Creating shared value as a differentiation strategy – the example of BASF in Brazil

Heiko Spitzeck and Sonia Chapman

Abstract

Purpose – This paper aims to create empirical evidence regarding shared value strategies recently propagated by Michael Porter and Mark Kramer.

Design/methodology/approach – The authors analyze a single case study of a collaboration between BASF, André Maggi Group and Fundação Espaço Eco in Brazil. The objective is to evaluate whether the applied strategy can be considered as a case of shared value creation.

Findings – The case study on the collaboration between BASF, FEE and the André Maggi Group does qualify as a shared value strategy, more precisely as a case of redesigning productivity in the value chain.

Research limitations/applications – This single case study creates some evidence for shared value strategies; however, more research is needed to generalize the results.

Practical implications – The socio-eco-efficiency analysis offered by Fundação Espaço Eco creates a differentiation strategy for BASF in Brazil. The work enables BASF’s clients to reduce negative impacts while increasing their financial, social and environmental performance.

Originality/value – This paper is the first empirical verification of the shared value concept. It demonstrates that shared value strategies do enhance financial as well as socio-environmental performance and build stronger client relationships.

Keywords BASF, Fundação Espaço Eco, Sustainable development, Brazil, Shared value, Efficiency, Organizational performance, Management strategy

Paper type Case study

Introduction

According to the UN multinational corporations have grown from 37,000 in 1990 to more than 60,000 in 2001 (Nelson, 2001). These businesses are dependent on a wide network of affiliates, suppliers and distributors in order to effectively do business globally. Many of these multinational corporations have been attacked for the social and environmental impact their operations caused in different parts of the world (Sethi, 1994; Wheeler et al., 2002; Zadek, 2004).

Addressing these sustainability challenges companies typically move through stages of learning (Zadek, 2004; Spitzeck, 2009; Maon et al., 2010) and are beginning to integrate sustainability within their strategies (Grayson and Hodges, 2004; Porter and Kramer, 2006). Most of them start from a risk point of view and few are starting to realize the potential opportunities related to sustainability. Especially multinational enterprises have the potential to “increase innovation, spur wealth creation, transfer technology, raise productivity, meet basic needs, enhance living standards, and improve the quality of life for millions of people around the world” (Nelson, 2006, p. 2). In the same line, but from a strategic perspective,
Porter and Kramer argue for creating shared value which “involves creating economic value in a way that also creates value for society by addressing its needs and challenges” (Porter and Kramer, 2011, p. 64).

Creating shared value strategies is an emerging field in the intersection of development studies (Sink, 1991; Nelson, 2006; Zhang et al., 2009), strategy (Porter, 1980; Prahalad and Hart, 2002; Hart and Milstein, 2003; Porter and Kramer, 2011), stakeholder theory (Freeman, 1984; Freeman et al., 2004; Spitzeck and Hansen, 2010), innovation (Chesbrough, 2003; Ayuso et al., 2006; Hansen et al., 2009; Florin and Schmidt, 2011) and measurable triple-bottom-line results (Elkington, 1998; Jamali, 2006; Maltz et al., 2011). As with any emerging field the current challenge lies in generating empirical observations to confirm, contradict and refine the new theory.

This paper presents the collaboration between BASF, Fundação Espaço Eco (FEE) and André Maggi Group in Brazil and analyses if a shared value approach can be found in practice. In order to achieve this goal, we first conduct a literature review on shared value strategies which serves to define key characteristics of the approach. Secondly, we describe the research methodology, before analyzing the case in light of the characteristics of a shared value strategy. Finally, we present the conclusions from the case study and outline further avenues for research.

Shared value in the literature

The concept of shared value dates back to the 1980s to the definition of corporate culture (Cadbury, 1983; Posner et al., 1985; Schein, 1985; Amsa, 1986; Deshpande and Parasuraman, 1986; Stubbart, 1988; Chatman and Cha, 2003). Shared values were seen as “clearly articulated organizational values [which] make a significant difference in the lives of employees, as well as in their organization’s performance” (Posner et al., 1985, p. 293). This definition already entails an important aspect of shared values which are seen essential in order to align employees with the corporate objective and purpose. This idea of alignment was applied to other stakeholder relationships such as interactions between headquarters and subsidiaries (Nohria and Goshal, 1994; Chu, 2001), actors along the supply chain (Lai, 2009), or customers (O’Driscoll et al., 2000; Thomas and Doak, 2000). The idea of aligning actors by focusing on shared values, however, is not proprietary to management science and also appears, for example, in public administration which prefers the term “public value” (Smith, 2004; Jos, 2006).

Porter and Kramer (2011, p. 66) define shared value as follows:

The concept of shared value can be defined as policies and operating practices that enhance competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates. […] Value is defined as benefits relative to costs, not just benefits alone.

This definition adopts a corporate perspective and applies the concept of shared values to business and society interactions (Jones, 1983). The first to mention shared value in the context of business and society was Sink (1991) focusing on local development:

Developing or increasing shared norms and values […] are primary tasks of the policy entrepreneur (Sink, 1991, p. 1179).

As in the definition of organizational culture, the alignment of different actors in the local development context via shared values is expected to improve performance (Sink, 1991; Nienhaus and Brauksiepe, 1997; Zhang et al., 2009) and helps to resolve conflicts (Mathur et al., 2008; Morse and McNamara, 2009).

Porter and Kramer’s definition highlights two important aspects of shared value strategies which are executed via policies and operating practices. First, they must create value for the company by enhancing competitiveness, an important aspect already developed in previous publications on strategy and sustainability (Sharma and Vredenburg, 1998; Hart and Milstein, 2003; Porter and Kramer, 2006; Esty and Winston, 2009). Second, they must
create value for society by advancing social conditions in the communities in which the company operates a point articulated by research on corporate social performance (Sethi, 1975; Wood, 1991; Clarkson, 1995; Logsdon and Yuthas, 1997) and corporate community involvement (Lynn and Chess, 1994; Hess et al., 2002; Nelson, 2006). Porter and Kramer’s definition, however, adds an important detail: the societal value is defined relative to costs. This brings shared value close to a strategic philanthropy approach which is concerned with the efficiency and effectiveness of social outcomes relative to investments (Porter and Kramer, 2006). The key question here is how to have more societal impact per dollar spent (Porter and Kramer, 2002; Kramer, 2005).

Another important point of shared value strategies is that they “will be data driven, clearly linked to defined outcomes, well connected to the goals of all stakeholders, and tracked with clear metrics” (Porter and Kramer, 2011, p. 76 - emphasis added). The importance of operationalizing the creation of shared value via metrics and indicators has been demonstrated in a case on the Halcrow Group (Pearce, 2008) as well as in recent publications on strategic corporate responsibility (Werther and Chandler, 2005; Maltz et al., 2011).

The following basic conditions of a shared value strategy can be summarized from the discussion above:

- Refer to corporate policies and/or operating practices.
- Enhance the competitiveness of the firm.
- Improve social conditions in the communities.
- It becomes clear which strategic projects create most impact relative to investments.
- Use clear metrics related to stakeholder demands.

Porter and Kramer (2011, p. 67) outline three distinct ways to create shared value: “by reconceiving products and markets, redefining productivity in the value chain, and building supportive industry clusters at the company’s locations”. These three ways are explained in more detail below, as their characteristics are important for data analysis.

**Way 1: reconceiving products and markets**

This approach has been described previously as “Business at the Bottom of the Pyramid” (Prahalad and Hart, 2002; Prahalad, 2005; Webb et al., 2010). Porter and Kramer define it as “satisfying unmet social needs” and “serving disadvantaged communities” (Porter and Kramer, 2011, pp. 67-8). While this approach is not without critics especially considering the enhancement of social conditions in communities (Karnani, 2007; Olsen and Boxenbaum, 2009) the basic argument rests on creating economies of scale for offering essential products and services such as health, housing or credit at reasonable prices to disadvantaged communities, thus fostering their inclusion within the formal economy. Several cases exist demonstrating innovative approaches such as the Aravind Eye Hospital in the area of health (Shah and Murty, 2004), Cemex’s programme “Patrimonio Hoy” in the area of housing (Letelier et al., 2003), or the Grameen Bank in the area of finance (Yunus and Jolis, 1999).

**Way 2: redefining productivity in the value chain**

Environmental management considerations have been applied to supply chain context since the 1990s (Bloemhof-Ruwaard et al., 1995; Lewis, 1997). These early publications already foresaw that once sustainability considerations become strategic they will include supply chain considerations (Lewis, 1997). Today, sustainable supply chain issues include carbon trading, waste treatment, resource consumption as well as sub-contracting (Chaabane et al., 2011) and managing supply chains sustainably can create competitive advantages (Reuter et al., 2010). Porter and Kramer’s second approach to shared value strategies follows this tradition and consists of a holistic evaluation of value chain
productivity in terms of energy use, logistics, resource use, procurement, distribution, location and employee productivity (Porter and Kramer, 2011, pp. 68-71).

**Way 3: building supportive industry clusters**

The final approach to shared value strategies is creating clusters for local development (Porter and Kramer, 2011, p. 72). Clusters have been analyzed in the past primarily as industry clusters and were found to enhance innovation, competitiveness and knowledge exchange (Arikan, 2009; Liela et al., 2010). Previous studies also support that shared values help to align the activities of the actors within clusters (Tracy and Clark, 2003). Case studies have further shown that collaboration and knowledge exchange on sustainability issues in clusters improves environmental and social performance (Anh et al., 2011). These insights are now applied to local development contexts which similarly depend on the interaction and alignment of several players such as suppliers, service providers, educational institutions, NGOs and local governments in order to attain to local development goals (Nelson, 2006; Kania and Kramer, 2011).

This brief literature review demonstrates that the shared value approach propagated by Porter and Kramer builds extensively on previous research and subsumes research in bottom-of-the-pyramid markets, sustainable supply chains and industry clusters for local development under the umbrella of shared value strategies.

Several publications are starting to reference to shared value strategies. To date follow-up research is either of a theoretical nature (Selsky and Parker, 2010; Florin and Schmidt, 2011; Maltz et al., 2011; O’Toole and Vogel, 2011) or demonstrates in a case study that shared value strategies do indeed enhance competitiveness (Du et al., 2011). Several case studies refer to shared value approaches but have been developed before the concept was propagated by Porter and Kramer (Fowler and Heap, 1998; Pearce, 2008; Cordes, 2009).

Therefore, we could not identify any paper which aims to empirically test if shared value strategies can be found in practice and if they apply one or more of the three ways described by Porter and Kramer. This paper addresses this gap.

**Research method**

In order to verify the shared value concept we apply an in-depth case study (Eisenhardt, 1989; Yin, 2003) of a collaboration between BASF, André Maggi Group and Fundação Espaço Eco in Brazil. The material analyses the socio-eco-efficiency analysis done at André Maggi Group – a Brazilian multinational. The collaboration between André Maggi Group, BASF and Fundação Espaço Eco consisted of a socio-eco-efficiency analysis of three operational plants of the André Maggi Group. The objective is to evaluate if the company’s strategy can be considered as a case of shared value creation (Porter and Kramer, 2011) considering the basic conditions developed above as well as determining if one of the three approaches of creating shared value has been applied. The case is analyzed by combining various research methods such as semi-structured interviews from representatives (from vice-presidents to operational staff) of all organizations involved (Miles and Huberman, 2005), participant observation (Glaser and Strauss, 1967) by one of the co-authors, as well as document analysis (internal documents, publicly available material as well as academic publications of BASF staff) to triangulate data and verify the results presented (Jick, 1979).

**Case background**

In order to determine the creation of shared value it is important to understand the economic, environmental and social development issues of the Brazilian business context as well as the organizational characteristics of the organizations involved.

Brazil is a country of continental dimension, natural reserves and abundant energy representing the fifth largest population and the sixth largest economy of the world. The country holds the largest reserves of potable water as well as one-third of the globe’s
remaining tropical forests including its rich biodiversity. Natural resources back the country’s recent growth as e.g. mayor part of the country’s exports are goods such as iron ore, soybeans, and coffee. Accordingly agriculture and mining form important sectors within the Brazilian economy.

With a GINI Index of 0.493 (Peduzzi, 2009), Brazil experiences extreme regional differences, especially in social indicators such as health, infant mortality and nutrition (Portella, 2010). In the rural North, only 32.1 percent are living e.g. with sanitation while 77.9 percent are in the more urban Southeast (Castro, 2007). Although Brazil has signed most ILO treaties, child labor is still a challenge, with 4.25 million children and teenagers from five to 17 years of age working. Most of these underage workers are employed in the agricultural sector, are male and from the north-eastern region (IBGE, 2009).

**BASF Brazil**

BASF is a leading global chemical company and its biggest business segments in Latin America are agricultural products and nutrition as well as performance products and coatings (each 32 percent of business in 2009) (Chapman, 2009). BASF’s Brazilian agricultural business supports farmers and producers of agricultural commodities (soy, corn) to increase productivity for exporting to a very competitive international market. BASF’s clients are exposed to the sustainability challenges outlined above such as child labor and deforestation of tropical rainforests to name just a few. BASF agribusiness itself is offering commodities (chemicals) on a highly competitive and price-sensitive market.

In order to address sustainability challenges BASF Germany started already in the 1990s to apply life-cycle assessments and developed an eco-efficiency tool in 1996. The tool combines ecological life-cycle assessment with economic costs allowing the comparison and optimization of different production methods and their impacts (Saling et al., 2002). In contrast to other regions where this eco-efficiency tool is used by BASF internally, the tool is applied in Brazil and Latin America by Fundação Espaço Eco – BASF’s legally independent corporate foundation.

Fundação Espaço Eco (FEE) was created in 2005 by BASF Brazil in collaboration with GTZ (Germany’s Technical Collaboration Agency) with the mission to “promote sustainable development in society, by transferring know-how and technology, especially through the implementation of solutions in eco-efficiency, environmental education and reforesting focusing on the balance of social, environmental and economic aspects” (Fundação Espaço Eco, 2011). FEE is a non-for-profit organization with an educational purpose to transfer know-how in order to provoke transformations towards sustainable development. All of its processes are ISO 9001 certified since 2009.

**André Maggi Group**

The André Maggi Group is a large agricultural conglomerate producing soy, cotton and corn for the international markets. It is among the largest private soy producers worldwide and recorded a gross income of 3.1 billion USD in 2010 (André Maggi Group, 2011, p. 82). The company’s mission is to “contribute to agribusiness development, aggregating value, respecting the environment and improving life in communities.” (André Maggi Group, 2011, p. 193). The group obtained certifications such as ISO 14001, ProTerra, Roundtable of Responsible Soy, International Sustainability & Carbon Certification and is member of the Global Compact, the National Compact against Slave Labour, Business Contract for Integrity and Against Corruption, Child-friendly company and the Millennium Development Goals.

The collaboration between BASF, FEE and André Maggi Group started in 2008 with the objective to validate and enhance the eco-efficiency analysis for an application in Brazilian agriculture (André Maggi Group, 2011, p. 158). This following results section first explains the social-eco-efficiency tool which has been applied to the main group farms of the André Maggi Group for the harvests between 2005 and 2008. We then outline the impacts of using this tool on the company’s competitiveness, its operating practices and the impacts generated in the community. The tool and the impact of its use will tell if the basic conditions...
of a shared value approach have been met. We then move to analyze if a particular approach of creating shared value has been applied.

Results

The socio-eco-efficiency analysis consists of an evaluation of triple-bottom line indicators along the life cycle of a specific product. The environmental impact assessment is oriented by ISO 14040-14043 (Kicherer et al., 2007) and considers parameters such as raw material consumption, energy use, waste generation, use of land, toxicity and the risk potential. These parameters were compared for different production methods applied at the André Maggi Group farms in order to determine their environmental impact (see Figure 1).

In a second step the costs are calculated such as the production cost of the products as well as use and disposal costs during the whole life cycle (Kicherer et al., 2007; Da Silva, 2008). This allows evaluating the eco-efficiency of alternatives by mapping environmental impacts relative to cost (see Figure 2). In the following figure the upper right hand quadrant displays alternatives with high eco-efficiency and the lower left-hand quadrant with low eco-efficiency.

A similar process is applied to social indicators which were developed with considerations of stakeholders “that might be affected during the life-cycle of the product” (Da Silva, 2008,
p. 6). Stakeholder groups considered in this process are employees, the international community, future generations, consumers as well as local communities. Indicators such as working accidents, child labor, toxicity and others are considered in the calculation of the social impact (see Figure 3).

These social indicators are aggregated just as the environmental indicators. In a final process economic, environmental and social indicators are mapped in a cube (see Figure 4) in which the lower front left corner represents low socio-eco-efficiency and the higher back right corner high socio-eco-efficiency (Schmidt et al., 2004).

The first step of the validation consisted of customizing and “tropicalizing” the environmental and indicators to Brazilian specifics as well as to the agricultural context. This has been done by consulting local stakeholders:

A list of more than 200 environmental indicators has been reduced to approximate 20 by consulting local stakeholders on relevance and the possibility to measure impacts in Brazil (FEE Operations Manager).

The application of socio-eco efficiency analysis therefore demonstrates the use of clear metrics related to stakeholder demands. The metrics allow to measure impacts relative to investments as the following quotes demonstrate:

[The client] sees if this is economically interesting or not because the socio-eco-efficiency puts the economic aspects together with socio-environmental considerations. It might be that a certain action is not economically viable but at least it’s measurable. [. . .] The tool allows the comparison of farms [. . .] and the transfer of best practices between farms (VP BASF).

We already had environmental certifications and monitored various indicators. In this project with Fundação Espaço Ecos we saw the opportunity to make better use of our indicators (Operational Manager André Maggi Group).

This better use of indicators refers specifically to scenario planning:

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![Figure 3 Social impact indicators](image)

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[Note: The image referred to as Figure 3 is not visible in the text.]
The tool provides numeric results, which help to understand things better and also allows us to simulate [...] Simulations such as if we only plant soy what is the impact, if we plant cotton and corn we have this impact [...] you can test [...] You end up selecting the most eco-socio-efficient approach (Operational Manager André Maggi Group).

If I have a cheaper alternative what would be the impact? He might conclude that current practice is confirmed, but it adds some confidence to it (VP BASF).

The operational managers did not have a vision on how to contribute to sustainability and were more thinking of policies to execute (Sustainability Manager André Maggi Group).

Socio-eco-efficiency analysis sets the company’s direction (André Maggi Group, 2011, p. 159).

These comments demonstrate that the tool had an educational influence on operating practices as scenario planning is used more frequently in order to inform decisions. It becomes clear that doing a socio-eco-efficiency analysis triggers a new way of triple-bottom line thinking within management.

Among the factors that enhanced competitiveness were cost reductions, meeting emerging export conditions and legal compliance issues:

The high fertilizer volume and grain shipment were key factors in socio-eco-efficiency results (André Maggi Group, 2011, p. 160).

Recent certifications require including e.g. carbon indicators in a process of continuous improvement (Operational Manager André Maggi Group).

All companies with a focus on the international market perceive the tightening of technical barriers, which has to do with the reputation of Brazil abroad (VP BASF).

Legal compliance issues refer primarily to the Código Florestal (Law 4.771 enacted on 15 September 1965) and its amendments which puts limits to the commercial use of land by requiring “legal reserves” of natural habitat:

Our clients need to do projects in this area [...] but they did not have access to a methodology or tools which documents and structures projects using an analysis which finds international approval (VP BASF).

Applying this methodology and the triple-bottom line thinking in practice also improves the social conditions in the communities in which the André Maggi Group operates:
Inside the property, farms that invested most in training and family support improved their socio-eco-efficiency. […] The higher social impact owes to good employee working conditions (André Maggi Group, 2011, p. 160).

So far results indicate that the case fulfills the basic conditions of a shared value strategy as described by Porter and Kramer. Regarding the approach we could not identify any redesign of products and markets as the André Maggi Group still exports agricultural commodities to the international market. Nor could we find any evidence for building supportive industry clusters in which several actors collaborate locally in order to enhance local development. However, the case does qualify as a redefinition of productivity in the value chain.

The socio-eco-efficiency analysis is based on a life-cycle analysis methodology and considers the source of raw materials, transportation to the farms as well as distribution channels (see Figure 5).

This methodology allows considering the economic, social and environmental impacts within the supply chain:

If we export through the port of Santos or another, what is the impact. It permits to make forecasts (Operational Manager André Maggi Group).

Farms don’t know if they are causing a positive or negative impact outside of their farm […] They are criticized because they manage sustainably within the farms […] the study shows that 70 percent of sustainability issues arise outside of the farm, such as carbon emissions and work accidents in logistics (VP BASF).

The production and shipping of a soybean acre on the Tucunáre farm is more socio-eco-efficient mainly because of the waterway shipment model (André Maggi Group, 2011, p. 160).

Conclusion
The objective of this paper was to verify if shared value strategies can be found in practice. The case study on the collaboration between BASF, FEE and the André Maggi Group does qualify as a shared value strategy, more precisely as a case of redesigning productivity in the value chain.

Implications for theory
Our paper thus makes an important contribution to theory by creating some empirical evidence of the shared value concept in practice. Obviously, a single case study might be able to contradict current theory (Popper, 1959) but is not sufficient to confirm an emerging theory. Therefore more research is needed in order to confirm and potentially refine the approach propagated by Porter and Kramer.
The concept of creating shared value entails the question of how value is created for different stakeholder groups (Freeman, 1984; Donaldson and Preston, 1995). Adopting a corporate perspective Porter and Kramer (2011) might underestimate the power of open discourse with the different stakeholder groups in designing local development strategies and defining relevant indicators (Renn et al., 1997; Spitzeck and Hansen, 2010). Future research could shed more light on the question how stakeholders need to be engaged in the creation of shared value strategies. Another avenue for research lies in the integration of the socio-eco-efficiency analysis results in strategic management systems such as the Balanced Scorecard (Kaplan and Norton, 1996).

Implications for practice
The socio-eco-efficiency analysis offered by FEE creates a differentiation strategy to BASF in Brazil. The work enables BASF clients to reduce negative impacts while increasing their financial, social and environmental performance. This created closer and long-term relationships with clients as BASF is delivering more than just economic value. According to BASF’s VP:

The client values a lot. […] The relationship you create differs a lot from a purely commercial relationship.

The collaboration between BASF and FEE thus helps to transform transactional into relational client relationships.

The André Maggi Group collected valuable information of applying the socio-eco-efficiency analysis to its operations in Brazil. However, more research and analysis needs to be done in order to allow an international roll-out of this methodology.

The socio-eco-efficiency analysis applied by FEE also addresses an important point mentioned by Porter and Kramer (2011, p. 77):

[. . .] few managers have the understanding of social and environmental issues required to move beyond today’s CSR approaches, and few social sector leaders have the managerial training and entrepreneurial mind-set needed to design and implement shared value models.

The work of FEE creates this understanding and mindset by offering a tool which enables clients to make more sustainable decisions, impacting positively on their triple-bottom-line performance indicators as well as addressing the sustainability challenges of the Brazilian society.

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About the authors

Heiko Spitzeck is a Professor at Fundação Dom Cabral in Brazil. From 2008 to 2010 he was a Lecturer at Cranfield University’s Doughty Centre for Corporate Responsibility in the UK. Between 2004 and 2006 he served as Director for oikos International, a student-driven NGO for sustainable management and economics. Heiko was educated in Germany, Spain and Switzerland. He received his PhD from the University of St Gallen (Switzerland). Heiko Spitzeck is the corresponding author and can be contacted at: heiko@fdc.org.br

Sonia Chapman started to work for BASF in 1995 and has held various positions within the company from being Regional Controller and later Manager for Agricultural Products, and is now President of BASF’s Fundação Espaço Eco in Brazil. Sonia holds a degree in business administration and previously worked as an external auditor for Price Waterhouse.