

Master's Thesis Internship 2016- master Sustainable Business and Innovation

*Strategies of Western Multinational
Corporations for entering and developing
Base of the Pyramid markets*

*A multiple case study of Western Multinational
Corporations*

Francesca Meroni

E-mail f.m.meroni@students.uu.nl

Supervisor: Dr. Jan Faber

E-mail J.Faber1@uu.nl

Second Reader: prof. dr. Ellen Moors

E-mail E.H.M.Moors@uu.nl

Ithaca

When you set out on your journey to Ithaca,
pray that the road is long,
full of adventure, full of knowledge.
The Lestrygonians and the Cyclops,
the angry Poseidon -- do not fear them:
You will never find such as these on your path,
if your thoughts remain lofty, if a fine
emotion touches your spirit and your body.
The Lestrygonians and the Cyclops,
the fierce Poseidon you will never encounter,
if you do not carry them within your soul,
if your soul does not set them up before you.

Pray that the road is long.
That the summer mornings are many, when,
with such pleasure, with such joy
you will enter ports seen for the first time;
stop at Phoenician markets,
and purchase fine merchandise,
mother-of-pearl and coral, amber and ebony,
and sensual perfumes of all kinds,
as many sensual perfumes as you can;
visit many Egyptian cities,
to learn and learn from scholars.

Always keep Ithaca in your mind.
To arrive there is your ultimate goal.
But do not hurry the voyage at all.
It is better to let it last for many years;
and to anchor at the island when you are old,
rich with all you have gained on the way,
not expecting that Ithaca will offer you riches.

Ithaca has given you the beautiful voyage.
Without her you would have never set out on the road.
She has nothing more to give you.

And if you find her poor, Ithaca has not deceived you.
Wise as you have become, with so much experience,
you must already have understood what Ithaca means.

Constantine P. Cavafy (1911)

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Abstract

This thesis provides a deliberate strategy for Western Multinational Corporations (MNCs) to enter and develop Base of the Pyramid (BOP) markets. The proposed strategy is conveyed in a theoretical model based on scientific literature. The theoretical model was developed, validated and enriched through experts' opinions and assessed against several case studies. In particular, seven case studies of MNCs' initiatives in the BOP have been analyzed with the model to take into account empirical data as well.

The results show that MNCs have not yet in place an overall strategy to enter and develop BOP markets successfully. While the proposed strategy gives a clear indication on how MNC should proceed to achieve this, further research is needed to assess what barriers MNCs encounter prohibiting them to implement this bottom-up strategy.

Table of Contents

1. INTRODUCTION	6
2. THEORETICAL FRAMEWORK.....	9
2.1 MNCs Characteristics.....	9
2.2 BOP Market Characteristics.....	11
2.3 In Between: the bridge	13
2.4 Conceptual model.....	14
3. METHODS	17
3.1 Research Design.....	17
3.2 Data Collection	19
3.3 Data Analysis	20
3.4 Quality of the Research	22
4. RESULTS	23
4.1 Experts' Data	24
4.2 DSM's Nutrition Improvement Program (NIP).....	26
4.3 HLL's Project Shakti.....	27
4.4 NESTLE's Milk Districts.....	28
4.5 FRIESLAND CAMPINA's Dairy Development Program (DDP) in Nigeria	29
4.6 SIEMENS' Protos plant oil stove.....	31
4.7 Grameen Danone Food Limited (GDFL)	32
4.8 Ferrero Social Enterprises (FSE)	33
4.9 Cross-case analysis	35
5. IMPLICATIONS OF THE FINDINGS	37
5.1 Theoretical implications.....	37
5.2 Managerial implications.....	38
5.3 Limitations of the results and future avenues for research.....	39
6. CONCLUSION	40
REFERENCES.....	41
APPENDIX A: CASE STUDIES.....	45
DSM	45
Nutrition Improvement Program (NIP)	45
HINDUSTAN LEVER LIMITED (HLL)	48
Project Shakti.....	48
NESTLE	53
Milk Districts.....	53

FRIESLAND CAMPINA	57
Dairy Development Program (DDP) in Nigeria	57
SIEMENS	60
Protos: the plant oil stove	60
DANONE	64
Grameen Danone Food Limited (GDFL).....	64
FERRERO	69
Ferrero Social Enterprises (FSE).....	69
APPENDIX B: SECONDARY DATA SOURCES.....	74

1. INTRODUCTION

As established markets are saturating multinationals corporations (MNCs) moving to emerging markets (EMs) are especially prospecting EMs low-income markets as sources of growth (London & Hart, 2004). However, there is an existing gap in the literature and very little empirical research on the business strategies and the global capabilities that MNCs should use to address these markets (London & Hart, 2004). This fact hinders MNCs' attempts to do so and calls for further research regarding the identification of firms trying to enter these low-income markets and their existent strategies.

In particular, within EMs, the Base of the Pyramid (hereon BOP) segment is bounded to become a very important part of the market, especially in developing countries with the largest and fastest-growing segment of the world's population (London & Hart, 2004). This portion currently includes the world population that lives with less than \$2000 per capita per year and is estimated to be between 2,7 billion people (Karnani, 2006) and 4 billion people (Prahalad and Hammond, 2002) depending on the measures used.

The BOP is expected to increase also in developed countries due to rising trends of both income inequality and poverty that have been registered in the past years (Massey, 1996; Hammond, 1998; Kenworthy and Pontusson, 2005). In particular, during the 1980s and 1990s extensive inequalities surfaced both within developed and developing countries (Thomas and Reader, 1997). To take fully advantage of this transition, western MNCs should already be able to serve low-end markets such as the BOP ones.

According to Sarkar (2011), the solutions designed to serve the needs of the EMs in terms of business models and technological innovations of products and services have the potential to become disruptive innovations also in established markets. In these markets, low-end market disruption may occur if MNCs learn to deliver simpler and cheaper products and services that satisfy the needs of the poor. Therefore, in order to survive on the long term, it is becoming crucial for MNCs to learn from emerging markets firms through reverse knowledge spillovers, which result when MNCs learn from the innovations of local firms (Sarkar, 2011) and, more in general, to see EMs as learning laboratories. Accordingly, MNCs can learn to deal with new local contexts and develop related business approaches (Schrader et al, 2012). Furthermore, insights into these EMs may induce firms to learn new reverse innovation capabilities, which enable a firm to create products and services for EMs. By establishing and incorporating the new capabilities in the whole organization MNCs can also fully exploit them in their home markets as well (Sarkar, 2011). In particular, MNCs would be able to achieve a market expansion by serving their domestic low-end markets and by potentially disrupting the domestic high-end markets as well.

This is one of the more recent views in BOP literature. In addition, recent literature underlines also the following economic aspects through which firms can achieve benefits from addressing this particular environment. Arora and Romijn (2009) state that business models in

these settings should be scaled and widely replicated by facilitating local entrepreneurs, without turning the BOP market into a consumer market alone.

Empowering local BOP communities leads to a better quality of life within these communities; it enhances their social and economic wellbeing and leads to new business opportunities as well. Seelos and Mair (2007), who underline the importance of strategic alliances, further discuss the importance of local players. They argue that identifying BOP partners at an early stage gives the firm a competitive advantage since BOP partners are seen as a scarce resource. In particular, this fact is connected to the recognized importance of co-creation of new value-creating models built on the collaboration between MNCs and local partners.

On the other hand, Schrader and his colleagues (2012) focus on the importance of the internal organization, supply chain management and sustainability outcomes, and analyze the BOP market as a consumer market that in addition needs firms to create income opportunities. In particular, they highlight the importance of the strategic management process as an analytic framework for case studies of the BOP.

The citation of case studies is very common in the BOP literature since the majority of the research conducted is case-driven and not theory-driven. In particular, there is no comprehensive theoretical model of the strategy MNCs should pursue to reach and develop the BOP markets. Most academic studies are case studies, which describe the same episodes involving the same firms, but provide no further theoretical insights.

Lately these cases have been used also as examples of what MNCs should not do. For example, the Indian branch of the Dutch multinational Unilever, Hindustan Lever and its practices in Bangladesh is considered on the one hand as a shining example of how a company should serve the world's poor (Prahalad & Hammond, 2002; Prahalad, 2012). However, later it has been highlighted as an example of how MNC involvement might have eroded important traditional relationships such as those between local businesspeople and their customers in both the formal and informal economy of BOP communities (Ansari et.al, 2012; Arora and Romijn 2009).

Despite the various theories and examples displayed in BOP articles and studies, literature remains silent on how firms should successfully enter BOP markets (London & Hart, 2004). Recent studies focus on several actions that MNCs need to perform. For example, it is important for MNCs to take into account local knowledge, to become locally embedded in the present social infrastructure and to understand the customer (London & Hart, 2004; Garrette & Karnani, 2010).

Karnani (2006) argues that the actual BOP market potential is between \$1.2 trillion and \$0.3 trillion. Prahalad and Hammond (2002) estimate a BOP market potential of \$13 trillion (Prahalad, 2004; Seelos and Mair, 2007). Nevertheless these large differences in estimated BOP market potential, the BOP market will grow larger when the income of BOP communities increases (Garrette & Karnani, 2010).

Addressing the BOP market is therefore defined as bringing earning capacity to the BOP community since the development of the BOP market is connected to the level of

integration and development of economic activities with and within the related communities (Woolcock, 1998).

In particular, BOP market development entails improving communities' relationships, the individuals' physical and spiritual needs and the environmental sustainability (Thomas and Reader, 1997). This improvement should, however, not increase economic or social disparities present within/across countries leading to exploitation (Thomas and Reader, 1997). Although the potential of the BOP market is widely acknowledged, insight in and understanding of how firms should address the BOP context is still lacking.

Therefore, companies that operate in environments characterized by deep poverty need a better understanding of potential success factors to be incorporated in their business strategy (Seelos and Mair, 2007) in order to profit from these markets, while learning new capabilities. These new skills will facilitate their future entry in similar contexts and also within established markets.

This leads to the following research question:

What business strategy enables western multinational corporations to enter and develop profitably BOP markets in developing countries?

To help answering this research question a theoretical framework will be developed, in the next section. The theoretical framework consisting of three parts will be followed by a conceptual model representing a business strategy to be deployed by MNCs regarding BOP markets. The methods used to evaluate the conceptual model will be presented in section 3. In sections 4 and 5, the results and a discussion of their implications will be laid out, followed by the conclusion in section 6.

2. THEORETICAL FRAMEWORK

Much of the previous conceptual work regarding the business strategy to be deployed by firms, either from a resource perspective (Mahoney and Pandian, 1992) or a market perspective (Porter, 1979), is grounded in a competitive environment embedded in existing and mature markets. However, in countries with large-scale poverty, the market environment is very different (Seelos and Mair, 2007).

To identify where chances should occur it is important to look first into MNCs' existing competencies, BOP markets' barriers and opportunities, and the dynamics between these two realities. Collaboration and learning involves two sides, here identified as western MNCs and BOP communities and the dynamics that occur between both sides. Therefore, the enabling elements of a possible strategy may lie within the MNC, within the BOP market and in the relations between these two focal points.

The framework will highlight the fact that MNCs need to empower BOP communities by encouraging local knowledge and entrepreneurship to fully harvest the potentials in terms of both profit and knowledge that these markets have to offer. Increasing consumption without increasing local incomes will not improve social welfare (Ansari et. al, 2012) and therefore MNCs will not be able to tap into the important learning process regarding innovations based on reverse spillovers of knowledge and capabilities as described in the introduction. In addition, merely providing goods and services may achieve neither economic inclusion nor poverty reduction (Ansari et. al, 2012), which are paramount in bringing earning capacity to the BOP community and therefore indirect important goals for MNCs addressing BOP markets.

This section is divided in three subsections where the theories used to analyze the MNCs internal capabilities, the BOP environments, and the dynamics between them will be presented. In a final section, a conceptual model will combine all the elements. This model represents a business strategy to be deployed by MNCs regarding BOP environments.

2.1 MNCs Characteristics

According to Mahoney and Pandian (1992), the resource based view focuses on the firm and its resources, where the firm's current resources influence the managerial perception that in turn influences the direction of growth and diversification of the firm. The direction of growth depends on the availability of resources and market opportunities, while a firm's competencies and intangible assets explain the diversification of each firm.

As MNCs start approaching BOP markets, they must keep in mind that their resources, especially knowledge, could limit the choice of markets to enter. Therefore, the firm should be able to recombine its resources and renew its competencies (Teece et. al, 1997). New competencies and intangible assets such as knowledge flows and spillovers are difficult to

build and to acquire from other firms but are critical in influencing the direction of diversification that in turn responds to indivisibilities and market failure (Mahoney and Pandian, 1992).

According to Breschi and Lissoni (2001), these intangible assets might be seen as “black boxes” since the content and the regimes of knowledge flows have not yet been fully described and understood, although most researchers found that knowledge spillovers are important for innovation and are strongly bounded in space.

Transmission of local knowledge is becoming more and more important as firms realize the importance of knowledge about the potential customers. Corbett (2008) highlights the figure of the user anthropologist who observes the life of people targeted as potential customers to accumulate knowledge about human behavior and then shares this information with the company, which in this way gathers intelligence that helps enhancing a product’s relevance. Products achieve better sales and profit objectives when based on good upfront homework because they meet the customers’ needs and solve the problems that customers have (Cooper and Kleinschmidt, 1993).

Therefore, the perspective of the MNC must always be on the customers’ needs rather than on an already developed scalable business model. In developed markets, this occurs in relation to complex products, as customization and networks are two of the embedded characteristics that define these type of products (Hobday et.al, 2000). In particular, since each product tends to be different, both the development and production stages require feedback from within the firm and between the firm and the customers (Hobday et.al, 2000).

This same feedback process applies to BOP markets where it becomes more important to launch rapidly new products and services, to continuously improve them, and to change them according to the response of the public, than to spend a lot on market research and be slow (Radjou, 2002). These “good enough” solutions are less likely to fail and if so, they will not have major repercussions on the firm since they can be abandoned quickly without having the MNC investing too much in them (Radjou, 2002).

The results of Quinn’s study (1985) show that especially small entrepreneurs due to their limited product/service focus and their early approach to customers are able to successfully exploit the feedback to adjust their strategies toward the market and learn from these interactions. In addition, the high commitment of the entrepreneur allows him/her to both resist the setbacks and control the chaos that inevitably accompany innovation.

To use these small companies’ types of strategies and approaches, large firms are trying to develop less hierarchical organized companies and project teams of six or seven members, which seem to constitute a critical mass able to combine different skills while maximizing communication and commitment between the team members (Quinn, 1985). Therefore, MNCs should start with the creation of multi-disciplined units that can act independently and are backed up by the MNC with tangible and intangible resources. These units can learn how to act in environments that are characterized by rapid change, widespread resource scarcity, frugal and diverse customers, and industry immaturity and exploding interconnectivity (Simanis et. al, 2008).

Such an organizational approach allows MNCs to thrive in these kind of complex and volatile environments, but also to eliminate bureaucracies while enabling a more fast communication that in turn instills a high level of group identity and loyalty (Quinn, 1985). In addition, small teams can work closer with their customers, learning their needs and based on this information are able to innovate through a rapid change of designs and other entry strategies (Quinn, 1985). Furthermore, this learning process allows the MNC organization to become more flexible and to instill creativity and engagement in its employees at the unit level.

However, the team members become an essential part in this knowledge transfer process since they are the channel through which the knowledge flows, where the nature of the channel affects both the quantity and the quality of the knowledge received (Mudambi, 2002). To effectively manage this process MNCs must identify within their organization people that can approach this development process with sensitivity and open-mindedness because the relationship between knowledge sharing parties is crucial to the development of a willingness to exchange knowledge (Li and Scullion, 2006). Therefore, no distinction should exist between the one who teaches and the one who learns because the beneficial insights emerge for both parties from the integration of their different perspectives and expertise (Fussel, 1996). According to Fussel (1996), these particular people are development facilitators. In addition, since familiarity might lead to understanding (Quinn, 1985), the more diverse familiarities are displayed in the unit, the more options will be understood and taken into account ultimately by the MNCs.

In the following subsection, the role of the MNCs units will be further elaborated within the context of BOP markets.

2.2 BOP Market Characteristics

BOP markets in developing countries do not contain the same infrastructures as those provided by the state in developed countries (Schrader et. al, 2012). Therefore, there are even more opportunities to create new markets through service innovations within such BOP markets focused on providing solutions for the associated BOP communities. In particular, service innovations could be centered on sharing commodities and paying the service rather than the ownership (i.e. paying to use a phone, not owning one) and on overcoming the lack of infrastructure issue through technology simplification (i.e. transferring long distance money through cellphones allows to save the time used to transport it).

The main resource that BOP markets contain is therefore the knowledge through which the local needs can be identified so that the MNCs can serve them through products and services that in turn provide new knowledge to the BOP community. To do so, MNCs should start on a small local scale to identify and serve local needs. Identifying these needs requires MNCs to learn from the BOP markets through the acquisition of new knowledge. Specifically, while keeping in mind the MNC's products/services portfolio, the units should

choose local entrepreneurs, who are potentially able to build local supply chains. These should be developed from customers that identify their needs and are continuously involved through feedback, to the retailers and the distributors that provide access to the products and services needed and ultimately to the producers of those (local) products and services and their suppliers.

This approach allows the MNCs to lower for example the costs of raw materials since there are reduced or no transportation costs, which affects positively the production and distribution costs. Local resources also provide clear boundaries limiting the scope/scale of the MNCs' development and production processes. Through these mechanisms, the MNCs should provide cheaper and better products and services than the already available ones.

On the other hand, this process of identification, development and production also contributes to the enhancement of social wellbeing. This enhancement occurs through job creation and the wages paid on the one hand. On the other hand, the products and services themselves allow customers to save time and/or energy by satisfying their needs, leading them to the opportunity of developing new activities that may result in additional incomes and therefore enriching the whole community. Furthermore, the creation of new products and services under these difficult conditions for a much-differentiated public and the successful marketing brings new customers to the MNC. These new customers will become loyal and more wishful as their social wellbeing is enhanced, creating in turn a richer society with richer markets as local entrepreneurs are involved.

Empirical evidence shows that a community increases the potential for enhancing its quality of life when it improves its ability to acquire knowledge (Lindenburg, 1993; Fussel, 1996). The change in values and beliefs that allows the existing knowledge base to expand must come from within the community (Fussel, 1996). In particular, when the BOP community better satisfies its needs, it also acquires and builds new knowledge leading to new needs. Change may spark from this continuous process within the BOP community.

Therefore, it is important for MNCs to identify within the BOP community people that are open minded, curious and able to recognize opportunities within their community to trigger and guide this process. In particular, those who perceive themselves as pursuing such opportunities are defined as entrepreneurs (Krueger and Brazeal pp.91, 1994), here referred to as local entrepreneurs since they operate in a local context.

On the long term this change could help to overcome the current barriers to BOP commerce such as corruption, illiteracy, currency fluctuation and bureaucratic red tape (Pralhad and Hammond, 2002) hence enabling MNCs to enter these markets more easily.

In the following subsection, the collaboration process and knowledge transfer between the MNCs' team members, previously defined as development facilitators (hereon called MNC development facilitators) and the local entrepreneurs will be presented.

2.3 In Between: the bridge

According to Ansari and his colleagues (2012), MNCs can use social capital such as people's knowledge and capabilities as a mechanism for capability building and transmitting capabilities to individuals and communities through a mutually reinforcing process of learning and transfer of knowledge and skills. Without enabling this process, it is unlikely for business ventures to build capabilities for the BOP, which would enhance social wellbeing leading MNCs to new capabilities and profits, as previously explained.

To start the process there needs to be a bridge between MNCs and the BOP market since successful communication is at the core of the development process and the resulting beneficial outcomes for both parties (Fussel, 1996). The sides of the bridge are the MNC development facilitators and the local entrepreneurs. Together they must find innovative solutions for both sides since knowledge is not absolute but relative to the frame of reference and evolves over time (Fussel, 1996).

According to Granovetter (1973, 1983), a "bridge" is defined in social network theory as the only link between two nodes. Therefore, bridges have an important role in the study of the diffusion of information or influence. Furthermore, all bridges are weak ties since a bridge can only be a strong tie if the nodes involved do not have ties with other nodes. In this case, it is very unlikely that the bridge between a MNC and a BOP market consists of only one link and that the MNC development facilitators and members of the BOP market are not linked to others.

Additionally, local bridges are very important since they are the ones that create more and shorter paths, which enhance knowledge diffusion. This is coherent with the fact that people have less close friends (strong ties) than acquaintances (weak ties). More people are reached through the latter ones that allow also the exchange of new information since weakly tied people tend to be part of different groups and therefore access different types of information (Granovetter, 1983). Therefore, individuals with many weak ties are in the best position to push the diffusion of knowledge and innovation over different communities.

However, within communities strong ties validate the acquisition of this new knowledge and innovation because through these ties people better accept change and the associated uncertainty since, for example, people trust and believe more the advice of a close friend (strong tie) than of an acquaintance (weak tie) (Krackhardt, 1992).

The time dimension is already part of the evolution of the weak ties that an individual has since an individual gets more weak ties as it grows up and especially if it continues his/her education. From these experiences, people acquire weak ties to people that in the future will probably move in different environments, which provides a wider source of information. Bridging (weak) ties more likely connect very different individuals than strong ties. However, weak ties lead to more complex dynamics than strong ties and need more flexible mindsets (Granovetter, 1983).

Therefore, it is both important and challenging for the development facilitators of the MNC to establish bridging ties with local entrepreneurs embedded within the BOP

community. These local entrepreneurs are major channels of information as their position in the network represented by the BOP community allows many others to get in contact and influences the information flows (Freeman, 1979). In addition, as a firm with a more central position in social networks gains better information and more opportunities (Gulati et. al, 2000). So does the local entrepreneur. In particular, centrality allows having better information related to (potential) partners in the network (Gulati and Gargiulo, 1999), which is fundamental in identifying the local resources needed to create and develop locally those products/services that aim at satisfying the needs of the BOP community.

In conclusion, the collaboration between the MNC development facilitators and members of a BOP community is like a symbiosis process where both sides learn from each other different and complementary issues. MNC development facilitators can learn to understand the needs of the community and therefore sense the business opportunities. With their insights, local entrepreneurs can contribute using their ties to involve the community in the creation of new products and services, which will enhance the wellbeing of the BOP community itself. These informal knowledge channels allow them to correct quickly the launched product or service thanks to continuous feedback loops that are naturally in place since the local entrepreneur is embedded in the social community and identifies him/herself completely with the customer.

The MNC development facilitators can start from their weak bridging ties with the chosen BOP community or by developing new ones if these are not present yet. It is then possible to find the appropriate local entrepreneurs through these ties.

2.4 Conceptual model

In the following conceptual model, through the team of MNC development facilitators, MNCs provide resources and knowledge needed to empower the BOP's community that in turn provides local knowledge and insights through local entrepreneurs. Via these collaboration processes, new services and products for the BOP market related to the MNCs portfolio can be created. The strategy that the research question aims to identify is the one that create this synergy and allows both sides to learn and profit from this partnership.

Facilitating local entrepreneurs may seem counter-intuitive for MNCs but it would allow them to enter the BOP markets with products and services that have a higher chance of success on both the short and long term as explained in the previous subsections. Furthermore, as the BOP communities' social wellbeing evolves so do the needs of the community and in turn, the products and services created. On the other hand, as the MNCs change and develop new skills and capabilities, they will have new inputs and so the collaboration between these two sides will evolve further.

In Figure 1, the conceptual model is shown. In this figure, the relations between all the elements presented in the theoretical framework are displayed. The boxes represent the concepts that a Western MNCs should take into account when entering BOP markets. The

plus symbol alongside the black arrows that connect concepts implies the existence of a positive relation between them while the thick colored arrows represent the feedback loops and occur when no positive relationship can be implemented in order to identify the origin of the issue hindering such positive relationship from occurring. The reading of the model should start from the top-left box.

A well-assembled **team** of MNC development facilitators manages best to develop **weak ties** with the chosen community through a better use of information. Existing bridges with the community lead to a more informed **choice of local entrepreneurs**. Local entrepreneurs are chosen also because they are embedded in the BOP community through strong ties, and are fundamental in helping the MNC development facilitators to identify more precisely the **consumers' needs**. Furthermore, this collaboration leads to shaping a more adequate **business opportunity**. Within this process, MNC development facilitators and local entrepreneurs should also identify if other products/services exist that are successful in serving the local needs.

However, the aim of this collaboration should be to increase the earning capacity and social wellbeing of a BOP community in order to enhance its future purchasing power and not to exploit these markets without developing them further. Therefore, one of the business models to start with could be focused on developing new services based on already existing products or to adapt existing products to match the consumers' needs with the MNC portfolio. This could be done if, for example, the income level required for new products to be profitable is not present yet. This fact could expose MNCs to losses on the short term and BOP communities to being exploited through cheap labor or lower product quality to regain these losses, hindering the realization of the medium-long term advantages for both parties.

A possible solution for developing products in the short-term without incurring these downsides might be refurbishing second-hand products that the MNCs recollect from other markets. This could bring affordable and quality products to the BOP markets while providing job opportunities, given that the refurbishing process is located within the BOP communities.

The more fitting and appropriate the business opportunity is, the better and easier the products and services are produced and distributed through **a local supply chain**. At this stage, local entrepreneurs are central in building the local supply chain. They provide information on the best way to involve the community and local resources. The MNC development facilitators can integrate these insights with the other information they gathered and combine the local knowledge with their own to identify the best possible outcome.

Consumers must immediately test the “good enough” product or service to verify if it satisfies the previous identified needs. If it does not satisfy consumer needs, a first “constructive” feedback loop represented by the shorter and smaller thick green arrow leads MNC development facilitators and entrepreneurs to check if the reason lies in the physical product/service itself and can be fixed through a change in the creation, development or distribution process. The changed product/service is then tested again. If the result is still negative, MNC development facilitators and entrepreneurs should check the business

opportunity identified. This is represented in the model by another thick green arrow. This iteration process continues until satisfaction of the consumer is established.

In the case that the issue hindering this outcome lies in the consumer needs identification step, the team needs to establish other bridge ties or the MNC needs to assemble a new team. The reason for this is that the bridges identified by the team and the choices made for local entrepreneurs are not appropriate because the needs are not well identified and satisfied. The thicker green arrows represent these final feedback loops. All these feedback loops together with the black arrows enable the iteration process to proceed.

Once the created product or service **satisfies the consumer needs** identified before by capturing value in return (i.e. increase in sales, profits and consumer's loyalty and share), it **enhances the social wellbeing** by providing a solution to existing needs and by enriching the community through the making of the provided solution. People are able to save time or energy through the solutions provided and the creation or development of products/services themselves creates jobs.

This has a dual, but intertwined effect. If a communities' social wellbeing improves, new needs arise requiring new services and products and leading again to the steps just described. In particular, this recursive step enables MNCs to scale up local markets through always tailored production/service processes. This brings **profits** also on the medium and long term to the MNCs alongside with new **capabilities** acquired by the team throughout the collaboration process.

The acquired profits and capabilities will motivate **MNCs** to expand the unit system within the organization. This will consequently encourage the expansion within the MNC organization of those **characteristics** regarding both the individual level (open-mindedness) and the organizational level (multi-disciplined backgrounds) that enable the creation of the MNC development facilitators teams, making it easier to continue on this path, and making it possible for MNCs to replicate this process to access other BOP markets.

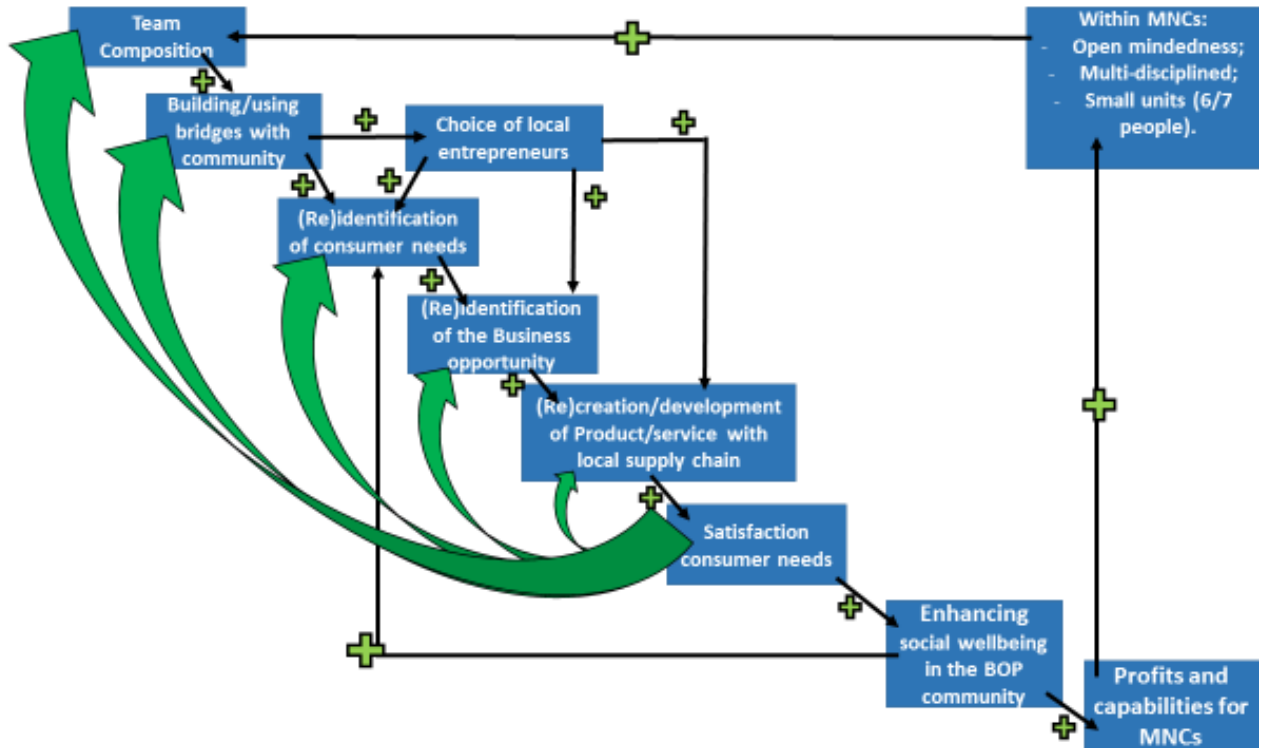


Figure 1: Conceptual Model of the BOP strategy for MNCs

In the next section, the methods used to empirically validate the conceptual model will be presented.

3. METHODS

In the following subsections, it will be discussed how the research was designed and how the data was collected and analyzed. Finally, the quality of the research, induced by the methods applied will be evaluated.

3.1 Research Design

The research requires a multiple case study approach since this approach is relevant for new topics as it increases the possibility of acquiring new findings (Eisenhardt, 1989). In particular, a multiple-case study approach allows to analyze the differences within and between cases and to replicate the findings across cases (Baxter and Jack, 2008). In addition, case study research enables to discover causal relationships by thoroughly investigating dynamic and complex processes (Vissak, 2010). It is also useful in bridging the gap between Academia and Industry (Simon et. al, 1996; Vissak, 2010).

According to the literature an optimal number of case studies ranges between four or six to a maximum of ten (Eisenhardt, 1989; Rowley, 2002; Vissak, 2010) in order to be able to generate enough valuable insights while avoiding data redundancy. Therefore, a desktop analysis of seven cases of western MNCs operating in BOP markets was conducted (see Appendix A). This diverse secondary data together with primary data obtained from both experts and companies enables the triangulation of data sources.

The cases were selected from the western MNCs that had already entered BOP markets or were attempting to do so. In particular, the focus was on prominent MNCs covering a wide spectrum of activities in the food system such as sourcing, producing and selling (GRACE Communication Foundation, 2016) and operating in the food sector. This is one of the sectors covering the most basic human material needs (Lynch et. al, 2000) and therefore of the BOP communities. In particular, the food sector is the one of the largest BOP sectors and one of the most important since it impacts both on health aspects and on creating higher income for the poor (Gold et. al, 2013).

The theoretical framework and the conceptual model within this approach provide a landmark for this study as they identify the focal points of this study and describe the relationships between them based on existing theory and logic (Baxter and Jack, 2008). Although the theoretical framework and the conceptual model are built on relevant theoretical insights presented in various economic and social scientific articles, this first analysis leads to new insights that could be used for future adaptations of the conceptual model. The overall validity of the model is checked by interviewing four experts that have conducted studies and research on social and economic topics regarding BOP markets and communities especially in developing countries.

To complement and clarify the data and the initial results provided by the case studies, semi-structured interviews are conducted with people involved in the MNCs' initiatives previously analyzed. These include senior managers or board members of MNCs that are interested or already active in entering BOP markets in order to investigate whether or not their companies could enter or have entered successfully the BOP market. In particular, the focus of the interviews and primary data collection is on the MNCs that had their programs in place for less than 10 years since initiatives older than 10 years have consistent and sufficient secondary data in the form of both scientific and grey literature and company's reports. In these cases, the secondary data collected already filled in the three categories and subcategories used to analyze the data as explained in section 3.3. Therefore, cross-case comparison of all the MNCs' initiatives and the theoretical model is possible.

Deloitte Innovation BV, a consultancy firm that works with many MNCs, facilitated the setup of the interviews. A short summary regarding the purpose of the interviews was sent beforehand to the interviewees, which were identified through Deloitte, secondary documents analyzed, and platforms such as LinkedIn.

The MNCs chosen were carefully selected so to be able to predict across cases similar or contrasting results based on theory (Baxter and Jack, 2008). However, according to Eisenhardt (1989), practical issues like time or money influence the number of cases that is

possible to collect. For this reason, the research focuses on MNCs' specific initiatives related to the food sector and to the BOP markets to validate and extend the theoretical framework developed.

3.2 Data Collection

Case studies allow to gather data from multiple sources (Vissak, 2010). The use of multiple data sources grants more robust results and increases the study's credibility (Baxter and Jack, 2008). The triangulation of different types of data sources provides also a cross-data validity check (Patton, 1999), and different types of data illuminate different aspects of the same case as they capture different types of information (Patton, 1999). Therefore, both existing data and new data were gathered to evaluate the validity of the theoretical framework and the conceptual model.

The existing data are derived from articles that describe case studies involving Western MNCs and from reports of both Western MNCs and other organizations. These data are publicly available on MNCs' and other organizations' websites.

New data is gathered through semi-structured interviews with the people involved in ongoing projects within certain MNCs as previously explained and with experts. While the importance of the first category is manifest, it is important to highlight the role of experts particularly in studies involving innovative topics since they can enhance the study's reputation. In particular, a minimum of three experts was first interviewed to validate the theoretical model developed by allowing a triangulation of opinions, which may also enrich the discussion by highlighting, validating and adding elements to the theoretical model developed. Furthermore, this validation included the outcome concept later used to compare the empirical cases as explained in section 3.3. All the experts identified are recognized academics in related fields of expertise such as rural sociology (Wageningen), governance and inclusive development (UvA), and international development studies (UU) or known professionals at NGOs in such fields.

The interviews are recorded and transcribed to avoid loss of information. Semi-structured interviews allow the researcher to investigate a topic thoroughly and to understand in depth the answers provided (Harrell and Bradley, 2009). Other advantages of using semi structured interviews involve the increase of getting both the answers from the intended respondent and more questions answered since during interviews it is possible to ask additional questions to clarify emerging issues (Vissak, 2010).

The focus points of each expert interview are the concepts described in the theoretical framework related to his/her field of expertise. Regarding the interviews conducted with companies, the semi-structured interview focuses mainly on complementing the information gathered from the desktop research, which has already been evaluated based on the theoretical model. This approach facilitates the overall data analysis.

3.3 Data Analysis

The data analysis tries to identify and validate the relations specified in the conceptual model by analyzing first the experts' opinions. Secondly, the data regarding MNCs and gathered from the different sources previously described is organized in categories based on the conceptual model.

First, the data gathered from the experts' interviews are analyzed. As previously outlined this information is catalogued in three main categories that all refer to the theoretical model. These are:

1. Relevant issues, which are concrete topics related to the relations developed in the conceptual model and the specific field of study or expertise that experts provide during the interview.
2. Validation points of the theoretical model.
3. Additions to the theoretical model, which include relations not identified that may contribute, if added, to solve some of the relevant issues identified.

Here is shown the table, which will be used to display and analyzed this information in the results section. The experts ranking is based on the chronological order in which the interviews took place.

Table 1: categories used to analyze primary data regarding the validation of the theoretical model developed.

	Expert 1	Expert 2	Expert 3	Expert 4
Relevant Issues				
Validation Points				
Additions				

Secondly, the three categories and sub-categories used to analyze the results are extracted from the outcome concept "**Enhancing social wellbeing in the BOP community**" presented earlier in the theoretical model.

This concept was chosen for two reasons. First, it is the linchpin between the MNC strategy and its two main outcomes (profit and capabilities) as previously explained in the theory. Secondly, there is more information available on what MNC do (or not do) to enhance social wellbeing than on their specific strategies. Therefore, this approach enables to answer the research question.

The three categories of serial wellbeing used in this study are:

1. Improvement of quality of life, which is determined by an increased access of the community to better *health, food, water and education*, the latter intended as transfer of knowledge or expertise.

2. Income improvement, which is determined by a raise in *direct income* (salary) or a progress in *indirect income* such as facilitating time savings to deploy other activities.
3. Scaling up local markets, which is determined by the MNCs' approach. Specifically, whether after their initial entry, MNCs focus on continuing to improve the social wellbeing within the BOP community by providing *new* needed *services, products* or *production* processes. This is paramount to understand whether MNCs are actually developing BOP markets or if their focus is primarily on the high-end markets for example.

Here is shown an example of the table that was later used to summarize the findings of each case study in the result section. In the last column it will be indicated for each subcategory if and how much MNCs are improving the single indicator. Since the data gathered is qualitative in nature the terms used to measure the improvement are also of qualitative nature. In particular, the words used are “yes, “potentially”, “possibly”, “a little” and combinations of them. If the information gathered does not suggest any improvement the word “no” is used.

Table 2: categories and subcategories used to analyze primary and secondary data.

Improvement of quality of life	Health	
	Education	
	Food	
	Water	
Income improvement	Direct income	
	Indirect income (facilitate time savings)	
Scaling up local markets	New services/products/production	

This configuration enables to make comparisons, which highlighted how MNCs obtain their current results and how much their current processes and strategies have in common with the conceptual model.

For the purpose of analysis and for reasons of cross-comparison, it is important to understand the patterns of relations of each case and cross-validate them between different data sources. This makes it easier to recognize the general patterns (Eisenhardt, 1989). In order to do so it is important to build an efficient database. Therefore, all references from secondary data (articles and reports) used to write each case study are cataloged (See Appendix B). Within each case, some of the questions for the interviews are derived after analyzing what information is missing in the secondary data analyzed as previously described. In particular, after the results of each cases are presented, the main trends are highlighted in

the cross-case comparison section. These trends are summarized in three categories, which correspond to the MNCs’ activities. As previously explained, these activities are included in the food system, and may or may not be all performed in the BOP markets by MNCs. These activities are:

1. Sourcing raw materials from the BOP;
2. Producing refined products at the BOP;
3. Selling products to the BOP.

Here is shown the table, which is used to display and analyze this information in the results section. For each company and each activity a “yes” or a “no” indicates if the company performed that activity within the BOP context.

Table 3: categories used to analyze and visualize the trends emerging from the cross-case comparison.

	Selling	Sourcing	Producing
Company 1			
Company 2			
Company 3			
⋮			
Company n			

The analyzed data from the experts and companies is combined in the implication of the findings section.

3.4 Quality of the Research

To ensure the validity and replicability of the research, all steps described above are thoroughly documented. In particular, four criteria ensure the quality of the research. These are construct validity, internal validity, external validity and reliability (Yin, 2002; Yazan, 2015).

In this study, the construct validity comprises the triangulation of data from multiple sources in order to assess the relations in the conceptual model. Furthermore, internal validity is ensured by the conceptual model, which includes the most important concepts and interlinkages found in the scientific literature on the current topic. Experts give support to the internal validity of the model as well.

On the other hand, external validity is quite low since the cases analyzed are not randomly chosen, but they are chosen as previously explained. Therefore, the results are tentative and a possible generalization to other MNCs than the ones included in this study has to be further

explored. Finally, reliability or replicability is ensured by writing down clearly all the research steps taken and setting up a database that includes all the intermediate results.

In conclusion, three companies have been reached for interviews although only two were needed because all companies involved were contacted both by sending a considerable amount of emails and by calling the people involved in the project analyzed to allow additional information to emerge.

4. RESULTS

First, the experts' opinions regarding the theoretical model will be analyzed. Secondly, the information on MNCs operating in BOP markets gathered from secondary data (i.e. reports, articles) and complementary primary data will be presented and linked to the outcome concept. The information obtained from the case studies analyzed will be described and discussed in subsequent sub-sections more in detail. The complete case studies can be found in Appendix A. In this section only the main observations on each case study are summarized.

In particular, the table presented for each case study includes three categories that outline how the company enters and develops the BOP market. Specifically, if it provides an enhancement of the quality of life by improving health, education, access to better food and water or/and an increased income either by providing direct income (i.e. creating jobs for the BOP community) or/and indirect income. The latter term refers to services or products that by facilitating the customer to save time enable him/her to gather additional income through other activities and to improve his/her quality of life. The third category shows if the MNCs is attempting to scale up the market by developing new services/products or production processes, i.e. a long-term commitment. In the last column, the 'yes' term shows whether the data indicated clearly that one or more of the subcategories was covered. In particular, the scope of the coverage is indicated in a qualitative way ranging from 'yes' to 'no' as explained in the method section.

4.1 Experts' Data

The following table shows the relevant issues, validation points and additions highlighted by the four experts interviewed regarding the theoretical model developed. Specifically, the data collected from the semi-structured interviews with the experts is collected and analyzed as explained in the method section.

Table 4: experts' opinions regarding the theoretical model

	Expert 1	Expert 2	Expert 3	Expert 4
Relevant Issues	<p>>It is difficult to combine the fixed supply that MNCs need with the flexible offer that many small farmers provide.</p> <p>>Local networks already present must not be disrupted by MNCs, but helped by removing the barriers to their development to ensure food security.</p>	<p>>The lack of motivations that MNCs have is not addressed.</p> <p>>It must be highlighted the central role of states, interstate cooperation and public policy.</p> <p>>The approach described in the theoretical model takes too much time.</p>	<p>>Highlighted a huge market to be developed in between the currently existing small holders and the few MNCs.</p>	<p>>Highlighted the fact that a change in food production in rural areas can impact the urban poor.</p>
Validation Points	<p>>Acknowledgement of the importance of inclusion, knowledge of social norms, co-creation with the local community.</p>	<p>>In theory it could be correct argument, but not feasible in practice.</p>	<p>>The approach was considered correct, especially the income enhancement related to profits enhancement.</p>	<p>> The importance of building strong relationships with communities and of investigating both local costumers and consumers preferences is</p>

				recognized
Additions	>More focus is needed on the existent local networks as source of growth and on the need to safeguard such structures.	>More focus on the role of the states and the policies.	>More focus needed on forming bridges between MNCs and existing small firms especially in rural areas.	>Role of the public partner in mitigating also a certain financial risk.

In the above table, while the main concepts of the theoretical model regarding the collaborative approach and the shift of perspective are in theory validated by all experts, they are not identified in current practice where experts 1 and 2 have a critical view on how MNCs currently operate. Expert 1 highlighting how some MNCs disrupt local networks and expert 2 underlining the fact that without regulations MNCs will just continue to search for profit maximization regardless of the BOP development. Experts 1, 3 and 4 highlight how a removal of structural barriers such as lack of infrastructure or access to credit could very much boost the local economy by facilitating the operations of local entrepreneurs. This would in turn enhance also the opportunities for MNCs to tap in and collaborate with the enriched local networks. The importance of preserving and enabling local networks is highlighted especially by experts 1 and 4. Preventing negative impacts of MNCs such as disrupting local production, which would threaten food security within the local ecosystem, is deemed very important by experts 1, 2 and 4. This aspect could be strengthened within the feedback loops present in the model.

In the following sub-sections, the findings related to the MNCs' initiatives will be presented. These include both the secondary and the primary data, the latter included only in the three subsections 4.2, 4.4 and 4.5, which address DSM, NESTLE and Friesland Campina cases respectively.

4.2 DSM's Nutrition Improvement Program (NIP)

DSM provides better food via the World Food Program (WFP) and therefore improves health in the BOP communities. Specifically, DSM is an ingredient supplier to the companies from which the WFP buys its food products. DSM is not always the direct supplier to WFP. On one hand, DSM partners with them for development, and on the other hand DSM is their supplier and does B2B together with competitors through a formalized tendering process (personal communication, June 7, 2016).

This could be linked to indirect income and time savings since better nutrition and health enable people to spend less time being sick or debilitated and to use that time in a more fruitful way. However, on the long term providing only opportunities for gathering additional indirect income may not be sufficient to develop the BOP market that would enhance social wellbeing as shown in the theoretical model.

As DSM is an ingredient supplier, its ingredients must not affect the characteristics (color, taste etc....) of the product. DSM is always informed if there are changes in the products so to adjust the formulation of the ingredients for the new product (personal communication, June 7, 2016), which may enable the company to learn and acquire new skills that lead to new tailored products. DSM is interested into tapping into those 3 odd billion consumers at the BOP who are not necessarily targeted by public programs (personal communication, July 7, 2016). The company may use this new acquired knowledge to enter new BOP markets as well as expand its present high-ends markets in Western countries by co-creating and expanding with local entrepreneurs' new products and services as explained in the theoretical model. In particular, customer segmentation is growing together with the need for companies to provide more tailored and customized solutions to distinguish themselves from competitors in developed markets.

However, on the medium-long term this strategy does not develop further the nascent BOP market according to the theoretical model. In particular, DSM aims at capturing feedback from consumers to improve products, but it is not involved in product and process development for the community. In particular, the production phase does not take place in these settings. This does not empower the community enough since it keeps it dependent on the projects organized by DSM and WFP, their NGO partner.

Furthermore, through its network of partners (UN, country governments, big donors, and social entrepreneurs) DSM is very much aware of what the public health nutrition priorities are, and therefore where it needs to apply its support and knowledge to help to drive their agenda. Collaborating is one DSM's biggest activities and depending on the nature of the partnership, DSM's role sometimes changes. In particular, DSM often supplies nutrients, but in some cases also final products (personal communication, June 7, 2016).

As a supplier, DSM reaches the BOP through projects set up and public partners or costumers (amongst them Food MNCs). It would appear that DSM's vision regarding the development of the BOP market is very much linked to what its partners do.

Table 5: outline of DSM's approach to BOP markets

Improvement of quality of life	Health	yes
	Education	no
	Food	yes
	Water	no
Income improvement	Direct income	no
	Indirect income (facilitate time savings)	Possibly yes
Scaling up local markets	New services/products/production	no

4.3 HLL's Project Shakti

HLL started entering rural markets in India that included BOP markets to expand their business in these markets still untapped by this company. On the short term, their strategy enhanced the income of women (Shakti entrepreneurs) chosen as vendors of HLL products such as the detergent Wheel developed to compete with Nirma, a cheaper detergent developed for BOP markets. A better quality detergent such as Wheel could have potentially helped in relation to health although the higher price compared to both Nirma or the local soap does not help to increase the BOP community's wealth.

However, on the long term HLL used this new distribution method not to sell tailored products for the BOP markets, but to sell many of the products in its portfolio such as Fair and Lovely whitening cream regardless the needs of the BOP community and taking advantage of existing prejudices. This profit-only driven strategy does not enhance the BOP social wellbeing, hindering also HLL's future profits in these markets as shown in the theoretical model. In particular, this project may have captured a limited existing demand but without the improving the local market through new tailored products and local production.

Table 6: outline of HLL's approach to BOP markets

Improvement of quality of life	Health	Potentially at first
	Education	No
	Food	No
	Water	No

Income improvement	Direct income	yes
	Indirect income (facilitate time savings)	no
Scaling up local markets	New services/products/production	no

4.4 NESTLE's Milk Districts

Nestlé sources agricultural raw material from millions of farmers around the world. Therefore, these farmers and their rural communities are very important for Nestlé's business. Here the focus is on the dairy farmers, since in terms of value Nestlé is the world's largest milk company, which sources more than 12 million tons of fresh milk equivalents per year from more than 30 countries and works with more than 600 000 farmers who mostly operate small farms (Nestlé: working with dairy farmers, 2016). According to Christiansen (2008), the small-scale producers (<50 liters per day) provide 33% of Nestlé's fresh milk supply per year while large scale producers (>4000 liters per day) contribute less than 15%.

Nestlé's provides farmers with a steady income. However, according to the high ranking officer interviewed, the amount of milk collected is converted every day in products which are sold to the market, especially in the retail environment. Therefore, farmers and more in general BOP communities may indirectly benefit from the products sold. As Nestle employees they may have access to a marginal discount on the selling price of Nestlé's product unit, which are normally sold in sachets to make them more available.

Furthermore, in some cases some life improvements are made available. For example, in the Moga factory project in India drinking water was made available in 91 schools. However, in 2008 Nestlé was one of the companies involved in the melamine adulteration scandal in China where companies were adding melamine to increase the proteins of their milk (Jia et. al, 2012). Therefore, in this particular case there the local communities' health has worsened and not improved.

Overall, this production-oriented business model enables Nestlé to enter BOP markets and to develop them but only as market suppliers of their global brands. In addition, there is not a specific strategy in place focused to expand the milk district model or the BOP markets. The underlining reasons that lead to putting in place a Milk District actually rest in the existence of import taxes and transportation costs that determine whether it is cheaper to produce or import milk powder in a given country.

This perspective could be widened by putting more effort into understanding the local needs of the BOP community and by stepping up efforts regarding the development of the BOP local markets. This could bring to a multitude of services and products that could open

new markets for Nestlé and make the BOP community less dependent on a single resource (milk) or/ and stimulate the development of secondary products based on this resource such as cheese.

Table 7: outline of NESTLE’s approach to BOP markets

Improvement of quality of life	Health	No
	Education	Yes
	Food	No
	Water	Yes, a little
Income improvement	Direct income	yes
	Indirect income (facilitate time savings)	No
Scaling up local markets	New services/products/production	No

4.5 FRIESLAND CAMPINA’s Dairy Development Program (DDP) in Nigeria

Nigeria’s economy is quickly growing and Friesland Campina WAMCO Nigeria Ltd (FCW) is the biggest player in the Nigeria Milk Market as it is the largest importer, producer and processor of dairy products. FCW produces its products mostly with imported milk powder, as the local dairy sector is not able to meet the raising demand due to a wide range of structural barriers and therefore cannot compete with imported milk powder. To have better relationships with local parties, to reduce costs and to develop new products for the local markets FCW aims at locally sourcing 10% of its required raw milk equivalent of 60 million liters in 2016.

More than 80% of the actual local Nigerian production (350 million liters per year) is produced and sold by nomadic Fulani, which are scattered throughout the country. FWC focuses on them to achieve its required milk supply and has planned to build 40 milk collection centers to collect their milk, which is transported to the company’s production facilities with cooling trucks. This brings the Fulani a steady direct income and it allows them as well to have an indirect income as they may save time by having to deal with just one company in one place to sell their milk.

However, only in 2014 the first milk collection center reached full capacity. Both technical (poor infrastructure, low-production of the lactating Fulani cows) and social problems are present. In particular, the vast majority of the Fulani are nomadic and very much dependent on dairy production and sales for which the women are traditionally responsible. With the introduction of Milk Collection Centers (MCCs), there is a product shift where men

become responsible for transportation and sales, which could increase women's vulnerability. Furthermore, there are already conflicting interests and at times violent conflicts regarding land and water between nomadic Fulani and sedentary Yoruba who produce crops. Therefore, one of the potential side effects of the Dairy Development Program (DDP) are the increased tensions between these two communities.

The approach used by FCW is very much production-oriented in order to have a local supply of raw milk. However, this approach does not focus on developing a possible market for the producers and it could also disrupt the local agricultural chain by draining resources such as land and water to dairy farming, making this business model unsustainable on the long term. In addition, focusing on the Fulani only as suppliers could deprive them of their consumption of dairy products and affect their health and food access.

The fact that currently only a few MCCs of the planned ones are at full capacity suggests that FCW is encountering many difficulties in implementing this strategy. According to the person interviewed from the Global Dairy Development team FC is currently working on a new proposal together with the Dutch Minister of foreign affairs, the Nigerian government, and several NGOs. This will enable FC to gain some subsidies from the Dutch government, which are an ulterior motive to develop this new proposal.

The proposal targets Fulani who want to settle down, other farmers and new people who are not necessarily farmers yet, but interested in becoming farmers. FC would create a Dairy zone where all the serviced needed are present (animal care, veterinary service, feed, access to finance etc.). This area would be appointed as agriculture-dairy farming. The pilot wants to assess how much the current nomadic culture would be affected by this new approach, which was successful in Vietnam before.

On the product development side, FC has tried for several years to develop cheaper and more affordable products for the BOP, but this is very difficult also because these products cannot be cheaper versions of FCW's leading brand Peak to avoid direct competition to their own main product brand. This and the other products present on the Nigerian market are mainly sold through retailers in the urban markets since they are also close to FCW's only factory in Lagos. Therefore the current products don't target BOP markets.

In conclusion, FC is trying to change the current strategy regarding local milk sourcing. This may enhance health and education within these farming communities as an indirect effect, without having a larger effect on BOP markets.

Further research will have to assess whether the new approach will be successful, but the difficulties encountered with the initial approach might have been caused by the fact that FCW does not develop the BOP market and subsequently the social wellbeing of the whole BOP community. This could in turn probably ease the tensions between different communities and allow FCW to build its supply more easily. In addition, developing the BOP market could also increase the demand of dairy products overall.

Table 8: outline of FCW's approach to BOP markets

Improvement of quality of life	Health	Yes
	Education	Yes
	Food	No
	Water	No
Income improvement	Direct income	Yes
	Indirect income (facilitate time savings)	Yes
Scaling up local markets	New services/products/production	No

4.6 SIEMENS' Protos plant oil stove

The project started as a social-oriented project, with the goal to provide people in developing countries with a safer and healthier alternative to cooking open fires. At a later stage of the development process stoves were produced in Indonesia in cooperation with the local Tjoko Group. This enabled the production of stoves at a much lower cost, but still far more expensive than the cookers already available.

This project was conducted by BSH, which was formed as the Bosh and Siemens home appliances group. The initiative started in 2003 with the acquisition of the patent of this new technology by BSH, and ended in 2012 probably because of the overall top-down approach as BSH developed the product to meet needs that were identified a priori. In particular, the design of this high-tech stove complied with the supplier's ideas very much focused on development goals such as heat efficiency, energy savings and so on instead of essentially focus on the BOP community's needs.

BSH targeted the people already paying for fuel as consumers since it would have been unlikely that consumers using other sources of biomass and devices already available for free would switch to a more expensive product. However, the Protos resulted too complex and expensive for this segment also. In particular, it required a longer pre-heating process compared to existing stoves and people had to learn how to maintain it properly.

Although many tests conducted with the targeted consumers, BSH may have focused too much on training and educating people to use this very new device instead of integrating other users' needs such as space heating, insect control through smoke, drying of crops among others.

Overall this cooking stove would have potentially improved health due both to its safety features which allow people to cook without danger (i.e. explosions can occur with

other artisanal cooking devices) and its better emissions. In addition, there could have been a knowledge transfer on the long term both within the local production process and the user training process.

Indirect savings could have occurred due to a lack of injuries deriving from the safety feature of this stove. However, the plant oil cooker needs regular cleaning and maintenance, more than other cookers. It also has a longer pre-heating process compared to regular stoves. These conditions may have been perceived as time losses by the users.

Table 9: outline of SIEMENS' approach to BOP markets

Improvement of quality of life	Health	Yes, potentially
	Education	Yes, potentially
	Food	no
	Water	no
Income improvement	Direct income	no
	Indirect income (facilitate time savings)	Yes, potentially
Scaling up local markets	New services/products/production	no

4.7 Grameen Danone Food Limited (GDFL)

The company was established in July 2006 as a joint venture between Danone and the Grameen Group. They both hold half of the new founded company (Humberg, 2011). GDFL aims at operating on a non-loss basis adopting a proximity business model to alleviate malnutrition and reduce poverty (Humberg, 2011) therefore focusing a priori their efforts on a specific need and community.

In particular, Danone focused on producing fortified yogurt containing 30% child's daily requirements of vitamins, iron zinc and iodine per cup to fight child malnutrition in Bangladesh (Ghalib et. al, 2009). Danone provides technical expertise in yogurt manufacturing and Grameen the local ties. Furthermore, the plant is much smaller and processes are more simplified than Danone's western plants so that it can be run by locals. The sales initially relied almost only on the Grameen ladies, who sold the fortified yoghurt in the rural market (Humberg, 2011; Robinson, 2012)

However, in 2008 the company's operating loss was of \$0.3 million (Garrette and Karnani, 2010). In 2009 GDFL was still unable to achieve break-even or to recover part of the investment (Ghalib et. al, 2009), which could have been used to scale up the company's

activities since both Danone and Grameen Group have agreed to keep all profits in the company (Ghalib et. al, 2009).

GDFL currently makes profits in wealthy urban markets that are used to subsidize the losses in rural markets where a profitable business solution still has to be found. While it provides direct income for the sales ladies, the workers in the factory and others, this has not yet resulted in a significantly improvement of these people’s standard of living. Furthermore, GDFL provides a product that could potentially bring health benefits (a study is scheduled to be published on this matter) but at an unaffordable price for the initial targeted customers in the rural BOP markets.

In conclusion, GDFL was built around the strengths of the companies involved, which tried to adapt their core business products to the BOP market instead of investigating the best possible solution to the malnutrition problem from the BOP perspective.

Table 10: outline of GDFL’s approach to BOP markets

Improvement of quality of life	Health	Unknown at this time
	Education	Yes
	Food	Yes
	Water	No
Income improvement	Direct income	Yes
	Indirect income (facilitate time savings)	No
Scaling up local markets	New services/products/production	No

4.8 Ferrero Social Enterprises (FSE)

Ferrero’s environmental and social sustainability of its own supply chain is perceived as a strategical advantage since it allows a steady supply of raw materials from the countries where these materials are available. On the other hand, the social and economic development of these areas enables these areas to grow and become possible future markets for the company’s own products, which are not primarily targeting BOP markets.

FSE was established in 2005. It aims at creating a profitable business while creating job and training opportunities for local communities with a special focus on children health care and education. At the end of August 2014, FSE’s total number of employees was 3,539, and it is currently still slightly more than 10% of the total Ferrero Group’s workforce. Furthermore, it was recently reported that “Ferrero Social Enterprises” would be renamed “Entrepreneurial Project Michele Ferrero”, which could indicate that due to the growing importance of the

business a change of focus takes place in order to integrate this project in the overall group strategy.

FSE’s three social enterprises are located in Cameroon, India and South Africa. In each location Ferrero built a manufacturing plant. These three manufacturing plants operate therefore within the social enterprises framework, and at the same time are part of the 22 Ferrero’s manufacturing plants around the world. The Social Enterprises framework creates a social fund for these particular enterprises based on the volumes produced each year by the plant. This fund is transferred to a local bank where it can be used over a three-year period to finance a specific social project which is determined together with the local authorities and the Ferrero Foundation.

Ferrero maintains control over industrial production and implements the social projects together with the local authorities without outsourcing them to local NGOs. All profits generated by the plants are invested into social initiatives as well, with a focus on children’s health and education.

The local employees benefit from a direct income as well as the education and health programs that benefit both their families and the local community. Moreover, it appears that FSE is not targeting specifically BOP local markets for the production and distribution of finite products (currently Kinder Joy and Tic Tac are the ones mainly produced) since the products produced are the same as the one produced in other parts of the world.

Table 11: outline of FSE’s approach to BOP markets

Improvement of quality of life	Health	Yes
	Education	Yes
	Food	No
	Water	No
Income improvement	Direct income	Yes
	Indirect income (facilitate time savings)	Yes
Scaling up local markets	New services/products/production	No

4.9 Cross-case analysis

The main trends that emerged from the data previously analyzed are here presented. Several characteristics present across all the case studies explored in the previous sections are highlighted in the following table and further analyzed.

Table 12: outline of the cross-case comparison

	Sourcing	Producing	Selling
DSM	No	No	Yes
HLL	No	No	Yes
Nestle	Yes	No	No
FCW	Yes	No	No
Siemens*	No	Yes	Yes
Danone	No	Yes	Yes
Ferrero	Yes	Yes	No

*It considers the timeframe related to when the project was running

First, in none of the cases, there has been an attempt to scale up BOP markets. Whether the focus was on sourcing (Nestle, FCW, and Ferrero), producing (Siemens, Danone, and Ferrero), or selling (DSM, HLL, Siemens and Danone), none of the firms tried yet to integrate their own purposes and the needs of the local community in order to develop the BOP market.

In particular, the MNCs that attempted to realize sales in the BOP context (i.e. DSM, HLL, Siemens and Danone) had a top down approach, which led to a lack of involvement and alignment with the real needs of BOP communities and resulted in a failure to enter these markets profitably. This overall underperformance resulted in Siemens' closing of the Protos cooker project, HLL shifting their business model from profit driven to a CSR initiative, and Danone changing the market focus mainly to high-end markets in order to sell its products. DSM continues to steadily supply the WFP, but this is not a business driven initiative and, accordingly, does not have the setbacks mentioned. Therefore, DSM does not try to develop BOP markets.

On the sourcing side, Nestle' is successfully sourcing milk and selling its products to local high-end markets. Ferrero is doing the same but with the difference that Ferrero appears to have an overall centralized business strategy that combines local sourcing with local production and social projects. This should assure a steady supply of raw materials and the

expansion to new markets for Ferrero in the future. On the other hand, Nestlé's strategy is more decentralized and seems to set up these activities basing the decisions on short-term financial indicators (i.e. avoiding import taxes etc.). Friesland Campina appears also to have shifted to a more structured strategy for local sourcing, which cannot yet be assessed because the implementation will start after the conclusion of this thesis project. Furthermore, FCW is still struggling to come up with a product for BOP markets, despite several years of attempts, while both Ferrero and Nestle do not appear to have any strategy in place regarding product development for BOP markets. However, when not developing strong ties to the BOP community and the community itself, structural problems could arise for these MNCs in the future resulting in supply scarcity and the inability to serve these markets.

On the production side, the only MNCs that produce refined products in the BOP context are currently Danone and Ferrero, although Ferrero does not target the BOP market and Danone has shifted the focus more on high-end markets. Ferrero and Danone both have a top down approach to enter the BOP markets. Ferrero built the same type of factories it builds in the rest of the world to produce the same products that are produced in the rest of the world. This resulted in Ferrero opening three factories and profiting by serving high-end markets. On the other hand, Danone initially wanted to sell a specific product for the BOP market and this strategy affected also the production process that had to be adapted to make the final product cheaper. However, Danone's overall lack of knowledge of the targeted BOP market due to its top-down approach lead to a wrong pricing strategy, which is fundamental in these contexts. In particular, the decision to sell the core product without thinking about the needs community (i.e. refrigerators for yoghurt storage) lead to lower profits than expected, therefore just one factory was opened. The same dynamic affected also Siemens that produced a product too expensive and not perceived by the BOP communities as needed. Different top-down strategies may have lead both Ferrero and Danone to lose some opportunities by not trying to develop BOP markets through new tailored products and Siemens to end its initiative.

No company is approaching the BOP markets in a comprehensive and collaborative way, and this lack of co-creative strategy could be one of the main causes of the lack of profits realized by the majority of the initiatives analyzed. This hinders the MNCs' development of an incremental learning trajectory reflected in the conceptual model that could enhance their understanding of these markets. In conclusion, MNCs are not following up on developing BOP markets as theoretically derived.

5. IMPLICATIONS OF THE FINDINGS

The results previously presented have several implications, which will be explored in the following subsections by further combining the experts' results with the ones derived from the cross-case analysis and with the overall developed theory. The subsections are divided in theoretical, managerial, and limitations of the results including future avenues for research.

5.1 Theoretical implications

As explained in the introduction, a theoretical model of how MNCs should enter and develop BOP markets based on different types of scientific literature has not been developed before. Rather guidelines and principles have been provided throughout the years based on empirical studies. Therefore, a new theoretical model has been developed as a blueprint for future strategies of entering and developing BOP markets. In particular, it addresses in a holistic way how companies should source, produce and sell, and how each of these steps reinforces the others.

In addition, this model was also evaluated based on existing case studies, and this is why it may provide a new tool in order to understand the current problems the MNCs are facing. In particular, the combination of theory, empirical data and experts' opinions validates the theoretical interlinkages that constitute a future strategy, which also takes into account the current business environment.

All the relations described in the model were evaluated by experts, particularly the importance for MNCs to acquire local knowledge through the interaction between MNC development facilitators and local entrepreneurs. Experts also highlighted the importance of further development aspects such as how local networks are involved, how supply chains are built through collaboration, and how the public policy dimension should be involved. Particularly, some assumptions such as tapping and enriching local existing networks or investigating local needs represent a great potential since they are based on theory, and validated by experts but not executed in practice yet. This is the theoretical contribution of this thesis. MNCs should follow an incremental exploratory bottom-up strategic approach instead of a rationalist exploitative top-down strategic approach based on their current business strategy when entering BOP markets (March, 1991; Tidd & Bessant, 2013).

5.2 Managerial implications

Managers should implement these theoretical insights contained in the theoretical model derived since it is clear from the empirical case studies and from the literature that there is a lack of standardized solutions or protocols that managers can implement to enter and develop BOP markets. Therefore, the validated assumptions provided by the model put focus on where the management should invest time and resources (strong relationships, understanding the local culture) and can be applied in many contexts since they are based on social network and innovation theories that do not depend on the specific geographical location.

In particular, the importance of an exploratory more co-creative and bottom up approach opposed to the current exploitative top down one is highlighted to enable to implement an incremental learning process, which through the involvement of local entrepreneurs would lead to a better knowledge of these contexts and in turn to lower costs and risks.

The model provides also more practical indications such as the size of the team and the characteristics that team members should have. While the concept of global teams coordinating local teams is largely applied within the analyzed initiatives, companies do not appear to have people directly interacting with the BOP community but rather through NGOs or third parties. This approach hinders knowledge spillovers from the BOP contexts. In particular, although these partnerships can be helpful, teams from the company should be fully involved in this dialog process to effectively understand local contexts.

The model proposed requires a complete change of perspective from MNCs' management, which could lead to combining exploratory and exploitative strategies within the company, but this will need both time and determination from the company to be implemented and is not unproblematic (Tushman & O'Reilly III, 1996; Tushman et. al, 2010).

5.3 Limitations of the results and future avenues for research

The results so far are however based on the interpretation of various types of qualitative data. Therefore, it is important to take into account the time and data limits to which the researcher was subject. In particular, the number of both primary and secondary sources was influenced by both the amount of time available and the communication channels accessible to the researcher.

It is also important to underline the fact that the generalizability of the result is unknown because several aspects such as the institutional context, the different types of inter-local supply chains, and the industry differences between sectors must be taken into account and assessed in further research.

Furthermore, the data gathered from the experts' interviews highlighted several elements that the theoretical model could expand on. In particular, the model could include more details on how specific relations with local networks can boost the development of BOP communities and help to solve issues of resource scarcity and steady supply on the MNCs side while avoiding to disrupt local networks and to lower food security on the BOP side. More information on both these formal and informal networks is needed.

On the implementation side, the amount of time required to translate the theoretical model into practice was highlighted as a limit. However, MNCs are currently wasting a lot of time trying to fit in these contexts. Therefore, it should be further explored if the time required to build solid, durable and constructive relationships as suggested by the model does not constitute a waste, but on the contrary brings faster and higher benefits. The shift in market development perspective that the model requires could be useful for companies also in developed markets, but new insights should be gathered on this aspect.

Further research is also needed to investigate a possible correlation between MNC ownership structure and strategy. As highlighted by one of the experts, MNCs' top management have annual bonuses and are rewarded mostly when they achieve short term profit goals. There are also other indications of the possible correlation between MNC ownership structure and strategy from the results since Ferrero appears to have a more comprehensive strategy and it is the only family owned company. Another possible indication could come from Friesland Campina, which is a cooperative. Their current change of strategy in this respect has to be analyzed in the next future years to determine this.

These short-term profit goals stimulate public owned MNCs to rely on their current business strategies and implement them in their approach of new, and thus also BOP markets.

6. CONCLUSION

To answer the research question “*What business strategy enables western multinational corporations to enter and develop profitably BOP markets in developing countries?*” a theoretical model was developed, validated and enriched through experts’ opinions and tested against several case studies.

The model tentatively answers the research question both adding to the existing scientific literature and providing more empirical insights. On the theoretical dimension, the model substantiates the positive causality between co-creation, empowerment, wellbeing enhancement and profits. This is the base of a business model, which creates inclusive growth avoiding inequality by also bridging MNCs, local BOP entrepreneurs, and local BOP communities more in general.

According to this model, the MNCs analyzed are missing out on the BOP markets since they are not acquiring new knowledge through the development of strong relationships with the local communities and entrepreneurs. This hinders the diffusion of their products and services within these growing markets.

On the implementation side, the developed model provides several new insights and a possible practical answer that should be further tested by companies to understand the full effect of the strategy proposed. The most essential aspect of the provided strategy highlights the importance for MNCs to change their current mindset and perspective to be able to learn to enter and especially develop these markets. The true treasure for MNCs lies within the knowledge that dialog and co-creation can unveil and the innovation that may spark from it. MNCs have the great opportunity to lead the way to a new inclusive approach of doing business that will assure them to survive the future.

Further empirical research and applications should build on the assumptions proposed in the model. In particular, more details are required on how local networks can collaborate with MNCs, and on how this relationship building can be time efficient, and enable the enrichment of these networks safeguarding food security and enhancing social wellbeing, which is key to profit enhancement as well. Additionally, contextual constraints should be investigated regarding the influence of policies on the current economic system, and the impact that this system has on companies.

In conclusion, the assumptions of the theoretical model are validated while the translation in practice of this approach remains to be seen, and more theoretical insights are needed regarding the policy and regulatory context in which MNCs and other actors operate.

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APPENDIX A: CASE STUDIES

DSM

DSM (Dutch State Mines) was established in 1902 (Reference for Business, 2016) and it is now a global science-based company that operates in the Health, Nutrition and Materials sectors. In particular, its divisions are Nutrition, Performance Materials, Polymer Intermediates, Innovation Center and Corporate Activities (Reuters, 2016). DSM's revenues are **9.051 m€** with a cash flow of **889 m€** (DSM report, 2013).

To generate awareness on hidden hunger and malnutrition as well as to increase engagement and enthusiasm among employees, DSM partnered up in 2007 with the World Food Program (Bahl et. al, 2015). According to Prüzner (2011), other DSM objectives were:

- To choose a CSR project aligned with the company's business activities;
- To improve in creating innovative products and strategies: tailored food solutions;
- To strengthen DSM's corporate and brand reputation;
- To develop new business opportunities.

Nutrition Improvement Program (NIP)

Overview

It started in 2007 and initially evolved around two initiatives. The first focused on making available micronutrients. DSM provided the scientific knowledge needed to develop the products and the needed financial support while WFP could provide the products where needed thanks to its large networks of food distribution in developing countries (Prüzner, 2011; Bahl et. al, 2015).

The second initiative concentrated on employee engagement, which also provided funds for WFP from many organized fund-raising initiatives (Bahl et. al, 2015). The DSM team comprehends food scientists, technologists and engineers, marketing and communications experts and public health and regulations experts (DSM report, 2012). In addition, the institutional structures are designed for a joint ownership, which strengthens the partnership between DSM and WFP.

The following figures and table are developed or directly derived from the 2012 DSM report.

Timeline & Value Flow (Money or Goods)

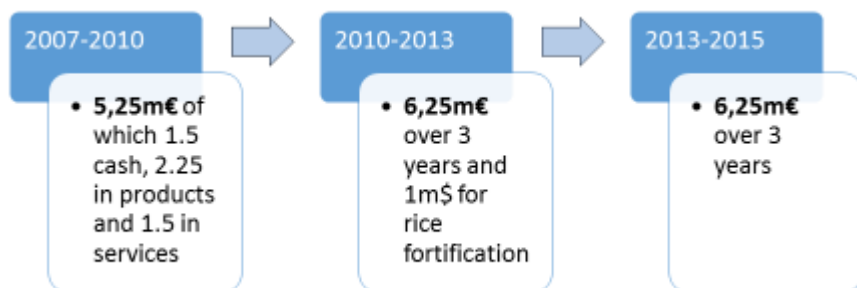


Figure 1: DSM budget over the years

In 2013, DSM received also from the Dutch Embassy in Bangladesh a US\$5 million grant for the Bangladesh rice fortification project, which developed NutriRice. This new type of rice looks like the normal rice but is more nutritious than the normal rice also after the cooking process.

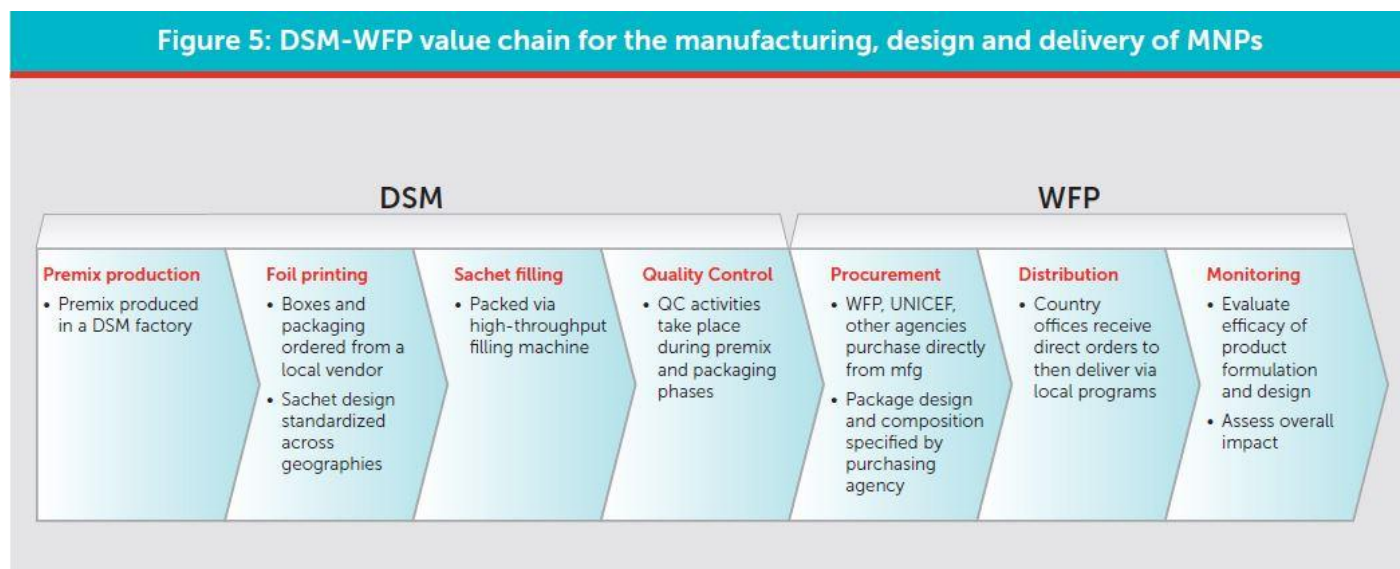


Figure 2: highlights the role division of production and delivery existing between DSM and WFP

As it is shown there is a clear role division between production (DSM) and distribution (WFP). In addition other also agencies purchase directly from DSM’s manufacturing (mfg.). Regular committee meetings between the two organizations and the volunteer programs that engage DSM employees in WFP activities assure feedback. Furthermore, WFP gathers both quantitative and qualitative data regarding the behavior of the targeted population before, during and after the delivery, thanks to its on-the-ground partnerships. These partnerships

are critical in successfully delivering the products to the targeted communities through messages that raise the awareness and therefore the demand for Micronutrients.

Local Entrepreneurship

It is not specified in detail how these three phases occur, therefore is difficult to measure precisely the impact of the program on local entrepreneurship.

SERVICES	Provided better nutrition to the local community.
PRODUCTION	Product produced in DSM factories, package ordered from local vendors
DISTRIBUTION	Includes local partnerships, but lack of details on the distribution system by country.

Conclusions

Key lessons emerging from partnership	
•	Packaging innovation to increase product uptake driven by a critical assessment of beneficiary needs.
•	Product innovation has achieved better formulation regarding certain brands and Micronutrients.
•	Successful advocacy is driven by both top-down and bottom-up approach

Table 1

Potential areas for improvement	
•	Need for investments in key metrics to measure vision of success
•	Better communication within and between the organizations.

Table 2

In conclusion, this project increased employee engagement for DSM, it did not have any financial impact for the company and it was not even the aim. It is difficult to measure the long-term and broader impact, although the number of recipients is continuously growing.

TIMELINE	Premises for targets are different from the for profit initiatives, so difficult to measure according to expectations.
VALUE FLOWS	Define very well the different and complementary roles of the two organizations, more detail would be helpful in analyzing the relations between the

	organizations and local communities.
LOCAL ENTREPRENEURSHIP	Partially considering local entrepreneurs, difficult to measure the extent of this involvement.

Possible solutions and questions for DSM according to the model under study:

- Partnership with WFP useful for the network, but bureaucracy hinders integration between end consumers and producers. Time wasted in finding and balancing right products because the production is not integrated in the communities interested in their delivery.
- DSM mindset is set on philanthropy that does not allow communities to be empowered and enhance their wellbeing on the long term.

[HINDUSTAN LEVER LIMITED \(HLL\)](#)

Hindustan Lever Limited is the Indian branch of the Anglo-Dutch multinational Unilever with annual revenues of 3.878 billion euros. Since urban markets' growth were expected to slow down in India due to rising competition, Hindustan Lever realized that rural markets could provide a new profitable source of business because their wealth remained largely untapped (Rangan and Rajan, 2005).

Project Shakti was set up to acquire more knowledge from Indian rural communities and to tap into these markets, looking also at the low-income sector, which is largely present in the rural areas (Ionescu-Somers et. al, 2002). In particular, this project targeted inaccessible markets with low-business potential, specifically 500 000 villages with a population estimated of 500 million (Rangan and Rajan, 2005).

In the last Annual Report 2014-2015 of the company the project is presented in the **CSR section** as an initiative aimed to empower rural women financially by providing regular incomes for them as Shakti entrepreneurs, and their families. In the report, any reference to the goal of selling additional HLL products in unreached rural markets and to the numbers regarding this economic aspect is lacking.

Project Shakti

Overview

The pilot project was launched in 2000 (Schuster and Holtbrügge, 2012). HLL's team collaborated with already existing self-help groups (SHGs), which are formed by ten to fifteen women of a particular village on the model of the Bangladeshi Grameen Bank. These groups have usually access to microcredit through "groups" savings (Ionescu-Somers et. al, 2002).

Therefore, HLL would help these groups to gain access to micro-credit in order to buy HLL products and sell them in their villages (Ionescu-Somers et. al, 2002).

In particular, HLL partnered with three federations of SHGs. These federations would buy HLL products and sell them to their constituents that in turn would sell them to others in their villages (Rangan and Rajan, 2005). This initial model succeeded in accessing untapped markets but the revenues generated were very small.

According to Rangan and Rajan (2005), the business model was modified not long after the launch of the project so that the entrepreneur is a person chosen from the SHGs and not an entire organization like in the previous business model. This change gave more responsibility and motivation to the individual entrepreneurs.

These Shakti entrepreneurs would borrow the money, buy the HLL products and sell them directly both to customers and local retailers. Therefore, HLL had to help the women selected as entrepreneurs to create and manage a viable business. HLL outsourced this task to rural sales promoters (RSPs) to keep costs low. In addition, in order to implement the project the HLL team partnered with a marketing and research team (MART). The project broke even in 2004.

However, it was very difficult to scale up the project due to the increasing costs especially of human resources needed to manage the number of entrepreneurs involved in the program.

Other major barriers for scaling up are, according to Rangan and Rajan (2005):

- Degree of endorsement from the government -> much easier to launch the initiative in those states where the government approves the project;
- Cultural issues like the status of women in rural societies (in some states women cannot go outside their houses by themselves) and the language barriers often in the same state;
- Required presence of the SHG movement in the targeted location ;
- Lack of infrastructure.

The **goal was to reach 100,000** entrepreneurs **by 2010**, but in **2014** only **70,000** entrepreneurs have been reached plus 48 000 Shaktimaans, who are brothers or husbands of the Shakti entrepreneurs helping them to sell products in nearby villages by covering larger distances since they are provided with a bike (Enhancing livelihoods through Project Shakti, 2016; Annual Reports, 2016).

Since the annual report **2014-2015**, this project is presented as a social initiative and a CSR project rather than a strategic-economic one. In addition the **budget** invested in the program is around **60 000€**, according to the annual report.

Furthermore, according to Karnani (2006), Annapurma salt and the low quality detergent Wheel are among the products sold within the Shakti project, which do not support the genuine BOP proposition, which includes the principle that private companies can benefit the poor by selling to them and so help to eradicate poverty for several reasons:

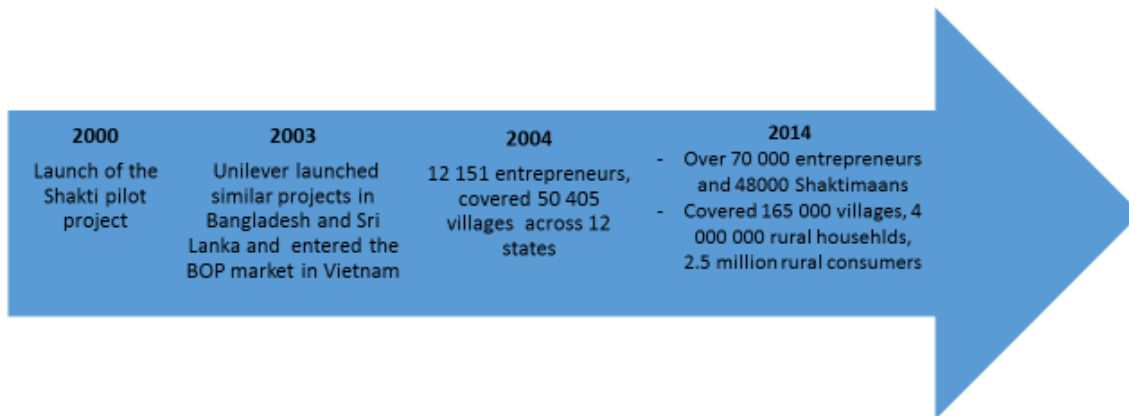
- Often the package cost per unit is higher for small packages and the sachets with detergent or shampoo lead to wastage since the consumer has to use a fixed amount each time. Related to the packaging there is also an environmental problem as the sachets are sold in areas without a proper waste disposal system in place.
- Providing credit does not change a products' affordability;

Possible solutions should tackle the fact that it is essential to raise the real incomes of the poor by lowering prices or rising the income earned by them. Essentially companies should also buy from the poor and not just sell to them, therefore striving towards a production-oriented business model.

In conclusion, it is argued by Perrot (2010) that this project aims at capturing an existing demand, but it should also consider to outsource the manufacturing locally in order to raise women's incomes, on which the project currently has limited influence. This would reduce also costs of recruitment for HLL.

Timeline

Although the annual number of new entrepreneurs increased over time, the project did not realize the expected goals regarding profits. Probably for this reason, it is now presented as a CSR initiative aimed at financial empowering women in rural communities through micro-enterprise opportunities as explained in detail in the previous overview of the project (Annual Report, 2014/2015).

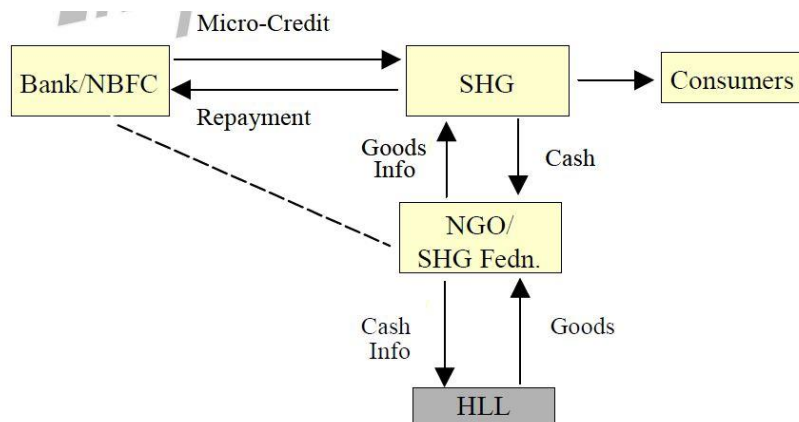


Source: Annual Report, 2014/2015; Rangan and Rajan, 2005

Value Flows (Money or Goods)

In the following figure, it is possible to visualize the incentive scheme of the Sakshi Project. The Sakshi entrepreneurs borrow money from their respective SHGs and gain access to microcredit with the help of HLL. With this money, they purchase HLL products at a

discounted price. They then sell the products to consumers (direct costumers and retailers). The money obtained from the sales form their income, although they initially also have to repay the loans.



Source: Ionescu-Somers et. al, 2002

Local entrepreneurship

To address a BOP market a MNC needs to bring earnings to the BOP community to enhance social wellbeing and therefore to empower local entrepreneurship. This can be done through services, production or distribution, which enhance directly social wellbeing through an inclusive economic growth or indirectly through saving time or facilitating determinate activities for the community.

According to Karnani (2006), HLL products are not cheaper and the poor would be better off continuing to buy soap instead of branded shampoo or detergents such as Nirma instead of Wheel. Furthermore, some products in the HLL portfolio such as the Fair and Lovely whitening cream are not meant to benefit the poor, but just to gain profits taking advantage of existing prejudices.

According to my model, companies should look first if there are existing products, distribution channels and overall existing local supply chains in order to not disrupt existing commercial relations within the community. It is not clear if HLL conducted this sort of analysis or if with this project is affecting negatively the local economy.

One certain outcome is that HLL is not gaining significant profits. In addition, while a part of the BOP segment (Shakti entrepreneurs and relatives) may gain a better income on the short-term, there is no data available on possible negative impacts on the overall community and no long-term project aimed at empowering the whole community through a production-oriented business model for example.

SERVICES	HLL enhances the access to microcredit for a certain segment of the
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	community (women within SHG organizations) to buy HLL products.
PRODUCTION	HLL does not develop or produce products in BOP rural communities.
DISTRIBUTION	The distribution of HLL products brings little income to the sellers (Sakshi entrepreneurs), but approaches the rest of the BOP community as just consumers, without enhancing the social wellbeing on the long term.

→ The Shakti project it may address BOP markets **on the short term**, to be sure extra analysis is needed on the possible downsides created.

Conclusions

→ In conclusion, **the Shakti Project it is not accessing the BOP rural markets with a long term perspective because:**

- It does not create products or services derived from the local needs, but it just tries to sell **existing products** to more people.
- This is outlined by the fact that there is **only distribution, no production or services focused on the BOP community. There is a lack of research from HLL on the existence of current products and of attempts to make products locally).**
- One-way implementation, lack of collaboration with the community, too much focus on MNC portfolio and too little focus on the BOP's customers' needs.

→ In particular:

TIMELINE	Targets not reached.
VALUE FLOWS	Consumption-driven, not sustainable on the long term.
LOCAL ENTREPRENEURSHIP	Not enhancing community wellbeing overall, no co-creation or feedback moments.

NESTLE

Nestle is a global multinational that produces and sells a wide range of food products (Bloomberg Business, 2016). The total sales of the year 2014 accounted for 91 612 mCHF (82 474 m€) (Nestlé Report, 2014) and the revenues were around 100 billion U.S dollars (Statista, 2015).

Nestlé sources agricultural raw material from millions of farmers around the world. Therefore, these farmers and their rural communities are very important for Nestlé's business. Furthermore, the ageing of the farmer population and the fact that many people are moving to urban areas is a big issue for the company. Therefore, The Nestlé Rural Development Framework was developed to identify the needs of the farmers and the farming communities so to target better the investments (Nestlé in society, 2014).

Here the focus will be on the dairy farmers, since in terms of value Nestlé is the world's largest milk company, which sources more than 12 million tons of fresh milk equivalents from more than 30 countries per year and works with more than 600 000 farmers who mostly operate small farms (Nestlé: working with dairy farmers, 2016). According to Christiansen (2008), the small-scale producers (<50 liters per day) provided 33% of Nestlé's fresh milk supply per year while large scale producers (>4000 liters per day) contributed less than 15%.

Milk Districts

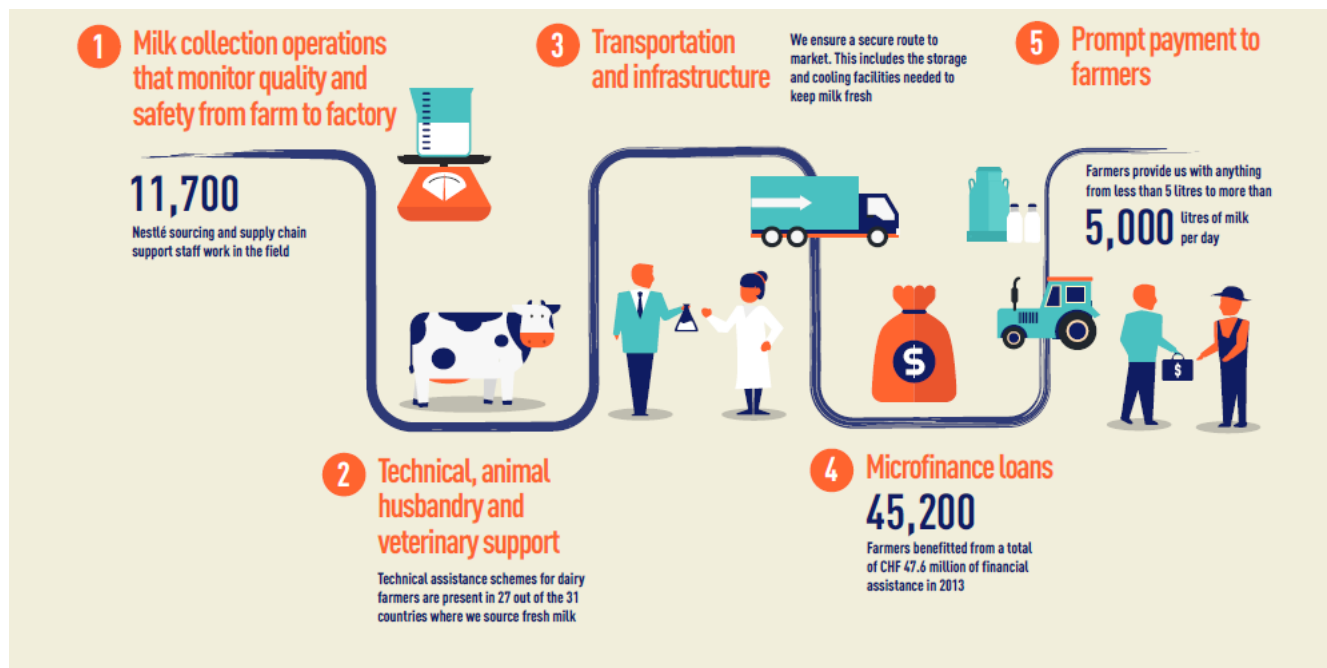
Value Flows and Overview

The strategy behind this approach aims at establishing local sourcing of raw materials like milk for production centers in developing countries. In particular, Nestlé built a decentralized network of "cooling centers" to solve the problem of insufficient infrastructure that is often present in these environments (Gold et. al, 2013).

Furthermore, the Nestlé Milk District Model involves:

- Milk collection centers featuring payment systems, quality and safety controls, electronic weighing equipment and cooling tanks;
- Free technical and animal husbandry support to improve milk quality;
- Free veterinary services;
- Transportations and infrastructure networks (as mentioned above);
- USD 25 million of microfinance loans each year;
- Prompt payment to farmers for each milk delivery (Nestlé: working with dairy farmers, 2016).

In the following figure retrieved from Nestlé's website all the above elements are shown together.



In the following table are listed some examples regarding different countries retrieved from Nestlé’s website.

CHINA	COLOMBIA	INDIA	INDONESIA	PAKISTAN
<ul style="list-style-type: none"> • Almost 24 000 farmers in Heilongjiang, north-east China, deliver their fresh milk to 78 milk collection centers. • Nestlé invests nearly USD 200 million a year into the local economy through milk payments, taxes, services and salaries. 	<ul style="list-style-type: none"> • Two milk districts produce 226 000 tonnes a year. • Pay around USD 5 million a month to 4 000 local dairy farmers, and a further 10 000 people in the region work in the milk supply chain as milkers, rural workers, transporters and traders. 	<ul style="list-style-type: none"> • Since 1959 the supplier base has grown from 4 600 farmers providing 2000 tonnes of milk to 100 000 farmers in 2600 villages producing more than 300 000 tonnes. • The Moga factory has also helped: <ul style="list-style-type: none"> - Set up drinking water facilities in 91 schools benefiting more than 33 000 students. - Introduce local tree-planting programmes. - Fund a tuberculosis clinic. • Field camps run by Nestlé Agricultural Services have helped many farmers improve their farming practices and milk quality. Separately, the Village Women Development Programme has trained 30 000 women dairy farmers 	<ul style="list-style-type: none"> • Located in Waru, East Java, the Nestlé factory started purchasing milk from local cooperatives in May 1975. Today, Nestlé Indonesia sources 480 tonnes of fresh milk every day (141 000 tonnes a year) from 27 local cooperatives 	<ul style="list-style-type: none"> • Nestlé invests more than USD 180 million a year in milk sourcing in Pakistan, and USD 3 million in milk-related operations, agricultural and technical support, and training for farmers. • Through milk delivery points in 2 000 villages, more than 135 000 dairy farmers supply close to half a million tonnes of milk a year to two Nestlé factories. A partnership with the United Nations Development Programme is also training 4 000 female livestock workers.

As we can see from this table, the majority of the farmers are in India and Pakistan (although for Indonesia this number was not reported). This is not surprising considering the large population and the fact that milk is a much-embedded product.

The low number of Chinese dairy farmers could have been influenced by the fact that in 2008 Nestlé was one of the companies involved in the melamine adulteration scandal where companies were adding melamine to increase the proteins reading of their milk (Jia et. al, 2012).

Timeline

As shown in the following timeline, Nestle has an extensive experience in building local supply chains in very different countries and in working directly with farmers. In the last two decades Nestle has focused quite exclusively on developing countries and the investments made indicate that this trend will likely continue in the future.

Date	Location
1860	Switzerland: Cham, Vevey
1872	Switzerland: Fribourg, St. Gallen
1872	Chippenham, England
1882	Middletown, New York
1882	Dixon, Illinois
1895	Hamar, Norway
1900	Fulton, New York
1901	Hegge, Germany
1903–04	Staverton, United Kingdom
1903–04	Neuenegg, Switzerland
1905	La Penilla, Spain
1906	Queensland, Australia
1910	Dennington, Victoria, Australia
1912	Rotterdam, The Netherlands
1913	Ashbourne, United Kingdom
1920	Araras, Brazil
1925	Lisieux, France
1925-1930	South Africa
1927	Boue, France
1930s	Jamaica
1930s	Panama
1934	Graneros, Chile
1934	Magdalena, Argentina
1935	Octolan, Mexico
1940–45	Venezuela
1940–45	Cajamarca, Peru
1944	Columbia
1946	Bugalagrande, Columbia
1961	Moga, India
1970	Chiapas, Mexico
1978	Caqueta, Columbia
1982	Sri Lanka
1986	East Java, Indonesia
1988	Punjab, Pakistan
1990	Heilongjiang, China
1991	Thailand
1993	El Jadida, Morocco
1995	Quingdao, China
2001	Namangan, Uzbekistan
2004	Heilar, Inner Mongolia, China

Source: Casewriter research; company documents.

Source: (Goldberg et. al, 2007)

Local entrepreneurship

The Milk District model enables farmers to have a steady income and to have access to various services (listed in the overview) aimed at enhancing milk quality.

SERVICES	Collection centers and quality/control related.
PRODUCTION	Enhancement of the local production of milk.
DISTRIBUTION	Through the provided infrastructure the above mentioned services are deployed in remote rural areas.

Conclusions

In conclusion, the approach used by Nestlé is producer-oriented. In particular, at Moga (India) Nestlé entered a partnership with local BOP communities. This allowed BOP producers to acquire from the Nestlé personnel new skills enhance productivity and secure a better living standard (Ramachandran et. al, 2012). In particular, access to healthier dairy products increased wellness in these districts (Christiansen, 2008).

TIMELINE	Shows the long-term commitment of Nestle and the replicability of this business model.
VALUE FLOWS	Supplier oriented: Nestle acquires raw materials through this business model, without further involvement in possible more refined secondary products.
LOCAL ENTREPRENEURSHIP	Farmers already present are provided with a steady income plus jobs are created within Nestle since staff is needed for the collection centers and the other parts of the supply chain just created.

Possible solutions and questions for Nestlé according to the model under study:

- More details about the identification of farmers, communication between firm and communities;
- Environmental bottlenecks such as water scarcity in many regions could affect this business model.

FRIESLAND CAMPINA

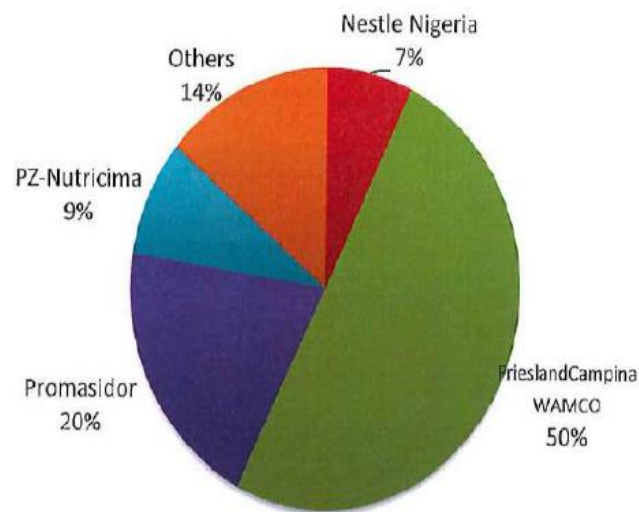
Friesland Campina has an annual revenue of 11.3 billion euros and it is one of the world's largest dairy companies (Friesland Campina, 2016). An important part of Friesland Campina's operations are located in South-east Asia and Africa. Therefore, it is important for the company that a portion of raw material are purchased locally to improve the future economic perspective of the farming profession. Furthermore, there is a need to get interested young people to this profession in order to tackle the rapid aging issue of the global farming community (Royal FrieslandCampina, 2014). The Dairy Development program in Nigeria was established through partnerships with both government and various other organizations.

Dairy Development Program (DDP) in Nigeria

Overview

Nigeria's economy is quickly growing (Arla, 2015) and Friesland Campina WAMCO Nigeria Ltd (FCW) is the biggest player as it is the largest importer, producer and processor of dairy products in the Nigeria Milk Market (Köster & Wolff, 2012) as shown in the following figure.

Figure 14: Market Share of Key Players in the Milk Market 2013



Source: Financial Statements of Industry Operators and Agosto & Co Research

Source: Arla, 2015

However, FCW produces its products mostly with imported milk powder as the local dairy sector is not able to meet the raising demand due to a wide range of structural barriers and therefore cannot compete with imported milk powder (Arla, 2015; 2SCALE, 2015).

FCW aims at locally source 10% of its required raw milk equivalent to 60 million liters by 2016. This would allow the company to have better relationships with local parties, to reduce costs and to develop new products for the local markets (Danse, 2014). On the other hand, the DDP enables local dairy farms to raise the quality and quantity of their dairy income while having a steady income (Royal FrieslandCampina, 2014).

According to Köster and his colleagues (2012), the target set by the company it is very difficult to reach. Although the actual local Nigerian production is estimated to be around 350 million liters per year, more than 80% of this milk production is produced and sold as yoghurt mostly through informal channels by nomadic Fulani, scattered throughout the country (Köster et. al, 2012; Arla, 2015). FWC focuses on this group of producers to source the milk from and has planned to build 40 milk collection centers (Köster et. al, 2012).

Besides the technical problems regarding among others infrastructure and low-production of the lactating Fulani cows, there are also social ones. In particular, the vast majority of the Fulani are nomadic and very much dependent on dairy production and sales where the women are traditionally responsible (Arla, 2015). With the introduction of Milk Collection Centers (MCCs), there is a product shift where men become responsible for transportation and sales, which could increase women’s vulnerability (Arla, 2015).

Furthermore, there are already conflicting interests and at times violent conflicts regarding land and water between the Fulani and the Yoruba which produce crops (Köster et. al, 2012; Arla, 2015). Therefore, one of the potential side effects of the DDP could be the increased tensions between these communities (Köster et. al, 2012).

Timeline

2011	Signed a memorandum of understanding regarding the Dairy Development Program (DDP) by the Nigerian Federal Government and FCW (Köster et. al, 2012).
2012	Launch of the 2SCALE program that in this case helps the company to source milk locally by using its community mobilization skills. In particular, it helps the Fulani to produce milk on a commercial scale to sell it to FCW (2SCALE, 2015).
2013 and 2014	FrieslandCampina invested in the creation and awareness of the DDP among possible farmers plus in the improvement of 2 milk collection centers (Royal FrieslandCampina, 2014).
2014	<ul style="list-style-type: none"> ➤ Introduced Incentive Based Payment System, which rewards farmers for performing better according to FAO’s Good Dairy Practices. In particular, FrieslandCampina pays an additional supplement for better quality milk besides the local price (Royal FrieslandCampina, 2014). ➤ The first milk collection center of FCW reached full capacity

	with two tanks of 2000 liters each of Fulani milk filled every day (BoP Innovation Center, 2014)
2015	DDP will focus more on the Nigeria program specifically with additional training and with the further development of milk collection center (Royal FrieslandCampina, 2014).
2016	Target year by which FCW aims at locally sourcing 10% equivalent to 60 million liters per year of the raw milk required at prices comparable to the world's market ones (Köster et. al, 2012).

Value Flows (Money or Goods)

FrieslandCampina provides the MCCs where the dairy farmers can bring their milk, which is then transported to the company's facilities with cooling trucks (Arla, 2015). The farmers are provided with a secure and steady income, and the company a local supply.

Furthermore, through 2SCALE program, several partnerships were built with:

- Existing dairy cooperatives;
- Veterinary service providers;
- Government livestock experts;
- Extension agents;
- Local NGOs (2SCALE, 2015).

Local entrepreneurship

SERVICES	Provided know-how on how to enhance the quantity and quality of the production.
PRODUCTION	Encouraged the production of raw milk to supply FCW.
DISTRIBUTION	Farmers can bring their milk to the MCCs where trucks provided with cooling systems will transport it to the company's facilities.

Conclusions

In conclusion, the approach used by FCW is very much production-oriented in order to have a local supply of raw milk since the demand for dairy products in the Nigerian market is increasing while the supply relies almost entirely on foreign import of powder milk.

TIMELINE	Due to problems of different nature, the target set
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	by FCW will unlikely be met.
VALUE FLOWS	This production oriented approach will increase the farmers' income, but it won't really develop the BOP market.
LOCAL ENTREPRENEURSHIP	While dairy farmers will increase their earning, crop farmers could be negatively impacted due to the scarcity of resources such as water or appropriate land.

SIEMENS

Siemens is a global conglomerate focusing on the areas of electrification, automation and digitalization. In 2015 fiscal year Siemens' revenues have been around €75.6 billion (Siemens AG website, 2016).

Protos: the plant oil stove

This project was conducted by BSH, which was formed as the Bosh and Siemens home appliances group. The project was concluded in 2012. Currently the blueprints of this technology are openly available on BSH's website to any interested parties. On 22nd September 2014 Bosh acquired the Siemens part.

Overview (Sources: Protos-the plant oil stove report & website)

The project started as a social-oriented project, with the goal to provide people in developing countries with a safer and healthier alternative to cooking open fires (BSH website). At the later stage of the development process stoves were produced in Indonesia in cooperation with the local Tjoko Group. This enabled to produce the stoves at a much lower cost.

The following barriers hindered the technology to reaching enough users to make it a long-term contribution by improving their living conditions.

- Difficult trade-off between the high quality, the safety, the user-friendly attribution required and the price needed to make the product affordable for the people in developing countries.
- Technical complexity of the device due to the physical properties of the plant oil, which result in a longer pre-heating process for the plant stove compared to conventional stoves burning fossil fuel.

- Plant oil cookers require also regular cleaning because plant oil leaves residue in the burner when it evaporates. Therefore, more time and effort on the users' side than stoves burning fuel such as kerosene.
- People have to be taught how to use the device simply and safety. They also have to acquire knowledge on how to conduct proper maintenance and handling.

Already in 2010 Boerstler and Schoop identified the above mentioned barriers within the African context. In addition, they highlighted the lack of social acceptance due to the cooker's price, design and operation. Their argumentations are presented in detail in the following table.

PRICE	<ul style="list-style-type: none"> ➤ Even if reduced to 22€ still by <u>far more expensive</u> than 8\$, which is the price of the more expensive cooker available in Kenya. ➤ Would <u>need to be subsidized</u> by donor money to enable a wider distribution. ➤ The fact that is only produced in Indonesia and has to be <u>imported</u> from there could <u>higher the costs</u> due to transportation for example.
DESIGN	<ul style="list-style-type: none"> ➤ It <u>unique and foreign</u> to rural areas in developing countries. ➤ The <u>rather complex use</u> of the stove might make it difficult to handle.
OPERATION	<ul style="list-style-type: none"> ➤ It <u>needs sufficient oil levels</u> to operate properly. ➤ It must be cleaned after each usage leading to higher complexity due to a necessary <u>constant maintenance and attendance</u>.

Timeline

2003	Acquisition of the patent of this new technology.
2004	Field test on the island of Leyte (Philippines) where more than 100 families and restaurants successfully tested the cooker.
From 2005 to 2008	BSH tested the cooker on the African and Asian continents.
2006	The product was publicly launched (Shiroff, 2009).

2009	The second generation of Protos was introduced to the public.
May 2010	<ul style="list-style-type: none"> The Tjokro Group started the serial production of the Protos in Jakarta while at the same time BSH signed contracts with several plant oil producers in Indonesia. Sales figures have increased continuously since 2010
2012	The project was terminated due to complex technical and operational factors plus difficulties in the supply of sustainable cultivated plant oil.

Sources: *Protos-the plant oil stone report & website*

Value Flows (Money or Goods)

In the following figure the targeted users of Protos are shown.

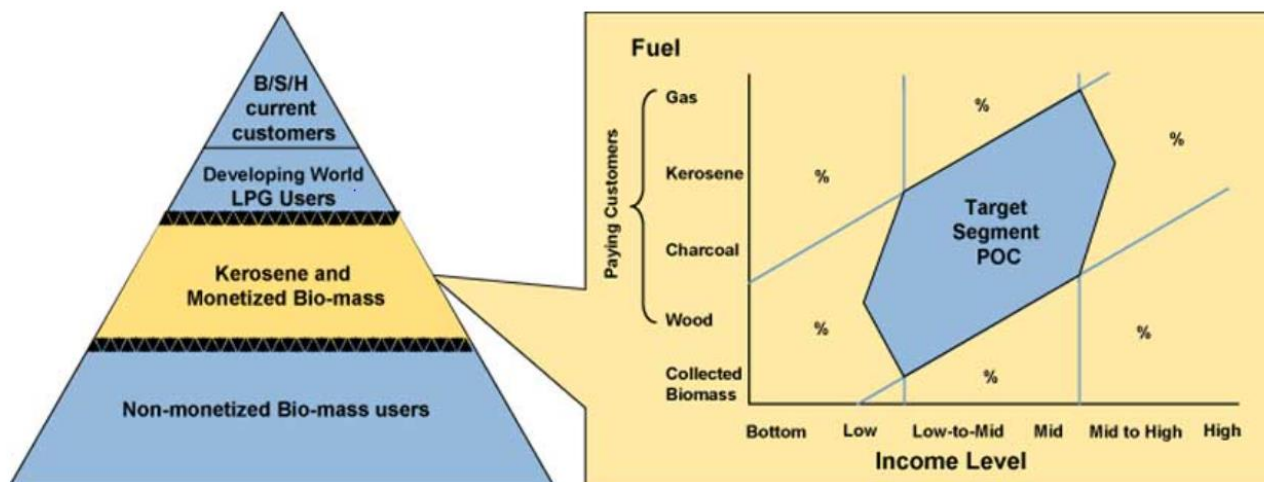


Figure 3: Cooking fuel pyramid - Who and where are the users?

Source: *Shioff, 2009*

The targeted consumers are the ones already paying for fuel since it is unlikely that consumers who use other sources of biomass and linked devices available for free would switch to a more expensive product (Boerstler and Schoop, 2010).

Local entrepreneurship

Local jobs would have been provided through the local partnership with the Tjoko Group in Indonesia.

SERVICES	Safer cooking.
PRODUCTION	Located in one of the targeted markets in cooperation with a local firm.
DISTRIBUTION	There was no reliable network distribution for the oil plus difficult to sell for the all above mentioned barriers.

Conclusions

In conclusion, as the project leader for the market introduction Shiroff (2009) argued, Protos is comparable to when the cars were introduced for the first time. Users need to be trained because there is not yet common knowledge on how to operate them and no experience. In addition, BSH had already understood that only people already paying for fuel would have switched to this device as long as other biomass sources and related devices are still freely available (Boerstler and Schoop, 2010).

As Boerstler and Schoop (2010) highlight, the main problem could have been that the design of this high-tech stove complied mainly with the supplier's ideas very much focused on development goals such as heat efficiency, energy savings and so on. Although the many tests conducted with the targeted consumers, BSH may have focused too much on training and educating people to use this very new device instead of integrating more the users' needs such as space heating, insect control through smoke, drying of crops and so on with the technical and environmental challenges.

TIMELINE	BSH devoted more time in solving technical problems and explaining the final product to consumers instead of first really understanding consumers 'needs and expectations.
VALUE FLOWS	Consumer-driven, BSH aimed at selling many cheap products to these markets.
LOCAL ENTREPRENEURSHIP	Probably in Indonesia, where the production was installed. Not enough information on the distribution system.

DANONE

Danone is a French Multinational that operates in 140 countries with a €21 billion turnover as in 2014 (Danone, 2014). Its core business is represented by the fresh dairy products (52% turnover). The other three divisions are early life nutrition (21% turnover), waters (20% turnover) and medical nutrition (7% turnover) (Danone, 2014). Furthermore, 60% of its turnover was made outside Europe of this, 38% was made in Asia Pacific, Latin America, Middle East and Africa (Danone, 2014).

Therefore, Danone has increased its presence in Emerging Markets in the past years with 51% of the sales coming from emerging countries (Rodrigues and Baker, 2012; Robinson, 2012).

Grameen Danone Food Limited (GDFL)

Overview

The company was established in July 2006 as a joint venture between Danone and the Grameen Group. They both hold half of the new founded company (Humberg, 2011). GDFL aims at operating on a non-loss basis adopting a proximity business model to alleviate malnutrition and reduce poverty (Humberg, 2011).

In particular, Danone focused on producing fortified yogurt containing 30% child's daily requirements of vitamins, iron zinc and iodine per cup to fight child malnutrition in Bangladesh (Ghalib et. al, 2009). Danone provides technical expertise in yogurt manufacturing and Grameen the local ties. Furthermore, the plant is much smaller and processes are more simplified than Danone's western plants so that it can be run by locals. The sales initially relied almost only on the Grameen ladies that would sell in the rural market (Humberg, 2011; Robinson, 2012)

However, in 2008 the company's operating loss was of \$ 0.3 million (Garrette and Karnani, 2010). In 2009 GDFL was still unable to break-even or to recover part of the investment (Ghalib et. al, 2009), that could be used to scale up the company's activities since both Danone and Grameen Group have agreed to keep all profits in the company (Ghalib et. al, 2009).

Timeline

2006	<ul style="list-style-type: none">➤ GDFL was established (Humberg, 2011).➤ Initial idea was to create around 50 factories in Bangladesh to provide healthy dairy products by 2020 (Rodrigues and Baker, 2012).
-------------	---

2007	<ul style="list-style-type: none"> ➤ Plant built in Bogra started to operate (Ghalib et. al, 2009). ➤ Launched 1st product, Shokti doi: one flavor in a sized cup at 5 taka (0.07 USD) for 8 gram container (Ghalib et. al, 2009). ➤ A full time Managing Director joined the company (Humberg, 2011). ➤ Operating losses were US\$ 223 896 (Humberg, 2011). ➤ Danone launched Danone Communities. This mutual fund is the one that invests in expanding GDFL and supports other Danone's social initiatives (Humberg, 2011).
2008	<ul style="list-style-type: none"> ➤ GDFL raised Shokti's price due to the doubling of the milk prices in Bangladesh (GDFL did not have a steady milk supply at the time). <ul style="list-style-type: none"> ▪ This lead to sales dropping, which in turn resulted in many sales ladies quitting (Robinson, 2012). ➤ GDFL started to sell also to wealthier urban consumers due to the great losses in the BOP markets (Robinson, 2012). ➤ Danone started to provide direct management to support the day-to-day business (Humberg, 2011). ➤ Operating losses were US\$ 311 270 (Humberg, 2011).
2009	<ul style="list-style-type: none"> ➤ GDFL begun to create a milk supply chain based on micro-farmers that would sell their milk for a fixed price (Humberg, 2011). ➤ Operating losses were US\$ 443 696, but monthly sales started growing (Humberg, 2011).
2010	<ul style="list-style-type: none"> ➤ 80% of GDFL's sales came from urban markets (Robinson, 2012) and outside Bogra's district (Humberg, 2011). ➤ GDFL's milk supply chain comprised of 280 micro farmers and 2 collection points. In addition, the initiative has reached 821 sales ladies (including 256 ladies in CARE's Rural Sales Program) all over the country, and the number of permanent jobs is 144 (including Dhaka headquarters staff) (Humberg, 2011).

	<ul style="list-style-type: none"> ➤ Positive sales growth continues alongside with GDFL almost meeting all operational costs and generating a surplus to cover fixed costs (Humberg, 2011).
2011	<ul style="list-style-type: none"> ➤ The investments made by Grameen and Danone Communities are so far around 175 million Taka (i.e., more than US\$ 2.3 million) plus the resources invested in R&D or direct subsidies which amount to almost US\$ 2.7 million (Humberg, 2011). ➤ GDFL's management expects to break even in 2012 or 2013 (Humberg, 2011).







Value Flows (Money or Goods)

The following table gives displays the price changes and markets' targeted throughout the years.

YEAR	PRODUCT	PRICE
<u>2007</u>	Shokti doi (or Shokti +)	5 (US\$0.07) take for 80 gram.
<u>2008</u>	Shokti +	- 8 taka for 80 gram - 6 taka for 60 gram
<u>2008-2009</u>	Shokti + (sales volume up by 550% with urban expansion)	12 taka for 80 gram in urban areas
<u>2010</u>	- Shokti Pocket - Shokti +	- Sachet type 5 taka for 40 gram. - 7 taka for 60 gram

Sources: (Ghalib et. al, 2009; Humberg, 2011).

The current portfolio is shown in the following picture.

Products						
Description	Plain 60 gram	Mango 60 gram	Plain 60 gram with extra Protein	Plain 80 gram	Mango 80 gram	Pouch 40 gram
Price (in taka)	6	8	8	12	12	5
Distribution Area	Villages and NGOs in Rajshahi and Rangpur	Villages in Rajshahi	Dhaka and Chittagong	Dhaka, Chittagong and Sylhet	Dhaka Chittagong and Sylhet	Rajshahi and Rangpur

Source: (Rodrigues and Baker, 2012).

The new product in pouch has a longer shelf life and it is made for the BOP rural markets, where GDFL has so far a low enter rate. In particular, in Bogra District GDFL has an entrance rate lower than 1% and in small villages (average population 1000 to 2000) less than 2% considering the children that consume the product once or twice a week (Humberg, 2011).

In addition, it is important to highlight that different markets have different distribution channels and types of advertisement. For example, in rural markets there is direct marketing through rural mini events, while GDFL creates also brand awareness with TV-adds for the wealthy customers. In the rural markets sales are done mainly through the sales women while in urban areas through shops (Humberg, 2011).

Local entrepreneurship

SERVICES	- Products that if consumed frequently should improve kids' nutrition condition.
PRODUCTION	- Local plant in Bogra that provides work a total of 70 local people (Humberg, 2011).
DISTRIBUTION	- Income generated for the sales lady network and the urban local shops.

Conclusions

TIMELINE	Difficult to reach their initial goal and results show that wrong assumptions were made in
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	the initial planning.
VALUE FLOWS	GDFL currently makes profits in urban wealthy markets that uses to subsidize the losses in rural markets where a business solutions is yet to be found.
LOCAL ENTREPRENEURSHIP	GDFL provides income to local sales women and workers, it remains to be seen if this will bring to an enhancement of overall wellbeing in the future.

In conclusion these are the main factors that hindered the products to reach their initial targeted consumers:

- Price: 6 Taka is still too expensive for rural poor, which prioritize the purchase of rice, vegetables etc.... (Humberg, 2011).
- Both socio cultural barriers and working conditions (walk several Km per day, carrying 5 kg bags, bargaining with consumers) lead to a slow progress in full time sales women prior to the sales force extension through CARE partnership and the new income did not really change their standard of living (Humberg, 2011).
- Few stores in the villages have fridges and yogurt requires proper storage (Humberg, 2011; Bapat, 2011).
- The number of local employees is small, and the low wages do not impact on poverty reduction (Humberg, 2011) and therefore hinder the creation of a higher demand within the BOP community.
- GDFL was built around the strengths of the companies involved, they tried to adapt their core business products to the BOP market instead of investigating the best possible solution to the malnutrition problem from the BOP perspective (Garrette and Karnani, 2010; Bapat, 2011).

FERRERO

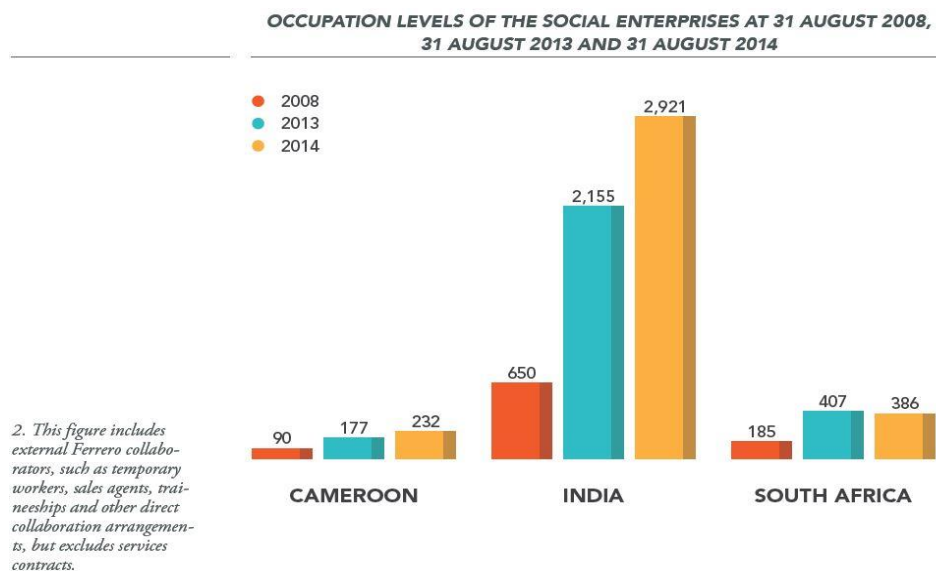
The Ferrero Group is a family-owned business company established in Alba, Italy in 1946 (The Diplomatic Society, 2012). It is currently one of the top five largest companies in the confectionary sector (The Diplomatic Society, 2012; Statista, 2016) with a turnover of 9.5 billion euros, 33,219 employees and 22 manufacturing plants worldwide (Ferrero, 2016). Its turnover has increased by 13.5% compared with 2014 because of the company's activities in recent years in the development of new markets in Asia and the Middle East among others (Ferrero, 2016).

Ferrero Social Enterprises (FSE)

Overview

FSE was established in 2005, it aims at realizing profits while creating job and training opportunities for the local communities with a special focus on children health care and education (The Diplomatic Society, 2012, Ferrero, 2015). As of the end of August 2014 FSE's total number of employees was 3,539, currently is slightly more than 10% of the total Ferrero Group's workforce (Ferrero, 2015). It was recently reported that Ferrero Social Enterprises would be transformed in Entrepreneurial project Michele Ferrero (Pozzetti, 2016), which could mean that a growing importance of the business focus of the overall strategy.

In particular the three social enterprises are located in Cameroon, India and South Africa. In the financial year 2012/2013 two new plants in Mexico and Turkey should follow (Ferrero, 2015). Each one involves one of the 22 manufacturing plants, these three manufacturing plants operate therefore within the social enterprises framework (Ferrero, 2015; 2016). In the following figure the workforce trends in the three FSE are displayed.



Source: Ferrero, 2015

Ferrero maintains the control over the industrial production and implements the social projects alongside the local authorities without outsourcing them to local NGOs (Buratti & Vai, 2014).

Timeline

<u>Year</u>	<u>Business Activity</u>	<u>Social Activity</u>
2005	<ul style="list-style-type: none"> ➤ FSE are established 	
2006	<ul style="list-style-type: none"> ➤ FSE is established in Cameroon. Both the production facility and the headquarters are located in the capital city Yaoundé. The main product is Kinder Joy. 	
2007	<ul style="list-style-type: none"> ➤ FSE is established in India as a productive unit in the country for the whole Ferrero Group. ➤ FSE was established in South Africa 	
2008	<ul style="list-style-type: none"> ➤ Kinder Joy and Tic Tac are packaged and launched in India 	
2009	<ul style="list-style-type: none"> ➤ Nutella is imported and launched on the Indian market. ➤ A modern manufacturing plant was built in Walkerville, South Africa. The headquarters are in Johannesburg. 	<ul style="list-style-type: none"> ➤ Financial aid for youth education on health issues (AIDS) in South Africa (until 2010). ➤ Financial aid to the St. Martin de Porres hospital in Yaoundé, Cameroon.
2010		<ul style="list-style-type: none"> ➤ Financial aid (until 2013) to NGO for children education and health in Mumbai, India.
2011	<ul style="list-style-type: none"> ➤ The Baramati plant is opened in Marahashtra State in India, Kinder Joy and Tic Tac are packaged on a larger productive scale. In addition, the company 	

	that produces the Kinder Joy's surprises (MPG) also installs itself in the country.	
2012	➤ The Kinder Joy and Tic Tac products produced in Baramati are exported to China, South East Asia and the Middle East.	➤ Complete renovation process of an elementary school near the FSE plant in South Africa .
2013	➤ The Baramati plant is certified with ISO 9001:2008 plus IMSOFER, MPG and the business unit become one company, Ferrero India Private Limited	
2014		➤ The "Kindergarden Pietro Ferrero" opened near the Baramati plant, where children both of the employees and of the local community in general can go. ➤ Complete renovation process of an elementary school near the FSE plant in Yaoundé, Cameroon .

Source: Ferrero, 2009

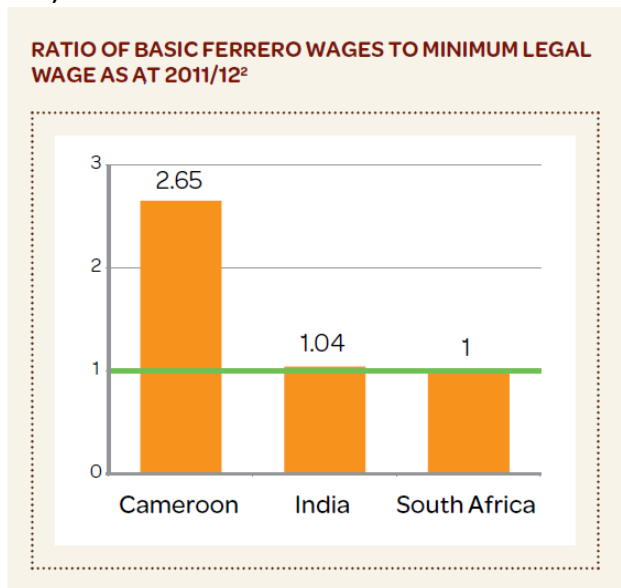
Value Flows (Money or Goods)

The Social Enterprises framework creates a social fund for these particular enterprises based on the volumes produced each year by the plant. This fund is transferred to a local bank where it can be used over a three year period to finance a specific social project which is determined together with the local authorities and the Ferrero Foundation (Ferrero, 2015). All profits generated by the plants are invested into social initiatives as well, with a focus on children's health and education (Osorno, 2015).

In Cameroon FSE is more and more focusing on research and improvement of raw materials for transformation into semi-finished products to be exported and used by other companies within the Ferrero Group. For this reason FSE is training and helping farmers together with two cooperatives to enhance their production quality of raw materials (Ferrero, 2009). The plant will produce semi-raw materials as well as being a center for research and experimentation on raw materials (Ferrero, 2015).

Local entrepreneurship

FSE provides employees with enough income to cover both their own living expenses and their families' (Ferrero, 2015).



² The minimum wage is represented from the annual gross minimum wage of the newly hired employees as operator of production. This data does not consider the salary for overtime pay, production bonuses or individual bonuses. When the figure is 1, this means there is parity between the legal minimum wage and the wage paid by Ferrero. For South Africa we need to consider that there is no local minimum wage and the agreement between Ferrero and the national trade union was taken as reference.

Source: Ferrero, 2012.

In addition, employees acquire new work skills through the provided professional training (Ferrero, 2015). More indirect jobs are created throughout the supply chain since locally sourced raw materials are prioritized to be used in production (Ferrero, 2015). More than 90% of the raw materials used by FSE are produced locally (Buratti & Vai, 2014). Ferrero's cooperation with the agricultural sector leads to an improvement of the living conditions in rural areas where the majority of the population is still below the poverty line (Buratti & Vai, 2014).

FSE is focused on producing products from especially from the Kinder brand, like Kinder Joy. The production methods differ between the edible and not edible part of the product. In particular, the edible part of the product is produced using technological innovative automated machinery to make sure that the product quality and safety meets the global standards of the Ferrero Group. On the other hand, the inedible part is manually conducted to assure employment to a higher number of people. (Ferrero, 2015).

An increasing part of FSE's production is being exported, contributing to the trade balance of the host country (Buratti & Vai, 2014).

SERVICES	Training for direct employees and suppliers. Educational facilities near
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	production plants for the employees' children.
PRODUCTION	Local production process. While keeping close control of the quality and consistency of its products Ferrero adapted its production methods to hire more people.
DISTRIBUTION	Very much exportation-oriented, not clear how much the products locally produced do impact the local community.

Conclusions

The company's environmental and social sustainability of its own supply chain is perceived as a strategical advantage since it allows a steady supply of raw materials from the country's where these materials are on one hand. On the other hand, the social and economic development of these areas enables these areas to grow and become possible future markets for the company's own products (Pozzetti, 2016).

TIMELINE	Fast set up of the business activities and some of the social activities. Still lack of data on some aspects.
VALUE FLOWS	While direct impacts are quite clear, indirect ones need further data.
LOCAL ENTREPRENEURSHIP	Data on impact on supplier and more rural communities is missing.

APPENDIX B: SECONDARY DATA SOURCES

CASES	REFERENCES
<p><u>4.1 DSM's NIP</u></p>	<p>Bahl, K., Jayaram, S., & Brown, B. (2014). <i>DSM-WFP: A Partnership to Advance the Global Nutrition Agenda</i>. (Rep.). Retrieved January 21, 2016, from http://www.sightandlife.org/fileadmin/data/News/2015/6_June/Partnership_DSM-WFP.pdf</p> <p>DSM (Rep.). (2012). Retrieved January 21, 2016, from DSM website: https://www.dsm.com/content/dam/dsm/nip/en_US/documents/unlocking-human-potential.pdf</p> <p>D. (n.d.). <i>DSM (Rep.)</i>. Retrieved January 22, 2016, from DSM website: http://www.dsm.com/corporate/media/informationcenter-pub/2014/02/annual-report-2013.html</p> <p>DSM, N.V. - Company Profile, Information, Business Description, History, Background Information on DSM, N.V. (n.d.). Retrieved February 05, 2016, from http://www.referenceforbusiness.com/history2/11/DSM-N-V.html</p> <p>Koninklijke DSM NV (RDSMY.PQ) Company Profile Reuters.com. (n.d.). Retrieved February 05, 2016, from http://www.reuters.com/finance/stocks/companyProfile?symbol=RDSMY.PQ</p> <p>P. (2011). <i>Partnerships between MNCs and NGOs: The effects on the financial performance of MNCs</i>. (Unpublished master's thesis). Universiteit van Amsterdam. Retrieved January 21, 2016, from http://dare.uva.nl/cgi/arno/show.cgi?fid=356289</p>
<p><u>4.2 HLL's Project Shakti</u></p>	<p><i>Annual Reports</i> (Rep.). (n.d.). Retrieved February 12, 2016, from Hindustan Unilever Limited website: https://www.hul.co.in/Images/hulannualreport201415_tcm1255-436327_1_en.pdf</p> <p>Enhancing livelihoods through Project Shakti. (n.d.). Retrieved January 22, 2016, from https://www.hul.co.in/sustainable-living/case-studies/enhancing-livelihoods-through-project-shakti.html</p> <p>Ionescu-Somers, A., Steger, U., & Amann, W. (2006). <i>Hindustan Lever (A): Leaping a Millennium. IMD Case Study</i>.</p> <p>Karnani, A. (2006). <i>Mirage at the bottom of the pyramid: how the private sector can help alleviate poverty</i> [Working paper n° 835]. <i>William Davidson Institute, University of Michigan</i>.</p> <p>Perrot, F. (2010). <i>Corporate Strategies and Development of the Markets at the Base of the Pyramid</i>, oikos Foundation for Ecology and Economics, UNDP.</p> <p>Rangan, V. K., & Rajan, R. (2005). <i>Unilever in India: Hindustan Lever's Project Shakti—Marketing FMCG to the Rural Consumer. Harvard Business School case, (9-505), 056</i>.</p> <p>Schuster, T., & Holtbrügge, D. (2012). <i>Market entry of multinational companies in markets at the bottom of the pyramid: A learning perspective. International Business Review, 21(5), 817-830</i>.</p>

<p>4.3 NESTLE's Milk Districts</p>	<p>Christiansen, N. (2008). Creating Shared Value through Basic Business Strategy. <i>Development Outreach</i>, 10(2), 10-12.</p> <p>Gold, S., Hahn, R., & Seuring, S. (2013). Sustainable supply chain management in “Base of the Pyramid” food projects—A path to triple bottom line approaches for multinationals?. <i>International Business Review</i>, 22(5), 784-799.</p> <p>Goldberg, R. A., Herman, K., Quelch, J. A., Rangan, V. K., Herrero, G., & Barton, B. (2007). <i>Nestle's milk district model: economic development for a value-added food chain and improved nutrition</i> (pp. 183-189). Jossey-Bass Publishers.</p> <p>Nestle SA: Company Profile. (2016). Retrieved February 08, 2016, from http://www.bloomberg.com/profiles/companies/NESN:VX-nestle-sa</p> <p>Nestlé (Rep.). (2014). Retrieved February 8, 2016, from Nestlé Group website: http://www.nestle.com/asset-library/documents/library/documents/financial_statements/2014-financial-statements-en.pdf</p> <p><i>Nestlé in society summary report</i> (Rep.). (2014). Retrieved February 8, 2016, from Nestlé website: http://www.nestle.com/asset-library/documents/library/documents/corporate_social_responsibility/nestle-in-society-summary-report-2014-en.pdf</p> <p>N. (2016). Working with dairy farmers. Retrieved February 04, 2016, from http://www.nestle.com/brands/dairy/dairycsv</p> <p>Ramachandran, J., Pant, A., & Pani, S. K. (2012). Building the BoP producer ecosystem: the evolving engagement of Fabindia with Indian handloom artisans. <i>Journal of Product Innovation Management</i>, 29(1), 33-51.</p> <p>Statista. (2015). Topic: Nestlé. Retrieved March 31, 2016, from http://www.statista.com/topics/1439/nestle/</p> <p>Jia, X., Huang, J., Luan, H., Rozelle, S., & Swinnen, J. (2012). China's Milk Scandal, government policy and production decisions of dairy farmers: The case of Greater Beijing. <i>Food Policy</i>, 37(4), 390-400.</p>
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<p>4.5 <u>SIEMENS'p</u> <u>rotos plant</u> <u>oil stove</u></p>	<p>B. (n.d.). <i>Protos-the plant oil stove</i> (Rep.). Retrieved March 14, 2016, from The Bosh and Siemens Home Appliances Group website: https://www.bsh-group.com/index.php?download=3381&file=685181352.</p> <p>B. (n.d.). Protos Plant Oil Cooker Project to Conclude. Retrieved March 14, 2016, from https://www.bsh-group.com/index.php?page=109906</p> <p>Boerstler, F., & Schoop, W. (2010). <i>The potential for the production of bioenergy for lighting and cooking using Jatropha (Jatropha curcas L. Euphorbiaceae) by small scale farmers on the Kenyan coast</i>. Lehrstuhl für Wirtschaftsgeographie.</p> <p>Siemens AG. (2016). About Siemens. Retrieved March 21, 2016, from http://www.siemens.com/about/en/</p> <p>Shiroff, S. N. (2009). A breath of fresh air: Protos the plant oil stove. <i>Boiling Point</i>, 56, 33-35.</p>
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<p>4.7 Ferrero Social Enterprises (FSE)</p>	<p>Buratti, F., & Vai, L. (2014, December 14). <i>Promoting Stability and Development in Africa: Fostering Cooperation between Public and Private Sectors</i> (Rep.). Retrieved April 12, 2016, from Istituto Affari Internazionali (IAI) website: http://www.iai.it/sites/default/files/iai1414.pdf</p> <p>Ferrero. (2009). La storia. Retrieved April 12, 2016, from https://www.ferrerosocialenterprises.com/fc-2693</p> <p>Ferrero. (2012). <i>Ferrero corporate social responsibility</i> (Rep.). Retrieved April 12, 2016, from Ferrero website: https://www.static.ferrero.com/globalcms/documenti/1624.pdf Chapter 3</p> <p>Ferrero. (2015). SHARING VALUES TO CREATE VALUE (Rep.). Retrieved April 12, 2016, from https://www.static.ferrero.com/globalcms/documenti/2163.pdf</p> <p>Ferrero. (2016). A GLOBAL REALITY. Retrieved April 12, 2016, from http://www.ferrero.com/the-ferrero-group/business/key-figures</p> <p>Osorno, C. (2015). Ferrero U.S.A. Inc. Retrieved April 12, 2016, from http://usbusinessexecutive.com/food-drink/case-studies/ferrero-usa-inc-thinking-globally-acting-locally</p> <p>Pozzetti, R. (2016, February 10). Imprese Sociali Ferrero: Più lavoro per i paesi emergenti Mark Up. Retrieved April 13, 2016, from http://www.mark-up.it/impres-sociali-ferrero-piu-lavoro-per-i-paesi-emergenti/</p> <p>Statista. (2016). Net sales of leading confectionery companies, 2015 Statistic. Retrieved April 12, 2016, from http://www.statista.com/statistics/252097/net-sales-of-the-leading-10-confectionery-companies-worldwide/</p> <p>The Diplomatic Society. (2012, November 16). Ferrero presents its third report on Corporate Social Responsibility. Retrieved April 12, 2016, from http://www.thediplomaticsociety.co.za/home/16-home/510-ferrero-presents-its-third-report-on-corporate-social-responsibility</p>