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Knowledge Flows in Social Business Joint Ventures

Contribution to Innovative Capabilities of Parent Firms, and Strategic Implication for Corporate Social Responsibility

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Abstract

This study aims to understand what relationship exists between the Corporate Social Responsibility (CSR) orientation of a firm and the innovative capabilities that shape its ability to prosper in its environment. To analyze these relationships, Social Business Joint Ventures (SBJV) were chosen as demonstration of a firm's CSR orientation, as they are recognized in related literature as source of creativity and flexibility. A review of relevant literature revealed a gap between inter-organizational learning theories and cases of cross-sector partnerships stemming from CSR initiatives. In turn, this study relied on open innovation theories to establish a link between the two fields of research. It applied a multiple qualitative exploratory case study methodology using secondary data. The three case studies from large Multinational Enterprises (MNEs) operating in Bangladesh illustrate knowledge transfer dynamics within the context of SBJVs and within the CSR and global strategies of the firm. The findings suggest that engagement in a SBJV contributes to innovative capabilities of the parent firm in terms of knowledge flows and knowledge base management, as well as in terms of strategic positioning of CSR in the core business of the parent firm.

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Enjoy,

Albane Mazoyer

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BoP	Bottom of the Pyramid
CSR	Corporate Social Responsibility
GDFL	Grameen DANONE Food Ltd.
GSE	Grameen Schneider Electric
GVW	Grameen Veolia Water
IC	Intellectual Capital
MNE	Multinational Enterprise
NPO	Non-Profit Organization
PPP	Purchasing Power Parity
R&D	Research and Development
RBV	Resource Based View of the firm
SBJV	Social Business Joint Ventures
SHS	Solar Home System

1 Introduction

"Knowledge is power." Philosopher Francis Bacon wrote this epigram in 1597 (Vickers, 1992), which is perhaps more true today than ever before. As innovation is increasingly recognized as the main driver of growth, the field of knowledge management has become a focus of management research. The foundation of an organization is its internal knowledge resources and the structures put in place to enable use of the knowledge in the market (Michie, 1998). Knowledge and the firm's ability to leverage its knowledge base determine competitive advantage and responsiveness to changes in the firm's environment (Penrose, 1959). Over the past several decades, one of the most important changes that firms have faced is the emergence of Corporate Social and Environmental Responsibility (CSR). Firms face the challenge of making the tough decision of how to respond to the external pressures and internal drivers resulting from the expectations that various stakeholders hold of businesses to do good in society. Regardless of the justification for each firm CSR engagement, there are many strategies and approaches to the issue; from the adoption of a culture of philanthropy to the development and implementation of sustainable innovations. While many have simply associated philanthropic initiatives to public relations and advertising campaigns in order to create a more positive public image, more and more seek a more holistic sustainability strategy through the integration of social and environmental values at all levels of the organization. For some firms, this includes clear linkages of the core values and mission of the organization to Research and Development (R&D) initiatives, operations management, and marketing services. Further, literature is beginning to explore the role of CSR in the context of managing innovation and economic performance. Scholars are identifying facets of the firm that may be enhanced through the lense of CSR, including stakeholder integration, supply chain management, human resources, etc.

One outcome of placing CSR as one of the core strategy pillars is that firms are increasingly turning to non-profit organizations (NPOs) to co-develop certain aspects of their internal strategies. One such partnership is the emergence of Social Business Joint Ventures (SBJV) in emerging markets. Social Businesses are enterprises that aim for social impact while sustaining financial independence. Among the existing projects, companies have focused on the Bottom of the Pyramid (BoP) - low-income customers in emerging markets. In recent years, the increasing amount of engagement between Multinational Enterprises (MNEs) and NPOs has been the

subject of growing attention from the media, as well as the academic sphere. Practitioners and researchers are applying and studying the phenomenon from diverse angles. While many cite the social benefits, capture of greater market share, and improved firm identity and vision to support intra-firm cohesion for global growth; a few have mentioned the innovative potential of such partnerships. Furthermore, of those who understand their innovative power, fewer realize the potential to leverage the knowledge generated by the joint venture to increase the parent firm knowledge base.

Academically, the field of learning alliances and internal leverage for participating firms, or parent firms, has long been established. Scholars developed the open innovation concept to describe and explain a firm's tendency to open its innovation processes to external partners in the form of customer integration, alliances or joint ventures for examples. However, the intersection of these two fields - open innovation learning alliances and CSR initiatives - remains largely unexplored academically. As practitioners pioneer the implementation of CSR strategies as open R&D strategies, only a few scholars have breached the subject proposing different theoretical grounding to the real life young projects around the world.

This paper aims to support the emerging literature linking innovation capabilities to MNE-NPO partnerships, and to contribute to the growth of ideas bridging social and environmental dimensions of a firm to its economic performance. In this study, I provide a new angle to the literature linking sustainability, innovation and inter-organizational learning. Building on existing literature, I study SBJV as factors of openness for the innovation process. I apply the framework of open innovation to identify impacts of SBJV activities to parent firm innovative capabilities and uncover knowledge leverage mechanisms from SBJV to parent firms.

1.1 Research Problems

Given the context presented in the introduction, and based on a thorough review of relevant academic works, the research question in this study is:

In the context of open innovation, how does the demonstration of a firm's CSR orientation, as manifested in its commitment to a Social Business Joint Venture in the BoP market, contribute to the firm innovative capabilities?

This study breaks the problem down into four supporting questions to guide the research and frame the scope of the study.

(1) What is the innovation creation capacity of SBJV in BoP markets?

The literature on social innovation identifies market solutions to poverty as a major source of innovation. Authors have recognized the innovative qualities of cross-sector partnerships, BoP initiatives and SBJV. However, the literature linking this innovation creation power for the benefits of parent firm development is very recent, and limited in terms of theory and scope of analysis at the global level.

(2) What are the knowledge flows between SBJV and the parent firm?

Beyond the success of joint ventures as an independent venture of the parent firm, in terms of innovation or market implementation and financial gains, a crucial benefit from such alliances is the learning potential of each parent organization. In this sense, management of knowledge flows between the two organizations in the alliance define to a large extent the success of the learning process for the parent organization. In the context of SBJV in BoP, theories surrounding the exchange of intangible assets such as knowledge and skills within cross-sector partnerships are starting to emerge, based on traditional inter-organizational theories. Nonetheless, the studies remain largely focused on learning processes of the joint ventures, and largely ignore how the flows impact the parent firms beyond the success of the joint venture.

(3) What are the levers of integration of knowledge transfer to the innovative strategy of the parent firm?

Inter-organizational management theories establish that the successful transfer of intangible capital from one organization to the other requires a particular structure adapted to the nature of the firms and partnership objectives. Although, it is not the focus or the intent of the literature on SBJV initiatives and cross-sectoral partnerships to study the structure of knowledge transfers in this context, a few characteristics have started to appear.

(4) What are the strategic implications for the parent firm to see a change in its innovative capabilities from knowledge transfer?

Knowledge management is one of the foundations of a firm's operations and success in the marketplace. As such, knowledge management is one of the pillars of firm's strategy. This is not usually explicitly articulated, but instead is embedded in what some firms refer to as their corporate R&D strategy or management approach to internal intellectual capital (IC). As CSR initiatives are often excluded from firms' global strategies and ceded to the communication departments as side projects, their potential contribution to larger corporate strategies is often ignored and lost. However, in cases where CSR initiatives are directly related to global firm strategy, and involve the firm across multiple levels, changes in knowledge management become a central concern.

1.2 Purpose

CSR initiatives of large corporations have been subject to great criticism. The terms 'green washing' and 'window dressing' have been used by many in the media, and are the subject of public opinion, scholars, when analyzing corporate intentions of engagement for social and environmental causes. However, while there is strong evidence that corporate reputation is an important factor in decisions and actions toward CSR practices in some cases, it does not accurately describe all corporate CSR initiatives.

This study does not aim to prove social or environmental impacts of corporate CSR initiatives, nor does it intend to show a positive correlation between CSR policies and financial performance. However, the goal of the study is to contribute to the existing literature of the scholars and practitioners advancing that sustainable initiatives have direct implications at all levels of the firm. Thus, CSR initiatives ought to be regarded as part of the global strategy of the MNE, and not solely as side projects, philanthropic investments or donations. By focusing on knowledge flows and management, this study narrows the scope of research to one of the foundations of a firm's structure: intangible capital.

The purpose of the paper is to provide a new lens through which complex relationships between CSR initiatives and global firm strategy can be studied. The study of this field is important as it defines a firm's ability to take full advantage of CSR investments. In this study, I will use three case examples: DANONE, Schneider Electric and Veolia Water[1] to:

1. Contribute to growing literature linking sustainability to global firm operations
2. Bolster current theory regarding sustainability as a source of innovative capacities
3. Offer a fresh lense on over-analyzed case studies
4. Introduce a new idea of sustainability as a factor of openness in knowledge management.
5. Contribute to growing literature expanding the open innovation framework beyond R&D to business strategy and knowledge management theories.

1.3 Structure

The study is structured into seven sections. The first section introduced the problem in its academic context, and the research questions in accordance to the angle of analysis. The following chapter presents a review of relevant literature to understand the current state of research, and identify gaps in the existing body of knowledge and different approaches used to study the topic. The third chapter describes the theories, concepts and the theoretical framework that this study uses to investigate the phenomenon at hand. After presenting the methodology and

[1] I name DANONE, Schneider and Veolia throughout the paper in strict alphabetical order

the case studies chosen to answer the research questions in chapter 4 and 5 respectively, chapter 6 presents the findings and proceeds to discuss them in chapter 7 by using the theoretical framework guiding this study. Finally, Chapter 8 concludes the study by stating the key findings of this study, identifies a few limitations to the research and recommends future areas of research

2 Literature Review

This chapter of the paper reviews an extent of the academic literature and information sources on the subject of CSR and its relation to the firm innovative performance. This chapter seeks to make the connection between innovation processes internal and external to the firm with the development of cross-sector partnerships[2]. It begins by framing the body of CSR literature. Then presents the role of knowledge management in the context of MNE and the factors leading to the opening up of the innovation processes. The following section introduces the current state of research of open innovation practices. Finally, the chapter finishes by drawing an overview of the growing trends linking CSR and innovation discourses, with an emphasis on SBJV in emerging markets.

2.1 CSR Discourse in MNEs

This section of the chapter covers the historical evolution of the CSR and the emergences of innovative opportunities for CSR evolution within the global strategy of the firm. The conceptions have evolved substantially. From CSR as a moral responsibility of corporation manager for the greater good or discretionary expenditures that could hamper a corporation's profitability (Min-Dong, 2008), to CSR as strategic management to a more efficient corporation, academic literature has registered many shifts of theory and practices.

[2] Cross-sector partnerships are defined as partnership between a 'for profit organization' and a 'non for profit organization' (NPO)

2.1.1 Emergence of Corporate Social Responsibilities within MNEs

According to Carroll (1999), even though there are evidences tracing the business communities' concern for society for centuries, formal writing is largely a product of the 20th century. Many scholars, such as Beresford (1973) and Carty (2002), attribute the academic awakening of CSR discussions to the increasing scrutiny of society in business affairs challenging corporate power. Social movement, such as the Green Movement, labor groups, human rights groups, NGO protests, etc., brought to the public scene local and global, environmental and social consequences of numbers of large corporation activities (Min-Dong, 2008). In parallel to the public pressure, during the late 1950s and 1960s, numerous legislations were enacted to regulate conducts of business and to protect employees and consumers (Min-Dong, 2008).

The discussions over the ultimate purpose of CSR were triggered by Bowen (1953)'s publication of Social Responsibilities of the Businessman (Carrol A. B., 1999). This work pioneered in the theorization of the relationship between corporation and society followed by many more developing CSR (Carrol A. B., 1999; Garriga & Mélé, 2004). Bowen (1953) claimed that the great influence and the far-reaching scope and consequences of corporations' decision obligate businesses to consider social consequences and responsibility (Min-Dong, 2008). At the opposite, in 1970, Milton Friedman asked the following question: "Should companies take responsibility for social issues?" (Kok et al, 2001, p. 286). For Friedman and many other scholars (McWilliams et al 2006), the responsibility of companies to society was to make profit. By their logic, economical wealth would lift the local economy and thus foster social development. Scholars did not deny the existence of social issues, yet they claimed that social welfare should be address by the state (Margolis & Walsh, 2003). To other many scholars McGuire (1963), Backman (1975), Carrol A. B. (1999), social responsibility goes beyond economic welfare, and includes considerations to social welfare within the firm's sphere of influence. No social program can rival the business sector when it comes to creating jobs, health coverage and innovations that can improve standards of living and social conditions over time (Porter & Kramer, 2006).

2.1.2 Evolution of CSR Discourse: From Global Philanthropy to Triple Bottom Line

The reconciliation between the social and the shareholder interests of the corporations has been critical to the legitimacy of CSR (Min-Dong, 2008). Authors such as Davis (1973) realized it is a

corporation's long term risk management to support the well being of their sphere of influence, may it be environment, community, supply chain, etc. This has been supported by company experience; the MNE Interface has said: "sustainability policies have saved [them] UDS$433million in the last 16 years" in terms of risks regarding reputation, governmental policies and cost cutting (Vilanova & Dettoni, 2011, p. 37). Further into the risk management argument, Hart S. (2007) claims that poverty represents a major threat for society at large, and especially for MNE working in developing countries.

One key author triggering much of the theoretical grounding of CSR debates is Carroll (1979). *A Three-Dimensional Conceptual Model of Corporate Performance* published in the Academy of Management Review offers a conceptual model that comprehensively describe three essential aspects of Corporate Social Performance: (1) assessing the firm's social responsibility in its entire sphere of influence, (2) identifying social issues to be addressed, (3) choosing a response philosophy (Carrol A. B., 1979). The article revolutionized its academic environment by providing a concrete framework upon which to reflect and build CSR strategies (Min-Dong, 2008). Despite the academic effort to develop and re-formulate the framework (Wood, 1991; Carrol A. B., 1999), the model did not succeed in widespread application. However, the model opened the door to the key argument that economic and social goals of corporations are not incompatible trade-offs (Min-Dong, 2008). In fact, 'competitive advantage' was cited as one of the top two justifications for CSR in a survey of business executives reported in Fortune in 2003 (Carrol & Shabana, 2012). Today, the literature has still not reached a consensus on how to find ways to create social and economic benefits through MNE generating "shared value" (Porter & Kramer, 2011, p. 1).

Stakeholder analysis

This branch of CSR theory, led by Donaldson (1982) believes business should naturally integrate social demands given that business depends on society for its existence, continuity and growth. (Garriga & Mélé, 2004). The model put at the core of the issue, the survival of the corporation, which is not only dependent on shareholders positions, but also on all stakeholders' (customers, supplier, communities, etc) well being at each level of the value creation chain (Freeman, 2010). The model has since been largely extended and altered by authors such as Rowley (1997) and Porter and Kramer (2006) broadening the scope of CSR further to include "all the activities a

company engages in while doing business' including the competitive context of the corporation" (Porter & Kramer, 2006, p. 8), such as consumer advocate, competitors, media, and environmentalist.

Ethical Theories

Amongst literature, several authors have highlighted the ethical requirements intrinsic to the business and society nexus (Garriga & Mélé, 2004). Beyond the fact that stakeholders are vital elements to a company's survival, corporations ought to be governed from a normative core of ethical principles including, among others, fairness principles (Freeman, 1984). In such a normative understanding, business and society ought to act fairly to one another. A sign of universal understanding of this issue is the fact that UN global compact undertakes a human rights approach to CSR (Garriga & Mélé, 2004). Universal rights encompass human, labor and environmental rights as part of responsibilities of corporations (UN Global Compact, 2013).

Gariga and Mélé (2004) acknowledge sustainable development as one of the most wide spread ethical challenges in CSR. It is a macro level set of issues around short-term vs. long-term decision-making, it raises profound ethical questions around valuation of benefits from consumption accruing to different people at different places and times (Stern, 2007). The UN commission for sustainable development describes sustainable development as "ensuring the promotion of an economically, socially and environmentally sustainable future for our planet and for present and future generations."(UN, 2012, p. Resolution 46). Moreover, it calls for an international framework that "enables business and industry to advance sustainable development initiatives taking into account the importance of corporate social responsibility"(UN, 2012, p. Resolution 46).

Political Theories

Davis (1973) describes the power that businesses hold in society, ant the inherent responsibility that accompanies such power. Firms influence market equilibrium and thus prices and, to a certain extant, individual decision-makings. As a result, "business is a social institution and it must use power responsibly" (Garriga & Mélé, 2004, p. 55). Secondly, authors such as Donaldson (1982) considered an implicit social contract between business and society, which holds indirect social and environment obligations.

CSR as an Instrument to Wealth Creation

In the most recent years, a new perspective has permeated management thinking that CSR may be also a source of opportunity, and competitive advantage; and innovation is mentioned as fundamental (Porter & Kramer, 2006). It may inspire value chain innovations while addressing social constraints, and thus provide powerful tools for creating economic and social value. In 2011, the same authors Porter and Kramer (2011) extended the concept to strategy theory. CSR fosters changes at the core of the business model; as a result, managers transform the process of value creation to the clients (Rhodin, 2012).

Carrol et al (2012) developed four components of CSR as an instrument to wealth creation. First, they mention cost and risk reduction strategy to risks associated with upcoming government regulation for example. Second, it may induce differentiation strategy through cost leadership, innovation, positive customer relationship, improved marketing and selling capabilities, higher employee motivation, etc. Third, a large body of research has argued that good corporate reputations have strategic value for the firms that possess them in terms of persistent profitability or sustained superior performance (Roberts & Dowling, 2002; Weigelt & Camerer, 1988). The fourth component is the ability of CSR approaches to create win-win outcomes through synergistic value. In other words, CSR provides a successful framework to exploit opportunities that reconcile the differing stakeholder demands into working synergies and thus limit conflicts and efficiency loss.

Finally, as government regulation increasingly mandates social responsibility reporting, academia has seen the development of the triple bottom line concept, where environmental, social and economical performance of a firm ought to be of equal importance in evaluating a company value. Introduced by Elkington (1997), the idea has been a milestone in the evolution of sustainability in business debates, especially in regard to global reporting.

2.1.3 Limitations

One important limitation in CSR literature is the fact that research has found no definite causal link between CSR and profit (Min-Dong, 2008). Margolis et al (2007) have shown that socially responsible corporate policies do not predict current or future financial success. More generally, Carrol and Shabana (2012) found no clear empirical evidence of a causal effect relationship between CSR policies and economical and financial performance.

Furthermore, reporting has been argued to be more 'cosmetic' than operational (Porter & Kramer, 2006, p. 2) as accountability can distort behaviors as much as it can exacerbate (Margolis & Walsh, 2003). In fact, authors have warned of "the risks that involving companies in broad societal problems may match the risk of excluding them" (Margolis & Walsh, 2003, p. 298). It may worsen problems or even create new ones as it insinuates itself into all aspects of human life. Moreover, social issues that are not profitable may be ignored if companies focus on: "what is good for society should also be good for business" (Min-Dong, 2008, p. 65).

In conclusion, this section of the literature review has showed how the CSR discourse has changed over time. Although rationales have changed, the importance of CSR to the well being of the firm (within its institutional, public and competitive sphere) has augmented tremendously. Large companies such as MNEs cannot afford to ignore it, and arguments favoring CSR as strategic management for a more efficient and productive companies are gaining credibility and academic support. Different branches of the literature have linked sustainability to wealth creation. And although a general consensus of sustainability as competitive strategy and increased financial performance has not been reached, many authors touch upon the role of innovation in CSR strategies. The next chapter introduces the complex concept of innovation in MNE context and the factors influencing the opening of innovation processes to foster value creation through innovating strategies.

2.2 Sources of Innovation and Knowledge Management

Beyond the academic sphere, companies are increasingly associating successful innovation to the 'thinking outside the box' concept. Companies such as DANONE, "try to shake the innovation process by accepting that innovation can come from anywhere": different team, more crazy ideas, living labs[3], new partners, new tools, etc. (Vilanova & Dettoni, 2011, p. 69). Therefore, a growing branch of recent innovation literature has focused on the importance of openness in innovation practices for a competitive company on the international scene, and how it implicates a firm's innovative capabilities. This section covers the existing academic literature discussing

[3] Living lab is a common term found in the literature to capture the 'learning by doing' process

the place of knowledge and innovation in the market, and the evolution towards opening up of innovation processes and capabilities in MNEs as knowledge management strategy.

2.2.1 The Knowledge Based Economy

> *In the twentieth century, mankind made a transition from a matter-based economy to one based on ideas – from an emphasis on natural resources to focusing on thought, design and organization*. (Contractor & Lorange, 2002, p. 488)

Contemporary economic systems have become very knowledge intensive. The production and the use of knowledge are at the core of firms' strategies for growth (Michie, 1998). Since, Schumpeter's (1934) description of economic development as dependant on the introduction of innovation into the system of production, it is generally considered that innovation is one of the main factors underlying competitiveness and productivity (Baumol, Blackman, & Wolff, 1989), as well as output and employment performance (Michie, 1998). Although from a company's perspective, innovation can also be a significant source of risk, competitive disruption and failure (Hall & Vredenburg, 2003).

Business innovations are multistage processes whereby organizations transform ideas into new/improved product services or processes, in order to advance, compete and differentiate themselves successfully in their market place (Murphy, Perrot, & Rivera-Santos, 2012). Because most innovations are based on a recombination of existing knowledge, concepts, and technology (Enkel, Gasssman, & Chesbrough, 2009), today, innovation activities are also taking place outside R&D laboratories, they are also happening in the design and planning or in the production plants themselves, in the wider economic and social systems, involving education, managerial skills, and the diffusion of knowledge (Michie, 1998). Research has emphasized how firm-external factors, such as partner complementarities, spillovers, or environmental pressures drive the externalization of R&D activities beyond the boundary of the firm (Gold, Hahn, & Seuring, 2012; Hagedoorn, 2002; Keupp & Gassman, 2009).

2.2.2 From Porter's External Forces to the Resource Based View of the Firm

The dominant paradigm of competitive strategy at the base of financial performance is the competitive five forces approach developed by economist Porter (1980). The model suggests that competitive advantage is obtained by implementing strategies that exploit their internal strengths

through responding to environmental opportunities, while neutralizing external threats and avoiding internal weaknesses (Barney, 1991). Another distinct class of approaches emphasizes building competitive advantage through capturing entrepreneurial rents stemming from fundamental firm-level efficiency advantage (Teece, Pisana, & Shuen, 1997). The Resource-Based View of the firm approach (RBV), first mentioned by Penrose (1959) and Learned et al (1969), emphasizes the importance of distinctive company-specific competences for competitiveness. When Porter's model, considers the primary determinants of success to be external to the firm, resting on characteristics of industry structure, the RBV considers a company as a group of human, physical and organization assets (Schweitzer, Gassman, & Gaubinger, 2011). The assets, or resources, and their interplay explain competitive advantage, and companies are limited by their current endowments and heterogeneity distributed in between firms. In theory, the company captures rents when its possessed firm-specific assets are valuable, rare, inimitable and non-substitutable (Penrose, 1959; Schweitzer, Gassman, & Gaubinger, 2011). Moreover, managers have to nurture their scarce resources by investing in tangible and intangible assets that contribute to the preservation and growth of the key resources (Wernerfelt, 1984).

Many authors have criticized RBV. On the one hand, it does not explain the mechanism that enables to extract value from innovation (Teece, Pisana, & Shuen, 1997). On the other hand, the paradigm is too rigid in changing environment. Schweitzer et al (2011) use the term 'turbulent environment', which is characterized by quickly changing markets needs and rapid radical technological advancement, they can be turbulent in two respects: market instability, and technological turbulence, or the extent to which technologies change (Ambrosini & Bowman, 2009).

2.2.3 Dynamic Capabilities

Dynamic capabilities, introduced by Teece, Pisana, & Shuen (1997) as a branch of the RBV literature, represent the dynamic aspect of a company resource, the drivers behind the creation, evolution, and recombination of the resources into new sources of competitive advantage (Augier & Teece, 2007). Capabilities are strategies and plans that create knowledge by ways of organizing skills, assets and processes (Garriga & Mélé, 2004). They enable companies to adapt to new market requirements, to seize opportunities and to anticipate future development in turbulent markets (Schweitzer, Gassman, & Gaubinger, 2011). In other words, dynamic capabilities provide

a company with the necessary ability to integrate and reconfigure internal and external competences to adapt to rapidly changing environments. Successful companies feature certain commonalities in their dynamic capabilities (Eisenhardt & Martin, 2000). Consequently, this suggests that dynamic capabilities may be fungible and imitable. As such, markets can be analyzed in order to identify the critical intangible capabilities in turbulent markets (Schweitzer, Gassman, & Gaubinger, 2011). One such dynamic capability has been argued to inter-organizational R&D teams that generate new products and different ways of organizing product development (Eisenhardt & Martin, 2000). Gulati R. (1999) found that companies that invest in inter-firm collaborations are more flexible and have higher dynamic capabilities.

This capability to research and integrate external knowledge has been associated with open innovation practices among MNEs (Schweitzer, Gassman, & Gaubinger, 2011). Specifically, the absorptive capacity concept has been chosen explain inter-organizational learning alliances (Cohen & Levinthal, 1990). Absorptive capabilities are the ability to recognize the value of new information, assimilate it and apply it to commercial end (Cohen & Levinthal, 1990). High level of absorptive capacity at the subsidiary level fosters the adaptation of global environmental practices and allows subsidiaries to adapt global strategies and lower the cost of implementation (Gold, Hahn, & Seuring, 2012). Absorptive capacity focus is also largely employed in SBJV literature, such capacity is one mentioned as one of their important strengths (Murphy, Perrot, & Rivera-Santos, 2012).

2.2.4 Internationalization of the Innovation Process

Throughout the twentieth century, R&D fuelled technological development by following the paradigm of closed innovation (Chesbrough, Vanhaverbeke, & West, 2006). Firms presumed a monopoly on scientific and technological knowledge gave the most control and power over the market (Gann, 2005). In the recent years, this strategy of vertical integration and exclusive control has been perceived as stifling innovation potential as the global market rules have changed. One of the most impacting changes has been economic globalization, widely accepted as implying the growing interdependence of locations and economic units across countries and regions (Narula & Zanfei, 2004). The acceleration in the rate of technical change and discontinuity encourages companies to engage in collective cooperative strategies to lower R&D costs and risks by finding synergies across partners. Another important factor identified by the

authors is the growing diversity of knowledge sources. One the one hand, companies are realizing that internal knowledge is incomplete, and on the other hand, the same companies are increasingly narrowing their focus on their core competences to increase productivity. Consequently, the need for external acquisition of knowledge is inevitably greater.

There are a variety of options through which innovation develops and diffuses across national borders; foreign direct investment (FDI) is one of the most prominent examples (Archibugi & Michie, 1995). When MNEs acquire assets abroad, or set up activities in foreign market, innovation percolates from both sides at all level of interconnection. Furthermore, knowledge flows from one firm to the outside market through trade, licensing, cross-patenting activities and international technological and scientific collaboration (Narula & Zanfei, 2004).

The literature covering the advantages stemming from MNE expansion or internationalization points to the role played by local contexts in the cross-border generation and diffusion of innovation (Michie, 1998; Archibugi & Michie, 1995). Perspectives have shifted; local conditions are no longer constraints to the MNE's decisions implementation, but sources of competencies and of technological opportunities (Narula & Zanfei, 2004).

> *"The main idea is that the foundation of competitive advantage no longer resides in any one country, but in many. New ideas and products may come up in many different countries and later be exploited on a global scale"* (Hedlund, 1986, pp. 20-21)

As MNEs are complex multi-dimensional entities, including several level of organization including large sets of subsidiaries, knowledge flows and innovative capabilities within such enterprises occur not only along multiple directions but also across multiple dimensions (Gupta & Govindarajan, 2000). Early literature on MNE subsidiary omits completely the issue of strategy (Birkinshaw & Morrison, 1995). Over the pass decades, numerous studies have examined how MNE subsidiaries actively engage in knowledge leveraging and creation in local contexts to compete locally and/or globally (Peerally & Figueiredo, 2013). Among the most significant works, Birkinshaw and Hood (2000) showed that subsidiaries enhance firm capabilities to innovate according to host locations. The units represent important linkages to leverage knowledge from local contexts.

However, literature theorizing leverage of knowledge from CSR projects to the global MNE knowledge capital is scarce, even in the case of internal projects. Gold et al (2012) have identified sustainable supply chain management project in BoP market (such as fair trade or specific SBJV business model) as potential leverage of knowledge from CSR projects to the parent firm.

In conclusion, Business opportunities are largely dependent on knowledge creation and management within the firm boundaries and most importantly within its environment, companies have changed their innovation systems from a traditionally closed process to a more open and dynamic ecosystem of skills and knowledge flows. The literature on the evolution of sources of innovation and firm strategy for knowledge management is well established. There is a general consensus that with external changes in the world and in our economies, innovative processes can no longer remain internal to firms if the latter wishes to remain competitive in the market place. The development of international innovative strategy and the emerging importance of subsidiaries as innovative centers for MNE respond to the challenges of turbulent market environments, such as BoP markets. As sustainability issues put further uncertainty on MNE environment, open innovation is becoming a common solution, offering flexibility, rapid responses and deconstruction of the value chain (Contractor & Lorange, 2002).

2.3 Current Status of Research on the Open Innovation Concept

This section reviews the existing academic literature discussing the concept of open innovation in the context of large corporations. Since its appearance, the idea of open innovation has been under a lot of inquiry. First applied exclusively to the high technology industry and R&D processes, it has started to devolve into a larger and more complex set of phenomena and actors engaging a larger part of the corporate world.

2.3.1 Emergence of the Concept

Today, signals from the periphery (external stakeholders) may become tomorrow's core business proposition (Holmes & Smart, 2009). Therefore, and given the previous discussion on innovation as source of competitive advantage, there is a growing need to forge closer links between market

information and technology development (Rennings, 2000; Iguartua, Garrigós, & Hervas-Oliver, 2010). In this context, the concept of open innovation emerged.

Open innovation is a process that certain researchers have argued to be the one constant in innovation practices across ages and around the world (Gann, 2005; Dahlander & Gann, 2010; Cohen & Levinthal, 1990; Christensen, Anthony, & Roth, 2004). Some even go as far as suggesting that closed innovation might have been the exception in a history characterized mostly by open innovation practices (Mowery D. , 2009). Yet, it was first Chesbrough H. (2003) who assigned a term to the rising development in the wider innovation environment encompassing social and economic changes in working patterns (Huizingh, 2011), which also pushed towards the internationalization of innovation. The term open innovation arrived in the academic sphere "to rethink the design of innovation strategies in a networked world" (Huizingh, 2011, p. 3) by connecting the processes of acquiring external knowledge and exploiting internal knowledge externally.

As the topic is young and the range of applications is wide, after reviewing 150 open innovation papers Dahlander & Gann (2010) concluded that there were too many different definitions and facets in order to build a coherent body of knowledge. The most common definition utilized among the academic sphere is an innovation process that encourages the inflow and outflow of knowledge and accelerates internal innovation and to expand the markets for external use of innovation respectively (Chesbrough, Vanhaverbeke, & West, 2006; Schweitzer, Gassman, & Gaubinger, 2011; Huizingh, 2011; Gassmann & Enkel, 2004). The clearest definition is given by Lichtenthaler, which will also be used throughout this study.

> *Open innovation is defined as systematically performing knowledge exploration, retention, and exploitation inside and outside an organization's boundaries throughout the innovation process* (Lichtenthaler U. , 2011, p. 77).

The theoretical section of this paper shall go into more details explaining the different terms of this definition.

The strategy behind open innovation is to accelerate knowledge acquisition and utilization, hence provide companies with a permanent stream of new information, which is necessary to constantly adapt to changing situations and seize their opportunities. This interrelation and closeness to firm-

external knowledge sources may be central to fostering and developing successful product innovations in shifting markets as it provides vital signals for anticipating future changes in the market (Schweitzer, Gassman, & Gaubinger, 2011). Yet, more than a strategy for turbulent environments, Schweitzer, Gassman, & Gaubinger (2011) identified other reasons for opening up the innovation process in non-turbulent markets such as a lack of financial resources, a search for synergies or firm-internal weaknesses. Open innovation may be important in non-turbulent markets whenever companies perceive a lack in knowledge or resources, especially when exploring new tasks and in need for new knowledge. Moreover, Keupp & Gassman (2009) argue that open innovation goes beyond innovative strategy into risk diversification strategy. Opening up the innovation process is an active response to overcome internal rigidities impeding innovation.

As a response, Rigby & Zook (2002) identify four advantages for developing an open innovation strategy. First, it offers high product modularity within high industry speed. Second, it includes explicit tacit knowledge. Third, it provides a complex interface of knowledge retention, and finally it creates positive externality (spill over), in the case of licensing out for example. The literature on large MNEs opening up their processes with NPO in the BoP context has recognized these four characteristics (Prahalad, 2005), especially as engaging with NPOs constitute an exchange of knowledge, which is tacit for the most part, in a context of high organizational culture differences. (Murphy, Perrot, & Rivera-Santos, 2012). Finally, Peerally & Figueiredo (2013) have begun to argue for the important spill over aspect of SBJV that should be accounted for in the SBJV implementation design. Therefore, although a direct link between open innovation and SBJV is inexistent at the moment in current literature, there is much reason to believe this is a relevant connection to study.

2.3.2 Inter-Partner Learning Alliance and Joint Ventures

An alliance is commonly defined as any voluntary cooperative agreement between organizations that involves exchange, sharing, and/or co-development; and it includes contributions by partners of capital, technology, or firm-specific assets. Moreover, it includes different governance modalities ranging from relational contracting to licensing, to logistical supply-chain relationships, to equity joint ventures (Gulati & Singh, 1998).

A study by Anand and Khanna (2000) suggests that alliances accounted for 6 to 16 percent of the total market capitalization of US firms. In the 1980s, alliances were primarily peripheral market entry strategies, involving licensing and joint ventures mandated by host governments. In the 2000s, alliances are eagerly sought as a means of adding to firm value, more central to strategy and more knowledge intensive (Contractor & Lorange, 2002). Moreover, the potential for business model innovation via co-development is also significant (Chesbrough & Schwartz, 2007).

Joint ventures are one of the strategies for open innovation (Lichtenthaler U. , 2011). Joint ventures are important alternatives to acquisitions, contracting and internal development. It is a selection among alternatives modes by which two or more forms can transact (Kogut, 1988). One of the main reasons for the formation of joint ventures is the value of the venture as a means by which firms learn or seek to retain partner's capabilities. Knowledge transfers are facilitated greatly, especially when the knowledge base is tacit. This is especially the case when sharing one's network, which is one of the best attributes of NPO in the eyes of MNEs (Murphy, Perrot, & Rivera-Santos, 2012).

There is a consensus in the literature that the most important motives of the formation of alliances are: (1) need to spread costs and share resource requirements; (2) need to spread risks of innovation and engagement in a particular activity in a particular market; (3) acquisitions of new technical skills or technological capabilities from the partner (Mowery, Oxley, & Silverman, 1996; Porter & Kramer, 2011; Berdrown & Lane, 2003). Furthermore, there is a general agreement that joint ventures add value to the parent activities beyond these calculated outcomes from the partnership (Berdrown & Lane, 2003). Learning from the partner enhances adaptability and responsiveness to external changes, and increase chances to discover new opportunities. In fact, learning is one of the expected outcomes of joint ventures (Berdrown & Lane, 2003).

However, literature shows certain limitations to the success of joint ventures, the formation of partnerships is impeded first by fear of misappropriation of knowledge by allies who could become competitors, and secondly by the cost of knowledge transfers, which is sometimes considerably high when the know-how is too deeply embedded (tacit knowledge) in the organization (Contractor & Lorange, 2002; Gulati & Singh, 1998; Cohen & Levinthal, 1990).

Moreover, Kanter (1985) argues that the problem of learning alliance development in established corporations occurs when innovation is not valued sufficiently.

2.3.3 Expending the Outreach

Open innovation has traditionally been an innovation management concept applied to high technology and asset-intensive industries. Moreover, it is sometimes conflated with the related notion of open-source software development (OSS) (Lichtenthaler U. , 2011). OSS is only one of the potential tools of open innovation, along with out-licensing, joint venturing, etc. However, there is a new trend for the low-tech sector to employ open innovation strategies. Open innovation's management has spread to different sectors, such as machinery, medical tools, fast moving consumer goods, food, architecture and logistics (Gassmann, Enkel, & Chesbrough, 2010). Although empirical and theoretical knowledge of the characteristics of open innovation in low-tech environments remains limited in comparison with high-tech environments, evidence from low-tech, mature industries is growing in practice as well as in literature (Chiaroni, Chiesa, & Frattini, 2012). Furthermore, the paradigm of open innovation is increasingly considered to go beyond mere technological research and is also becoming relevant for innovation processes in general and extending even to the business model (Wagner, 2012; Lichtenthaler U. , 2011). Beyond the R&D strategy, the role of the business model is critical in capturing value from innovation. A growing number of companies are exploring the idea of open-market innovation – an approach that uses tools such as licensing, joint venture, and strategic alliances to bring benefits of free trade to the flow of new ideas. Open-market innovation lets companies set realistic market values to their internal ideas, helping them to better define their core business (Rigby & Zook, 2002).

However, literature linking open innovation concepts to social innovation and cross-sector partnerships is limited. Rennings (2000) writes that in an increasingly globalized business world, the open innovation paradigm has increasing relevance for sustainability-related innovation. Since environmental and social effects are intended, such innovations are a qualitative extension of common performance categories of innovation success (Rennings, 2000). As a result, open innovation and user integration are of particular relevance. Furthermore, innovation is central to

almost all BoP ventures, since they must circumvent various impediments, including a high diversity of stakeholders, and keeping an open-minded and trustful setting as key success factors (BoP Research, 2010). Nonetheless, so far the literature on the application of open innovation to cross-sector partnerships is little. Holmes & Smart (2009) are precursors in the field. Their research argues that the notion of 'value' used by Cherbourg (2003) in his definition of open innovation includes social and societal values. As such, an open mode of innovation is one that is likely to heighten collective learning and knowledge production within cross-sector partnerships. However, their research conducted in the United Kingdom does not take the innovation patterns of MNEs capturing new markets into account, thus no account of MNEs reaching for the BoP. Yet, Tushman & Anderson (1986) state that if companies plan for radical innovation or in some other way wish to explore new fields but lack he technological know-how, opening up their innovation process could be beneficial to them. Hence it seems reasonable to assume that today the BoP is included in the definition of open innovation.

In conclusion, open innovation is "old wine into new bottle" (Trott & Hartmann, 2009, p. 1). Yet, the emergence on literature of open innovation in other sectors than the high-tech industry and for profit sector is very recent and lacks theoretical support. Nevertheless, the literature has recognized its worth in explaining and guiding MNEs in operational and risk management within their stakeholder and market contexts. The concept draws guidelines beyond open sourcing and high-tech R&D collaborative research. These ideas may also be relevant to manage innovation of low-tech industries, intangible asset development and business model innovation, all of which are critically relevant to SBJV development and processes, although the field is limited. Furthermore, given the complexity of the interaction in the context of open innovation, firms need to develop organizational capabilities to successfully manage open innovation strategies (Lichtenthaler U. , 2011; Laursen & Salter, 2006). As such, it is of critical importance to understand the processes to implement efficient management in SBJV conditions.

2.4 Recent Developments and Current State of Research on CSR Reaching for R&D

After reviewing CSR discourse and the literature about opening up of the innovation process in MNE, this section of the literature review covers the emergence of innovative opportunities for CSR within the global strategy of the firm, and how they relate to the opening up of R&D strategies. These innovative developments are the products of growing need to create shared value between shareholder and stakeholders (Porter & Kramer, 2011). Further this section tries to encompass the relevant literature, which has developed in recent years about Social Business Joint Ventures in relation to their innovative capabilities within the context of the parent MNE. The innovation potential of cross-sector partnerships has been recognized recently, and various studies have taken on the responsibility to open up the field. However, the literature relating capacities to the parent MNE is scarce and lacks theoretical consensus.

2.4.1 Sustainable Innovation Strategy

Practitioners have found that innovation was not necessarily seen as a concept to generate particular value, but in some cases as a way to solve problems and to face challenges (Vilanova & Dettoni, 2011). It is thus unsurprising that academic research has demonstrated that in the context of increasing social and environmental pressure, innovation is one of the primary means by which companies can achieve sustainable development (Hall & Vredenburg, 2003; Hart & Milstain, 1999; Ayuso, A., Garcia-Castro, & Arino, 2011). The challenge for businesses is to develop innovation strategies that respond to increasing environmental and social pressures (Ayuso, Rodriguez, & Ricarts, 2006). In order to capture sustainable development opportunities managers must transform their understanding of strategy, technology and markets (Hart & Milstain, 1999) and consider a wider range of stakeholders (employees, customers, suppliers, NGOs/activists, communities, governments, competitors, etc.) however contradictory their requirements (Hall & Vredenburg, 2003). Sustainable development innovation must incorporate the added constraints of social and environmental pressures as well as consider future generations (The World Commission on Environment and Development, 1987) (Hall & Vredenburg, 2003). As such, CSR provides innovative ways for value creation through social investment in a competitive context (Garriga & Mélé, 2004), such as the BoP.

However, the literature on the intersection of innovation and sustainable development and CSR is quite limited to this day. The studies have been mostly qualitative and case study base. The most relevant and agreed upon contribution of the present research is the stakeholder focus as a mechanism for promoting sustainable innovation within firms (Ayuso, Rodriguez, & Ricarts, 2006). Research has recognized first, the role of stakeholder dialogue as an opportunity for facilitating innovation; second, the threats of not taking into accounts the views and perceptions of important stakeholders to introduce an innovation in the market (Ayuso, Rodriguez, & Ricarts, 2006; Hall & Vredenburg, 2003); third, the power to foresee incoming changes in the market (Holmes & Smart, 2009).

In the business world, this trend is gaining substantial momentum, companies, such as DANONE or Patagonia, are putting sustainability at the core of their business model and strategy. Most of the existing case studies and company documentations (Vilanova & Dettoni, 2011; Hartigan, 2010) take the angle of the critical role of sustainability in competitive advantage through sustainable innovation. There has been very few mentioning of sustainability as fostering the opening up of the innovation process (Holmes & Smart, 2009).

2.4.2 Market Based Solution to Poverty and BoP

One of the opportunities recognized by firms to do business while doing good is to target the BoP. From the idea that development issues can be transformed into opportunities for growth, (Prahalad & Hart, 2002) introduced the concept of Base of the Pyramid (BoP). The authors argue that MNEs can contribute to poverty alleviation by launching a range of products and services aimed at meeting the needs of low-income consumers, the BoP. Whether to engage in those voluntary actions for ethics, politics or performance is a debate rooted in CSR justification literature discussed previously (Hart S. , 2007). One of the most widespread and well-known examples of market based mechanisms for poverty alleviation in BoP is the Grameen Bank, a micro-credit bank focusing on groups in developing countries (Yunus & Weber, 2010). Founded in 1976 by Professor Yunus, Nobel Peace Prize winner, the successful banking model of the Grameen Bank is now recognized as a disruptive innovation that brought affordable credit to the poor by turning conventional banking models "on their head" (Simanis & Hart, 2008, p. 2).

At the BoP, business models explicitly combine social and economic goals ((Prahalad, 2005; Simanis & Hart, 2008). The economic rationale is that while top-tier consumer markets are

saturated in emerging countries, the low-income consumer segment remains largely unexplored (Perrot, 2011). In fact, low-income consumers account for almost two-thirds of the world's population and have a combined spending power of approximately US$ 5 trillion. In 2007 about four billion people lived with less than $3 000 PPP[4] per year (UNDPCC, 2008). The purchasing power of this part of the world population constitutes a large market segment for any MNE able to assemble demand (Prahalad & Hart, 2002).

> *"The BoP markets are in different stages of development and contends that, while needs are great, most markets at the BoP do not exist, but need to be built. It distinguishes two broad types of corporate strategies responding to the situations of whether the market exists or not: (1) defensive strategies that aim to capture existing markets; and (2) more innovative strategies that seek to create new markets at the BoP and develop firm's capabilities."* (Perrot, 2011, p. 35)

In a market capture strategy, firms leverage their existing organization with projects fully integrated in the mainstream business. In the case of market creation strategy, firms set up ad hoc structures intended to manage the projects separately from the mainstream organization (Perrot, 2011). Authors have identified the potential for innovation in the BoP targeting strategy. They state that a firm needs to create its market through innovative programs that involve multiple stakeholders (Simanis & Hart, 2008). By including the poor themselves, firms are able to develop very innovation solutions (Perrot, 2011). However, it is important to note that a stream of scholars have raised their voice against BoP capture strategy (Davidson, 2009), as seeing the poor as sole consumers poses ethical challenges regarding the balance between: marketing to help and marketing to sell to the masses. BoP masses, according to the author, often are not educated enough to make responsible decisions based on social and economic benefits of the product or services.

Behind the BoP idea, the ideal is that by acquiring the MNE's products, the poor could escape from poverty. However to this day, the literature has not provided any clear demonstration of the double performance: social and financial (Perrot, 2011). Crabtree (2007) has identified three reasons why this is the case. Firstly, most examples have been 'romanticized' in order to attract the interest of managers and investors. Second, the depth of the social impact is unclear as

[4] Purchasing Power Parity

demonstrations so far have only been conducted through narratives, thus lacking objectivity. Thirdly, there are no examples or demonstration of cases able to go beyond the pilot program to become mainstream.

2.4.3 Cross-sector Partnerships and Innovative Capabilities

NPOs have been shown to play important roles within the global context, and perform many of the functions of firms in terms of value creation within society. Teegen, Doh, & Vachani (2004) suggests they are legitimate global enterprises, and that they affect MNE performance. Furthermore, they have very different kinds of resources than MNEs, thus under the RBV perspective they create very different value (Teegen, Doh, & Vachani, 2004). Therefore, corporation and NPOs increasingly recognized the benefits of collaborating on a wide range of social and environmental issues.

Executives now point to collaboration with NPOs as an important component of their CSR strategy (Rondinelli & London, 2003), especially regarding crucial role of innovation networks (Swan, Newell, Scarbrough, & Hislop, 1999). Cross-sector alliances cover a wide range of inter-organizational relationships from conflict-resolution to integrative alliances in which partners combine competencies and resources with the goal of creating social value (Murphy, Perrot, & Rivera-Santos, 2012). Therefore, they are essentially characterized as the combination of for-profit and Non-Profit Organization (NPO) partners. By definition, cross-sector partnerships pose several challenges as the parties have less in common than partners in business-to-business alliances. Organizational structure, vision, understanding of market performance, professional codes and mindset, governance structure, and organizational goals are all aspects on which partners differ.

The literature on cross-sector relationships suggests that firms may form alliances out of necessity or for a variety of other reasons similar to business-to-business alliance theories discussed previously (Inkpen, 2001). Another often cited reason among executives is the need to enhance stability under conditions of uncertainty, or increase organizational legitimacy (Rondinelli & London, 2003). In a study from Holmes & Smart (2009) among eight corporations in the UK, executives' engagements in cross-sector partnerships (corporate-NPO partnerships) were largely discussed in terms of their relevance to an external audience.

Social network theory recently has addressed the various ways in which NPOs interact and collaborate with MNEs in an attempt to specify the dynamic exchanges among these actors. The most commonly used perspectives are transaction cost economics and learning perspective (Teegen, Doh, & Vachani, 2004)**.** The literature on cross-sector partnership is starting to suggest that many partners enter these alliances with aims of learning and innovation (Murphy, Perrot, & Rivera-Santos, 2012), as alliance may be among the few options for corporation to access the knowledge held by NPO (Rondinelli & London, 2003), which is a necessity in markets characterized by poverty. Many authors consider BoP an extreme environment in which cross-sector collaborations are necessary for social innovations (Simanis & Hart, 2008; Murphy, Perrot, & Rivera-Santos, 2012; Sanchez, Ricard, & Rodriguez, 2006). Nevertheless, social sector collaboration literature, research momentum is high, but it is not yet fully established as it has not explicitly addressed the relation to building innovation capacity (Seelos & Mair, 2012).

2.4.4 Social Business Joint Ventures and Innovative Capabilities

Professor Muhammad Yunus, introduced earlier as the founder of the Grameen Bank, is also widely recognized as the inventor of the Social Business model. As the Grameen Bank gained international attention and support, Prof. Yunus decided to go further into business as a way out of poverty and developed the Social Business concept. Prof. Yunus (Yunus & Weber, 2010) defines it as a for profit model designed to tackle social issues such as malnutrition, access to energy, and many other facets of poverty. He distinguishes two types of social business. Type 1 is a no loss, no dividend company that is owned by investees who reinvest all profits in expanding and improving the business. Type 2 is a profit-making company owned by the poor, either directly or through a trust that is dedicated to a predefined social cause such as education of access to water, etc. The underlying goal of the model is, as any business model, economic sustainability. Other definitions have since been published and accepted in other settings than in Grameen networks, but as this paper solely focuses on Grameen SBJV, I shall not address this part of the literature.

Apart from their connection to the BoP market capture (Murphy, Perrot, & Rivera-Santos, 2012), and their increased interconnection with different stakeholders such as suppliers (Gold, Hahn, & Seuring, 2012), very few have studied the strategic attractiveness of SBJV to the business activities of the parent company. One of the angles adopted by practitioners and scholars is the

innovation power of SBJV. As SBJV are deeply embedded in their local context, they are a source of local opinion, new perspectives, ideas and unique knowledge into the market (Yunus & Weber, 2010). A few scholars have started to approach the subjects in terms of absorptive capabilities (Murphy, Perrot, & Rivera-Santos, 2012), or technological capacity building (Peerally & Figueiredo, 2013), yet, they conclude that too little is known about the process by which innovation capabilities are accumulated in social business organization.

The literature taking these observations further into theories of knowledge management and innovative capacities building to the global knowledge ecosystem of the firm is scarce (mainly due to the novelty of the field). The study by Gold, Hahn, & Seuring (2012) identifies sustainable global supply chain management innovation as the intersection between Social Business CSR strategy, BoP and corporate benefits. Peerally & Figueiredo (2013) identify innovations in several phases of the SBJV processes, such as the conception and distribution phases. Nonetheless, the bulk of the literature, however small, comes from practitioners' experiences (Vilanova & Dettoni, 2011), which have identified a positive relationship between sustainability and innovation. Interestingly, now the firms are increasingly recognizing a new benefit to the SBJV investment: learning potential (Hartigan, 2010), as transferring knowledge is an implied outcome of creating a joint venture (Berdrown & Lane, 2003). Furthermore, the fundamentally different governance structures make the exchange of information difficult between MNEs and NPOs (Rondinelli & London, 2003). New research, such as Murphy, Perrot, & Rivera-Santos (2012), has identified SBJV as a facilitator to share knowledge.

To summarize, practitioners and scholars have identified the need of SBJV to be recognized as center of excellence (or innovation) (Gold, Hahn, & Seuring, 2012). Business network literature shows that a subsidiary's importance – meaning that the headquarters and other organizational units acknowledge the subsidiary to have specialized valuable capabilities – is strongly linked to its external embeddedness with outside partners (Yamin & Andersson, 2011). The capacity for integrating and applying external knowledge and expertise seems to be a core competency of SBJV (Gold, Hahn, & Seuring, 2012).

In conclusion, the literature is starting to acknowledge the strategic components of cross-sector partnerships, yet their innovative processes are still largely un-supported in terms of theory

grounding. Their innovative power has not yet been cross-analyzed with the firm-level innovative power, even though practitioners have started to include them in their innovation strategies. Finally, authors have recognized the need to consider SBJV as a valuable source knowledge creation in order to integrate and benefit from innovative opportunities and capabilities building. Thus, one of the aims of this paper is to participate in filling the theoretical gap between these emerging streams of research with the real life cases of SBJV.

2.5 Summary

The literature reviewed in this chapter reveals that the current research on the field of innovation capabilities of CSR strategies to parent MNEs is scarce. Furthermore, due to the novelty of the topic, studies have tried to approach from various angle and theories without much consensus to this day. Practitioners have played an important role in the discovery of the fields and studies conducted so far have been focused mainly on case studies. As demonstrated by the review of literature on open innovation, the concept is of interesting relevance to the complexity of SBJV structure. As such, given the current state of research the concept can provide valuable insight on the topic of SBJV knowledge flows' place in the knowledge ecosystem of the parent MNE.

In order to bridge the gap with CSR strategy to study the SBJV as part of the MNE global innovation strategy, this study aims to leverage existing theory of open innovation. On the one hand, the study will examine SBJV knowledge flows under the scope of knowledge management and inter-organizational theories to bring forth the connection between the parent MNE CSR strategy and its knowledge management strategy. One the other hand, the study elaborates on the observation of Holmes and Smart (2009) who first made the connection between open innovation and cross-sector partnerships. The study will try to broaden their scope of analysis.

3 Theoretical Framework

This chapter introduces the concepts and theories used in this study to answer the research question**: In the context of open innovation, how the demonstration of a firm's CSR orientation, as manifested in its commitment to an SBJV in the BoP market, contributes to the firm innovative capabilities***?* It is important to first have a theoretical overview beyond open innovation. The fields of intra and inter-organizational innovation theories enhance greatly the understanding of open innovation (Lichtenthaler U. , 2011). They explain how management of assets and processes determine how a company evaluates and responds to an opportunity (Lichtenthaler & Lichtenthaler, 2009).

First, I address fundamental theories and framework of knowledge processes within MNEs to understand what are knowledge flows to MNEs activities and how are they managed internally. Second, I present basics models explaining knowledge flows and competencies alignment within joint ventures systems to have a basis for analyzing a joint venture in the context of social goals and BoP market. Finally, I introduce a recent, yet well-established capabilities-base framework of open innovation strategy and processes to identify knowledge capabilities engaged in the SBJV partnership, the nature of the engagement and the different mechanisms leveraging knowledge flows to internal capabilities of the firm. For the purpose of this theoretical framework, it is important to keep in mind that this study assumes the firm's perspective, not that of the NPO. Thus, theories regarding knowledge transfer in the context of NPOs are not addressed.

3.1 Knowledge Management MNEs

Knowledge is power (Kong, 2010). An organization's capacity to survive and flourish in modern society is highly influenced by its ability to manage knowledge flows and put the innovation objects at the core of the business strategy. The following section introduces fundamental concepts of MNE knowledge management theories covering intellectual IC, innovative capabilities and strategic knowledge management.

3.1.1 Intellectual Capital (IC)

Organizations perform better if they understand what knowledge they possess and how to configure their IC resources to create organizational value (Kong, 2010). According to Kong (2010), IC helps to define the ways that knowledge leads to innovation for the pursuit of social and commercial objectives. Management of IC helps control and aligns human and non-human knowledge flow. IC shows how MNEs need an appropriate strategic management method that enables social enterprises to seize marketing opportunities in the competitive environment and develop strategic direction (Choo & Bontis, 2002). In this manner, the IC framework considers three main components (Kong, 2010). First, the flow of human knowledge within a company is a direct response to environmental changes and the search for more efficiency in a dynamic and competitive environment. The second dimension is relational capital. Relations with external stakeholders are dynamic exchanges of knowledge. Relationships can serve as a competitive advantage if managed successfully. Finally, structural capital is the pool of knowledge that workers leave in the organization's activities. It can be stored, owned, traded, etc. This knowledge is embedded in the mechanisms and the structure of the organization. It is the supporting infrastructure that aims to amplify human and relational capital. These three components of IC and the way that they are managed and aligned determine the ability of a company to innovate and produce new products and services.

3.1.2 Innovative Capabilities

Several authors demonstrate that innovation embodies organizational knowledge (Stewart, 1997). As such, innovation is described as a knowledge management process (Madhavan & Grover, 1998), and is intrinsically about identifying and using opportunities to create new products, services or work practices. A large portion of literature has agreed on the distinction of three knowledge processes: exploration or creation, knowledge exploitation or application, and the retention of knowledge over time (Choo & Bontis, 2002; Lichtenthaler U. , 2011).

Regarding innovation itself, there are many different differentiation theories: process, products and business model innovations, encultural or circular, linear or algorithmic. In the scope of this study, I have chosen the perspective, adopted by many scholars since Abernathy & Clark (1985), that there are two kinds of innovations: sustaining and disruptive. Lichtenthaler & Lichtenthaler

(2009) explain it in the following way. Sustaining innovation, also known as incremental innovation, is meant to improve existing products in a dimension that is valued by mainstream consumers. The goal is to retain the already established customer pool. The second type of innovation is disruptive innovation, or radical innovation. These innovations change the value proposition for a product or a service and as a result they often cause fundamental changes in the market place. The customers for disruptive innovation are usually at the low end of the market. The goal of the innovation is to capture a new potential pool of consumers. Disruptive opportunities are often not (yet) wanted by the customers, who do not (yet) realize there is a need for it. Thus disruptive innovations may be less profitable than alternative investment opportunities for a company and established firms may consciously ignore such innovations. Interestingly, many BoP market initiatives have been recognized as examples of disruptive innovations (Simanis & Hart, 2008; Prahalad & Hart, 2002).

To manage the process of innovation, the firm must develop dynamic capabilities, which are capacities of an organization to purposefully create, extant, or modify its resource base, or in this case, innovate (Helfat, et al., 2007). According to these definitions, (Subramaniam & Youndt, 2005) incremental innovative capabilities are the capability to generate innovations that refine and reinforce existing products and services, whereas radical innovative capabilities are the ability to generate innovations that significantly transform existing products and services. This distinction in innovative capabilities is further evident in how differently they draw upon organizational knowledge. Incremental innovative capabilities build on existing knowledge and reinforce prevailing knowledge, whereas radical innovative capabilities destroy the value of an existing knowledge base (Abernathy & Clark, 1985) and transform obsolete knowledge into something significantly new (Subramaniam & Youndt, 2005). The type of innovative capability that a company develops is largely the outcome of the firm's knowledge strategy.

3.1.3 Knowledge Strategy and Management

> *Knowledge management is the conscious and active management of creating, disseminating, evolving and applying knowledge to strategic ends*. (Berdrown & Lane, 2003, p. 16)

Knowledge strategies are competitive strategies that are built around firms' intellectual resources and capabilities. Furthermore, it is a set of strategic choices addressing knowledge creation (Zack, 2002). The strategy defines the degree to which the firm creates or applies knowledge (exploration and exploitation), and the degree to which the firm learns or obtains knowledge internally or externally. From aggressive exploratory or replicators of organizational routines, the balance between exploration, exploitation, internally and externally are varied. Yet, it is a consciously arrangement (Choo & Bontis, 2002).

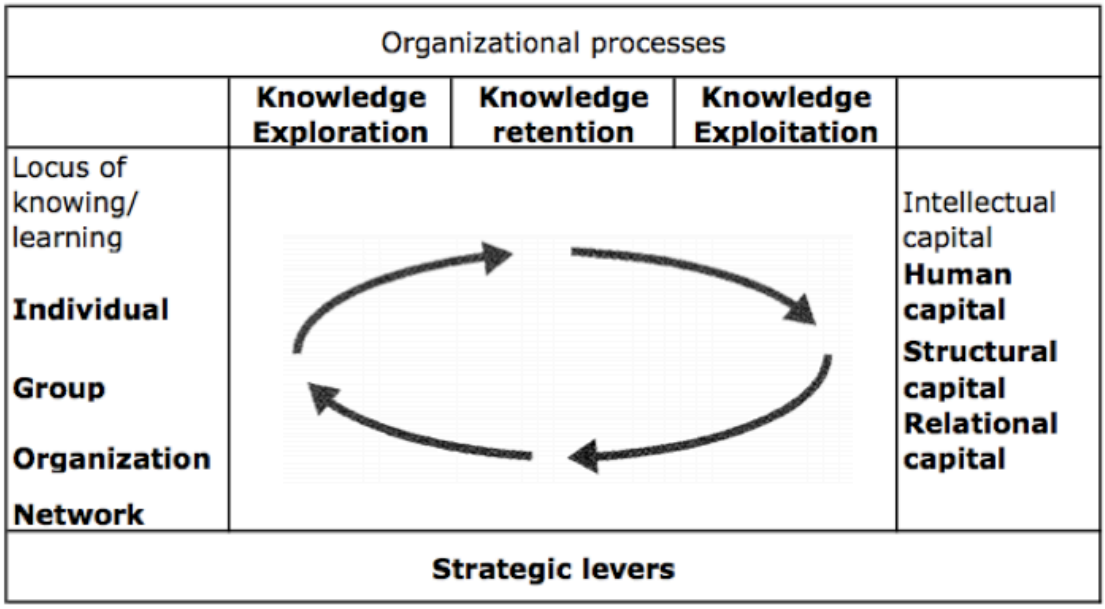

Figure 1 Strategic knowledge management framework (adapted from Choo & Bontis 2002)

Figure 1 ties all the component of strategic management organizational processes, the types of IC, the locus or level of learning and the strategic levers. A firm generates values from what (types of IC) it knows through the organizational processes at different levels within the firm. Processes of innovation occur at all levels of the firm, individual, organizational, etc. Yet, the strategic levers of the firm condition the generation of value (levels, type of IC, process). They are a set of strategic decisions taken by the firm to orient exploration, retention and exploitation. Strategic levers may be challenging environment, alliances, codification of knowledge to facilitate diffusion, replication of organizational routines to exploit existing assets, etc.

3.2 Joint Venture Knowledge Management

Once a company has consciously taken the decision to obtain or utilize knowledge externally, a number of options are available: from out-licensing to alliances, and joint ventures. In this section, I present theories develop by several scholars on the topics of knowledge management in the context of a traditional joint venture, as there is no literature modeling SBJV knowledge management systems. First, I present a knowledge transfer model that is used to identify the different knowledge flows in a joint venture system. Second, I introduce theories regarding strategic levers of knowledge management within SBJV. Finally, I describe co-development competencies alignment theory, as it is useful to understand the nature of knowledge flows between partners.

3.2.1 Knowledge Transfers

Berdrown & Lane (2003) describe knowledge flows in joint ventures as transfer, transformation and harvesting. They use of a network perspective of joint ventures provides an understanding of how knowledge can move between partners and the joint venture. The authors recognize three different, yet interrelated, flows illustrated in figure 2: transfer flows, transformation flows and harvesting flows.

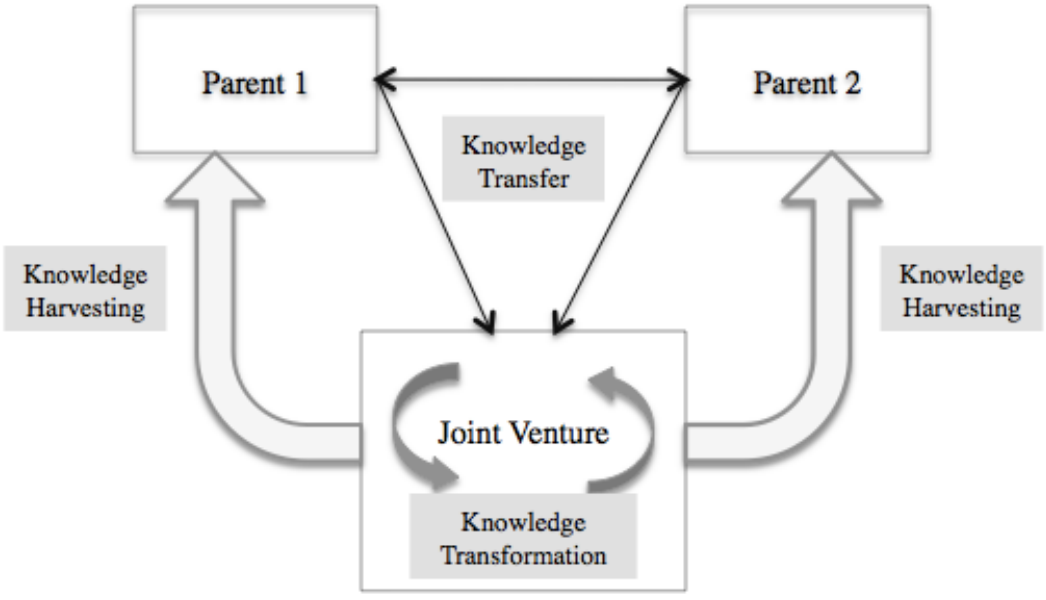

Figure 2 Knowledge flows in joint ventures (adapted from Berdrown & Lane, 2003)

First, transfer flows are migration of existing knowledge between parents as well as from the parents to the joint venture. It means accepting what the partner does, assimilating it into one's own systems. Knowledge flows depicted involve tangible resources depicting explicit knowledge, and also knowledge-bearing individuals, carrying the tacit knowledge that is more difficult to acquire (Inkpen, 2001). Second, transformation flows are defined as the integration, application and leveraging of contributed knowledge and the creation of new knowledge as a result of the joint activities. The potential for knowledge transformation exists any time individuals are placed in new situations or are presented with new challenges and new ideas. Third, harvesting flows involve the migration of knowledge from the joint venture to the parent where it can be applied to other internal activities.

3.2.2 Partnership Characteristics For Successful Knowledge Transfer

To learn from partners, firms need to develop strategic levers such as connecting people so they co-create, creating communities of practice to solve complex problems and leverage the outcome (Helfat, et al., 2007). Although the process may be compromised in the presence of organizational and national boundaries across which knowledge flows, there are a number of strategic levers, or characteristics in the words of Berdrown & Lane (2003), which determine the success of knowledge flows within the joint venture system.

Table 1 Characteristics of joint ventures featuring successful knowledge transfers (based on Berdrown & Lane, 2003)

Characteristics	Definition
Mindset	Set of attitudes, thoughts and feelings that influence decisions and actions. The mindset of key decision –makers influence the partnership in its resources and activities.
Controls	Alignment of expectation between parents
Resource contribution	Partners should complement one another strategically
Training and development	Capacity building of employees of the joint venture from the two parents has proven invaluable for the obvious exchange of knowledge, but also for the creation of communication pathways between the different entities
Strategic integration	Parents should engage in activities that are complementary to their core operations.
Relationship development	Close, personal bonds developed between parents and with joint venture sets trust and respect in the relationship, which are necessary in internal resources, such as knowledge sharing.

Table 1 details the factor of success for knowledge transfer in joint venture systems. The characteristics are important to understand the open innovation framework. As Choo & Bontis, (2002) described strategic levers for internal innovation processes, strategic levers for external knowledge processes are of critical importance to understand the impact of the firm's knowledge relationship with its SBJV on the firm's innovative abilities. One of the characteristics mentioned by the authors is competencies alignment.

3.2.3 Co-development Competencies Alignment

According to Chesbrough & Schwartz (2007), in co-development within joint ventures there is a classification of the various R&D competencies into three discrete areas: core, critical and contextual. While all these are required to deliver new offerings to the market, the decision to partner externally has very different implications for each of the three areas, and imposes different requirements for managing the partnerships. First, core capacities are the key sources of a company's distinctive advantages and added value. They are the key assets to be leveraged in any co-development deal. Therefore, a business model that involves co-development of core elements

can be a risky venture, and thus products or services should only be shared sparingly. Critical capabilities, however, are those that are vital to the success of the complete product or service offering in the market place, but not core to the firm. These competencies are the ones that lend themselves most easily to co-development arrangement. Finally, contextual capacities are the ones needed to complete the offering but provide little of the differentiation or value added for the business. In a co-development partnership, such as a joint venture, what is contextual for one firm may be core for the partner.

Having laid out different theories of knowledge flows and successful mechanisms of transfers in joint venture contexts, I now introduce the main framework of analysis for the study.

3.3 Open Innovation Framework

Open innovation comes in many forms and in many contexts, which confers richness to the concept but hinders theory development (Huizingh, 2011). Generally, scholars have examined inward technology transfer, R&D alliances and internal organization capability (Lichtenthaler & Lichtenthaler, 2009); another body of literature explores the outward knowledge transfer and external knowledge exploitation (Chesbrough & Schwartz, 2007; Fosfuri, 2006). Other scholars have studied the importance of knowledge retention over time outside a firm's boundaries (Dittrich, Duysters, & Man, 2007). Finally, inter-organizational innovation networks have also been studied as part of the open innovation concept (Ahuja, 2000). Lichtenthaler & Lichtenthaler (2009) tries to summarize the body of research into a process-based understanding of open innovation linking their open innovation framework to related literature such as knowledge management and organizational learning. The framework helps to understand how firms may profit from open innovation processes in an inter-firm heterogeneity context, which is fitted for a cross-sector partnership. Later Lichtenthaler U. (2011) developed the framework into a capability based framework. This framework will be used in the analysis of this study and will be explained in great detail in the following sections.

3.3.1 Open Innovation Concept a Multiple Level Framework

While the open innovation concept includes many new conceptual insights and theoretical arguments, academic research is only starting it does not fulfill the required criteria to count as a new theory; and thus does not represent a coherent new theory according to accepted standards (Lichtenthaler U. , 2011). Open innovation may rather be considered as a framework (Chesbrough, Vanhaverbeke, & West, 2006). According to Teece (2007), a framework abstracts from reality. It endeavors to identify classes of relevant variables and interrelationships. As such, I shall remain aware that the findings, in relation to the framework, are an abstract classification of real events and relationships.

Gassmann & Enkel (2004) identify three open innovation strategies: outside-in, to enrich the companies own knowledge base through the integration of suppliers, customers and external knowledge sourcing to increase the company's innovativeness; inside-out to earn profits by bringing ideas to market, and transferring ideas to the outside environment; finally, the coupled process combines both strategies by working in alliances with complementary partners. Each strategy interacts at different processes of innovation management.

> *Open innovation is defined as systematically performing knowledge exploration, retention, and exploitation inside and outside an organization's boundaries throughout the innovation process* (Lichtenthaler U. , 2011, p. 77).

The role of combining internal and external management processes of knowledge has become critical in the innovation process. Lichtenthaler & Lichtenthaler (2009) built upon the capability or resource based view of the firm, and developed a framework that examines a firms' ability to manage knowledge in open innovation processes by distinguishing internal and external knowledge exploration, retention, and exploitation. The framework assigns capabilities necessary to manage the different processes of open innovation (see table 2).

Table 2 Overview of the open innovation framework (Lichtenthaler, 2011)

	Knowledge Exploration	Knowledge Retention	Knowledge Exploitation
Internal (Intra-firm) Organizational level Project level	Creating new knowledge inside the firm: **Inventive capacity** Make decision	Maintain knowledge over time: **Transformative capacity** Integrate decision	Internal innovation (ie. knowledge application): **Innovative capacity** Keep decision
External (Inter-firm) Organizational level Project level	Acquisition of knowledge from external sources: **Absorptive capacity** Buy decision	Maintaining firm's inter-organizational relationships: **Connective capacity** Relate decision	Outward knowledge transfer: **Desorptive capacity** Sell decision

Knowledge exploration is directed at variations, i.e. internal or external generation of new intuitions; and selection, i.e. choice of the most appropriate ideas through evaluation. At the project level it is known as 'make or buy' decisions. By contrast, knowledge exploitation encompasses the different opportunities in diverse contexts and their internal or external application in different settings. With this process, managers are faced with the 'keep or sell' problem. This application mechanism is important in the sense that ideas that survive internal selection are used in multiple applications. Finally, internal or external knowledge retention connects these processes, ensures inter-temporal knowledge transfer and generates new processes of knowledge exploration, retention and exploitation. At the project level, it has been termed the 'integrate of relate' management decision regarding whether to incorporate the knowledge into the knowledge base or relying on inter-firm relationships as external knowledge base.

The framework acknowledges that innovation is inherently a multilevel phenomenon, and thus calls for multiple levels of analysis. In order to successfully manage these activities, companies need to develop several organizational capabilities at the firm level. At the project level, companies cannot develop organizational capabilities but they may draw on their firm-level capabilities to manage innovation projects and make critical-level decisions, such as the 'make-or-buy' decision. Furthermore, these decisions are influenced by the underlying attitudes of a

firm's employees at the individual level, which constitute important micro-foundations of innovation capabilities.

3.3.2 Firm-Level Knowledge Management Processes

In framework from Lichtenthaler and Lichtenthaler (2009), authors that in order to capture knowledge flows, a firm has to develop six knowledge capacities: inventive, absorptive, transformative, connective, innovative, and desorptive (see table 2).

Inventive capacity

This capacity refers to internally generating knowledge. Once created, the new knowledge has to integrate knowledge bases of the firm by establishing links to existing knowledge. The generation of new knowledge is usually a reaction to a perceived need that knowledge based on the current knowledge. This capacity comprises the process stages of **generating** new knowledge and i**ntegrating** it into the firm's base of existing knowledge.

Absorptive capacity

This capacity relates to exploring external knowledge. Among many definitions, Cohen & Levinthal (1990) define it in the following manner: as recognizing, assimilating and applying external knowledge. This capacity focuses on knowledge acquisition and exploratory learning. In this framework, this capacity comprises the process states of **acquiring** external knowledge and **assimilating** this knowledge into the firm's knowledge base.

Transformative capacity

This capacity refers to internally retaining knowledge over time. Knowledge retention needs to be actively managed to keep the knowledge 'alive', otherwise knowledge is lost if skills are not used regularly or if employees leave the firm. Knowledge is transformed if it is maintained and reactivated internally. This capacity comprises the process stages of **maintaining knowledge** in the firm's base and subsequently **reactivating** it.

Connective capacity

Inter-organizational relationships may be considered as a firm's external retention. External networks have to be maintained and managed over time, like internal knowledge. This capacity refers to a firm's ability to retain knowledge in inter-firm relationships through alliance capability

and relational capability. Here, knowledge retention does not assume inward flow, or the act of acquiring, but rather the act of establishing links to facilitate knowledge crossing. This capacity comprises the process stages of **maintaining** knowledge in inter-organizational r**elationships** and subsequently r**eactivating** this knowledge.

Innovative capacity

This capacity is associated with matching inventions with the context of their final market; it represents the realized or exploited of absorptive capacity. It is a firm's ability to internally exploit knowledge. This capacity comprises the process stages of **transmuting** knowledge and **converting** this knowledge into new products and service to make profit from. This capacity depends on prior knowledge of commercialization opportunities.

Desorptive capacity

This capacity, associated to the biological process of desorbing, describes a firm's ability of external knowledge exploitation or outward knowledge transfer and making profit from it. This capacity comprises the process stages of **identifying** external knowledge, external knowledge exploitation opportunities and subsequently **transferring** the knowledge to the recipient.

3.3.3 Strategic Management of Knowledge Capacities

Firms need to continuously transform their knowledge capacities, which dynamically develop in an evolutionary path to fit changing environments. In consequences, knowledge management capacity is defined as a firm's ability to dynamically manage its knowledge base over time by reconfiguring and realigning the processes of knowledge exploration, retention and exploitation inside and outside the organization. This capacity goes beyond the mere act of connecting functions between individual capacities cited in the previous section. More than the capacity level transformation dynamics, it is directed at meta-processes, it encompasses more than the sum of the knowledge processes, but also the strategy and different organizational mechanisms.

Reconfiguration of the knowledge capacities

The reconfiguration of knowledge capacities results from the need to transform a firm's knowledge base as markets and technologies change. A firm may identify new knowledge and markets, revealing a gap between opportunities, the current knowledge base and market position.

Realignment of knowledge capacities

Capacities need to be realigned over time in order to ensure a sufficient coordination of their interfaces, to minimize internal conflict and maximize complementary. Knowledge capacities need to be combined and integrated to generate synergistic outcomes. At the organizational level, the internal and external knowledge management processes are often complementary (if we think of 'make or buy' decision for instance, one firm can simultaneously 'make and buy' in knowledge exploitation). As a consequence, process interfaces need to be realigned to find synergies. One capacity may compensate or complement another. Beside internal and external knowledge realignment, realigning capacities for exploration, retention and exploitation may have major benefits. For example, a firm with high inventive capacities, or internal knowledge creation, might want to align with a firm with high innovative capacity, or exploitation of knowledge. This is especially the case in SBJV cases, in the literature of SBJV and cross-sector alliance field, authors have noticed the challenge of knowledge transfer and coordination due to the inherent differences of strategy, organizational structure and value system.

Strategic emphasis

Based on their strategic intent, firms need to put particular emphasis on specific combination of internal and external knowledge exploration, retention and exploitation process. In addition, the benefits from strong knowledge management capacities will be higher in more dynamic environments. In other words, decisions regarding development of knowledge capacities and the knowledge management capacity need to be aligned with a firm's global strategy. For example Zach (2002) distinguishes conservative knowledge strategy, focused on internal knowledge exploitation, form aggressive knowledge strategies which, involves internal and external knowledge exploration and exploitation.

Organizational mechanism

The authors identify three different organizational mechanisms that realign and reconfigure knowledge management. First, structural mechanisms allow several knowledge capacities to be developed in different organizational units through either spatial separation, or the development of parallel structures. Parallel structuring often involves a formal primary structure for ordinary processes, and a secondary structure, which addresses specific processes and manage critical interfaces and change. Secondly, contextual mechanisms to reconfigure and realign knowledge

strategies are systems, processes, and beliefs that shape behaviors. Firms may design this context to encourage all sub-units and individuals to facilitate coordination and renewal by actively managing changes and interfaces with other units (eg. as job enrichment schemes and shared vision). Thirdly, leadership mechanisms are a supporting factor when implementing structural and contextual mechanisms, such as the role of senior executives in developing dynamic capabilities (Helfat, et al., 2007). They have the power to realign capacities, and they directly contribute to reconfiguring knowledge capacities, by changing top management for instance. In other words, they balance the development of different capacities and reduce conflicts of interface.

3.3.4 Multiple Level of Management

This framework underscores the importance of interdependencies in open innovation. Accordingly, managers and researchers need to consider both top-down and bottom-up effects across multiple levels. Top management may be impeded in their innovation strategy at the project level; individual employees may be limited in their endeavor to open up processes because it lacks top management commitment.

This framework helps to understand the distinct capabilities and skills that firms need to develop internally at multiple levels for open innovation strategy. It provides a systematic and integrative view of tasks and processes around open innovation. The relative importance of the different open innovation processes depends on a firm's corporate strategy and organizational culture. Firms need to develop the organizational capabilities in alignment with their corporate strategy.

The impact of opening up the innovation process on a firm's innovation and financial performance is not a well-researched correlation. However, it is undeniable, that open innovation contributes to innovation and knowledge capacities development and innovation and knowledge building. As such, it is also shown that a lack of alignment at all level of the firm leads to inefficiencies and failure. As such, if processes are not accounted for in the global innovation strategy, SBJV innovation potential will be lost or will fail.

3.3.5 Limitation and Risks of Firm Openness

As there is an important cross level interdependencies that requires a sufficient fit between open innovation processes and a firm's corporate strategy and culture (Rigby & Zook, 2002).

Companies investing in open innovation activities face risks and barriers that hinder them from profiting from their initiatives. Enkel, Gasssman, & Chesbrough (2009) show in study of 107 companies in Europe that risks, such as loss of knowledge, higher coordination costs, loss of control and higher complexity, are often mentioned by managers.

Furthermore, the open innovation concept explicitly considers the trends toward inter-organizational innovation process, but internal activities are also critical to open innovation process (Lichtenthaler U. , 2011). Yet, there are significant internal barriers (Enkel, Gasssman, & Chesbrough, 2009), such as the difficulty in finding the right partner, imbalance between open innovation activities and daily business, and insufficient time and financial resources for open resource activities. As today, most companies combine open and closed innovation processes, too much openness can negatively impact companies' long-term innovation success because it could lead to loss of control and core competences. The future lies in an appropriate balance for companies to, on the one hand, use every tool available to successfully innovate, and on the second hand, foster the building of core competencies and protect their intellectual property.

4 Methodology

This chapter explains the research methodology used in this paper to study the knowledge flows within SBJV system, and implications to the parent firm innovative capacities. In this endeavor, the thesis applies a exploratory multiple case study analysis.

Figure 3 illustrates the research methodology that was used in this study and that will be explained in this chapter.

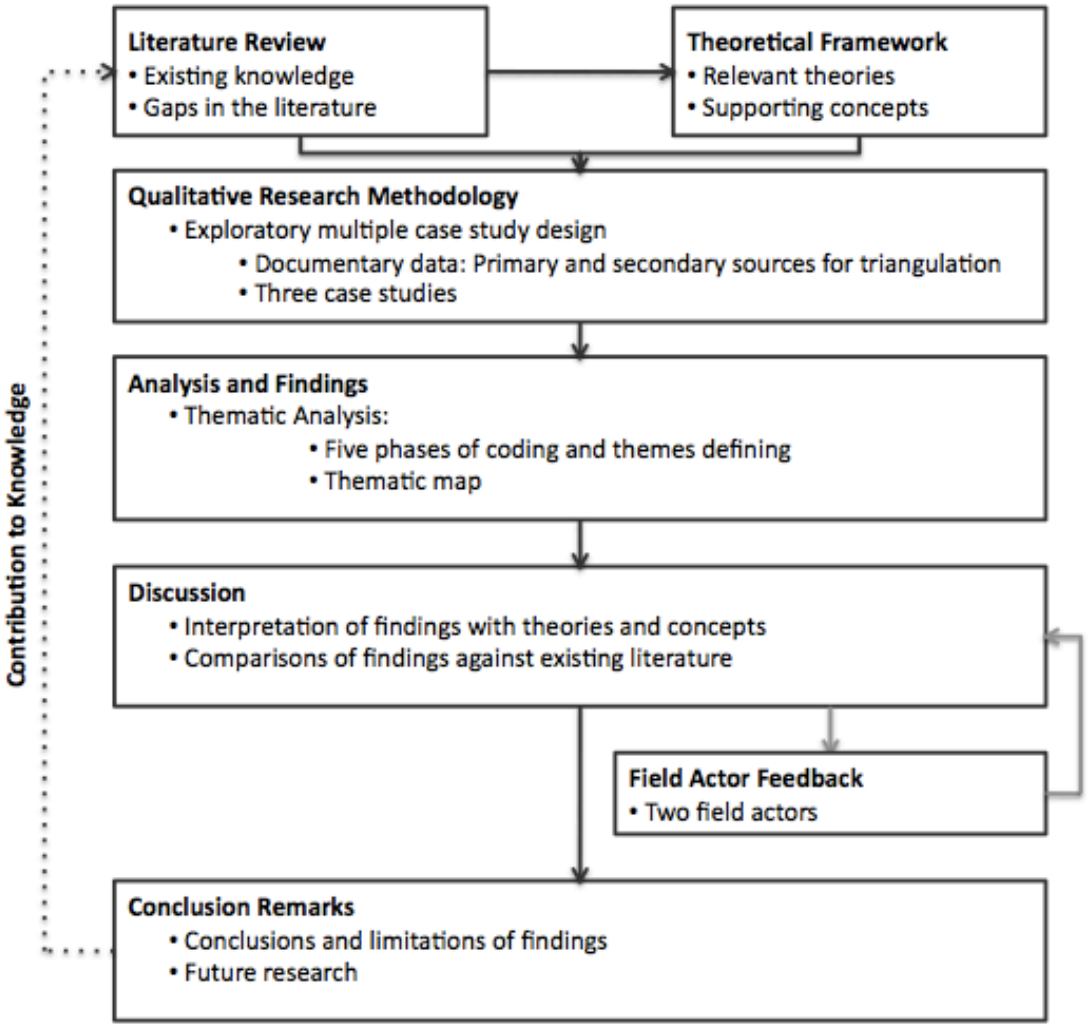

Figure 3 Flowchart of research methodology (adapted from Phung 2012)

4.1 Research Design

As the focus of the research question is to understand a complex social situation, rather than a causal relationship; this study takes form of an exploratory research (Creswell, 2003; Yin R. K., 2003). Based on the research of this study, there is no existing empirical works on the application of open innovation theories in cross-sector partnerships in BoP context. As a result, an exploratory approach is deemed most appropriate providing a better understanding of the research at hand (Sekaran, 2003).

The present research builds on theory on an already well-established field (i.e Open Innovation), and verifies its applicability to the specific conditions and environments of SBJV in BoP markets. Therefore, the objective of the research is to obtain an overview about the 'how' SBJV impact innovative capabilities in parent companies. According to Yin (2009), such questions elicit explanations that are best suited to the case study approach. A case study is an empirical inquiry that (1) investigates a contemporary phenomenon within its real-life context, especially when (2) the boundaries between phenomenon and context are not clearly evident (Yin R. , 2002). This study meets both these characteristics since innovative capabilities are embedded in the complex social situations and interactions of each company within a specific situational condition namely a social business (Peerally & Figueiredo, 2013). In addition, the chosen open innovation framework underscores the role of a firm's environmental context (Chesbrough, Vanhaverbeke, & West, 2006). More specifically, in the field of information systems, case study research is the most common qualitative method used (Myers, 1997). Furthermore, by using several cases contrasting patterns in the data, it becomes more evident and thus the applications to aspects of the proposed framework are more relevant (Eisenhardt & Graebner, 2007). In consequence, this study shall take an exploratory multiple case study approach.

Johnson, Leach, & Liu, (1999) argue that to investigate a question of exploratory nature, there are three requirements: (1) The study must begin with theory and the development of research questions; (2) A systematic research design must be followed in the selection of the case studies and data sources; (3) Evaluation criteria must be implemented to independently assess potential biases and to ensure the methodological rigor of the case studies.

4.2 Choice of Case Studies

> *Multiple-case studies should follow a replication, not a sampling logic. This means that two or more cases should be included within the same study precisely because the investigator predicts that similar results (replications) will be found. If such replications are indeed found for several cases, you can have more confidence in the overall results. The development of consistent findings, over multiple cases and even multiple studies, can be considered very robust findings* (Yin R. , 1993, p. 34).

An important step in the methodology is the delineation of the case studies. To avoid pitfalls of the study growing out of scope, authors such as Yin R. (2002) have suggested placing boundaries on a case. In the choice of the study case, the study shall be bounded by (1) time and place; or (2) time and activity; or by definition and context (Baxter & Jack, 2008). In this research, the study will be bounded in terms of definition and context: the definition of social business social ventures as given in section 2.4.4, and the context of a particular MNE, a single NPO and the BoP market in a particular country.

> *Case studies should not be thought of as being a form of data collection, but instead, as whole studies. However, in order to overcome their lack of statistical sampling representativeness, careful selection and replication of cases is imperative. […] Each experiment should complement the others by replicating the findings under various conditions, or by addressing different aspects of the overall theory* (Johnson, Leach, & Liu, 1999, p. 205).

Case selection decisions stem form the research questions, therefore, each case needs to be carefully selected so that it either predicts similar results or produces contrasting results but for predictable results (Johnson, Leach, & Liu, 1999). Eisenhardt & Graebner (2007) names the replication logic. Each case serves a distinct experiment that stands on its own as an analytic unit. As such, the SBJVs were chosen based on theoretical reasons to facilitate theoretical analysis (Eisenhardt & Graebner, 2007). The selection was carried out along three main criteria to strive for contextual appropriateness (Poulis, Poulis, & Plakoyiannaki, 2013). First, in the SBJV one of the partnering entity had to be a NPO, more specifically, part of the Grameen network. By having one part of the SBJV constant in terms of value, strategy and culture gives to each case study more replication characteristics between each other. Secondly, the other partnering entity has to

be a MNE. By focusing on MNEs, the study limits the influence of budget or cross business units synergies in this analysis. Moreover, the chosen cases are all French based MNEs. This additional factor is useful to create a contextual homogeneity, which critical in the field of knowledge transfers which is very sensible to organizational and national barriers (Berdrown & Lane, 2003). Thirdly, the case studies are all based in Bangladesh. Once again, the purpose of situating the case studies in the same geographical markets helps to account for contextual factors of influence (such as local economy, business culture, business relationship, access to resources, etc.), and thus provide stronger ground for comparison and cross generalization. Nonetheless, within the same geographical and institutional context, the projects are involved in different industries using substantially different approaches to market, hence displaying various facets of the issue at hand.

The three choices of case studies are the Grameen DANONE Food (GDLF), Grameen Schneider Electric (GSE) and Grameen Veolia Water (GVW). I selected those particular cases because their notoriety makes for easy access to sources. And most importantly, I chose these particular cases because in these companies, not only is the sustainability objective one of the pillar of the company mission, value, strategy and business model, but so is the innovation objective. The companies are fully conscious that, in their own company context, being innovative is an effective way to achieve competitive advantage, and thus market share and profit, while generating public good through sustainability (Vilanova & Dettoni, 2011). The clear strategic focus on innovation and sustainability makes for a straightforward analysis under the open innovation framework.

4.3 Data Collection

Yin R. K. (2003) adds that in exploratory research, there are more variables than data points, and as one relies in multiple sources of evidence to triangulate information and benefit, the prior development of theoretical proposition as guide throughout the analysis. Triangulation refers to the convergence of evidence on one interpretation, meaning that for each questions, in every case, multiple sources will provide different proof on the same idea (Johnson, Leach, & Liu, 1999). Collecting data may be achieved in two ways: using secondary information (previously collected) or primary information (collecting new data) (Arbnor & Bjerke, 1997).

In this study, solely documentation will be used. As the fields of SBJV is a very scrutinized topics in the past years, the number of case studies written on different business cases is astonishing. Therefore, Johnson, Leach, & Liu (1999) suggest the use of documentation to gain objectivity. By relying on written and published information, the data will have been generated outside the influence of the research study. Nonetheless, the same authors advise caution with the use of documentation in case study research, as much of documentary evidence is often edited to reflect a desired image, especially in the case of company published sources.

> *In anthropology and sociology it is a common practice to distinguish between primary and secondary sources of data. Generally speaking, primary sources are those data which are unpublished and which researcher has gathered from the people or organization directly. Secondary sources refer to any materials (book, articles) that have been previously published* (Myers, 1997, p. 8).

As primary sources I shall use secondary data. Secondary data in qualitative research is data that has not been collected with a specific research purpose (Sørensen, Sabroe, & Olsen, 1996). Such data is often collected for (1) management, claims, administration, and planning; (2) evaluation of activities; (3) control functions; and (4) surveillance or research. Also, the authors identify advantages and disadvantages. The main advantage of using secondary data sources is that they already exists, it reduces the time and costs of acquiring the data, and limits the amount of waste data. Another advantage, which is of importance to this study, is that it allows for a larger sample of case studies. It increases the analysis in its representativeness and decreases the likelihood of bias.

The disadvantages are related to the fact that their selection and quality, and the methods of their collection, are not under control of the researcher, and that they are sometimes impossible to validate (Sørensen, Sabroe, & Olsen, 1996). In this study, this problem is emphasized by two factors. First, the literature and the cases are recent. Therefore, not only have the writers very little perspective on the cases, but also the academic validations of the results are limited. Secondly, as mentioned by Crabtree (2007), so far BoP and SBJV literatures have been largely romanticized to attract the interest of managers and investors.

Table 3 List of primary and secondary sources

CASE STUDY	Primary sources			Secondary sources			Total
	Type	Reference	Coded passages	Type	Reference	Coded passages	
Grameen Danone Food Ltd	Harvard Business Case	Kasturi Rangan, 2012	40	Conference Paper	Peerally & Figueiredo, 2013	30	**154**
	Case Studies	Humberg 2011	19	Journal Article	Ghalib, Hossain, & Arun 2009	6	
				Journal Article	Murphy, Perrot, & Rivera-Santos, 2012	7	
				Report	Hartigan, 2010	19	
				Book	Vilanova & Dettoni, 2011	33	
Grameen Schneider Electric	Press Release	Schneider Electric, 2012b	4	Business Case Scholar	Lehmann-Ortega & Faujas, 2012	63	**139**
	Field Report	Vermot Desroches & André, 2012	41	Master Thesis	Phung, 2012	21	
	Co. Registration Document	Scheider Electric, 2012a	10				
Grameen Veolia Water	Field Report	Yunus, Sibieude, & Lesueur 2012	23	Journal Article	Tsuboi, 2010	2	**52**
	Company Web	Grameen Veolia Water Ltd Web	4				
	Book	Yunus & Weber, 2010	21				
	Case Studies	Humberg 2011	2				

4.4 Analytical Approach

In the analysis of the data from the case studies, the necessity for a strong theoretical background has been strongly recommended to filter the large amount of data according to the conceptual arguments in a consistent and efficient manner (Johnson, Leach, & Liu, 1999)(Yin R. , 1993).

4.4.1 Thematic Analysis

A thematic analysis has several purposes. Among the purposes it is a ‘way of seeing’ and a ‘way of analyzing a qualitative information’ (Boyatzis, 1998). In the context of a cross-case comparison, Yin R. (1981) recommends the coding of factors to establish cross-case patterns. The thematic approach fits this case study exploratory study as it allow to analyze documentary information from one particular angle (or way of seeing) with multiple case studies and cross analysis. Braun & Clarke (2006) acknowledges the following benefits of thematic analysis (among others): flexibility, ease of self-learning and use for researcher with little experience, can highlight similarities and differences across the data set, allow for social interpretation of data.

Thematic analysis is a process for encoding information with an "explicit code". The code may be a list of themes or a complex model with themes.

> *A theme is a pattern found in the information that at minimum describes and organizes the possible observations and at maximum interprets aspects of a phenomenon. A theme may be identified at the manifest level (directly observable in the information) or at the latent level (underlying the phenomenon)* (Boyatzis, 1998, p. 4).

A theme (or coding category) can be defined through different processes (Joff & Yardley, 2004). Deductive coding refers to categories drown from existing theoretical ideas that the researcher brings to the data. Inductive coding refers to categories being drawn from the raw information itself. There are examples of studies using the deductive coding techniques for determining to what extent a model seems to capture the reality of a situation or a phenomenon. This study aims to follow a similar approach. As this study aims to analyze the applicability of the open innovation theory on a set of relationships, the deductive coding will be used, based on the different concepts and principles of the open innovation framework (see appendix for code entries). This seems to be an appropriate approach, as thematic analysis has already been used in the field of business research (Boyatzis, 1998), and more specifically, it has been used successfully in knowledge and innovation capacities research (Lane, Koka, & Pathak, 2002).

According to Braun & Clarke (2006), in order to implement a sound thematic analysis, there are six steps, although there are no rules, as such one should apply them with flexibility to fit the research questions and data.

Phase 1 – *Getting familiarized with the data*. The data was read several times in order to become familiar with the themes and patterns that might occur.

Phase 2 – *Generating initial codes*. The codes identify a feature of the data (semantic or latent) that appears of interest. As the coding is theory-driven, the code refers to elements of information that seem relevant to the theory. It is important to work systematically through the entire data set, giving full and equal attention to each data item and identify interesting aspects that may be repeated across the data set. This phase may be done through a software program. In this study, I use the software TAMS, which is an open source software offering the basics feature of a qualitative coding program. At this phase I had created 42 codes.

Phase 3 – *Searching for themes*. The codes are combined into over-arching themes that accurately depict the data even though they do not yet fit into the theory at hand. By this phase I had derived 23 categories under four major themes.

Phase 4 – *Reviewing themes*.

Phase 5 – *Defining and naming themes.* At this stage, I closed my coding into 25 sub-themes under 4 general themes.

Phase 6 – *Producing the report.* In section 6, I will give an overview of the results, and in section 7, the discussion, I will relate the themes encountered in the data to the open innovation framework and analyze the relevance of the theory to the case studies.

The thematic analysis has been criticized. A common critic is to the coding which looses the contexts (Bryman, 2001). To avoid this pitfall it is important to generate as many different code and themes as necessary. Furthermore, with the choice of the case studies, I have purposively chosen similar contexts (see section 4.2) in the hope to limit losses of meaning during coding.

4.4.2 Assumptions

All research is based on some underlying assumptions about what constitutes 'valid' research and which research methods are appropriate (Arbnor & Bjerke, 1997). Myers (1997) argue that in order to conduct qualitative research, it is therefore important to know what these hidden assumptions are. This is especially the case in this study given that thematic analysis is inherently interpretive research. The researcher is positioned as active in the research process as he, or she, is the one that 'sees' the data and decides on codes and themes (Braun & Clarke, 2006). In consequences, the biases, values and judgments of the researchers need to be explicitly acknowledged and taken into account with the results (Creswell, 2003).

- Although taking into consideration that the three case studies are not representative samples, nor are they meant to be explicative units, in this analysis I am purposely looking for similarities rather than differences.
- We assume the SBJV is a sub unit of the firm, which is conceptually external to the boundary of the firm. Although, it was previously mentioned that joint ventures are created for this particular purpose that is the diffusion of the boundaries for knowledge transfer, the framework considers joint ventures as open innovation strategies. Thus, from

this point on it will be referred to SBJV sub unit as part of the 'external' network of the firm.

- Finally, the success or failure of SBJV to their social objective is much debated in the literature (Donaldson, 1982). In this study, we assume that whether the project is considered a success or a failure, it does not matter to the learning potential.

4.4.3 Field Actor Validation

Respondent validation or feedback involves crosschecking interim research findings with actors from the field. Their reactions to emerging findings can help refine explanations (Barbour, 2001). There have been questions regarding the appropriateness of the approach, such as individual concerns that can lead to discrepant results (Mays & Pope, 2000), and the tendency to "romanticized" feedbacks (Atkinson, 1997).

Nonetheless, this technique has been used in many instances and is strongly supported in the literature (Johnson, Leach, & Liu, 1999). In this study the sole focus on documentary sources makes for a lack of perspective from the players in the field. However, as the documentary research and writing was realized in a context where I was also working on projects related to SBJV with actors from SBJV (see acknowledgements). Although, this research could not include these particular SBJVs, it seemed appropriate and contextual to make use of these relationships to acquire a feedback from these players in order to put into perspective, for lack of validation possibility. By receiving support for the findings by these players, the results may gain a higher degree of validity.

Arbnor & Bjerke (1997) suggests the following techniques to select actors: recommended selection, letting different actors recommend other interesting actors; understanding selection, choosing actors that seem to be important in the understanding of the situation; problem oriented selection, choosing actors that are connected to the problem studied regardless of their connection or degree of influence to it, and problem oriented selection. In this study, the selection is based on choosing actors connected to the subject, and are available in the time frame of the study.

Therefore, after the coding and first results steps of the analysis, I subjected the main findings to the reactions and perspective of one social business consultant for Grameen Caldas in Colombia and incorporated their reaction in the discussion in section 7.

Table 4 Field player validation

Name	Function	Experience in the field
Christina Hunn	Social Business Joint Venture Consultant and Director of Social Business Incubation Center at Grameen Caldas (Colombia)	2 years

4.5 Reliability and Validity

> *"Like any other methodology, case studies are subject to potential researcher biases."* (Johnson, Leach, & Liu, 1999, p. 209)

Nonetheless, according to Johnson, Leach, & Liu (1999) transferability of case study analysis is not a proof of validation in the case study research. As case study analysis are based on complex social phenomenon and relationships, there are no concrete validation criteria because a socially constructed reality is so interactive that possibilities for validation are very small (Arbnor & Bjerke, 1997).

However, Arbnor & Bjerke (1997) lists the following validity check for qualitative case study research that may be used: (1) Feedback mechanism: a common sign that interpretation is correct is that the actor show increasing interest. As explained in section 2.4.3, the results have been subjected to key players' reaction; (2) Practical validation: practical usefulness of a conclusion decides the value of the results. This point shall briefly be addressed in the discussions and limitations of the study; (3) Results are rooted in clear and logic theoretical background. The theoretical grounding is provided in Chapter 3 of this paper; (4) Relation to the existing knowledge. This point has been addressed extensively in the literature review, and is further addressed in the discussion and contribution to knowledge sections.

A limitation to the validity of the study mentioned by Crabtree (2007) is the fact that sBoP literature has been largely romanticized to attract the interest of managers and investors.

5 Case Studies

In 2009, Bangladesh ranked 146th out of 182 countries on the UN Development Program's Human Development Index (UNDP, 2009, p. 145). This chapter presents three case studies of SBJV, which aim to face poverty challenges in Bangladesh: Grameen Danone Food Ltd, Grameen Schneider Electric and Grameen Veolia Water. In describing the cases from the study, I give a concise overview of the parent company, its implication in CSR and a brief description of the chronological development of the SBJV from the perspective of the parent company.

5.1 Grameen Danone Food Joint Venture

One the leading factors of poverty is health (UNDP, 2009). In Bangladesh, rates of malnutrition are among the highest in the world, more than 56% of preschool-age children are underweight (FAO, 2010). The Bangladeshi population experiences high rates of micronutrients deficiencies due to the lack of diversity in food consumption. Such deficiencies impact cognitive and physical development, health, productivity, and thus economic development (FAO, 2010).

DANONE Group

Group DANONE is a leading French MNE in the processed food industry. The group has built its reputation and growth on its ability to offer consumer products that combine health and well-being (Ghalib, Hossain, & Arun, 2009). Sustainability has also been a core objective of the group since its creation in 1919. Traditionally DANONE has been a global leader of fresh dairy products, bottled water, biscuits and cereal products market; in the past years, there has been a change of strategy for DANONE to refocus on its core competencies and core values, i.e. health through food. It sold its brand of beers and snacks. That is when the Grameen project came into the picture.

DANONE and open innovation

"Some time ago, we sued to do all of the innovation work within the operations area, but now it comes from the strangest places," said a DANONE manager (Vilanova & Dettoni, 2011, p. 75). Today, open innovation is becoming a central part of the innovation process at DANONE. Managers are admitting that on a daily basis they are interacting with external people, building

teams with strong external presence and staying attuned to the external flow of ideas. The company is proactively investing in open innovation through investment into time and people, into relationship building and finding the right people to partner with. So far, open innovation has been an organic process dependant on their growing network in different markets (Yunus & Weber, 2010).

Grameen DANONE Food Ltd. (GDFL)

Established in 2006, Grameen DANONE Food Ltd (GDFL) is Yunus's first consciously designed social business joint venture in Bangladesh. The company's core mission is to reduce poverty by a unique proximity business model, which provides poor consumers with affordable and nutritious yogurt, while leveraging local resources and creating employment throughout the value chain. "The strength in its success lies in the fact that it is a business (not a charity)" stated the CEO of DANONE Franck Riboud (Ghalib, Hossain, & Arun, 2009, p. 11).

GDFL settles on yogurt as the main product because a dairy product contains many healthful nutrients. The active cultures in yogurt are also beneficial because they promote good intestinal health and reduce the effects of diarrhea, a deadly affliction in the developing world (Yunus & Weber, 2010). The yogurt is fortified by many nutrients and vitamins to have a wholesome impact on the children, as much on thyroid function as on eyesight.

Local farmers, who have obtained cows through micro-loans from Grameen Bank, supply the factory with premium quality full-cream milk. The first product launched was one flavor in a single sized cup prices at 5 Taka (0,08$), yet the product and the pricing have changed and diversified significantly over the years. Ones of the major challenges were sales, distribution and marketing.

5.2 Grameen Schneider Electric Joint Venture

UN General Assembly declared 2014-2024 as the decade of sustainable energy for all (UN GA, 2012). Energy has a critical role to socio-economic development and poverty alleviation. 1.3 billion people worldwide do not have access to energy (Scheider Electric, 2012a). In 2012, out of Bangladesh's 150 million inhabitants, only 49% of the country is connected to the electricity grid (Grameen Shakti, 2012). Among possible alternatives to electricity, oil and wood are most

common; yet they are both expensive, dangerous for safety and health (WHO, 2006). According to current Offer Creation Director –Access to Energy at Schneider Electric the current access to energy issue is due to the lack of appropriate equipment, the lack of financial resources, and the lack of energy management skills and expertise (Phung, 2012). Schneider Electric decided to propose its core competencies to fill this gap as part of their CSR strategy first, then as part of their core strategy (Desroches & André, 2012).

Schneider Electric

French multinational company Schneider Electric is a leader in the field of energy management, particularly electricity (Lehmann-Ortega & Faujas, 2012). Their activities cover the entire value chain (except for production and consumption) for energy management in residential and industrial infrastructures. The group drives business performance with top range innovative technologies, especially in efficient and clean energy management system. Expanding product leadership and making the grid smarter for customers, more reliable and sustainable is a central objective. Schneider Electric directly associates sustainability and innovation at all level of the business, including in the global strategy of the firm[5] (Scheider Electric, 2012a). In 2002, the Sustainable Development Directions was created under the Executive global function "Strategy & Innovation" (Desroches & André, 2012). Moreover, Schneider Electric has consistently been committed to playing an active role in the economic development of the communities in which it is present.

Grameen Shakti (GS)

Founded in 1996, Grameen Shakti (GS) is one of the largest and fastest-growing rural-based renewable energy companies in the world. As a sister company of Grameen Bank, GS is a social business. The objectives of GS are (1) To popularize and deliver Solar Home System (SHS) to rural households; (2) To alleviate poverty with the provision of energy and to protect the natural environment; (3) to develop special credit programs for utilization of renewable energy in rural areas. In November 2012, the company installed its 1 millionth SHS in Bangladesh (energy for all , 2012).

[5] In 2012, Schneider Electric was ranked 13th of the Global Most sustainable corporation in the world according to the Corporate Knights Inc (SE registration doc 2012)

BIPBOP program: Business, Innovation, and People at the BoP

As part of CSR strategy, in 2009, the BipBop program was launched to provide affordable "safe, reliable, efficient, productive and green" energy for low-income populations through the combined approach of philanthropy and business (Scheider Electric, 2012a, p. 84). The model is aims to enable local entrepreneurs to sell and maintain SHS in rural regions unconnected to the grid. It targets many countries in the developing world. The model requires the development of three capabilities for Schneider Electric: business capabilities (provide financial, technical and managerial support to entrepreneurs in the field of energy access and stimulate the local economy); innovation capabilities (develop a cost-effective portfolio of products and solutions while creating markets adapted to local socio-economic context); people capabilities (train energy management skills to entrepreneurs).

With the evolution of the BipBop program, Schneider Electric developed a suitable product and R&D capabilities to enter the BoP market in Bangladeshi. Yet, the group realized that they could not adequately establish its own distribution networks in Bangladesh from their competencies. For this reason, they established a partnership with GS. Schneider is responsible for the upstream activities within the value chain: R&D and product manufacturing. GS is responsible for the downstream activities: assembling, selling, distributing and proving after-sales services. The key driver of this partnership was for BipBop Bangladesh to customize demand and production to GS's needs and demands.

Grameen Schneider Electric (GSE)

In 2012, the links between GS and Schneider Electric were tightened with the creation of Grameen Schneider Electric (GSE) joint venture, which was established under Pr. Yunus's definition and principles (Scheider Electric, 2012a). Under the joint venture, R&D and manufacturing, which in the BipBop program took place globally and in India respectively, will be implemented in Bangladesh in order to develop local capacity and reduce import taxes thus lowering customer prices (Phung, 2012). The initiative to create a joint venture and to go beyond supplier – buyer relationship came from the need to increase affordability of products due to growing competition of new entrants and new low-cost substitute products from China. As the joint venture is very new, this study also covers literature reporting the Schneider Electric-GS partnership through the BipBop program, which was the first stage to the creation of the SBJV.

5.3 Grameen Veolia Joint Venture

Water will be a central focus of sustainability issues around the world in the decades to come (Yunus & Weber, 2010). In certain regions of the world, the problem is not so much availability of fresh water rather than access to safe-drinking water. Bangladesh is country with abundant fresh water, yet 83% of groundwater supply is contaminated with arsenic. As a result, 75 millions people are exposed to arsenic poisoning leading to skin lesion and cancers (Grameen Veolia Water Ltd Web). The government has adopted alleviation policy in March 2004, yet the number of substitute water sources is limited and the supply of safe drinking water still remains a crucial problem (Tsuboi, 2010).

Veolia Water

Veolia Water is the water division of the French company Veolia Environment. It is the world's largest supplier of water services, it provides 101 million people with drinking water, and 71 million residents with waste water services in 66 countries (Grameen Veolia Water Ltd Web). Sustainability is at the heart of Veolia's core strategies and values, and thus at the heart of Veolia Water. Hence, Veolia Water offers many social solutions to water access challenges around the world. In order to reach the poorest areas with the highest water quality, Veolia Water has developed alternative pricing policies, adapted its technological and financial strategies (through compensation systems).

Grameen Veolia Water (GVW)

In 2008, Grameen Veolia Water (GVW) was established as a social business joint venture (under Pr Yunus's definition) between Grameen Healthcare Services Ltd, a Grameen Bank's subsidiary, and Veolia Water AMI subsidiary (Africa, Middle East, and Indian subcontinent) (Tsuboi, 2010). The joint venture planned to build water treatment plants to provide 100,000 local people with drinkable water for drinking and cooking, at an affordable price. As of March 2012, the project had brought 30 tap points, providing about 8 000 people (Grameen Veolia Water Ltd Web). Grameen entrepreneurs (borrowers) manage most of the taps while working on commission.

In the joint venture, Grameen provides its know-how and networks in order to create awareness of the value of GVW's water. It does so through workshops for the local people held by Grameen as well as Grameen Banks' weekly meetings for borrowers and awareness campaigns in schools

(Ghalib, Hossain, & Arun, 2009). Veolia provides technological expertise on water treatment solutions, building water treatment plants and distribution network adapted to local geological context. One of the most challenging aspects of SBJV has been the integration of the SBJV model into local population habits and culture.

6 Descriptive Case Findings

This study adopted a deductive exploratory perspective to gain a clearer understanding of firm engagements in SBJV, the knowledge transfers and innovation outcomes, and how such practices inform in the development of innovative capabilities under the concept of open innovation. This study was conducted from the firm's perspective as the focus of the research is on the innovative impacts of this partnership on firm's innovative capabilities. This study purposefully does not address knowledge transfer between the SBJV and the NPO, nor the relationships between the NPO and its network through its activities with the SBJV. Knowledge flows in joint ventures are complex, thus adding SBJV, BoP, CSR discourse dimensions calls for limitation of scope.

Following Braun's process of deductive conceptual ordering and analysis, as a first step, each of the 17 data sources were read in depth twice or more. Based on the recommendations from the literature I coded openly each of the cases and created as many codes I felt necessary. This approach resulted in 42 codes for 331 quotations from the 17 data sources. These were subject to further analysis (nested codes, overlapping patterns, redundancy cross checking) revealing 181 overlaps and 34 nested passages. A process of clustering was undertaken based on the instances of coding in the three cases. My analysis of the data showed the emergence of four themes divided in different sub themes. Therefore, the 42 codes were then grouped thematically according the four themes that emerged from the data: Innovation outcome internal and external knowledge flows, knowledge transfer mechanisms and strategic implications of innovative capability changes. Table 5 summarizes the case by case findings. The cases exhibit open innovation characteristics in SBJV engagement.

The following chapter presents the revealed themes concerning the research question:

In the context of open innovation, how the demonstration of a firm's CSR orientation, as manifested in its commitment to an SBJV in the BoP market, contributes to the firm innovative capabilities?

Table 5 Summary of case findings (not exhaustive, it is subjective to the data and the thematic coding)

Generic themes		Data Sub-Themes	GDFL	GSE	GVW
Innovation Outcome		Technology	Yes	Yes	Yes
		Typology	Products / Processes	Technology	Processes
		Business model	Yes	Yes	Yes
		Process	Incremental / Radical	Incremental	Incremental
		Main overlaps	Shared IC capital; R&D strategy; CSR strategy, inbound flows; out bound flows		
External Knowledge Flows	Outbound Flows	Shared IC	Human / R&D / Relational	Human / R&D	Human / R&D
		Main overlaps	Internal structures dedicated to knowledge flows.		
	Inbound Flows	Contextual knowledge	Customer Feedack system; Bengladesh Market; Local ecosystem	Customer Feedack system; Bengladesh Market; Local ecosystem	Customer Feedack system; Bengladesh Market; Local ecosystem
		Assimilation	Technology/ Skills	Technology	Skills
		Main overlaps	R&D strategies, internal structure dedicated to knowledge fows		
	Network Development		Grameen network / External business partner / Institutional connection	Grameen network / External business partner / Institutional connection	Grameen network / Institutional connection
		Main Overlaps	Cross sub unit fertilization		
Internal Knowledge Flow		Reactivation of Knowledge	Communication channels / Creativity trigger	Communication channels / Creativity trigger	Communication channels / Stored technology
		Reutilization of Knowledge	Yes	No	No
Knowledge Transfer Mechanism		Strategic Orientation	CSR / R&D	CSR / R&D	CSR / R&D
		Intra Firm Structural Mechanisms	Human resources / Social integration / Leadership	Human resources / Leadership	Human resources / Leadership
		Barriers to Knowledge Flows	Lack of senior management support / Cultural discordance	Lack of senior management support	Cultural discordance
Strategic Implication		Reputation, Legitimacy, Risk Management	Yes	Yes	Yes
		Human Resources	Yes	Yes	No
		Market capture line of evidence	Yes	Yes	Yes

6.1 SBJV Innovation Capacity

The first theme that emerged from the data is the innovation outcomes from joint research between the parent firm and Grameen through the SBJV activities summarized in table 6. Both technology and business model innovation appear in the data, as results of different innovative strategies internal to SBJVs from their resources and their context, such as frugal innovation and reverse innovation. These strategies shape internal capabilities of SBJV, but also knowledge transfers with parent companies.

Table 6 Innovation derived from SBJV activities

	GDFL	GSE	GWV
Technology innovation	Frugal plant design; "Green" plant design; biodegradable cup and future edible cup; Dream culture ; Long conservation enzyme	Lamp design and features	Adaptation of urban water treatment plant to rural small scale setting
Business Model innovation	Distribution network; Cross-subsidizing rural areas	Distribution network	Distribution network; Cross subsidization; Payment system

Two of the codes that were most used in the theme of innovation outcomes were 'frugal innovation' and 'reverse innovation.' Both codes were often nested within three other codes: technological innovation, business model innovation and connective capacities, reflecting first the importance of strategies to innovation outcome and second, their importance in shaping knowledge flows between SBJVs and parent companies. The first term, frugal innovation, is found expansively in DANONE literature. It describes the act or the outcome of innovation driven by the need to spend fewer resources (financial, natural, energy, human, etc…). It has also started to penetrate academic literature in the very recent years (Zeschky, Windenmayer, & Gassmann, 2011).

> *Guy Gavelle: "We [DANONE GROUP] could not over-commit financially, in case we could not reimburse our loans for building and equipping the factory. […] There were too many risks." DANONE Singapore concluded that an investment of BDT 58 million (€600,000) can be feasibly committed to the project. Hence, between the initial estimate of €1.2 million and a*

> *premium factory which would have entailed an approximate investment of €2.25 million for 3,000 tons of premium yoghurt per year, the investment was reduced by 50 to 73 percent for the whole GDFL project including land, building and equipment. Such frugal investment dictated the course of innovative capability development in DANONE and GDFL.* (Peerally & Figueiredo, 2013, p. 20)

In the case of GDFL, this led to the building of a production factory at 20 to 30% of regular construction costs. The creation of energy saving technology, the design of biodegradable yogurt containers, the development of chemical components to survive in hotter environment for longer period of time due the inexistent cold chain distribution network were further innovation outcomes from frugal orientation of research.

The second term, reverse innovation, refers to the act or the outcome of innovation driven by the need to downgrade an existing product to fit a particular market. This term was found repeatedly in academic analysis of DANONE case studies (Peerally & Figueiredo, 2013), yet it has also penetrated the larger academic sphere of innovation at the BoP (Prahalad, 2005). This has been observed most clearly in the GSE case. At the beginning of the Schneider Electric and GS partnership, Schneider Electric proposed its products developed through the BipBop Program. Yet, they were still not appropriate for the Bangladeshi market.

> *Initial tests enabled Shakti to come up with some specific requests: Schneider's R&D teams responded by offering an even simpler, lighter and more affordable product.* (Lehmann-Ortega & Faujas, 2012, p. 13)

These two codes, frugal and reverse innovations were difficult to group because they overlap with several other codes (see table 7).

Table 7 Coding overlaps for frugal innovation and reverse innovation sub-codes

THEMES	OVERLAPS	**Frugal Innovation**	**Reverse Innovation**
Outbound flows	Parent IC sharing	1	1
	Cross-unit fertilization	-	3
	Local context absorption	3	1
Inbound flows	Assimilation	5	5
	Importation of new network	1	2
	Reutilization of created knowledge	2	2
Firm R&D strategy		1	5

Given the subjectivity of the methodology, the numbers of overlaps do not reflect the intensity of the phenomenon. Yet, they point to interesting synergies between concepts in the data.

First, the relationship between frugal and reverse innovation and outbound knowledge flows, which are discussed in the next section, reveal the critical role of the parent firm internal knowledge base and capabilities in the innovative outcome of the joint venture, products and processes. Secondly, frugal and reverse innovations have also overlapped significantly with inbound knowledge flows, as well discussed in the next section. From this, I can infer the great interest of the firm for the innovative outcome (business model and technology) of the joint venture. In other words, the parent firm seems to be not only interested in offering its capital for the greater good, it also integrates part of the innovation outcome from the partnership. Third, another noticeable trend from this table is the overlap with the category coding for the firm strategies behind its engagement in the SBJV. In the cases, the innovations were often mentioned in relations to the CSR and R&D strategies of the firm regarding its engagement with Grameen. For example, in GDFL:

> *Adhering to the premise of frugal innovations also led to increased embeddedness with the local and regional businesses. "I looked for utilities which were from India, Bangladesh and China and which were not expensive." (Guy Gavelle).* (Peerally & Figueiredo, 2013, p. 22)

In conclusion, the main findings of this section are:

- There are two types of innovation: technological and business model, which were largely a product of frugal and reverse innovation strategies, which shape the parent firm implication in the innovation process of the SBJV.
- Innovation outcomes of the partnerships seems to as much a product of firm's internal innovative capabilities, than a gain to its internal knowledge base
- Innovation outcome of the partnership is in direct relation to the strategy of the firm

6.2 Flows of Knowledge Through Firm Boundaries

All three firms engaging in SBJV initiatives show many instances of knowledge flow from the firm to the SBJV or vice versa. The recurrent categories of coding for external knowledge flows are: inside-out flows, outside-in flow, and firm network expansion.

Table 8 Co-development competencies alignment for SBJV activities

	Firm competencies completing Grameen limits	Firm limits completed by Grameen competencies	Firm Limits completed by other partner
DANONE	Yogurt expertise (Kasturi & Rangan, 2012, p6)	Local negotiations to buy technology and land (Peerally p20)	Biodegrable plastic container design: Chinese Company (Peerally & Figueiredo, 2013, p24)
	Food safety standards (Peerally & Figueiredo, 2013, p27);	Subsistance market knowledge (Murphy p15)	
	R&D department in many countries with different specialization (Peerally & Figueiredo, 2013, p21);	Microfinance (Kasturi &Rangan, 2012, p8)	
	Project Management Functions (Peerally & Figueiredo, 2013, p19)		
	Green production expertise (Kasturi & Rangan, 2012, p8)		
Schneider Electric	Premium technology (Lehman-Ortega & Faujas, 2012, p6)	Target market knowledge (Lehman-Ortega & Faujas, 2012, p6)	Teaching: NGO such as Aide and Action (Fact p7)
	Engineer skills (Phung, 2012, p82)	Distribution network (Lehman-Ortega & Faujas, 2012, p11)	National governments or the French ministry of ed cation (Desroches & André, 2010, p8)
		Rural population trust and brand awareness (Lehman-Ortega & Faujas, 2012, p17)	
		Microfinance (Desroche & André, 2012, p5)	
Veolia Water	Technological expertise of water treatment options (Yunus, Sibieude & Lesueur, 2012, p69)	Developping country context, rural context (Yunus & Weber, 2010, p143)	Clinical research for arsenic contamication: ICDDR (Yunus & Weber, 2010, p149)
		Market insights (Yunus & Weber, 2010, p143)	
		Brand awareness (Tsuboi,	

Table 8 lists on the one hand the different competencies that each firm shares with Grameen through its SBJV. The broad categories are R&D, human capital (management and engineers), and networks. On the other hand, the table shows the limits of the firm's capital in partnerships that has to be complemented by either Grameen, the joint venture partner or by third parties. The most important capital brought by Grameen is its relational capital, especially to the local environment, yet it also includes critical skills such as micro-financing. In most cases, third parties where called into the partnership for R&D purposes. Table 8 gives an overview of the knowledge flows going through the SBJV and that involve the parent firm.

6.2.1 Outflows or Inside-Out

The sub-codes of this category revolve around two ideas: parent knowledge capital sharing with the SBJV unit and spill over into the host environment. The data revealed three main types of flows: R&D force, network and human capital. In the case of GDFL and GSE, the parent firm used their internal R&D department extensively for the development of the SBJV. GSE had developed the In-Diya lamp from its own research and experience in the BoP market through the BipBop program. While launching the partnership with GS, the main driver was Schneider Electric's wish to devote 100% of its BoP R&D teams to the needs of the GS venture in Bangladesh.

> *"The idea was not to start with an existing product and degrade it to adapt it to the population's needs, but rather to assemble solutions from within Schneider (electronic card, solar charger, circuit breaker)."* (Lehmann-Ortega & Faujas, 2012, p. 7)

In the case of GDFL, although DANONE has a product to offer at the beginning, the technological development and the infrastructure for the production of the product are largely the results of DANONE's internal R&D department. The 'dream culture', a necessary chemical innovation to prevent the product from over-fermenting, was designed by headquarters' R&D department for GDFL in Bangladesh.

Another central idea to the flow of knowledge from the parent to the SBJV is through human capital. All three cases showed examples of knowledge transfer through the act of sending workers from the parent firm inside the daily operations of the SBJV as a consultant or a

manager. DANONE sent a number of its most skilled assets to work for GDLF. One of the most prominent examples is engineer Guy Gavelle,

> *"Guy Gavelle described […] as "DANONE's gifted engineer/designer" is the Industrial Director of DANONE Asia Pacific operations with 40 years of industry experience. He was called upon by Professor Yunus and Franck Riboud, DANONE's CEO, to conceive the GDFL plant from scratch."*(Peerally & Figueiredo, 2013, pp. 10-11)
>
> *"Through interactions with Guy Gavelle, the Bogra [pilot site] Quality Control team learnt how to standardize milk before starting the process in order to overcome such viscosity problems."* (Peerally & Figueiredo, 2013, p. 25)

Additionally to human resources sharing, training from the parent firm also emerged as recurrent instances of outbound flows of knowledge from the parent firm to the SBJV. Both DANONE and Schneider provide extensive training to the workers in the joint venture. Not only Schneider Electric ensures that all GS workers are trained as sales persons and as technician, but Schneider Electric also provides training to the entrepreneurs working for the GSE through GS workers. This idea introduces another recurrent code, which can be defined as 'spillover into the host environment'. Only the Veolia case did not show any evidence underlining this phenomenon. Spillovers are the unplanned transfer of knowledge to local surroundings. Spillovers seem to be important to the data of this study, as the cases mention it to be a means of local integration of the parent company into the local eco-system. Beneficiaries of the spillover seem to spread positive brand awareness (Peerally & Figueiredo, 2013, p. 30).

> *"There is also the "people" aspect of the BIPBOP program, which offers free training. This is important because it helps make a difference. It is not just about selling the product, it is about creating a local eco-system."* (Lehmann-Ortega & Faujas, 2012, p. 16)

More than human resources, the parent firm proved to be also keen on sharing contacts from their established internal and external network. DANONE used its relationships with Schneider Electric, Definox and PMC to donate equipment for the construction of the pilot project in Bogra. Furthermore, both DANONE and Schneider showed their reliance on their internal network subsidiaries to develop the SBJV.

> *"DANONE's several subsidiaries donated laboratory equipments, vats and even plastic crates."* (Peerally & Figueiredo, 2013, p. 22) In Schneider, the India sub-unit became an

important source of knowledge for the SBJV: *"The Shakti teams were then invited over to India to visit Schneider's facilities and R&D Center"*. (Lehmann-Ortega & Faujas, 2012, p. 13)

6.2.2 Inflows or Outside-In

The importance of knowledge emerging from SBJV activities and business opportunities for the parent firm is strongly reflected in the data. Many codes were used in this section, yet during the thematic grouping, two main types of flows were distinguished: the assimilation of skills and innovation into the firm's knowledge base and the intake of contextual knowledge for the firm.

Assimilation

All three cases showed evidence that the firm incorporate parts of the knowledge created and accumulated through the SBJV. In GDFL´s case, there are numerous passages illustrating this phenomenon. In terms of capacity building, by designing a production plant under 'frugal' resources, "Gavelle estimated that through the lessons learned from building the Bogra [pilot location] plant, construction costs for future plants could be reduced by 20 to 30 percent." He mentioned his experience to be one of the richest learning experiences of his career (Kasturi Rangan, 2012, p. 9). For Veolia, the experience is an opportunity to assimilate skills in working in rural areas (Yunus & Weber, 2010, p. 142). Furthermore, another important flow in term of knowledge assimilation relates to product or service portfolio development. Both Schneider Electric and DANONE group expanded their portfolio of products through the assimilation of SBJV innovations. "Schneider has developed a comprehensive product portfolio aimed at the BOP market" (Lehmann-Ortega & Faujas, 2012, p. 8)

Moreover, the codes associated in with assimilation overlapped with: R&D strategy and structure dedicated to knowledge transfers. These overlaps expose two interesting synergies. Firstly, assimilation is a process that has been fully acknowledged in the R&D strategy of the firm regarding its engagement with the SBJV. Secondly, assimilation seems to occur when the pathways for knowledge transfer are well organized.

Intake of contextual knowledge capital

In all three cases the parent firm benefited from NPO knowledge and local context to develop its understanding of local market characteristics. As previously mentioned, for Schneider, the SBJV

is not solely about selling the product, but it is about creating a local eco-system through a complete business model solution. As such, it is critical for the firm to link with the host environment as necessary. This permeates throughout the three cases. The most important sub-themes are: customer feedback systems and local market habits understanding, local NGO and institutions, and local competition.

First, customer feedback systems are mostly built through NPO local networks (Grameen bank borrowers, schools, etc.). The firm receives invaluable feedback on products and services. For example, DGF was able to realize that:

> *The key way to achieve the taste test was to involve the consumers (children and their parents) members of the Grameen family. But first, Grameen and DANONE dived deeply into understanding the eating and consumption habits of the country's poor, focusing on those rural villages where families live on less than 2 dollars at day. Bangladeshis have a fondness for highly spiced dishes as well as a well-developed love for sweet tasting food. DANONE's nutritional experts determined the nutrients to go into the yoghurt.* (Murphy, Perrot, & Rivera-Santos, 2012, p. 10)

Nevertheless, the product was identified as "not sweet enough" in the first trials (Peerally & Figueiredo, 2013, p. 27). Via a local knowledge acquisition process, the GDLF team came across date molasses, which are natural sweeteners.

> *"Using the date molasses, we increased the sugar content to 13% and this increase is something which could only have been realized locally in our lab, it would have never occurred in another subsidiary as 13% sugar in yoghurt is usually considered too high"* (Guy Gavelle) (Peerally & Figueiredo, 2013, p. 27)

Subsequently, local market understanding is also a key driver of knowledge transfer between a parent firm and a SBJV. Another example can be found in the case of Veolia. In 2010, after the launch of the plant sales did not pick up as expected, the company reversed inside-out flows into outside-in flows. GVW organized focus groups to allow local inhabitants to share their perception of the water issues in the region. Moreover, there was much research done around the habits and practices of inhabitants around each water tap (time schedule, clientele, payment, etc.) (Yunus, Sibieude, & Lesueur, 2012, pp. 70-71). Local market knowledge also includes local competition. The GSE case mentions that when they started working with Schneider, GS

purchased their supplies from its competitors. The fact that GS knew the competition and chose to cooperate with Schneider Electric led to valuable insights on local competitive environment for Schneider Electric (Lehmann-Ortega & Faujas, 2012, p. 14).

Finally, in the data appeared another critical flow of knowledge from the SBJV to the parent firm, connections to local institutions and NGOs. In the GDFL case, the links with institutions are established to promote local brand awareness, and derive few marketing benefits. For instance, by connecting with local schools, GDFL used the pool of customer to design logo of the SBJV (Kasturi Rangan, 2012, p. 7). In the case of GVW, Veolia Water has worked with local authorities to develop other means of financing water supply for the poor, including local taxes (spreading the cost over a broader population) (Yunus & Weber, 2010, pp. 141-142).

6.2.3 Importance of Networks

This sub-theme is not an exhaustive or closed category, as it also pertains to the two previous ones (inflows and outflows). Yet it revealed itself in the data as a central component worth mentioning separately. The use of the firm network throughout its activities with its SBJV is a recurrent theme in the three cases. This process of network creation as intake of contextual knowledge is mentioned as constructed through the Grameen network.

Nonetheless, beyond local ties with Grameen network, through their engagement with the SBJV, the parent firms face significant connective necessity, yet it also represents a significant networking opportunity. There are two patterns observable in the data: networking with new partners, and utilizing the firm's established network. On the first hand, firms reach out to many outside firms and institutions to co-create certain aspects of the business model or to face a new challenge that internal sources of the firm cannot address. GDFL built many ties with various stakeholders including a sociology school in Grenoble, and a Chinese firm specialized in recyclable food containers (usually targeting airplane catering services). Furthermore, when faced with the lack of a continuous cold chain distribution infrastructure to manage milk supplies, DANONE worked with the International Cooperative Alliance (ICA). This Swiss organization promoting the development of cooperation around the world enabled GDFL to identify an enzyme in Brazil which preserved the milk during the extra transport time required. A similar example for Veolia:

A local laboratory, clinical, and research organization with special expertise in diarrheal

diseases and arsenic contamination, ISDDR, B, is working with GVW technical staff to survey the eater usage habits of the residents of Goalmari [the pilot project site] and estimate the health benefits the project creates. As the results of this study emerge, we will share them with the world and, of course, we will use them to guide our planning for future improvements in the business. (Yunus & Weber, 2010, p. 149)

On the other hand, the firms also make use of their own existing and established network, which was mentioned previously in the section 6.2.1 presenting parent IC shared with SBJV. The last aspect observed in the use of firm networks in SBJV relationships is the use of the internal network for SBJV purposes. This category was mentioned in section 6.2.1 as one of the capitals shared by the firm. However, these relations also appeared as cross-subunits fertilization, it refers to the transfer of knowledge from one unit to another. This characteristic shows how the projects involve the companies on a global level. This particular phenomenon was not observes in the Veolia case.

"A member of the local SSD manager's team was sent to DANONE Saudi Arabia's SSD department. The R&D and Quality manager spent 15 days at DANONE France and Spain and visited a factory and the DANONE Dairy R&D centre in Paris. The Human Resources Manager completed a one and a half year training program for the whole Asia zone, which is an internal DANONE training program for the group's management committee. Corinne Bazina, GDFL's Managing Director, explained the importance of such knowledge socialization process: 'These training opportunities allow the GDFL managers to connect with the DANONE's network and develop key competencies.'" (Peerally & Figueiredo, 2013, p. 23)

The main findings of this section are:

- Firm shares human capital, R&D capacities and, internal and external networks, while Grameen contributes in the most part its relational capital, especially to the local environment.
- The parent company assimilates from the SBJV technology and contextual knowledge and competencies.
- The ability of the company to assimilate is related to R&D strategy and internal structure dedicated to knowledge flows.

- The importance of the internal network of the firm reveals the engagement of the firm on a global level.

6.3 Internal Knowledge Flows

As described, there is plenty of evidence of flows going through the boundaries of the firm. Nonetheless, in all three cases, the activities with SBJV also fostered significant amount of internal flows. The recurrent categories of coding for internal knowledge flows are: intensification of R&D activities and the reutilization of assimilated knowledge from SBJV. It is interesting to note that both categories of internal knowledge flow overlapped with expansion of the firm network to new partner code. This reveals that internal flows are related to external factors, even though there might not be any transfer of knowledge per se.

6.3.1 Reactivation of Knowledge Base

In the data, it seems that the engagement with Grameen spurs of knowledge creation activities. First, the intensification in interactions between different department and locations creates more diverse communication channels. The DANONE case showed many instances of the SBJV engagement fostering communication within the DANONE group. Lesueur, initiator of GWV, mentioned that the project got people very enthusiastic and energized to collaborate for the creation of this new form of business:

> *"I was amazed. Many people came up to me in the hallways to talk about the project, to offer their support, and even to volunteer to work on it with us in Bangladesh. The enthusiasm was extraordinary."* (Yunus & Weber, 2010, p. 139)

Second, beyond fostering communication, the partnership has shown that it can foster creativity in a way that had not been thought of before. Managers, field engineers and R&D departments are faced with unique challenges that foster internal creativity.

> *DANONE's Paris R&D department was requested to create a culture which will be used at step 6 of the process and which will automatically stop fermenting when it reaches a 4.5pH. In pursuing this effort the R&D department generated a key innovation, which has consequently*

and invariably changed the existing industry-wide standard yoghurt making process. (Peerally & Figueiredo, 2013, p. 21)

Furthermore, not only does SBJV increase internal creativity, it allows the company to reactivate knowledge previously developed by the firm and kept in the knowledge base. For example, Veolia was able to reactivate such knowledge:

The technical problems of supplying water to a rural area proved to be amenable to systems that Veolia Water *had developed previously*. (Yunus & Weber, 2010, p. 144)

6.3.2 Reutilization of Assimilated Knowledge From SBJV

Section XXX identified assimilated knowledge from SBJV into the firm's knowledge base. While examining internal flows of innovation, evidence that the assimilated knowledge is also reutilized internally into firms' activities in more established markets was apparent.

DANONE came up with a biodegradable container made from cornstarch for the yoghurt, a feature that turned out to appeal to DANONE's environmentally conscious consumers in more lucrative markets. (Hartigan, 2010, p. 9)

The reutilization of knowledge is a proof that the knowledge assimilated goes through each internal stages of the knowledge exploitation process. Furthermore, reutilization of knowledge coded overlapped with R&D strategy of the firm for its engagement in the SBJV, I can infer that the firm incorporate in its strategy the potential financial benefits generated by the reutilization of SBJV innovation.

The main findings of this section are:

- Internal flows a result of external factors
- R&D strategy takes into account benefits of the SBJV innovation beyond social impacts: reactivation and reutilization of knowledge base.

6.4 Levers of Knowledge Transfer

The case studies reveal that there are internal and external mechanisms and barriers fostering or impeding the flow of knowledge between the firm and the external environment regarding the firm's engagement with its SBJV.

First, The data reveals two features of structures of the parent firm that fostered knowledge flows external partners for the SBJV initiative: global R&D and CSR orientation, and internal structural mechanisms such as human resources structure, social integration mechanisms and leadership. Second, a few barriers to knowledge flows were identified.

6.4.1 Strategic Orientation

The strategic orientation of the parent firm permeates through the data as a key element of knowledge transfer. In the three studied cases, CSR strategies and R&D strategies are closely linked. In DANONE, Innovation and sustainability as two pillars firm strategy. In SE, the innovative pillar supports the BipBop initiatives and now the GSE. In Veolia Water, sustainability and CSR departments are joined into one. Because their R&D strategies are oriented toward sustainability, and their sustainability strategies rely on innovation, the three SBJV are anchored in a global CSR strategy that is closely associated to innovation. Global R&D orientation permeates as a key component to ability of the firm to share its IC to the SBJV.

> *The Business Development team of BipBop Innovation Pillar, composed of an average of 5 people based in Paris and Grenoble (France), adopts a market creation strategy to reach low-income populations. The corporate team of BipBop Innovation relies on and provides support to a Business Development team which is hierarchically related to Operation functions of the Group* (Desroches & André, 2012, p. 5). Furthermore, *The Innovation pillar was organized to gather and coordinate needed skills and qualification that a multinational corporation can bring to answer to a BoP issue such as access to energy*. (Desroches & André, 2012, p. 6)

As part of the innovation strategy, all three cases mention their SBJV projects to be part of a 'learning by doing' (Yunus & Weber, 2010, p. 143) or 'Lab'(Vilanova & Dettoni, 2011, p. 50) approaches. As such, it justifies investments from the parent company.

> *Beyond the financial result, GS proved particularly interesting for Schneider as it is both very competent technically and hands-on in the field, and allowed them to have a fast-paced learning curve*. (Lehmann-Ortega & Faujas, 2012, p. 14)
>
> *This learning by doing approach was made possible by the fact that the initial projects is modest size requiring small investment initially. We consider it R&D spending therefore we are prepared to spend in the interest of acquiring knowledge*. (Yunus & Weber, 2010, p. 143)

Moreover, the R&D orientation toward apprehending the SBJV as an additional research project under particular conditions (intrepreneur[6], BoP market, frugal investment, etc.) fosters greatly internal creativity.

> *The micro-factory has forced DANONE people to turn their thinking upside down, asking the usual question like "how many workers can we employ?" instead of the unusual one, "how few?"*(Hartigan, 2010, pp. 8-9)

First, they operate as they would in a start-up, which requires more flexibility and intensity to R&D than in the context of a traditional MNE unit (Lehmann-Ortega & Faujas, 2012, p. 16). Secondly, they evolve in new environments not only in terms of markets but physical environments as well. *"This was truly unchartered territory for us. Even the people from the local [Business Units] had never set foot in those villages in the bush."* Vincent Schneider[7] (Engineer at the Innovation department at Schneider Electric)(Lehmann-Ortega & Faujas, 2012, p. 7). It appears the particular conditions under which SBJV projects are conducted act as mechanism for internal creativity. Finally, team members at Schneider and DANONE recognize their counterparts in Grameen as genuine professionals, who are able to challenge them.

Finally, both DANONE and Schneider Electric projects with Grameen arrived at a time where the companies where changing global strategy to focus on their core businesses. In his period DANONE started to sell all its businesses that were not dairy product related. Subsequently, the CSR strategy was also set to match core business. In the case of Veolia, from the start, they said they would bring their core engineering knowledge: water treatment. This orientation appears significant in the ability of the parent firm to share its knowledge base, especially its technological know-how. Yet, the complete fusion between CSR orientation and core business is

[6] Intrapreneur describes a unit or a project within a large company acting as a start up (innovative and risk oriented)
[7] His name has no connection to the group

not observable from the data. In the GVW case, it shows through employee motivation to work on project on their personal time that there is some degree of conflict of interest between CSR for the core business, and R&D for CSR initiatives.

Human resources as communication medium

The orientation of R&D toward sustainability in the three cases and the inclusion of the SBJV as both R&D and CSR strategy allow the company to devote human resources to the management of knowledge between the firm and the SBJV, which in turn is key for the assimilation and reutilization of knowledge internally. There are two aspects of firm human resources engagement in the SBJV. Firstly, in all three cases, team managers are high executives from the parent firm. This is important for the transfer of skills, but it also important to keep communication structure and practices coherent between the firm and the SBJV.

> *In the GDFL collaboration, a strong relationship developed between Franck Riboud, CEO of DANONE Group, and Muhammad Yunus, founder of Grameen Bank. DANONE also established a large team of individuals with boundary spanning capabilities in Bangladesh to develop relationships and learn from Grameen and other local organizations*. (Murphy, Perrot, & Rivera-Santos, 2012, p. 16)

Secondly, human capital dedicated to the SBJV is key is defining the intensity and commitment of the parent firm to knowledge flows between the two. In the GSE case, a team and budgets are devoted to manage local adaptation and replication of the BipBop project to the GSE partnership in Bangladesh (Desroches & André, 2012, p. 4). In GDF case:

> *The participation of R&D staff assigned to work on DANONE's social projects has increased from a few hours of spare time to the dedication of a team of 15 staff supported by the part-time commitment of a further 60 employees. The team not only innovates for the purpose of social initiatives, but also uses information gained from these projects for entering emerging markets such as India*. (Murphy, Perrot, & Rivera-Santos, 2012, p. 19)

Social integration mechanisms

An important set of mechanisms that is most obvious in GDFL is social integration. DANONE carefully designed routines and processes for spreading new knowledge developed with Grameen throughout the company, using for example 'Social Innovation Lab' and 'Social Innovation

Network' both intranet platforms. Furthermore, in 2007 DANONE created danone.communities, which is a powerful international platform for social business creation around the world providing funding and networking opportunities (Kasturi Rangan, 2012, p. 11). The first project funded was GDFL. Yet, this is a further tool for DANONE to spread awareness about its projects. The media coverage of the platform and the events associated generates unique connective opportunities internally and externally to the project. Other social integration mechanisms internal to the firm are activities aiming for the diffusion of differences between the firm and the SBJV team.

> *In order to launch the social business, DANONE brought a team from its Indonesian subsidiary to train the local Bogra employees over a period of 15 days. The team included the Indonesian subsidiary's director and quality control, maintenance and production personnel. The Indonesian team was selected for this task by DANONE since their subsidiary, which opened in 2004; resembled GDFL's technological level the most. […] "This training highly motivated the locals and at the same time, it helped us achieve what we came here to do. Plus they are all Muslims, they were very happy. They didn't drink alcohol, they went to the mosque together. So there was a formidable relationship between the Indonesian team and the new Bogra team"[Guy Gavelle]. Thus, this internal knowledge socialization process of sharing production capabilities did not only involve a similar level of technology but also a shared culture*. (Peerally & Figueiredo, 2013, pp. 22-23)

Leadership

The last knowledge transfer mechanism identified in the data is leadership within the parent firm. Both in GDFL and GSE leadership Executive Directors include social outcome monitoring as a share of their yearly bonuses, thus reaffirming their engagement and their willingness for SBJV to succeed (Vilanova & Dettoni, 2011, p. 27; Desroches & André, 2012, p. 7). In the data, there are many instances where the support of senior executives has proven to be central to the ability of the firm to open its communication and collaboration capacities. When talking about processes regarding the management of R&D with GSE, Joël Lelostec, business developer in GSE, says:

> *"We must change these processes, but it's really complicated. Fortunately, Jean-Pascal Tricoire is 100% behind the project. Slowly but surely, people inside the company are opening their eyes!"*(Lehmann-Ortega & Faujas, 2012, p. 16)

Leadership is an important theme as it also encompasses the idea that employee motivation is a key driver for the transfer of knowledge internally and externally to the firm. CEO of DANONE Franck Riboud not only helped to define the culture and the vision of DANONE respectively, he has motivated workers to understand the mission of the company and to focus on the type of thinking that is expected of them (Vilanova & Dettoni, 2011, p. 26).

6.4.3 Barriers to Knowledge Flow

On the other hand, there are two barriers to knowledge transfer visible in the data: lack of senior management support and cultural differences. First, in GDFL and Schneider Electric, there is evidence that discordances with senior shareholder have impeded to the flows within the projects. For instances, according to Lehmann-Ortega & Faujas (2012, p. 16), in the eyes of senior employees in Schneider Electric either sales of the partnership are good and they make a business out of it and move out of the sustainable department, or the business is unsuccessful, and the program should serve only for image, cutting level of expenses, including R&D department, and focusing on marketing and communication.

The second barrier identified is culture. This phenomenon was observed in the three cases.

> *Yunus confesses he and his Grameen colleagues initially found the DANONE team too academic in their analysis and too focused on getting precise statistics. We thought, "We know what there is to know about the nutritional needs of Bangladesh, even if we can not express it in numbers."* (Hartigan, 2010, p. 7)

The problem was resolved through discussions and social integration mechanisms.

Another example of cultural barriers to knowledge flow in the Veolia case occurred after the launch of the plant when the sales stagnated, the local team realize that the survey they conducted to gather local practices and perceptions about the project were false. The survey had not asked the questions that should have been addressed in the first place to truly understand target population's perceptions of the project (Yunus & Weber, 2010, p. 143).

The main findings of this section are:

- The engagement strategy of the company is key for the knowledge transfer abilities. It encompasses: R&D orientation and relation to the core business.

- Structural mechanism fostering knowledge transfers are human resources assigned to the transfer of knowledge from the firm to the SBJV, social integration mechanisms and leadership.
- Senior management support is a critical barrier to knowledge transfer, and cultural differences need to be taken into account for good communication.

6.5 Strategic Implications

It is clearly noticeable that each of the three SBJV initiatives find resonance with the firm's core business strategies. Yet, the strategies for engaging in SBJV activities are diverse and involve the firms on different levels. First, the three cases see in SBJV the common benefits of CSR initiatives such as risk management to institutional changes and legitimacy to in the public sphere, which has important consequences on brand value, but also on internal processes such as employee moral.

"It is painful for our people doing everything from developing new means of purification to spending week ends fixing water pumps and repairing leaks, yet we are attacked by the media because they do not understand that we don't just sell water, we purify water. So when it comes to creating a social business for Bangladesh, it was exciting for our employees." Veolia Water *CEO Antoine Frérot* (Yunus & Weber, 2010, p. 140)

Secondly, as mentioned previously, the projects require a change in the companies' strategic orientation of R&D and knowledge management toward more flexible and challenging processes. As a result, companies see a change in internal culture and values, which attracts and retain talents (Vilanova & Dettoni, 2011, p. 26).

Finally, there is a line of evidence that the changes in the ways the company use their innovative capacities with the SBJV is a preparation of for the firm enter the BoP market by itself, and not through partnership with Grameen. This is particularly evident in the recurrent references to brand awareness and local market knowledge learning curve.

"We explore new fields that Schneider had never offered before. It opens doors that Schneider had never contemplated, and that builds the brand image" Joël Lelostec (Lehmann-Ortega & Faujas, 2012, p. 17)

The main findings of this section are:

- Parent firm strategy for SBJV feature classic legitimacy and risk management arguments.
- Changes in knowledge processes through the engagement have direct impact on many strategic level of the company including human resources and market knowledge capture strategy.

7 Discussion

This chapter discusses the interpretation of the findings described in chapter 6 in light of the literature that was reviewed in chapter 2 and the theories and framework explored in chapter 3. The analysis is structured to answer the research question: **How does the demonstration of a firm's CSR orientation, as manifested in its commitment to a SBJV in the BoP market, contribute to the firm's innovative capabilities?**

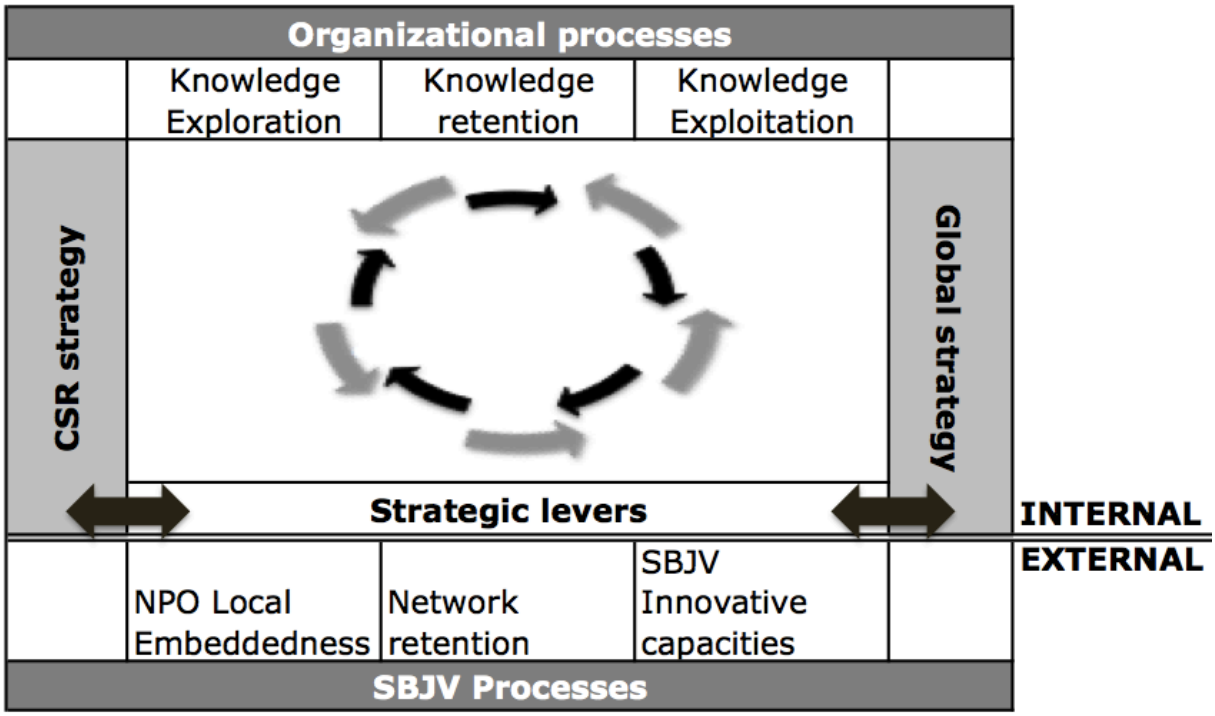

Figure 4 Strategic implications of parent innovative capabilities in SBJV engagement

7.1 Contribution to Innovative Capabilities

The research findings indicate that knowledge flows through a firm engaged in SBJV with a NPO in a BoP market are diverse. These flows are internal, external, multi-directional, and involve multiple stakeholders. As such, they involve internal and external innovative capabilities, and they engage all processes of innovation: exploration, retention and exploitation. Figure 4

illustrates the implication of firm innovation capabilities in SBJV engagement. One of the main features is the internal processes which are not only working in both directions, but involving the firm beyond CSR strategy into global strategy.

7.1.1 Broadening the Firm's Search Activity

The absorptive capacity of the firm is one of the most cited capacities in open innovation, and one of the few that have been touched upon in the field of cross-sector partnerships. It is said to be one of the greatest benefits from SBJV and it is comprised of its intrinsic contextual knowledge base (Murphy, Perrot & Riviera-Santos, 2012). The cases confirm that SBJV and the parent firm apply this capacity significantly. The cases have also shown that the parent firms not only absorb knowledge through the SBJV, but they also assimilate the knowledge within their knowledge base (see figure 5).

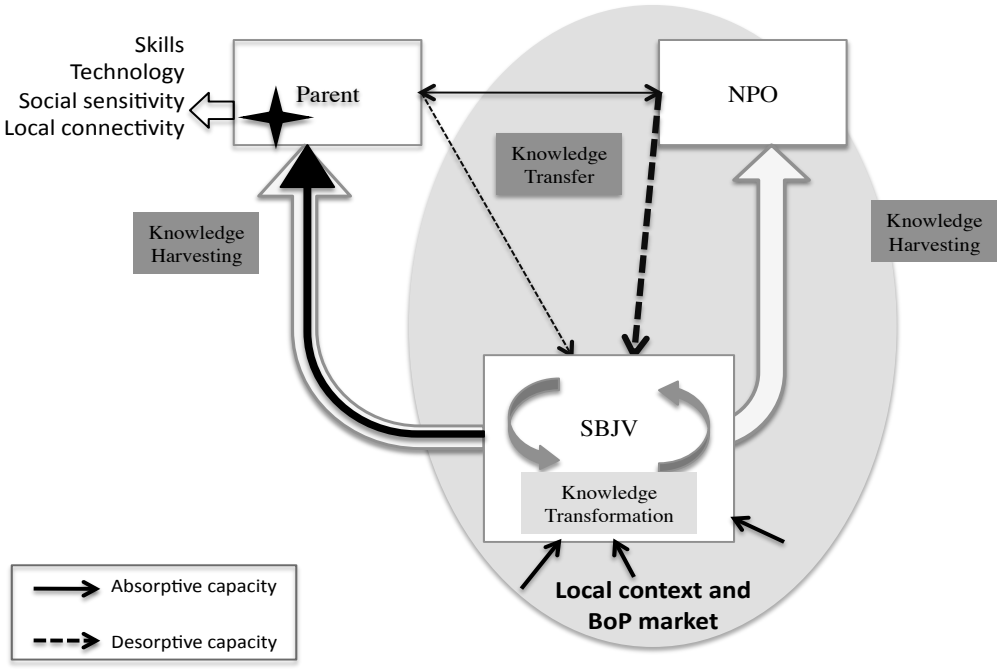

Figure 5 Illustration of SBJV broadening research activities of the parent firm

Interestingly, the firm's absorptive capacity is dependent on the SBJV's absorptive capacity. For the most part, the firm acquires new IC through the absorptive capacity of the SBJV. It is deeply embedded within its context thanks to local staff, but most importantly thanks to its network that is largely provided by the NPO. The SBJV evolves in a particular network within the BoP market,

where the NPO is strongly embedded. As a result, harvesting flows to the parent firm contain more than transformed internal knowledge from parent and NPO joint effort, they also contain contextual market information and significant relational capital. However, this seems to be most accurate in the case where the NPO has already developed an extensive local network. In Colombia, where Grameen has not implemented a micro-finance institution, local knowledge acquisition is a joint effort from the NPO and the parent firm drawing from both their relational capital. Nonetheless, brand awareness to local businesses and institutions appear to be a key factor of absorption to the SBJV as it "opens many doors" (Grameen consultant).

Furthermore, part of the innovation outcomes from the partnerships that are created through harvested knowledge which, are assimilated within the firm's knowledge base as portfolio development and skill building. Companies are recognizing the value of the contextual knowledge created, beyond its value for local development. The knowledge base of the company is enriched through the process in terms of their relational, human and structural capital. A unique feature of absorbed capital largely illustrated in the data is, what Grameen consultant described as "social sensitivity," or one's awareness of social issues in one's environment. The assimilation of knowledge goes further than portfolio and organizational skills. The firm absorbs social awareness within its human capital. The firm's staff and top management are exposed to facets of their business and their countries, such as poverty, that they would not have known prior to working with a NPO. Companies assimilate social sensitivity at all levels of the firm, from human resources to marketing and R&D teams.

7.1.2 Increased Retention Capability

The foundation of open innovation is the use of networks to employ resources more efficiently in the market. Grameen consultant highlights that in the case of SBJV the importance of networks cannot be over emphasized. The absorptive capability of the parent depends largely on the connectivity of the NPO and the SBJV within its local environment. Moreover, through the evolution and activities of the SBJV, the parent firm is encouraged to develop tighter relationships with its own external network, as well as forge new links with unusual organizations. This expansion and new utilization of the firms' network, beyond the one established by the SBJV, allows the firm to extend and maintain its external knowledge base respectively. In certain cases, firms have reactivated knowledge from a partner. Grameen

consultant confirmed the eagerness of MNE employees to reach out within their professional and personal networks, and going as far as connecting with competitors to advance the project.

Beyond their connective capabilities, as MNEs make use of their internal network of subsidiaries to face SBJV challenges, their internal retention capability intensifies. Through vertical processes, international headquarters reach out to local entities to build these projects, and local branches reach out to international headquarters or foreign subsidiaries for additional help, especially in terms of R&D and skilled workers. In both circumstances, they exchange intangible capital from one entity to the other; it may be social sensitivity in exchange for engineering skills, for example. Moreover, lateral processes of exchange within a unit, such as between the R&D and the financial department, further develop connective abilities of the parent firm. Most importantly, at both ends of the exchange, knowledge structures have been exposed to new knowledge, which may or may not be assimilated, and has established a link between two unities of the firm that has had not necessarily existed previously. In MNEs, subsidiaries are recognized as factors of local embeddedness and creative thinking, and their success depends on their ability to leverage leaning to headquarters (Yamin et Anderson, 2011). This appears to be one of the strengths of the sub units of parent firms engaged in the SBJV. The necessity for internal and external connectivity arising from the project builds bridges for knowledge flows at all levels of the company, and weaves dense networks into a large internal and external knowledge base.

7.1.3 Diversification of Use of Internal Capacities

One of the initial motivations for the creation of an SBJV is the capacity of MNE to contribute their creativity, and entrepreneurial abilities to face a social problem, rather than market forces. The firm's absorptive capability is a first factor of engagement as they see an opportunity to exploit internal knowledge to social ends. For efficient transmission of knowledge to the SBJV, firms have to develop absorptive skills, such as teaching. Nonetheless, for the firm to develop its absorptive capability in a social business context, and to share human, relational and structural capital with SBJV, the firm must develop strong inventive capacities. Although, SBJV transformative capacity leads the innovation process in the partnership through frugal and reverse innovation patterns, the SBJV requires the parent firm to be increasingly creative to adapt their technology and skills to the needs of the SBJV. The challenge to convert existing knowledge for exceptional use engages core competencies of the firm in different circumstances fostering

inventive capabilities. The, "think out of the box," context is a benefit of the SBJV engagement. MNES recognized it prior to the creation of the partnerships (Grameen consultant). Yet, to foster creativity, firms also engage their transformative capabilities. As much as they look for radical innovation, the reactivation and transformation of existing knowledge is a common approach.

In addition, the revived inspiration and research motivations to inventive capability go further than the conception of a product for absorptive purposes; they activate innovative capabilities or the ability to exploit differently existing knowledge in the market place. Furthermore, firms also reutilize knowledge created through the SBJV to internal ends, such as technology commercialization for established high-end markets. Although, Grameen consultant agreed to this trend in the data, MNEs never seem to consider it as part of the initial strategy.

7.2 Development of Open and Dynamic Structures for Innovations

The impacts to open innovation framework capabilities described above are dependent on the knowledge infrastructure provided by the firm to leverage knowledge and skills to internal departments and units. Figure 4 illustrates how strategic levers define the ability of the firm to open the innovation process to the SBJV. Strategic levers are key factors of efficient knowledge management in any firm to orient its ability to explore, retain and exploit knowledge (Choo & Bontis, 2002). In the cases where a firm core strategy is different from CSR projects, innovation outcome such as frugal and reverse innovations are dependant on the implementation of structure to leverage learning and capabilities development.

In this study, identified contextual and leadership mechanisms facilitating the transfer and assimilation of knowledge and capabilities within the firm are characteristic to ones of joint venture contexts (Berdrown & Lane, 2003): (1) strategic integration, the alignment of SBJV strategies to the core business strategy of the parent firm, (2) mindset and attitudes of key decision makers, (3) development of communication pathway through human resources, (4) relationship development between parent firms and staff of the joint venture unit, and (5) resource contribution, the alignment of competencies between the parent firm and the NPO. In the context of SBJV, there is a particular emphasis on mindsets. As much as the project fosters employee enthusiasm, without the support of higher management, the success of the venture is

overly compromised, and so are knowledge flows. In accordance with (Lichtenthaler, 2011), open innovation strategies are highly sensitive to interdependencies across levels of decisions. Therefore, the process of opening up knowledge flows toward SBJV from top management may be impeded by local units, and vice versa. To summarize, strategic alignment between CSR and the core business is a factor of success that has been established by practitioner literature (Yunus & Weber, 2010).

Yet, proving specific structures to the knowledge transfer in cross-sectoral partnerships is a challenge to due organizational differences between the MNE and the NPO (Rondinelli & London, 2003).

7.3 Strategic Engagement of the Firm

As predicted by the literature, the data showed evidence of reputation and legitimacy strategies in the engagement in SBJV in BoP markets. MNEs have a lot to gain from initiatives such as SBJV in terms of public image, employee motivation, risk management, etc. Nonetheless, literature mentions innovation as one of the means of wealth creation through sustainability; this study shows that it is the case for DANONE, Schneider Electric and Veolia Water. Although SBJVs do not generate dividends, the firms seem to find other return on investment. Knowledge flows involved in the activities of the SBJV of the three companies studied enhance innovative capabilities of the parent firm in an open innovation context. However, although the data indicates that firm management includes the potential impact on innovative capabilities to the SBJV strategy, field actors have not observed such awareness. Nonetheless, the SBJV knowledge flows find resonance in the global strategy of the firm

7.3.1 Reconfiguration of Knowledge Capabilities to New Challenges

There is no direct mention of BoP market capture strategies in the data, and field actors have not encountered companies with such a strategy. Yet, MNEs are investing into projects to adjust their offers to the characteristics of BoP customers. Through SBJV activities, DANONE, Schneider Electric and Veolia Water, have oriented their R&D capacities and use of networks toward the challenge to offer a solution to a social problem at the BoP. These companies are reconfiguring

knowledge capabilities to face the challenge of CSR strategy, which are central to businesses studied.

In turbulent environment, companies are forced to developed dynamic capabilities to survive (Teece, Pisana, & Shuen, 1997). As the world economy is changing is terms of customer and societal demand, MNEs are constantly on alert to understand the future market characteristics. Holmes and Smart (2009) foresee that signals from the periphery may be tomorrow's core business. In these cases, companies reconfigured their R&D to listen to the periphery and innovate for them. Moreover, in the case of DANONE, GDFL was pushed into looking for green solutions to respond to frugal situations. Such R&D orientation is key in an economy where corporate reporting gains more importance every year (UN Global Compact, 2013).

In consequence, on the one hand the case reflects that innovative capabilities are reconfigured by the need of top management to respond to CSR challenges, which is in line with sustainable innovation literature; yet on the other hand, CSR initiatives require reconfiguration of innovative capabilities that are in the verge of becoming central to competitiveness in the market.

7.3.2 Realignment of Knowledge Capabilities to Focus on Core Business

Figure 4, illustrates how internal capabilities are pressured from both global and CSR missions. Both have important roles in the use of resources and therefore knowledge shared and acquired; although, what is not reflected in figure 4 is the dependency of CSR on global strategy. Nonetheless, the data offers evidence that SBJV are beginning to link both strategies through combined innovation processes.

The core business of Schneider Electric is global energy management, and their core competencies are inventive capabilities (engineering skills), and innovative capabilities (smart grid management), yet, they have a poor absorptive capacity and connective capacity in the BoP market. Each case featured a similarly clear separation of tasks according to their capabilities, as recommended by joint venture literature (Chesbrough & Schwartz, 2007). NPO and MNEs appear to be complementary in the BoP market within each company's core industry. The strong line of evidence that parent firms are developing their SBJV activities as closely as possible to their core business suggests two phenomenon. On the one hand, MNEs find it difficult to compartmentalize their innovative capabilities with the ones developed for core business on one

side, and on the other, the ones developed for CSR initiatives only. Grameen consultant confirmed that although implementing a full time R&D department within the SBJV from parent firm seeds was a desirable approach, it was not realistic operationally nor efficient in terms of access to knowledge base of the firm. On the other hand, it shows how CSR strategies are increasingly interconnected to the global strategies, despite certain conflicts of interests.

7.4 Implication for CSR

As described above, in the cases CSR tends toward inclusion with core business in terms of innovative capabilities management. Such observation may have important implication for CSR as part of the global strategy of the firm. As SBJVs involve firms on multiple levels and dimensions, they also encourage a firm to reach out to their partners at the level of their supply chain and organizational structure. By engaging all the facet of innovation capabilities at the global level of the MNE, the firm is opening up its innovation processes significantly. According to the literature this could potentially have two consequences. First, given the fundamental role of innovation and knowledge management to the firm core processes, and as CSR has the potential ability to foster creativity and flexibility at all level of the firms, the findings suggests that the CSR positioning as side developments of the core business is a loss of opportunity.

Secondly, Lichtenthaler (2011) mention the potential risks open innovation that could arise if mismanagement. It may lead to loss of control and core competences. Given the importance of knowledge management to the survival of the firm, what are the risks of ignoring a global phenomenon, such as contribution to innovation capabilities through CSR? As internal resources and dynamic capabilities define a firm's opportunities, one could image the firm could miss important development on the market (Smart & Holmes, 2009). Furthermore, if the unit managing the SBJV feels, the core business ignores local competences, what could be the cost for corporate vision and unity? If, the overall conclusion that SBJV initiatives contribute to the parent firm innovative capabilities,

7.5 Implications for Open Innovation Concept

In addition to the answer to the research question, it arises as important to mention the implication of the findings for the evolution of the open innovation theory. Although the scope of research and the methodology are by no means adapted to theory testing analysis, the findings from the study support the emerging literature applying open innovation theory to cross-sectoral partnership (Holmes and Smart, 2009). The results have raised relevant discussion to the research question objectives, thus suggesting the relevance of the open innovation framework to the study of CSR practices and cross-sectoral partnership in relation to the parent firm.

8 Concluding Remarks

This chapter exposes the study's conclusions, suggests future areas of research and summarizes the contribution of this study to extant literature

8.1 Conclusions

In the context of open innovation, a firm's CSR orientation impacts its internal and external innovative capabilities. First, SBJVs offer parent firms opportunities to expand the scope of their internal innovation processes, which is an argument observable in the literature. Second, the partnership augments the knowledge base of the firm through the creation or reactivation of internal linkages, external linkages and, technology and skills assimilation. Third, through their engagement with SBJVs, parent firms are able to bolster inventive capabilities for the exploration of processes and to diversify their innovative capability for exploitation of processes.

Although SBJV contributions to the development or evolution of innovative capabilities of the parent firm under the open innovation framework appear to be dependent on a few factors that are characteristic of joint venture systems, the place of the CSR initiative within the core business strategy of the parent firm, and contextual and leadership mechanisms. Although, there is particular emphasis placed on the importance of open mindsets within the firm, as well as openness to different governance and culture, the central levers of knowledge from the SBJV to the parent firm are consistent with open innovation and joint venture literatures.

Furthermore, considering the partnership under the light of open innovation outlines a few strategic implications to the MNE engagement with the SBJV. First, although no firm evidence of market capture strategies where latent to the SBJV activities, the partnership may act as a preventive measure for future changes in the market and innovation horizon. The findings support literature arguing that innovation is one of the points of intersection between CSR and a firm's core strategy. Although more research is required, the study further suggests that innovative abilities may be a common factor to CSR strategies and core strategies.

Finally, the study suggests that innovation capabilities have a critical role for the development of CSR within MNE. They serve as a means of diffusion of the CSR knowledge and social impacts, such as 'social sensitivity' internally and externally to the firm. Furthermore, CSR seems to impact innovative processes of the firm in a holistic manner and to the extent that, to be unaware of the knowledge flows and associated organizational capability development counters the risk management dimension to CSR engagement strategy

Ultimately, this study set out to observe the relationship between the Corporate Social Responsibility (CSR) orientation of a firm and the innovative capabilities that shape its ability to prosper in its environment. The results showed the relationship is multi-dimensional and involves the firm as a whole, internally and externally, creating a complex web of connections based on sharing of knowledge, skills, network and vision. Furthermore, this study suggests that this relationship has important implication to the core business of the parent firm associated with the importance of knowledge management at the heart of most organizations.

8.2 Limitations and Future Research

The study came to its conclusion through a multiple case study methodology, but only in the context of three French MNEs' activities in Bangladesh. The cases show many limitations to the analysis. First, although those case studies' characteristics were purposefully chosen to augment comparative potential of the case selection, the limited scope calls for further research including more diversity in the background of MNE, but also in the choice of NPO. Second, diversity in the type of industries would be beneficial to further evaluate factors of influence on the relationship between CSR and innovative capabilities. Third, this study chose cases that were not only successful (i.e. cases that survived the launching phase of the SBJV), but also cases where innovation was a central part of the business model and the parent firm strategy, which is an important source of bias when studying knowledge flows. In other words, the conclusions to this study require broader research sample and more systematic methodology.

Next, for lack of evidence from the data, mainly due to the secondary nature of the data collected for he study, the discussion did not address the managerial implications of the findings at the

project and at the organizational levels. Yet, this area of research shows great promise given the existing body of research on managing open innovation.

Furthermore, while this study was constructed from the perspective of the MNE within the SBJV network ecosystem, research from the perspective of the NPO would provide insights on the nature of the relationships and the knowledge flows, in terms of directionality and motives.

Finally, it is important to note that the field of innovation for CSR is recent, and the field of SBJV is even younger. Although, the novelty and the unknown are part of the attractiveness of the fields, the possibility to put these findings in the perspective of other similar research is thus limited.

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