiatives with their core strategy, ensuring that such initiatives are not managed separately from the core business, but instead serve their mainstream strategy (Simanis 2012; Simanis and Milstein 2012; Simanis 2013). Karamchandani et al. (2011) also emphasize that the BOP segment may not be the panacea for all firms, and that companies should ask themselves if they actually do possess the capabilities to deal with informal markets and a myriad of small transactions.

Strategic management researchers have attempted to find solutions on how to combine sufficient exploration to ensure that organizations adapt to their new environment and sufficient exploitation to ensure that they achieve the required performance. It has now become a tautology to say that firms need to be "ambidextrous," meaning able to combine exploration and exploitation activities in order to change successfully (Gupta et al. 2006; O'Reilly and Tushman 2004). To achieve this ambidexterity, cross-sector partnerships have been presented as critical resources to enable firms to focus on their core competencies while relying on partners to provide the additional capabilities needed to succeed (Hardy et al. 2006; Le Ber and Branzei 2010; Rondinelli and London 2003). Murphy et al. (2012) show that market creation strategies developed in partnership with not-for-profit organizations generate a number of learning opportunities for MNCs which test the capabilities that they may need to acquire to improve performance. On a larger scale, the creation of dense relationships between corporations and stakeholders such as governments, local communities, or NGO is said to be critical to the success of firms in developing BOP ventures (London et al. 2005; London et al. 2010).

Calton et al. (2013) advance the debate by applying the conceptual framework of global action networks to the

BOP. The GAN concept was initially introduced by Waddell (2011) to describe partnerships between business, civil society, and governments to address a shared problem. Calton et al. (2013) show how the constitution of such networks of actors—constructed on a voluntary basis and driven by the leadership of visionary participants—creates the conditions for firms to "broaden their perspective to reach across organizational and sector boundaries and acquire partners and resources."

However, the question of how GANs enable managers to overcome the challenges in trying to set up BOP initiatives has not yet been considered, and the case study in the following section aims to address this gap. Indeed, managers interested in leveraging their firm's capabilities to address the BOP segment face a myriad of difficulties. A study by Oslen and Boxenbaum (2009) identifies types of organizational barriers in the launching and implementation of BOP programs. They highlight that when such programs are instigated, a conflicting mindset appears between local units and headquarters. The implementation of BOP programs also implies radical changes to mindset, routines, incentives, and performance indicators if new business models are to be implemented. However, no study exists that outlines how company management gradually becomes convinced that the BOP market is sufficiently worthwhile for these challenges to be overcome. In particular, the literature generally takes it for granted that managers perceive the BOP as a business opportunity. As Oslen and Boxenbaum (2009) suggest, there is a need to understand the change in the mindset and culture with regard to the BOP.

Theoretical Framework to Analyze Organizational Changes

To understand the triggering factors of change ("why?") and the magnitude of change ("how much?"), it is important not only to focus on the concrete change in the organization, but also on mindset; an oft-neglected issue in organizational change studies. To do so, this paper combines two theoretical frameworks to account for the extent to which the organization changes to deliver BOP initiatives and why this change is triggered.[2]

Robert Simons' levers of control provide an interesting framework for understanding the magnitude of change within the case study organization. In his 1995 seminal book, Simons defines an analytical grid of a firm's strategy that 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 its implementation. Simons' framework 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). Simons' two other forces, "belief systems" and "boundary systems," place 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). This could also be defined as the firm's strategic intent, as coined by Prahalad and Hamel (1989). Examples of 'belief systems' can be found in the principles that want that innovation is the main lever of development for an organization or that emerging countries are the main source of untapped opportunities. Altogether, Simons' belief, boundary, and management control systems provide a comprehensive framework for analyzing a change in strategy (Arjaliès and Ponssard 2010).

However, while Simons' framework can provide a snapshot of an organization at two distinct moments, it does not capture the factors that triggered the shift from one situation to the other. Here, the GAN concept provides an analysis of the social dynamics of actors and how certain change agents influence the firm so that it contributes more to solving a global issue. The GAN approach finds its roots in stakeholder theory (Calton et al. 2013), which places the firm within its broader network of actors—who are impacted by the firm and who influence it in return

[2] I am grateful to the reviewers for making the suggestion regarding the use of the GAN theoretical framework.

(Freeman 2010 p. 24; Freeman and Phillips 2002)—thus providing a broader perspective on what triggered the change from the outside. Calton et al. (2013) highlight how a firm's actions toward the BOP segment are shaped by NGO or governments, who through their actions render the firm's involvement and the development of BOP initiatives possible. Through the lens of Simons' four levers of control and the GAN framework, this article analyzes the change in Lafarge's approach to the BOP and its triggering factors.

Company Background

Lafarge is a leading global company in the building materials industry, with cement, aggregates, and concrete production operations in 64 countries. In 2012, Lafarge posted sales of 15 billion Euros, and employed 68,000 people. Listed on the Paris stock exchange, the company makes more than 50 % of its turnover in emerging economies (Lafarge 2014b). The company has a long-standing tradition of engagement on sustainability issues. For example, Lafarge founded the World Business Council for Sustainable Development (Lafarge 2003) and partnered with the NGO, WWF, to reduce its CO_2 emissions. The company is also part of the Dow Jones Sustainability World Index. It benefits from a strong reputation on environmental and social responsibility (Acquier 2007) and frequently receives awards for its engagement (Lafarge 2014a). Since its founding in Southern France in the late 1880s, the company has distinguished itself by implementing social policies beneficial for employees and local communities, such as the creation of clinics and schools in corporate villages attached to the plant. Given the cyclical nature of the construction market, Lafarge's shareholders are mostly long-term investors: two large reference investors make up 35 % of investors and institutional investors, 45 % (Lafarge 2014b).

Lafarge's business model, like that of its global competitors Holcim or Cemex, was at the time of the research mostly focused on the local production of cement. With a low-value-to-weight ratio and high transportation costs, the production of cement remains a predominantly local business, with, on average, around 95 % of global cement consumption consumed in the country where it is produced (Folliet 2011). Cement is usually sold to local distributors who resell it to retailers and contractors for projects. The notion of "customer" for a building materials company is, then, applied to these contractors or distributors who purchase large quantities from the plant, or to the masons who buy the product from retailers' stores supplied by the distributors. Individual home builders who buy cement from their local retailer to build or improve their own house constitute second-level customers of cement manufacturers. In addition, the cement industry is highly capital intensive, with investments usually made to extract and transform raw materials for periods of 50 years or more. In this context, the relationship between cement manufacturers and local stakeholders (governments, municipalities, NGO, or local communities) is a key factor for the long-term success of their business.

Building material producers are often criticized by NGO and the governments of certain emerging countries (such as Nigeria or South Africa) for the high prices charged to end-buyers of cement, rendering this necessary product unaffordable for low to middle-income earners (Rust and Gavera 2013). In response to these criticisms, cement manufacturers highlight the high costs of entrants they face, such as fuel, which impact production costs. They also acknowledge their limited ability to influence the end-price as cement is sold through distributors who transport and store it before selling it on to the end-user. In addition, cement is only one material among others, representing just 15 % or less of the total cost of a construction project. Taken together, these challenges contribute to framing the "belief system" surrounding the affordability of construction materials as an external constraint for the cement company linked to the firm's license-to-operate.

Prior to the research intervention, BOP was predominantly perceived as a social issue that the firm had tried to address in some areas by implementing programs aiming to satisfy local expectations. For example, the company had partnership agreements with NGO, including Habitat for Humanity, with whom it worked to build houses in Poland, Romania, and the US (Lafarge 2003). In the early 2000s, Cemex, one of Lafarge's main competitors, launched an innovative program to address the housing needs of low-income families in Mexico (Prahalad 2004; Segel et al. 2006; Arnold and Williams 2012). Known as Patrimonio Hoy, the initiative provided access to saving and micro-credit schemes for low-income consumers who could then purchase materials and build houses progressively. In 2006, Patrimonio Hoy was reaching 30,000 customers per year and was said to have generated approximately 10 million dollars of sales for Cemex (Segel et al. 2006). It received much attention following its inclusion in Prahalad's best seller on the BOP (Prahalad 2004).

Prior to the research intervention, two Lafarge business units had also developed projects attempting to address the BOP as a business opportunity, although neither achieved the expected success. In 2005, the South African subsidiary entered into a partnership agreement with the government to provide cement and concrete for government housing projects. Lafarge supplied materials for the construction of approximately 8000 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. The other unsuccessful case involved going beyond the mere provision of materials, by entering the construction design itself. In 2007, the Indian subsidiary launched a low-cost housing solution intended for inhabitants in rural India. However, a few months after the launch, the first customers began complaining about cracks in 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, but should instead consider the BOP as a corporate social responsibility (CSR) imperative.

In Simons' levers of control terminology, the belief system, i.e., how the BOP segment was perceived, relies on the idea that it was a constraint external to the firm's business model. Responses in the countries where Lafarge wished to demonstrate its sense of citizenship were more akin to public relation programs. However, as these programs were perceived as a cost, they were not expected to become 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 roofing division. Consequently, when attempts to address the BOP as a business that went beyond the firm's "boundary" (i.e., the core set of activities) were introduced, business units received no support.

Context of the Research

Within this context, and having joined Lafarge with the objective of working on topics linked to socially responsible practices, the author 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 that received his support was 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?" The author was then placed under his responsibility, and split his time between research activities conducted at the Ecole Polytechnique in France and operational work at Lafarge—both at the head office in France and the Indonesian subsidiary. The chart below (Graph 1) describes the position of the researcher within the organization.

At the end of the research period, the perception of the BOP had dramatically altered. Illustrating 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 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 placing on new business development. In turn, several business units 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.

To carry out the project, the author opted for an action research (AR) approach. 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: p. 499). This means that the researcher is embedded in the organization and contributes to generating the phenomena that are intended to be analyzed though his/her research activities. Under this methodological paradigm, hypothesis and data are not only obtained, but also created through collaboration between the researcher and organization's members (Aguinis 1993; Susman and Evered 1978). The term "action research" was coined by Kurt Lewin in 1946 in reaction to the lack of interest in how traditional science was failing to help 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 1993). Susman and 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 AR collaboration with Lafarge started in 2007 and the research contract terminated at the end of 2010—the period focused on in this study. Interviews were not recorded throughout the AR period, given the sheer number of interactions with colleagues and external parties. To overcome this limitation, a strong emphasis was placed on the compilation of written documents and people's reactions to them, in order to more easily identify the change taking place in the perception of the topic.

Action Research at the Subsidiary Level

In September 2007, the general manager of Lafarge's Indonesian business unit asked for support from Lafarge's Strategy department to identify how business models could

Graph 1 Organization chart (2007–2010). In ***bold***: the two levels of the action research project

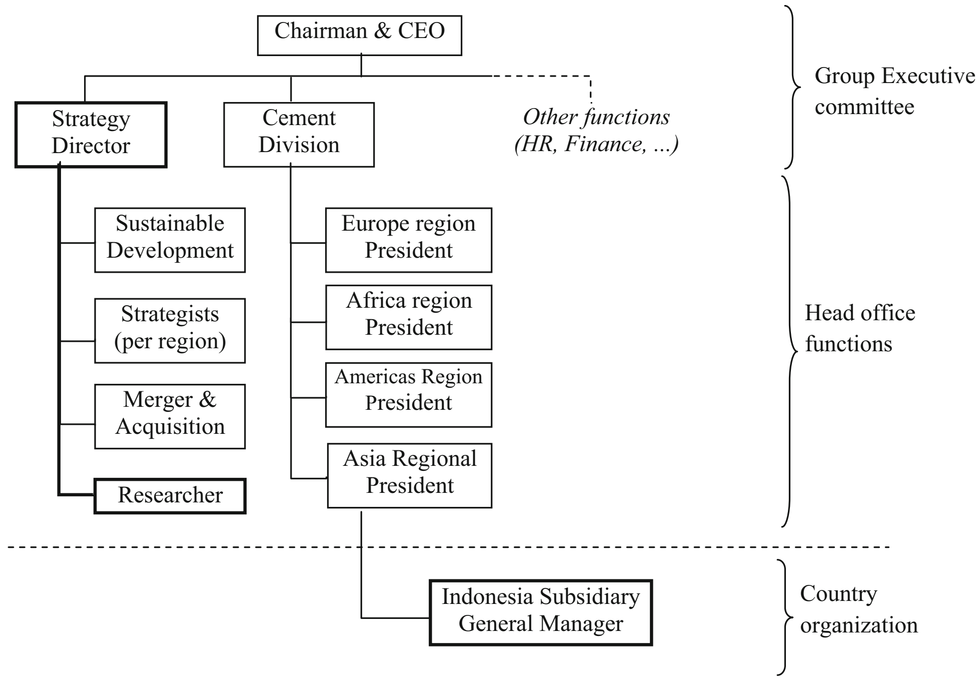


Table 1 Lafarge's perception of the BOP in 2007 and 2010

	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

be developed to address what was then called "low-cost housing." The Indonesian subsidiary has nearly 500 employees and manages one cement plant—one of the 160 plants that the company owns globally—with a production capacity of one million tons of cement, based in Banda Aceh. Lafarge production is sold in Northern part of Sumatra Island, where the company has a 40 % market share and competes with domestic producers only. 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. Data collection then began. 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). A method of market assessment was first defined, which built on the results of a consulting mission undertaken by Ashoka, an international network of social entrepreneurs (Bornstein 2007). 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. Interviews were conducted with approximately 30 key respondents in 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 people at the headquarters of the business unit in charge of sales and logistics, communication and CSR, and 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 warranted further investigation. A member of the marketing staff was appointed to further examine opportunities in the Medan area.

The following sections describe the two programs developed in the business unit. For the program in Medan, the author's role involved accompanying and challenging the local resources, once the first visits had been conducted. In Aceh, he was responsible for the program's development and implementation from its inception up until the handover in late 2010.

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 $5000. As they were unable to produce a large quantity of dwellings at this price, they could only construct a few houses between major building projects, i.e., when 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 materials. Ultimately, this would 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 the corners being joined such that concrete could be poured quickly. Although this idea grabbed the developers' attention, 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 a solution implemented in Central Java by one of Lafarge Indonesia's main competitors, Holcim Indonesia, to help building material retailers sell predesigned low-cost houses. To test the feasibility on Lafarge markets, interviews were conducted in the city of Medan. However, local retailers showed very little interest as they were sufficiently occupied with their current customer base. Finally, a third round of interviews concluded 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 agreed to guarantee the supply of cement, and no special discount was granted to the developer. During 2010, 820 houses of 40 square meters each were built, using a conventional brick and mortar technique, and comprised a bedroom, a living room, and a kitchen. This construction project generated approximately half a million dollars of cement sales for the company. Although supplying this construction project was as profitable as similar projects which would not have targeted the low-income market, the approach was perceived by the management as a business-as-usual deal which could be easily replicable for the local competitors Graph 2.

Photos of the houses are provided in the Appendix.

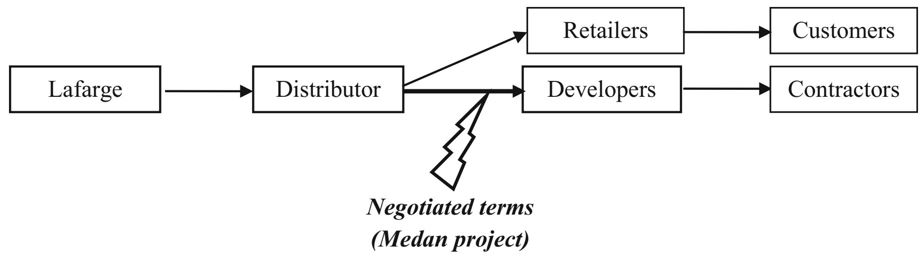
Case 2: Microfinance for Housing in Banda Aceh

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 NGO reconstructing over 120,000 houses. When the survey started in December 2007, many NGOs were still occupied with the final 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 NGO and were not looking toward new house designs or technical innovations. Moreover, interviews with homeowners and village leaders indicated that people were not searching for new houses, as the NGOs were still offering their services to build additional dwellings.

In March 2008, a second round of interviews with homeowners showed that people were looking to improve their houses, most of which had 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. Initially, houses comprised a main room, a bedroom, an outdoor kitchen attached to the house, and in most cases, a latrine. The renovation and extension of houses rapidly emerged as a major issue.

Graph 2 Value chain in cement distribution. In ***bold***: changes in the value chain



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 primarily been used to enable poor people to develop small businesses and increase their income. Some innovative microfinance institutions (MFI) have started to propose microcredit for financing home extensions and renovation "one room at a time." Such loans are larger in size (up to $1500) and with a longer tenure (up to 3 years), compared with the business loans habitually offered by MFI (normally $500 over 6 months). Customers generally use the loans to purchase construction materials and occasionally pay labor costs. To test the idea of implementing a similar program and to evaluate the feasibility of such a solution, a third series of interviews were organized in July 2008. These took the form of an open workshop with more than 60 stakeholders, including homeowners, international and local NGO, 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 they already counted among Lafarge's financial partners, partnerships would have been relatively easy to negotiate, thanks to cultural proximity and business interests. However, since these banks are predominantly saving institutions, with lending activity 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 institutions mainly provide services to 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, Bisma's activity mainly entails investing in MFI 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 organized 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 several 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 $3000 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 $1500. In brief, the survey supported the idea that microfinance could work in 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 in fact the remaining capital of the solidarity fund created by Lafarge in 2005 to finance the intervention of NGO in the aftermath of the tsunami. The sharing of roles was outlined as follows: Bisma would receive the provided capital and manage it as a revolving fund by investing in MFI. To do so, Bisma would evaluate the MFI applying to be part of the program, train them, and provide the funding progressively, as the MFI grants the housing loans. Lafarge Indonesia would train masons to whom borrowers would have access for home improvements. The MFI would identify borrowers, evaluate their profile, and manage microcredit payments and disbursement. Care Indonesia would evaluate over the next 3 years the impact of the program on the lives of the borrowers and masons, following an impact assessment methodology.

The chart below (Graph 3) describes the changes in the value chain that the Aceh project introduced.

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 3 months, just 12 had been accepted. It appeared that MFI had not developed any communication tools, 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 20–30 % 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 accelerate the disbursement pace of the MFI. 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.

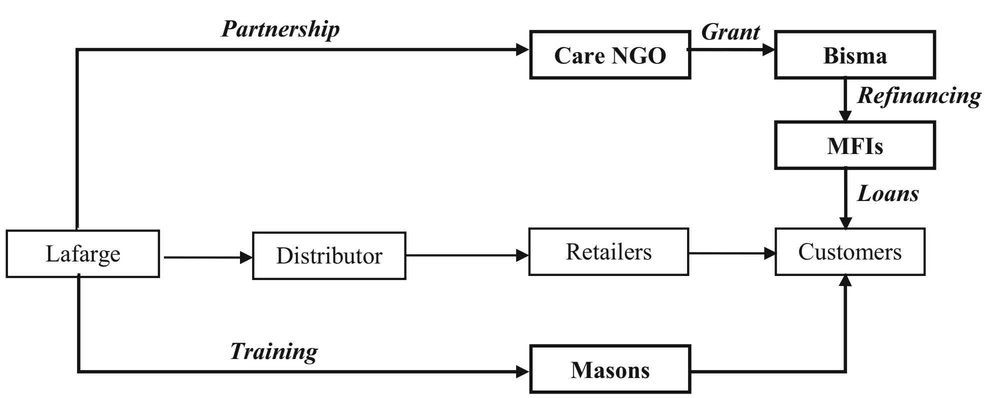
Photos provided in Appendix show examples of incremental housing constructions and renovation projects which received microcredits.

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 outset, and following the field visit to 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 large" and strategic. Three phases can be identified in the change which occurred at Lafarge with regard to the perception of the opportunity at the BOP, as summarized in the following sections.

2007–2009: Raising Awareness About the Market and Social Opportunity

Benchmarks of BOP initiatives carried out by competitors or peer companies were produced as part of the action research to grab management's attention. A first note produced in February 2008 illustrated how Cemex had implemented a successful program. In June 2008, an article was prepared for a scientific publication, introducing the differences in firms' strategies 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 it was a philanthropic/public relations issue or a business opportunity. The research involved analyzing case studies external to the firm, interviewing managers of Lafarge's previous BOP projects, and questioning external managers of other BOP programs (Danone, Essilor, EDF).



Graph 3 Innovative network of partners in Aceh project. In ***bold***: changes in the value chain

Based on the lessons learned in these case studies, a memo was prepared in February 2009 detailing 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, responsible for the Group's "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 on the role of Lafarge's products in alleviating poverty took place, demonstrating that Lafarge managers were not entirely 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 large companies from other sectors such as Danone, Essilor or Schneider Electric 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. The notion of engaging with the BOP was associated with certain philanthropic activities that the firm had previously implemented. However, it also emerged that a possible approach to the BOP market, building on the experience of competitors and peer companies, was welcomed by most interviewees. Interviewees highlighted how approaching the BOP was aligned with the humanist values of the firm.

Following this consulting mission, in February 2010, a note was prepared detailing the actions that Lafarge could undertake to "reinforce its societal engagement." The 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 for 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 low-income 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 NGO and social entrepreneurs trying to solve the housing issue were organized and contributed to sensitizing parties to the topic.

2009–2010: Experimenting BOP Programs on a Small Scale

The ability to launch the project in Aceh was key to successfully demonstrating on a small scale what the BOP approach meant, and two main factors were useful for achieving this. The first was related to the action research context. In the framework of the research contract, the company is tied to investigating the topic under study over a definite period of 3 years—sufficient time to gradually 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 within the wider framework of the CSR partnership with Care France. The support of Care France in pushing through the project, 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 2010, initial results of the two Indonesian programs 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 projects were launched, visits for top managers were organized so they could meet with people benefiting from microcredit in Aceh or see 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 wellbeing," 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 was important in illustrating 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, as shown in Graph 3. This change was also reflected in the terms employed when referring to 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 seize the market. The phrase, "base of the pyramid," was then increasingly used between the researcher and the projects' partners, 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 whom the term BOP had been coined—and low-income people in developed countries.

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 actually means for a company to engage with low-income customers remain hard to evaluate. Initial documents produced in the action research were based on the same type of broad arguments (primarily on the World Resources Institute 2006 report). The first step toward 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 VP of Strategy & Development who had commissioned the research project set up a team (of which the author was part) to study the business at stake for the firm with regard to two topics: sustainable construction and affordable housing. The goals assigned to the Affordable Housing team were to better assess the size of the BOP market opportunity, propose how Lafarge should organize itself, and initiate projects in various countries. 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, supported the presentations and the business case, and contributed to illustrating the existence of opportunities for additional sales by developing supplementary services.

In November 2010, a further note was prepared outlining how the project in Aceh could be scaled up by developing the financing vehicle 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 large." At that time, top management also decided to launch a corporate program whose goal would be to develop the Group's revenues through innovative approaches. It contributed to sending a signal to the business units that unusual market approaches were valued. 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.

At the end of the research period, the Affordable Housing team began replicating the initiatives in five countries, with sufficient financial resources made available to recruit people to manage the projects locally. In September 2011, the same week as the author defended his PhD dissertation, the Executive Committee approved the business plan for rolling out the program in as many countries as possible.

Discussions

GAN as a Triggering Factor of Change

The Medan and Aceh cases illustrate two situations: one where the project developed complies with the belief, boundary, and management control systems (Medan) and one where these systems are challenged by the project (Aceh).

The Medan case, which led to a "business-as-usual" type of project, illustrates how the local organization, after several attempts to develop an innovative approach, ultimately implemented a project which complied with the prevailing systems (a focus on the core business of cement production). As an example, the attempt to develop a new construction technique was perceived as shifting the distribution of responsibility in the value chain. Having a cement manufacturer proposing and promoting a new design would raise the question of who held responsibility for the construction modes in case of cracks or collapse. Thus, the business-as-usual type of agreement signed fitted with management control levers that emphasized short-term performance. Notably, in this case, the group of actors involved in the project remains the same: the deal is driven by the subsidiary's local marketing organization and the partnership ultimately involves parties who are day-to-day business partners, i.e., developers and distributors.

The Aceh project presents a completely different situation: the company accepts the implementation of a totally new approach, at odds with prevailing control systems. Here, we see a clear change in the boundaries, as the partners—hitherto unknown by the company—join in with efforts to support the project (Care Indonesia, Bisma, microfinance banks). The case also challenges the belief system, since the company moves toward the provision of a new service (microcredits). Although management control systems focus on short-term results, the low performance of the project in its initial stage did not impede its deployment.

The notion of GAN helps to explain why these two programs—just 400 km apart—were implemented within the same organization. The Aceh project benefitted from a broad range of partners who shared a common response to a defined problem (helping people living in NGO dwellings to extend them), leading to the emergence of a GAN. This case shows how the support of these new partners (Care at the head office level, its subsidiary in Indonesia, the microfinance banks, etc.) contributed to the acceptance of the change in boundaries.

The narration of change at the head office level also shows how the Aceh case contributed to a broader change in the boundaries and belief systems at this level. Indeed, the Aceh case had a specific resonance at head office, since its preliminary results arrived at a time when another GAN network started contributing to a change in the perception of the BOP segment—the Aceh case becoming a frequently cited example of why a firm should seek further involvement with the BOP segment. A new network of actors developed progressively over the 3-year research period. Further to the support of Care, certain directors began setting up working groups on housing, and visiting slums in France. Furthermore, the launch of the Affordable Housing team, under the VP of Strategy & Development who supported the author's doctoral research, demonstrates how some individuals within the organization can be particularly susceptible to the creation and development of a GAN.

To initiate this change in boundaries, the role of several actors was particularly important and illustrates how different leadership profiles matter to succeed in setting up GAN network at the head office level. The role of the VP of Strategy & Development has proved central to initiate the project and ensures its development throughout the 3 years of its research collaboration. In spite of the limited sales that the local initiatives generated in their first months, he agreed to "shelter" the research project within his team. This is an illustration of the ability to handle "paradox and ambiguity" that Waddell (2011) highlights as a central leadership attributes of GAN members (p. 144). A further factor which enabled the project's launch was the opportunity to present it within the wider framework of the CSR partnership, thanks to the work of the NGO Care. Their support in pushing through the project, 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. This shows the role of actors who may be "outsiders" to the organization but who contribute to empower internal change agents. In line with Calton and Payne (2003), the collaboration between the NGO and the author helped creating a multistakeholder dialog that allowed inventing a new approach to serve the BOP customers in Aceh. The involvement of the NGO also contributed to create a collective leadership (Waddell 2011, p. 153) on the project, where the project's success becomes a shared responsibility for the GAN members.

The role of the author in the emergence of the GAN and in the transformation of the company's approach sheds light on the phenomenon of social entrepreneurship within large organization, also called social intrapreneurship (Kistruck and Beamish 2010). Mair and Marti (2006) show how researchers embedded in the organization can contribute to inhibit the emergence of initiatives that address a social issue through a business project, which is what the Lafarge case also illustrates. The case shows how the role of the researcher both internal and external to the organization was decisive in linking the company with new partners. The example of the Ashoka method of evaluating BOP markets, which was left unused until applied by the author, illustrates how firms require people who can bridge the organization and partner resources, thereby allowing the company to leverage on the partners' capabilities. The author's role was also central to connect the GAN that emerged at the head office level with the group of actors who contributed to the change which took place in Indonesia with the NGO and the microfinance institutions. It is noteworthy that although two networks appear in Indonesia and France, there are actors (the NGO, Care, and the author himself) who belong to both. This contributes to connecting the pilot project's outcomes to the strategic reflection at the head office level, thereby illustrating how multi-level, interconnected GANs can help change mental maps.

BOP Strategies and the Magnitude of Change

The Indonesian cases illustrate the two broad types of strategies coined by BOP scholars: market creation versus market capture. The Aceh project is an example of a market creation strategy: through a series of efforts (building a network of microfinance banks, training masons, etc.), the company sought to create the market. In the case of Medan, the approach is more akin 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.

In terms of the extent to which a company should change to address the BOP segment, the empirical results lead to revisiting the idea that firms should favor market creation strategies over market capture strategies in order to succeed at the BOP (Prahalad 2004; Hart 2005; Hart and Christensen 2002; Simanis 2008). Indeed, the Medan case shows that there are existing markets at the BOP which can be addressed with the existing capabilities of the firm. The Aceh case illustrates that market creation strategies can be valid in some areas, but that they may not be implementable when management systems impede their launch.

The story of the two projects demonstrates that the choice of business model was strongly influenced by prevailing local market conditions 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 (where developers were building individual houses for low-income people). While the literature suggests that BOP initiatives should follow the logic of market creation (Prahalad 2004; Hart 2005; Hart and Christensen 2002; Simanis 2008), the case of Lafarge demonstrates the value of a market capture strategy, where local conditions permit. This reinforces the idea that there are several market segments at the BOP, requiring different sets of capabilities (Rangan et al. 2011). These cases show why ambidexterity in managing exploration and exploitation matters: when addressing the same customer segment, some projects may require more of the former, well-managed capabilities (Medan) or new capabilities (Aceh). These cases also confirm Simanis' (2013) argument that firms need to manage BOP projects as a portfolio of initiatives at various levels of maturity.

Furthermore, the cases demonstrate that management control systems influence the capacity of managers to choose between market creation and market capture strategies. The management control that prevailed in Lafarge almost until the end of the research period 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 key performance indicators (KPIs) and financial reporting. While the literature emphasizes the importance of mindset on the ability of firms to address the BOP (Oslen and Boxenbaum 2009), the Lafarge cases show how management control systems contribute to shaping the type of projects that firms are able to initiate.

Implications for Practitioners

Focusing on the analysis of just one case limits the capacity to make generalized conclusions. However, the table below builds on the cases to provide a framework of a firm's engagement with the BOP, which should help practitioners understand where their company stands in approaching the BOP segment. The table opposes a compliance approach to BOP (consistent with Lafarge's situation in 2007) and a business approach to the BOP consumer segment (as in 2010). When the belief system enables managers to perceive the BOP as a business opportunity, the type of BOP market strategy differs depending on the prevailing levers of control. If the company is open to innovation and managers allowed to cross existing boundaries (with the support of partners, if need be), and if supported by a performance system which values innovation, then market creation strategies are likely to fit. Contrarily, when the company strictly limits its boundaries and ensures that managers are focused on the short term, BOP market capture-type projects only are likely to succeed. The table summarizes which type of strategy is more likely to emerge depending on the prevailing levers of control (Table 2).

The Lafarge case also shows how critical it is for practitioners to leverage on external actors to influence the company's perception of the BOP segment. This perception can also be altered when this external influence receives support from internal change agents joining the network, thereby altering the company's perceptions from the inside. The Lafarge case also shows how the strategy vis-à-vis the BOP can progressively evolve from a market capture to a market creation approach, when boundary and management control systems change.

Areas for Future Research

This paper contributes to balancing the perception of market capture strategies, showing that this type of approach can create value for firms in some areas. In line with Simanis' recent papers (2012, 2013), it would be interesting to analyze how market capture and market creation type of projects are developed within the same organization, at the same time, and how this ambidexterity in managing capabilities contributes to the sustainability of the firm engagement vis-à-vis the BOP.

Another area for further investigation is related to the criticism that even innovative BOP approaches may have

Table 2 A strategic framework of a firm's engagement with the BOP

	Stage 1 compliance approach	Stage 2 business approach	
Belief system	BOP refers to philanthropic and public relations issues	BOP is a business opportunity for the company	
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

limited effects on improving the quality of life for the poor (Crabtree 2007; Karnani 2007). From the interviews and site visits conducted as part of the action research, it does not appear that a market creation type of project led to deeper positive social impacts. Further research is needed to understand the impacts of BOP projects, and to compare the effects of a market capture and a market creation type of project. So far, the contribution of BOP projects to development has been analyzed on the basis of business models and narratives which do not sufficiently reflect the reality of the impacts (Crabtree 2007). There is a need to develop flexible and action-oriented tools that would be sufficiently rigorous to account for real effects, but sufficiently operational to provide meaningful insights for practitioners.

This paper extends the work started by Calton et al. (2013), showing how GANs contribute to setting up BOP initiatives. As BOP projects develop on a larger scale, it would be interesting to understand if GANs only matter at the outset, or if they also contribute during the projects' expansion. If GANs disappear or evolve, does it mean that the company has absorbed the partners' capabilities? In line with Murphy et al (2012), it would be useful to better identify the processes which enable the acquisition or the transfer of knowledge between partners. Furthermore, when projects become profitable, it would be interesting to understand how the economic value created is shared among the partners.

This paper owes much to the action research method, which enabled the generation of new cases and the opening-up of the black box of strategy formulation. The 3-year timeframe was sufficiently long to gradually convince management of the opportunity to launch projects on a small scale. How researchers—including but not limited to action research practitioners—can contribute to social entrepreneurship ventures and the emergence of GANs through their research project warrants further investigation.

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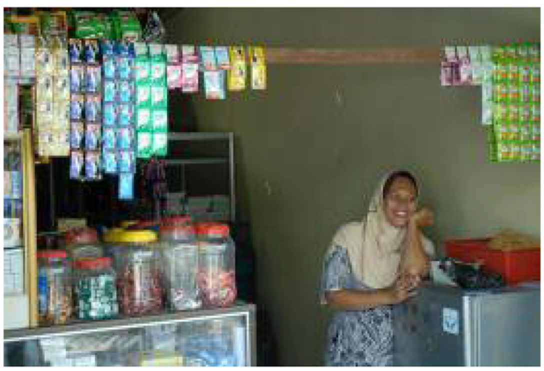
Appendix

The Social Housing Program, Medan, Indonesia

Some houses a few weeks before handover (late 2010)

The Microcredit for House Extensions Program, Banda Aceh, Indonesia



Renovation of a small store

Construction of a fence

Construction of a car washing area

Progressive construction of a house

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