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Establishing in a BoP market - the Bangladeshi way

A MFS-study in Bangladesh

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Abstract

The Base of Pyramid (BoP) concept has been developed during the last decade as a response to the insufficient work made by the aid and development sector. The BoP advocates promote the idea of poor people as potential customers, and developing countries as potential profitable markets. By engaging in BoP markets, the business sector can contribute to higher living standards for the poor while still making a profit. This study aims to investigate what challenges and strategies companies face and use, when operating in a BoP market. More specifically the study explore how a Bangladeshi for-profit company can succeed in serving the poor with treatment for arsenic poisoning in a BoP market. Challenges where found to be mostly related to the financial status of the patients, dysfunctional BoP market systems and Bangladeshi culture and institutional context. For overcoming these difficulties, co-operation with external partners showed to be an important BoP business strategy. However, a deep-rooted dubiousness between the various actors is likely to decrease the success of these collaborations. In addition, the study results imply that, to achieve legitimacy and demand among local BoP customers and institutional intermediary customers, a semi-local, semi-international business structure could be superior over an entirely local.

Keywords: *BoP market, developing countries, aid, NGO, Bangladesh, arsenicosis, health care, poverty, social business, pharmaceutical industry, Viola Vitalis, MFS*

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Acronyms

AAN	Asia Arsenic Network
BAMWSP	Bangladesh Arsenic Mitigation Water Supply Project
BoP	Base of the Pyramid/ Bottom of the Pyramid
BRAC	Bangladeshi Rural Advancement Committee
CIA	Central Intelligence Agency
ESSD	Elevating Society through Skill Development
FDA	Food and Drug Administration
GDP	Gross Domestic Product
GoB	Government of Bangladesh
GRAS	Generally Recognized As Safe for Human Consumption
ICDDR,B	International Centre for Diarrheal Disease Research, Bangladesh
JICA	Japan International Cooperation Agency
MFS	Minor Field Study
MNC	Multi-National Corporations
MoH	Ministry of Health
NGO	Non-governmental organisation
NIPSOM	National Institute of Preventive & Social Medicine
OECD	Organisation for Economic Co-operation and Development
PPP	Purchasing Power Parity
PR	Public Relations
R&D	Research and Development
SIDA	Swedish International Development Cooperation Agency
SSF	Swedish Sustainable Foundation
SSFP	Smiling Sun Franchising Program
SVT	Sveriges Television
UN	United Nations
UNESCO	United Nations, Scientific and Cultural Organisation
UNICEF	The United Nations Children's Fund
WHO	World Health Organisation
WRI	The World Resource Institute
WSP	Water and Sanitation Project

1.0 Introduction

1.1 Market-based solutions targeting social problems imply new opportunities for business enterprises and for the people at the base of the pyramid

The world has a number of unsolved problems, extreme poverty, hunger and health, being a few. Even though interventions such as the UN Millennium Goals for development has been agreed upon among all UN member states, a solution of how to reduce the number of people living on less than 1 dollar a day, by half, is far away.

During the last decade, an alternative to aid has developed out of management literature. Innovation in product and service development had led to an array of marked-based solutions; business models aimed to fight poverty and social problems, while being financially sustainable. This alternative to aid, a concept principally called the *"Base of the Pyramid"*[1], takes its starting point in viewing people of the socio-economic base of society as potential profitable customers instead of merely recipients of aid. These, about 4 billion people, live on less than 5 US dollars a day and have limited access to everyday goods and services. One of the principal arguments in the BoP concept is that within this group there is an untapped opportunity for value creation that has been invisible to the private sector for too long.

Certainly, the buying power for those earning less than 5 US dollars a day cannot be compared with the purchasing power of individuals in developed countries. However, the BoP theories argue that by virtue of their numbers, the poor represent significant latent purchasing power and developing countries offer tremendous growth opportunities for the private sector. For poor people, being recognized as potential consumers means getting access to a whole range of previous either very expensive or simply unavailable products and services. Health care services, pharmaceuticals, nutritious food and communication technologies improve living conditions for poor people and do also increase their possibility to generate income. According to the BoP advocates, this leads to a win-win situation; while connecting the poor to the economic mainstream resulting in social benefits, companies will make a profitable return on investment (Prahalad, 2006).

[1] In the recent BoP literature, the expression *"Base of the pyramid"* or the abbreviation, *"BoP",* is being more frequently used than the expression *"Bottom of the pyramid"*. The *"Base of Pyramid"* shortened as the *"BoP"*. will therefore be used in the study.

However, operating in a BoP market is not without its implications. BoP markets are characterized with significant infrastructural absences and political and institutional uncertainties, which make them difficult for a business to manoeuvre. To develop appropriate strategies for any business, a full comprehension of the market situation is needed. Even though the BoP concept is fairly new research area, plenty of articles have been written about BoP business and BoP markets. Nevertheless, not many empirical studies have been made on a specific company, on a specific industry or at a specific market. In addition, recent literature has articulated the need for a larger understanding of the markets of the poor to determine whether the exciting idea of fighting poverty through business can indeed help the great part of the world's population that remains in poverty, to improve their lives and gain access to valuable opportunities (Gradl et al, 2008).

Using the BoP concept as the literature framework for our thesis appeared to be obvious when we came in contact with the Bangladeshi neutraceutical[2] company, Viola Vitalis. Viola Vitalis has developed natural remedies for treatment of the disease arsenicosis. Arsenicosis is a severe form of arsenic poisoning originating from naturally contaminated ground water in Bangladesh. In the 1970s the Bangladeshi government, GoB, and international aid organisations, installed millions of tube-wells to provide safe, clean water as to prevent morbidity and mortality from gastrointestinal diseases, which at that time, was a major issue in Bangladesh. The water from these wells was however not tested for arsenic contamination. The disaster was, however, not revealed until 1993 (Smith et al, 2000). The worst affected people are very poor; arsenicosis is acknowledged as one of the development issues for Bangladesh. Viola Vitalis can be classified as a BoP business. The company develops products and services for poor people, in order to solve social problems, with a *"for-profit"* business strategy. Viola Vitalis have been facing, and still are, some challenges in connection to the introduction of their products at the Bangladeshi market, consequently they requested an approach for their future business strategy.

Topic motivation

Since each company and each country or BoP market is different, there is a wide range of practises used in BoP markets. In addition, regional differences in cultures, norms, values and demographics, economy and accessibility will also impact the chosen strategy for BoP

[2] Nutritional substances with healing effects; for example saline and garlic.

companies (Ionescu-Somers & Steger, 2008). This implies the need for new techniques and management styles with local adoptions for BoP companies. Consequently, to learn the prerequisites for Viola Vitalis and make a useful input to the company and the research area, a field study trip was conducted to Bangladesh where a diverse range of organisations and institutions were examined to achieve a deeper understanding of the circumstances in a BoP market. The Minor Field Study-scholarship (MFS), administrated by the Swedish International Development Cooperation Agency, SIDA, made the field study trip possible.

1.2 Purpose and research questions

Foremost, the purpose of the thesis is to provide a deeper understanding about BoP businesses and BoP markets. More specifically, we aim to explore what challenges a company will face when introducing products and services targeting a social problem, to a BoP market. In addition we wish to investigate how these constraints can be dealt with and how to make BoP business viable and sustainable. Finally, we wish to come to a conclusion on an appropriate strategy for Viola Vitalis. Accordingly, we have devised the following research questions:

R1: What challenges does a company face in a BoP-market?

R2: What are the alternative strategies for managing constraints in a BoP-market?

R3: What are the potential strategies for Viola Vitalis' progress in Bangladesh?

We aim to come to an answer to the research questions by evaluating the challenges and strategies described in the BoP literature with the ones we discovered in Bangladesh, hence the research is conducted from a BoP perspective. The intended contribution from the thesis will be an increased understanding of how a company can successfully operate in a BoP market and deliver social value that responds to an unfulfilled societal need.

1.3 Organisation of the paper

In the following chapter, the research design used to conduct the empirical exploration and the data analysis is introduced, and the quality of the methods, is discussed. In Chapter 3 we will present a literature review in order to provide the reader with a better understanding of the current research within this area and the potential link between existing theories and the

empirical data, which is presented in Chapter 4. In Chapter 5, the empirical findings are analysed along with the theoretical findings. Subsequently, conclusions are drawn and the implications from these are discussed in Chapter 6. Lastly, a discussion will be raised in the final chapter together with limitations of the study and suggestions of future research.

2.0 Research design

In this chapter, the research methodology is presented. The choice of method, samples and interviews are discussed, as well as study limitations, the approach of data collection, data processing and the overall quality of the research.

2.1 Research methodology

To make conclusions upon the research questions; BoP literature will be observed and contrasted to the findings from the empirical case study we attempt to execute. Hence, the first and second research question will be answered by examining empirical BoP literature as well as the Bangladeshi BoP market. The third research question will be answered by specifically looking into the arsenic situation in Bangladesh and the perquisites for Viola Vitalis to enter the into the Bangladeshi BoP market for health care products and services.

2.2 The Bangladeshi case study

In order to produce a comprehensive thesis and to be able to fully understand a BoP market, we conducted a field study trip to Bangladesh in spring 2010. We got connected with Viola Vitalis, in December 2009 through an international student consultancy company, 180Degrees, specialised in working with non-profit organisations and social businesses. Both 180Degrees and Viola Vitalis played a significant role in setting up contacts with actors within the BoP scene and the Bangladeshi health care sector as well as government represents etcetera.

While in Bangladesh we met with several organisations, such as aid-and development organisations (both international and local), actors from the health care sector (both private and public health care), governmental institutions and the pharmaceutical industry. Additionally, a handful of people with great knowledge of the arsenic situation, the

Bangladeshi health care system and Bangladeshi culture; such as journalists, academic professors and Bangladeshi BoP business men, were met to cover our field.

2.3 Research approach

Since the purpose of the thesis is to achieve a more comprehensive understanding of the market situation in Bangladesh, a qualitative method has been used to produce a deep and thorough information gathering. About 25 deep interviews were conducted; each 60-120 minutes long, where most of them were face-to-face interviews (see list of interviewees in the reference list). The interview questions (see appendix) were varying depending on what position the interviewee held, and what organisation the interviewee represents, as a way to maximize the outcome of each interview. The questions were open-ended, which means no alternative answers were given. However, most times we had to make follow-up questions and even explain questions when the interviewees did not understand or if they misinterpreted the questions. Since the interviews were relatively long, and since it always is a risk of forgetting and leaving things out when taking notes only, a tape recorder was used and the recordings was later transcribed. We always asked the interviewee if he or she accepted to be recorded. The recorder was turned off whenever the interviewee wanted to make anonymous statements and/or express sensitive personal opinions.

We have chosen to conduct an inductive thesis, where the intention is to find general patterns in single phenomenon rather than try to falsify a hypothesis. In an inductive study, the author presupposes from the empirical findings, which are explaining one single phenomenon, and then thereafter the author tries to find theories that will fit the single phenomenon. This will give the author the possibility to make general assumptions as conclusions (Johannessen & Tufte, 2003).

2.4 Delimitation of the study

The aim of the thesis is not to identify all issues that a company needs to consider when establishing at a BoP market. Rather, the *challenges* explored are those that Viola Vitalis and others alike BoP companies are facing when trying to establish on the Bangladeshi BoP market. In addition, the *strategies* considered, are evaluated after the perquisites at the Bangladeshi BoP market and their suitability to Viola Vitalis. Out of this, our wish is to draw some conclusions about general challenges in BoP markets and how these can be prevailed in order to produce social good. Hence, the general learnings from the thesis will be based on the

results concluded from the case study on Viola Vitalis. The prejudgement of what challenges and strategies to focus on is based on BoP literary research, as well as interviews with the CEO of Viola Vitalis and other company stakeholders. The literature studies became the framework for both the empirical search and the presentation of the empirical results.

Viola Vitalis is not only working on developing and producing products for the arsenic issues, the company is also manufacturing several other skin products and has recently started looking into other sectors where its knowledge of BoP markets could be useful. However, due to a limited time frame, the arsenic issue was chosen to focus on.

Unfortunately we could not get in contact with all the organisations that we wanted to investigate while in Bangladesh. For example, the origin of social business, Grameen Foundation and Grameen Bank, their microfinance institute was not met as well as the Dhaka Community Hospital, a hospital focusing on treating arsenic patients. However, there are plenty of articles and books that are written about the Grameen organisations; therefore we do not believe that the study falls short because of the lack of first-hand information. As for the Dhaka Community Hospital, we believed we have gathered enough information about arsenicosis and its consequences to present an adequate empirical material.

2.5 Standpoints in problematic issues

One of the main troubles for Viola Vitalis is that there is no clear classification category of *neutraceuticals* in Bangladesh. We have tried to reach a concurrent answer upon what type approval that is required for a neutraceutical i.e. whether it should be classified as a pharmaceutical or a natural remedy, but without success. The products cannot be sold legally as *"natural remedies with curative results"*[3]; hence getting the product labelled as pharmaceuticals seems to be the only possible way for Viola Vitalis. Achieving this kind of certificate is a lengthy process and requires some heavy R&D investment from Viola Vitalis in order to show scientific results of the products. However, we judge this as absolute necessary for the company to proceed.

Moreover, we are not able to judge the efficiency of the products. The tests that Viola Vitalis has done on arsenicosis patients showed an unmistakable reduction of the external

[3] Professor Misbahuddin, Medical University, Department of Pharmacology, Dhaka, 100517.

Symptoms.[4] However, most likely additional scientific proof is needed for Viola Vitalis to gain legitimacy and hence get their products approved.

Thus, the strategies suggested, starts from the premise Viola Vitalis products gets the approval as a curative medical compound used for arsenicosis, from the governmental Drug Administration. Thus, it could be labelled and sold as pharmaceuticals.

2.6 Validity and reliability

The validity of the answers in the interviews depends on the informant's personal knowledge and experience. In order to achieve an understanding of how well educated and/or familiar the interviewee was with the specific topic, they initially explained their background and relation to the area of interest. As mentioned, the interviewees that were chosen were selected due to their competence in the arsenic problem, the Bangladeshi health care sector, aid and development issues along with cultural and contextual aspects etcetera. Additionally, we offered anonymity as to avoid refined answers.

Reliability concerns the question if the results of the study can be reached again by doing the exact same case study, not a replica of the study that is (Yin, 2003). In order to ensure a high validity we conducted triangulation interviews, which means that we interviewed people with different relations to the problem (Malterud, 1998), such as arsenic patients, NGOs working on the arsenic issue and the governmental departments for arsenic etcetera. This was made in order to get a clearer view of the situation and also to see how the opinions differed.

2.7 Theoretical limitations

Due to limitations, the popular topic and common issue in BoP debates, *"how to innovate sustainable solutions from the BoP in an environmentally friendly fashion"*, is not touched upon in this study. In addition, we have chosen to exclude traditional marketing and management approaches such as network theories. However, we have chosen to focus and go deeper into the BoP literature since one of the main principles in the BoP concept is about creating brand new business strategies for the specific BoP market, instead of relying on traditional solutions from the developed western society.

[4] This information is mostly collected from the CEO of Viola Vitalis.

Viola Vitalis can be defined as a social entrepreneur according to Dees (2001) definition (Mair & Schoen, 2005). However, the main focus of the study is to understand the BoP market and how to operate on a BoP market rather than how to be a social entrepreneur itself impacts businesses. The literature will therefore be biased towards the BoP concept and not address social entrepreneurship as a subject. In addition, the BoP literature is thought to be more useful in providing information about markets in developing countries than the typical social entrepreneurship literature since the latter concept most often exist in develop markets. However, since both social entrepreneurship and the BoP concept are fairly new, no exact line divides the two areas apart. The most recent BoP literature does not just address Multi-National Corporations (MNCs), these cases also includes business ventures with social entrepreneurs.

2.8 Possible weaknesses within the research methodology

One of the challenges when doing a qualitative research in Bangladesh was the language barrier. English is widely known in Bangladesh; however, the level of language knowledge differed a lot, which affected the thoroughness in the answers. Additionally, to get full answers from potential end-consumers, an interpreter was used when meeting arsenic patients. This could have coloured the answers we received somewhat, since the answers were *second-hand answers*.

Being European female students might also have had some effect on the responses, this because not many Bangladeshi are used to meet and interact with female foreigners. Many of the answers given in interviews were perceived as *politically correct* and perhaps sometime not the genuine standpoint of the interviewee. At times we had the feeling that answers were directed to defend Bangladesh as a country and/or in a way the respondent thought we wanted the answers to be.

Furthermore, the size of the interview sample might restrict the ability to observe general cultural patterns. By only meeting with 25 people, their personal opinions might have affected our perception of general Bangladeshi opinions about topics such as arsenicosis, the GoB and corruption.

3.0 Theoretical framework

In this chapter, the theories that are used in the study will be presented. Starting with an overview, the BoP concept, its starting-point, characteristics and major principles of the BoP among others, will be explained to give the reader a deeper understanding of the concept. As to give an answer the research questions number 1 and 2, this chapter will continue with a summary of the BoP challenges and strategies identified in theories. Moreover, some important aspects from the BoP literature, social embeddedness and collaboration, that are thought to be crucial to answer research question number 3, will be highlighted. Lastly, the critique raised against the concept will be brought up.

3.1 An introduction to the Base of the Pyramid

In recent year, the segment of the world's poor has moved into the focus of both business and academia. This has led to the development of the theoretical concept; the *"Base of the Pyramid"* also called, the *"Bottom of the Pyramid"*. Deriving from the management literature, it has been accelerated by stagnation tendencies in the industrialized world together with comparatively high growth rates in developing countries. The BoP concept is based on a view, on developing countries and poor people, as potential growth markets and profitable consumers, contrary to the common perception of these as aid recipients without ability to take part of what the private sector has to offer. The BoP advocates claims that, by bringing the people at the base of the pyramid into the formal economy, will not only lead to commercial success, but also to an improved life quality for the poor. By partnering and activating with the poor and at the same time providing products and services that are profitable, a win-win scenario is created (Prahalad, 2006).

The base of the pyramid responds to the world's largest but poorest, socio-economic group. When dividing the world's population into layers based on income in local purchasing power parity, PPP, three of four layers appear, depending on measurement methods, will appear. The bottom layer, the base of the socio-economic pyramid, is the object for the BoP theories. The size of this group of people is about 4 billion people; 2/3 of humanity. These people live in relative poverty which means they have yearly income levels below 3000 dollars in local PPP. However it is not the poverty itself that is the starting point for the BoP concept, instead it is the fact that the BoP population for the most part is not integrated into the global market and does not benefit from it (Hammond et al, 2007).

3.1.1 Unsatisfied markets at the BoP

The early BoP authors hold the conception that the exclusion of this gigantic market consisting of 4 billion people, that has previously been invisible to the private sector and un-served, can be explained by the *"power of dominant logic"*. Prahalad (2006) argues that the private sector and the actors focusing on poverty alleviation, including World Bank, government, aid agencies, has had constraints in their thinking that have had prevented the mix of profit making and poverty alleviation. Beliefs such as "*it is not profitable to compete in BoP markets since the poor cannot afford our products and the existing cost structures are too high"* and *"the poor have no use for products sold in developed markets"* in addition to an attitude that the poor should be left to the government and development community, has for long been predominant in the private sector (Prahalad & Hart, 2002). Prahalad (2006) means that historically, governments, aid agencies, nongovernmental organisations, large firms and the organised business sector all seem to have reached an implicit agreement; Market-based solutions cannot lead to poverty reduction and economic development. This dominant logic of each group restricts its ability to see the market opportunities at the BoP (Prahalad, 2006). The BoP authors argue that once these assumptions have been let go, the poor can be a very profitable market. Hence, the take-off for the BoP concept is the proposition that the private sector should stop thinking of the poor as victims and recognize these people as value-conscious consumers and creative entrepreneurs (Prahalad, 2004).

Conversely, others have argued that Prahalad's dominant logic is not the main reason why the BoP market has not yet been served. The answer can be found in the market systems where the poor live. These market systems are often seriously dysfunctional; low literacy, poor logistics infrastructure and lack of contract enforcement mechanisms make doing business with the poor a challenge. The lack of these enabling conditions leads to transaction costs that are so high that doing business ceases to be an attractive option, even if the deal one offer is valuable for both sides (Gradl et al, 2008).

3.1.2 Characteristics for the people at the BoP

Much debate has been centred on what appropriate threshold that best captures the size of the BoP population. The World Resource Institute, WRI, sets 3260 US dollars PPP in 2005 as the annual income that defines those at the BoP. This threshold level means that nearly 4 billion people are included in the BoP markets across Africa, Asia, Eastern Europe, Latin America

and the Caribbean. The total annual household income at the BoP is estimated at 1.3 trillion US dollars PPP. The buying power of the people at the BoP, earning less than 5 US dollars per day, is of course lower than for a person in a developing country. However, by the virtue of the numbers, the people at the BoP represented a significant latent purchasing power. The value worth of the market is said to be about 5 trillion US dollars (Hammond et al, 2007). However, when defining the BoP, an income line is not enough. These people are also characterized by having significant unmet needs, they depend of and act in an informal market, and they pay a *"poverty penalty"*. The vast majority of the poor people in developing countries operate in the informal or extra-legal economy. Most people have no bank access; do not own a phone and lack access to formal water, electricity and basic health care. These informal settlements leads to poverty traps which means that people in BoP markets pay higher prices for basic goods and services than their wealthier counterparts (Hammond et al, 2007). For example, the lack of access to piped water means that poor often have to buy water from mobile vendors charging up to ten times the price of piped water. Another problem is that inability to access a bank account or other formal financial services most often leads to exorbitant rates of loans by informal-sector moneylenders (Kandachar & Halme, 2008).

Across the globe, it has been estimated that the informal sector includes more than 9 trillion US dollars in hidden or unregistered assets. In addition to assets, the value of economic transactions in these markets may even exceed what is recorded in the formal economic sectors in developing countries (Kandachar & Halme, 2008). Based on these characteristics, and in addition to the PPP level a new definition appears, which includes the recognition of the BoP as a population that is not integrated into the formal economy. *The BoP is a term that represents the poor at the base of the global socio-economic ladder, who primarily transact in an informal market economy* (London, 2007).

3.1.3 Serving the unsatisfied markets at the BoP

Firstly, the BoP is not a homogeneous segment within or across countries which implies that business strategies and poverty alleviation efforts must recognize different segments within the BoP and adjust the approaches accordingly depending on which portion of the BoP they are trying to serve (London, 2007). This goes in line with Muhammad Yunus's, the founder of the Bangladeshi Grameen Bank, view: *"To be effective, the delivery system must be designed and operated exclusively for the poor. That requires a strict definition of who the poor are—*

there is no room for conceptual vagueness" (Karnani, 2007a). Secondly, serving the BoP is not the same as serving existing markets better or more efficiently. The basic economics of the BoP market are; small unit packages, low margin per unit, and high return on capital employed. Contrary to conventional investment strategies, no firm can do this alone. Multiple players must be involved, including local government authorities, NGOs, communities, financial institutions and other companies (Prahalad & Hart, 2002).

3.1.4 The major principles of serving the BoP

By creating buying power, shaping aspirations, improving access, and tailoring local solutions, the private sector can make the BoP market thrive. These major principles demand innovation in technology, business models and management processes.

Creating buying power

Creating the capacity to consume requires giving the people at the BoP access to credit, increasing their earning potential and/or making affordable products and services. The traditional approach to create this capacity has been to provide the product free of charge, which rarely solves the problem. Perhaps the classic example of such a business is the microcredit model introduced by Muhammad Yunus and the Grameen Bank. The loans made to the poor through the bank lead directly to income generation through micro entrepreneurship and other forms of local enterprise development (Hart, 2005).

Improving access

Process innovations are just as critical in BoP markets as product innovations. In these markets, the presence of logistic infrastructure cannot be assumed. BoP communities are often physically and economically isolated and few of the emerging markets have distribution systems that reach more than half of the population. Information poverty may be the single biggest roadblock to sustainable development (Prahalad & Hart, 2002). As a consequence, innovation must focus on logistics infrastructure and communication technologies.

Tailoring local solutions

Serving the BoP market requires hybrid solutions; BoP problems cannot be solved with old technologies used at developed markets. To do this, private sector must combine advanced technology with deep local insights. By mapping the local assets, resources and capabilities

that currently exist in the community, with help from local individuals, companies can build from the *"bottom-up"*. Regardless whether an initiative involves an MNC entering the BoP, or an entrepreneur from the BoP, the development principles remain the same; new business models must not disrupt the cultures and lifestyles of locals (Prahalad & Hart, 2002).

3.1.5 Subsidies as a possible enabler of BoP business

As such, the market-based solution perspective differs from grant-based poverty alleviations programs, since the goods and/or services are not provided free of cost. This does not preclude those at the BoP from receiving a subsidy to purchase from, or sell to, a BoP venture. According to the BoP main principles, a BoP venture must however generate sufficient revenues to more than cover its costs.

The BoP is a heterogeneous population and the appropriateness of different alleviation approaches varies depending on which segments are involved. The poorest of the poor may rely more heavily on subsidies to purchase goods or services offered by the BoP ventures. Two types of subsidies are important in facilitating the development of BoP ventures: investment subsidies and consumer subsidies. A particular need that BoP ventures face is the need for investment in common goods in the informal economy. Poverty alleviation programs can cover these costs; otherwise the BoP venture has to do it. This suggests that some of the initial start-up costs for a BoP venture may require a subsidy, such as a grant, low-cost loan or venture philanthropy (London, 2007).

3.1.6 From a firm believe in *"Multinational Corporations only"* to a broader mind-set

It has been argued in the early BoP literature that Multinational Corporations, MNCs, would be most suitable to serve the BoP markets due to a couple of reasons. Firstly, few local entrepreneurs were said to hold sufficient managerial or technological resources to create the required infrastructure. Building a complex commercial infrastructure for the BoP is a resource- and management-intensive task. Distribution channels and communication networks are expensive to develop and sustain. Secondly, the MNCs were viewed to be better in uniting the range of actors required to develop the BoP market. Without MNCs as catalysts, well-intentioned NGOs, communities, local governments, entrepreneurs, and even multilateral development agencies will continue to struggle in their attempts to bring development to the bottom (Prahalad, 2006). However, Prahalad and Hart (2002) means that *"up to date, NGOs*

and local businesses with far fewer resources than the MNCs have been more innovative and have made more progress in developing these markets". The criticisms against the BoP is often questioning whether MNCs are suited at all to serve these markets since several of the business cases put forth in the theories are non-profit organisations or small to medium size enterprises (Kandachar & Halme, 2008). Regardless of the likelihood or appropriateness of MNCs to launch successful market-based ventures, it seems clear that a variety of different organisations and individuals *can* launch BoP ventures.

3.2 Summary of BoP market challenges stated in the BoP literature

The challenges brought up in the BoP literature are structured into four areas. The strategies for managing BoP constraints will be presented and explained in the subsequent sections.

3.2.1 Low buying power and lack of financial services means economically weaker consumers

One of the most obvious challenges when doing business with the poor is their low purchasing power (Prahalad, 2006). The poor have unpredictable income streams; many survive on daily wages and have to use cash conservatively. They tend to make purchases only when they have cash and buy no more than they need for that day. In the bottom income band typically more than 2/3 of the income is spent on food. Other products such as soaps, scents, shampoos and telecommunications services must be purchased with the meagre income that is left over (Anderson & Billou, 2007). Prahalad (2006) means that this, undoubtedly, makes BoP consumers very price sensitive and extremely value-conscious; they expect great quality at prices they can afford. A report conducted by World Economic Forum (2009) shows that every cent counts for low-income households, they are unlikely to spend money on products they do not understand or trust. However, it is important to understand that being poor does not mean one will choose a cheaper or stripped-down version. They rather choose high quality products that are known to be reliable and evidently superior, even if that means they have to ration their use.

Another characteristic of the BoP market, mentioned by Gradl et al (2008) amongst others, is the lack of access to functional financial infrastructures at BoP markets. Most of the BoP population have no access to credit which means they missing out a very important way to enable essential purchases or business investment.

3.2.2 Insufficient distribution systems lead to low access

Another major challenge when serving BoP markets, according to Prahalad (2006), is to ensure availability of products and services. Unlike in the developed world, distribution channels in these markets are fragmented or non-existent and the task of simply getting the products out to customers can be a major hurdle to overcome. Many of the BoP consumers live in remote rural areas and are therefore hard to reach using conventional distribution systems. The consequences are inefficient supply chains and escalating transaction costs; this is how the poverty penalties arises (World Economic Forum, 2009). Gradl et al (2008) continues that companies operating at BoP markets consider by large, the infrastructure to be the major obstacle to the operation and growth of business.

3.2.3 Information and education gaps, absence of marketing channels and problematic consumer search behaviour, obstructs marketing and sales

Prahalad (2006) discusses the importance of brand recognition and brand reputation; poor people are very brand-conscious. An aspiration to a new and different life quality is the dream of everyone, including those at the BoP. Therefore aspirational brands are highly desirable for BoP consumers. However there are some constraints in BoP markets that complicate marketing and sales tactics.

BoP companies often lack accurate information about the markets that they are engaged in which complicates marketing and sales efforts. One of the reasons is that in the BoP market, significant knowledge is transmitted orally from one generation to the next (Prahalad & Hart, 2002). Such an example is that in many cases, it is not known exactly how many people that live in an area, because there is no record of births, deaths and movements of people (Gradl et al 2008). In addition, according to Weiser (2007), national information sources also tend to be less accurate. Thus, information about the BoP market, information about accurate spending power or consumers preferences and behaviour is most time non-existent. This has forced companies to change the way to obtain information about BoP markets into collecting information from non-traditional sources and developing products in collaboration with aid agencies.

Furthermore, it is not only hard to gather information about the customers, but also to reach the consumers with information about the products and services. Anderson and Billou (2007)

express the fact that BoP customers are frequently living in media dark zones and are by large inaccessible to conventional advertising media. In India for example, only 41 per cent of poor rural households have access to TV. In Africa, only 1 out of 4 persons has a radio and only 1 out of 13 has a television. This implies marketing measures for building brand and product awareness is another major challenge for companies wishing to serve low-income consumers in the developing world.

In addition to above, consumer search behaviour slightly differs from what is described in traditional marketing literature. According to Viswanathan et al (2010), BoP consumers who searches for information about products and services relies more heavily on social sources such as groups, family and close friends than non-social sources such as government agencies and media. Viswanathan et al (2010) conclude that it appears as business success in subsistence settings requires a different kind of trust than that the buyer–seller relationships normally discussed in conventional business practice. Trust is often arising organically through one-to-one social networks rather than through the mass-market reputation of companies and brands.

By 2004, only 77 per cent of all adults[5] in developing countries were literate (UNESCO, 2007). Literacy is incredibly essential to access information, to be able to read the user description for baby milk powder or browsing the Internet (Gradl et al, 2008). This lack of knowledge and skills among BoP consumers is furthermore a challenge for marketing and sales in the context of poverty. If customers cannot understand the value and use of the product, or are unable to employ it, the product will not sell.

3.2.4 Impenetrable constitutional and cultural context

Rule of law, thick institutions and political barriers are most likely obstacles when doing business in underserved markets. For example, burdensome general or industry-specific regulations can make it nearly impossible to provide high-quality products at affordable prices (Weiser, 2007). Gradl et al (2008) means that these bureaucratic obstacles, to both market entry and execution, are all kinds of business related procedures, from opening a business to closing it, are costly in both time and money. For instance, in Latin America and the Caribbean, it takes on an average, 68 days to open a business and costs about 44 per cent of

[5] Over 15 years age

income per capita. For comparison, the same procedure takes only 15 days and costs 5 per cent of income per capita in the Organisation for Economic Co-operation and Development (OECD) countries.

Rule of law is essential to provide invectives for proactive economic activity. In market systems where rules are poorly followed, contracts cannot be enforced and violation of laws might not be punished, doing business can be a game of luck (Weiser, 2007). As the owner of public policy, government has by its nature a systematic impact on the market system, is role is crucial in ensuring an enabling regulatory environment (Gradl et al, 2008). According to Keating and Schmidt (2008), studies have showed that a great issue for, and identified by BoP businesses, across regions and industries, is the effectiveness of local governments in managing economic and security risks, regulations and taxation. Unfair disadvantages in competition, caused by refusing to pay bribe, unclear policy goals and lack of skilled professional seems to be the most common problems as well as disproportionately high taxes, black markets and general corruption. This indicates that although managers might be convinced about the opportunity in BoP markets, it is likely that there are lingering doubts about the ability to operate in these markets. The primary source of this concern according to Prahalad (2006) is corruption, which adds to the cost of doing business at the BoP. Simply, the business uncertainty that comes out of corruption becomes the cost of doing business.

In addition to institutional uncertainties, corporations frequently face considerable distrust from residents of underserved communities. Keating and Schmidt (2008) claim that to gain acceptability for the product or service by convincing stakeholders such as local community leaders, is often more challenging than first thought by BoP business strategists. According to Weiser (2007), distrust can lead to a reduced demand of products and services, and also an increased scrutiny by community-elected officials and regulators.

Moreover, social ventures promoting social change are likely to face opposition from bodies that control existing policy and public resources. Sharir and Lerner (2006) state that the value attributed to the activity of the venture within the framework of prevailing cultural and social norms is likely to determine the chances of it being accepted.

3.3 Summary of market strategies stated in the BoP theories

Gradl et al (2008) stress that enterprises can avoid the enumerated constraints in BoP market systems by adapting a BoP business model. This permits very quick scaling up; once the trick has been discovered, it can be applied everywhere.

3.3.1 Innovative business models to handle low purchasing power and lack of financial service systems

The BoP is not a market that allows for traditional pursuit of high margins; instead margins are likely to be low, by current norms, but unit sales are extremely, high volume and capital efficiency are crucial for success. Hart (2005) adds to this by stating that the low purchasing power of the BoP consumers requires a different business model; one that is innovative and focus on economic profit instead of gross margin. The BoP consumers prefer products with the lowest initial cost, even if life cycle costs are higher. They buy in smaller units and live in situations where space for storage is very limited. These circumstances have led to a rapidly evolving approach of encouraging consumption and choice at BoP markets, providing products, in single-use sachets and hence make products affordable. This has been a very successful strategy in many underserved communities however not surprisingly, delivering products in single-use sachets to customers who buy small amounts at a time can drive up the unit cost of distribution. To address this difficulty, companies look to find distribution channels already rooted in the community. Coca-Cola successfully developed a strategy for selling its products in the low-income neighbourhoods on the hills surrounding Caracas in Venezuela, by providing coolers and signs to a network of residents who sold Coke products from their houses to create extra income. This is an example of how constraints at the BoP can dramatically change how companies package and deliver products (Weiser, 2007).

Because of low incomes and little savings, large up-front purchases are often out of BoP consumers reach. Therefore, companies ought to look for ways to align their prices and financing for consumers with incomes that fluctuates. For many products, pricing will involve some consideration of credit terms. For example, a BoP customer may need a small loan for a one-time purchase of inputs for a business operation or for an emergency (World Economic Forum, 2009) and this could be solved with financial collaboration solutions such as microloans for business and consumer finance, mortgage financing and community-based

health insurance Hammond et al (2007) discuss other alternatives such as the cross-subsidy strategies, where wealthier customers help subsidise services for BoP clients.

Furthermore, to serve low-income consumers at the BoP, a lean, flexible organisation and a variable cost-model is essential. The BoP business should minimize costs by avoiding duplication and create lean, agile structures by sharing assets and services rather than loading on large overheads, according to the World Economic Forum (2009). This can be done by outsourcing manufacturing, by having independent re-sellers selling products and have a commission based system for the marketing and sales (Simanis & Hart, 2006). Furthermore, Hart (2005) argues that, when using local capability as a part of the business model in very uncertain environments, like the BoP market, it appears superior to have a small-scale experimentation approach to a single, large-scale market probe. Small-scale means opportunities for rapid and continuous learning and can be scaled up if the project is successful, and if not, shutdown.

3.3.2 Local distribution systems simplifies supply chain management

One solution to the distribution issue, according to Weiser (2007), is investments in the infrastructure such as roads, ports, and supporting infrastructure. Some other more cost-efficient alternatives for distribution, suggested by World Economic Forum (2009) are sourcing from local producers, which reduces costs and builds trust and credibility for the company's brand, or leveraging existing local distribution channels. Companies can also cooperate with other business to bundle product distribution in BoP regions, thus reducing costs for all involved.

Prahalad (2006) adds to this by discussion by accentuation the proven strategy to overcome the constraints in distribution, by localizing value creation and building local ecosystems of vendors or suppliers. This is often mentioned in the BoP literature as *"developing local capability"* and represents a new model of relationship between the firms and its customers since the company has no live and direct contact with the individual customer, but instead monitors the services through the local contact. In India, project Shakti is a successful example of a distribution model that reaches out to the homes of tens of millions of people who live in villages inaccessible by traditional product distribution models. The company HHL has trained female micro entrepreneurs at the village level to sell HHL's hygiene

products and at the same time educate the village people in health and communication. The women earn a steady income from this while improving the health standard in their community. Hammond et al, (2007) suggest that by training locals to set up small business ventures, jobs are created, local value creation is ensured, as well as the provision of an efficient, low-cost distribution systems.

3.3.3 The development of local capacity for marketing and sales purposes results in educational outcomes

Even though literacy among target customers is a clear restriction in BoP marketing strategies, Viswanathan et al (2010) showed that social networks most often can counteract this. Social networks provide a basis for developing marketplace skills and balance for the challenges of low literacy. In an environment where decisions are often made on the basis of recommendations from friends rather than on individual search and information processing, marketplace literacy appears to have a social as well as a cognitive dimension. Thus, increasing brand awareness among social networks and creating word-of-mouth effects appear to be essential in BoP settings.

As already described in the HHL example in the distribution section earlier, a very common approach to penetrate social networks and in addition, solve the shortage of skills and education among BoP customers, is to deskill work by training local people i.e. *"developing local capacity"* (Vermuelen et al, 2008). The cost for providing knowledge and skills can be very low while the appropriateness, on the other hand, is high; consumers will associate the acquired knowledge with the product or services, and create a stronger relationship to the brand.

In addition to cost and brand advantages, local people will learn and create new competencies which mean that the need for professionals diminishes. For example, health workers can diagnose diseases without the need for qualified doctors to visit rural areas (Gradl et al, 2008). To educate and train local people, collaborations with external actors are of great value, especially in the health care sector. Prahalad (2006) means that collaborations between the private sector firms, NGOs (provide training through current health institutions), the Public Health authorities (better health as their mandate) and the World Health Organisation are highly advantageous. In addition, Wynbourne and Wilson (2008) stress that when marketing

products and services that promotes behavioural change; linking with partners, who have established marketing networks within the BoP region, can be useful since changing developed habits is difficult.

Keating and Schmidt (2008) mention some other unique marketing methods and channels, specific for BoP contexts. Billboards painted on walls are effective measures, as well as mobile theatrical productions and village demonstrations in schools or other community buildings. Sometimes, the best marketing channel is to educate school children on how to use the products or services. Gradl et al (2008) add that forming partnerships with rural local businessmen to access their customers through existing networks is another common practice.

By engaging with local partners, the knowledge gap will be filled, by bringing in information about their respective communities and social network. Community members know very well what their neighbours' own, earn, need, and also what their preferences are. Kraemer and Belz (2008) mean that in that way communities are great for information about the market, and to the market by having locals to explain the products to the customers. With the right partners companies can generate important relations to customers (without actually interfering with them themselves), and make use of the power of *"word-of-mouth"*.

3.3.4 Strong relationships with external stakeholders crucial for a successful cultural navigation in institutional contexts

Lack of laws and powerful regulations was previously mentioned as a BoP market constraint. However, several BoP authors agree upon that doing business in regions where laws is poorly enforced does not have to be a major issue. In the informal sector, relationships are primarily grounded in social, not legal, contracts, and the organisations with the most expertise in serving these populations, local government and civil society, have a strong social orientation. Successfully operating in this space requires a capability to understand and appreciate the benefits of the existing social infrastructure. The lending model of the Grameen Bank in Bangladesh, for example, entails no legally enforceable instruments whatsoever. To succeed, it was necessary for Grameen to focus on making very small loans to poor women based upon a peer pressure model where small groups of loan recipients became mutually responsible for each other's credit. If a borrower defaults, the bank staff will work with her to restructure the debt or plan an alternative repayment schedule. The entire business model is based upon

social capital and trusts which made this lending model very successful. Gradl et al (2008) state that this is a proof that in a context of poverty, where formal rules often play a lesser role, people rely heavily on their network, informal rules, trust and reciprocity.

Weiser (2007) addresses the importance of creating partnerships and strategic alliances to get accepted by the cultural and social norms. By building a local base of political support and/or work in collaboration with other businesses and non-profit advocacy groups to identify problems and develop political will, effective change can be made. According to Sharir and Lerner (2006) these types of lobby activities is considerably important for raising awareness of an issue and press the case for necessary regulations and legal reforms. Their study show that the public awareness of an issue, and seriousness of the problem, for is straight correlated to interest for the social venture itself.

Whether to collaborate with the government or not, has been treated differently by the BoP literature. The relationship with local governments has by some been seen as the key to ensure a positive market environment for the BoP business activities to be conducted efficiently. Keating and Schmidt (2008) mean that the stronger the relationship between the local government and the BoP business is the better ability to deal with these issues. Gradl et al (2008) say that by providing information and impetus for the development of market-enabling policies, social ventures can contribute to the handling of policies that enable inclusive markets, which can make a big difference for businesses. However, the early BoP literature with authors as Prahalad (2006) and Hart (2002) hold a slightly different view. They mean that alliances should be made with local and regional level authorities, not national governments, given the difficulty and complexity of constructing business models dependent on relationships with these. Hart (2005) says that by *"flying under the radar"* (which means avoiding dependence on national governments), corrupt regimes, central infrastructure planning and all other problems that come with having to deal with difficult and changeable central regimes, can be avoided. Another reason to not rely on national governments is that these are often as far removed from low-income markets in terms of knowledge, as the business venture itself, trying to establish on the market.

Tactics for how to deal with corruption, stated as one of the great challenges for BoP Business, are less attended to by the BoP literature. Prahalad (2006) means that it is important for BoP businesses to understand the difference between corruption and local practice. Again,

alliances with local firms and NGOs can provide visibility to the *"understood but not explicit"* local practices.

3.4. Social embeddedness as a consequence of non-traditional collaboration – a recurrent theme in BoP management

This section summaries the importance of collaboration and social embeddedness for a successful outcome of recommended strategies.

Collaboration with non-traditional partners

As mentioned in earlier sections, collaborating with external organisations can increase the scale and scope of a BoP venture's activity. Establishing local partners can be especially beneficial for smaller companies less able to invest in new distribution channels or to explore appropriate marketing techniques. Collaborators can be all kind of organisations such as, for profit, not for profit, public and private sector, local and international, small and large. As shown, organisations bring a whole range of assets to the table including financial capital, technical and local knowledge, human capital, trusted relationships, operations infrastructure etcetera (Gradl et al, 2008).

Most companies are focusing on partnerships at the front and tail ends of the value chain with activities such as market analysis and at the end if the tail with getting the product or services to the BoP market through marketing, sales and distribution. In some cases however, companies have created a whole new value chain through a larger network of partnerships (Keating & Schmidt, 2008). Mair and Schoen (2007) argue that by creating value networks from the very beginning social ventures can deal with the constraints on the market. Whenever a critical activity or link is missing in the network the organisations either fills this gap by themselves or facilitated the creation of partnership with new company to provide the missing link. By incorporating these resources and capabilities into the business model, entrepreneurs can effectively build on the strength of others.

Social embeddedness

Social embeddedness stems out of collaboration with non-traditional partners and contributes to the creation of a competitive advantage; social embeddedness takes time to develop and cannot quickly be duplicated by competitors (Hart & London, 2005). Social embeddedness is

based on a deep understanding of, and integration with, the local environment and involves the ability to create a web of trusted connections with a diversity of organisations and institutions, generate bottom-up development, and understand, leverage, and build on the existing social infrastructure. Rather than looking to overcome weakness in an emerging business environment, this capability is comes from the ability of crafting a strategy that relies on resources and knowledge in the external environment (London & Hart, 2004).

According to Kraemer and Belz (2008), a firm has a larger incentive to form embedded ties in low-income environment with underdeveloped market-systems, as social networks embody institutional solutions when market institutions do not exist. Mair and Schoen (2007) point out in their study that successful social entrepreneurs involve their target group in their network at an early stage; by engaging the target group in the value creation process (such as in developing local capability) and not seeing them, as mere recipients of donations in end of the value chain, the target group played a vital role in creating value. This type of social embeddedness leads to several benefits for the company such as market knowledge and strong relationships between the firm and the target group.

The downside with collaboration

Even though long-term cooperation with external organisations has proven to be indispensable and explanatory for the success of social entrepreneurs establishing in BoP markets (Sharir & Lerner, 2006), Gradl et al (2008) highlight that collaboration itself, is not always easy. Take NGOs as an example; most often they have plenty of resource and experience in capacity-building activities, in addition, people are more open to presentation from NGO members who they already know. Nevertheless, it should not be taken for granted that NGOs accept a commercial solution to the problem. Prahalad (2006) says that the reactions from various stakeholders (NGOs included) can vary significant, from open hostility toward the MNCs, to a willingness to cooperate; this may cause innumerable and unforeseen problems. Because of differences in competencies, processes and organisational characteristics such as culture, norms, policies, there is a great potential for conflicts when interacting with local NGOS and/or local governments. Seelos and Mair (2007) point out that, for social entrepreneurs, a great deal of the BoP market challenges lie in managing the complexities involved in multiple partnerships that are required. Moreover, organisations in the private and public sector may have different approaches, mandates, prioritisation methods, and timescales in tackling BoP challenges (Keating & Schmidt 2008); therefore the formation

of coalitions can be a very slow process. A firm will have to learn to cope with differing priorities, time scales, decision cycles and perspectives of both the causes of the problem and the efficacy of the solution. Significant discussion, information sharing, the delineation of benefits to each constituency, and sensitivity to local debates is necessary (Hart & Prahalad, 2002).

A study by Seelos and Mair (2007) showed that a way to avoid problems linked to collaboration is to combine viable existing BoP models with the capability sets of private enterprises. This was proven to be potentially much more efficient and effective than putting together a large number of individual factors to form a coherent whole. One example is how Telenor has coupled with the Grameen Foundation in Bangladesh and has together with Grameen established Grameen Phone. By combining Grameen's wide knowledge of BoP markets with Telenor's expertise in information and communication technology (ICT), a successful and adapted BoP business model for rural communication by mobile phones was created. However, the study recognizes that the numbers of adequate partners with both efficient BoP business models and sufficient capacity and willingness to interact with multiple companies, may be limited (Seelos & Mair, 2007). Wynbourne and Wilson (2008) agree and argue that the key is finding the right partner. There is a balance to be found in the right partnership, where a business minded partner can lead the drive towards commercial sustainability and ensure a transfer of good business skills and strong leadership, while NGOs and similar groups can play a key role in maximising the societal value of BoP initiatives through ensuring sensitisation to community needs.

3.5 Criticism against the BoP concept

The BoP concept has attracted some heavy criticism for cynics (including Landrum (2007) and Karnani, (2007a) who mean that the individuals at the base of the pyramid is predominantly thought of as consumers whom multinationals and other large companies could turn into a lucrative market while solving problems stemming from poverty or, more precisely, from lack of appropriate and affordable products and services at the BoP. Kandachar and Halme (2008) mean that this is one of two present competing interpretations about the BoP business approach. The alternative interpretations have emerged as an elaboration of the first; these entail seeing the poor also as producers, not just consumers.

Karnani furthermore describes the lucrative BoP market as a mirage. The BoP market size is only 0.36 trillion US dollars, not 13 or even 5 trillion dollars as mentioned by others. The poor have little untapped purchasing power; customers are price sensitive, and the cost of serving them is high, given the small size of transactions and poor infrastructure. Murphy (2008) claims that the prevailing BoP market myths make it unbelievable that BoP strategies will achieve the high expectations and paradigm shifts alleged by the concepts most eager supporters. MNCs are unlikely to find easy-to-get-fortunes, the poorest of the poor will remain out of reach to many of these products and programmes, and the prospects for bottom-up innovation are slim and rarely, if ever, empirically supported in the literature (Murphy, 2008). Another topic of criticism has been how the BOP literature often confuses the emerging middle class for the poor. Karnani (2007a) says that *"several of the examples that apparently support the BOP proposition involve companies that are profitable by selling to the middle class in developing economies, although even these consumers seem poor to a Western researcher"*.

Hammond et al (2007) is answering the critique is by emphasising the private sector and market forces influence on improved competition, the lowering of prices and the increase of consumer choice by making products previously unavailable, available and affordable. They mean that highly necessary services such as basic health care, pharmaceuticals or clean water are often made available to the BoP by the private sector, which translates into greater welfare. Even in areas traditionally served by government, such as health care and education, it is clear that in many countries, the public sector cannot meet all the needs in the near term, and that private sector solutions are desirable and essential. Moreover, there is not enough charity or aid to meet the needs of 4 billion people on an on-going basis. Without sustainable, profitable businesses involved, efforts to address unmet needs must fall short (Hammond et al, 2007).

4.0 Empirical findings

In this chapter the Bangladeshi case will be described. Country facts as well as the health care system and the pharmaceutical industry will be gone through. In addition, the arsenic contamination situation will be explained. Moreover, the challenges associated with doing business with the poor in Bangladesh will be examined along with strategies for surmounting these. Finally, the company Viola Vitalis will be presented.

4.1 Bangladesh

4.1.1 Bangladesh country facts

The People's Republic of Bangladesh is a country in South Asia surrounded by India in all directions, except from a small border with Myanmar to the far southeast and the Bay of Bengal, part of the Indian Ocean, to the south. The region that once became Bangladesh belonged to the British India until 1947 when it became the eastern wing of Pakistan. Bangladesh gained their independence in 1971 after a civil war called the *"war of liberation"*. Bangladesh's development has since 1971 been injured by political turmoil with fourteen different heads of government and secular parliamentary democracy. Bangladesh is among the most densely populated countries in the world. In July 2010 its population size was estimated to be about 156, 000, 000.[6]

Bangladesh has made good progress in reducing poverty. The poverty rate fell from 49 per cent in year 2000 to 40 per cent in 2005, pushed by economic growth and a relatively stable inequality. The economy has grown 5-6 per cent per year since 1996, despite political instability, poor infrastructure, corruption, insufficient power supplies and slow implementation of economic reforms. These statistics are reflected in tangible improvements in poor people's lives, such as a sharp reduction in those living under straw roofs in rural areas. Unfortunately, climatic shocks such as the 2007 flood and cyclone, as well as rising food prices, have slowed the country's progress in reducing poverty. Among household-specific, sources of health shocks, especially among income earners, are particularly important contributors to poverty. Regardless of sustained domestic and international efforts to improve economic and demographic prospects, Bangladesh remains a poor, overpopulated, and inefficiently governed nation.[7]

4.1.2 Bangladesh's health care system

In Bangladesh, the quality of public service provision appears to be low in both health and education, which is likely to disproportionately affect the poor (CIA Factbook, 2010; World Bank, 2005). Nationally, per 10,000 people, there are twelve informal health care providers and eleven drug vendors but only five trained physicians and two nurses. The low quality

[6] This information is mostly collected from CIA World Factbook, 2010.

[7] This information is mostly collected from The World Bank's report "*Towards a more effective operational response – Arsenic contamination of groundwater in South and East Asian countries"* and CIA World Factbook, 2010.

public health care is part of a scattered system of various health care providers. Several sources such as governmental health facilities, various private clinics, doctor chambers and NGOs health service providers and millions of pharmacies, illustrate the Bangladeshi health care supply. Nearly 70 per cent of the first-level contact for treatment of acute infections in rural areas is with informal providers. The private sector comprises about 180,000 informal health care providers practicing modern medicine as village doctors or drug vendors/small pharmacies (Dimovska et al, 2009).

4.1.2.1 Formal providers

Government

The Government of Bangladesh, GoB, is by infrastructural means (it covers most parts of the country) the main provider of health care services in Bangladesh according to the Senior Officer of Communications at BRAC. In the government's own opinion they care for the whole country by having public health service providers in every village all over Bangladesh and most times they do not see the need for cooperation with local NGOs etcetera for providing health care. The government's facilities are very good on cost (they are fairly cheap), provide high service range and services providers[8]. All public treatment is provided free of charge, but with a low member fee, according to the Directorate of Health Services at MoH. There is, however, often a lack of medicine. Since Bangladesh is one of the most overpopulated countries, it is difficult for the GoB to provide medicine to all people in need. Public health care doctors write prescriptions but the government supply chain for medications is restricted, which leads to a reality where the people who come first have the possibility to buy or sometimes even get medicine for free. As a cause, in the end of the month there might be nothing left in stock.[9]

Private formal alternatives

According to the director of International Health Group at Chemonics (an international development consultancy firm), the governmental health services are still the main health care service provider for the poor in general and the female in particular. Relatively richer segments of the population turn to the private clinics, which are more expensive than the

[8] The survey is done at 768 households in each of the area; urban, rural in different geographical locations. Total sample unit were 1620. It was conducted in 2008.
[9] This information is mostly collected from an interview with Mr Rana, BRAC, Senior Officer of Communications.

governmental facilities, and the cost varies from clinic to clinic, but the service range is thought be higher.

NGOs delivering health care

The third alternative for health care in Bangladesh is, according to the Chief of party at the Smiling Sun Franchise Program, the NGOs; they represent an increasingly high quality source of health care and plays important role in assisting the government to fill in the gaps in the government's service coverage. The Bangladeshi government has expanded its contracting with NGOs to deliver health services in areas which the government does not have the capacity to serve. For most NGO clinics, the poor and disadvantaged are the main customers.

4.1.2.2 Informal providers

Pharmacies and village doctors as main source of health care services

The provision and use of health care in rural areas differ somewhat from the urban areas, however, for both areas, informal providers provide most frontline treatment. In rural areas, many people visit so-called healers and religious leaders for health issues since this is a cheaper alternative (often free of charge) than going to a doctor. However, the lack of appropriate knowledge about sickness management, and some of harmful treatment practices such as overprescribing and inappropriate prescribing can be very harmful. In addition, there are many illegal pharmacies that neither have been registered, nor have got a licence to sell medicine. Sadly, it is common that these pharmacies sell fake or low-quality medication.[10]

4.1.3 Bangladeshi pharmaceutical industry

There are 160 pharmaceutical companies in Bangladesh[11], which make the market highly competitive, unfortunately not all companies can be said to deliver quality medicine. The total market size is about 1 billion dollars, out of this, about 40 companies of the 160 pharmaceutical companies, holds 95 per cent of the total market according to the vice president of the pharmaceutical company Millat. These 40 companies are constantly trying to push out the smaller companies from the market by for example, influencing government to make regulations stricter. Large investments are needed for a pharmaceutical start up, to build

[10] This information is mostly collected from the interview with the Senior Sector Specialist at BRAC Health Program.
[11] Bangladesh Association of Pharmaceutical Industries, *39 Annual General Meeting, Annual Report 2009-2010*, 27 March 2010.

a manufacturing plant and to get the required licence for the production and selling of pharmaceuticals. The pharmaceutical industry used to be more profitable a couple of years ago, while today, companies are struggling since prices of raw materials and packing materials have gone up. Furthermore, regulations for how much prices can increase and the boom of new companies entering the market have affected the profitability in a negative way. The most profitable market in Bangladeshi is the capital, Dhaka, and its surroundings. The vice president of Millat explains that this is where the wealthiest people live and where most doctors, hospitals and other health providers are located.

There is an obvious advantage being lone of the larger pharmaceutical companies in Bangladesh, since they are well known with a clear track record, these are able to distribute their medicine all over Bangladesh. Hospitals and doctors, who care for the order process etcetera, prefer to buy from established actors. This is a cause of the unserious providers on the market. The public health care procures medicines centrally and distribute to the public hospitals. The hospitals maintain the medicine stock and dispose the stock when/if closure. Since there are so many pharmaceutical companies in Bangladesh, the Bangladeshi government/public health care buy most of the medicines from local pharmaceutical companies, according to the Directorate General of Health Services at MoH. According to several of our interviewees a huge part of the medicine produced in Bangladesh is exported to different countries in Asia, Africa and Europe.

4.2 The arsenic situation

The contamination of arsenic in groundwater in Bangladesh is the largest poisoning of a population in history (Smith et al, 2000).

In the early 1970s most of Bangladesh's rural population got its drinking water from surface ponds and nearly a quarter of a million children died each year from water-borne diseases. In order to prevent the epidemic, the GoB with help of UNICEF and other international development partners installed millions of tube-wells. The provision of tube-well water for 97 per cent of the rural population has been credited with bringing down the high incidence of diarrheal diseases and contributing to a 50 per cent reduction of the infant mortality rate. Paradoxically, the same wells that saved many lives then came to pose a threat due to the hazard of arsenic. The tube wells were dug too deep into the ground water, and as a result

they reached the naturally arsenic contaminated groundwater. Out of the regions in the world with arsenic contamination problems in the groundwater, Bangladesh is the worst case identified and sadly it is mostly poor people living in rural areas that are affected by this (Smith et al, 2000).

The problem of high levels of arsenic was first detected in Bangladesh in 1993, and was subsequently confirmed after 1995. About 35 million people are today thought to be drinking groundwater that contains arsenic at concentrations greater than 0.05 mg/liter, which is the Bangladeshi maximum limit of arsenic in water that is accepted. The WHO recommendation level has a maximum limit at 0.01 mg/liter, but due to economic considerations many developing countries still use the former WHO recommended concentration of 0.05 mg/liter. Around 57 million people are believed to be exposed to a higher concentration than 0.01 mg/liter. It is however not known how many of these that will develop arsenicosis.[12]

Today there is an estimated amount of 11 million tube-wells in Bangladesh serving a population of around 133 million people. Over the years, the Bangladesh Arsenic Mitigation Water Supply Project (BAMWSP) and a number of non-governmental organisations, NGOs and international agencies (for example Japan International Cooperation Agency (JICA), Asia Arsenic Network (AAN), NGO Forum, and UNICEF etcetera) have carried out major screening programs of groundwater across Bangladesh. To this date around 4.2 million tube-wells around the country have been tested for arsenic. The total number of known and registered patients was 38,320 (in 2009) according to the Directorate General of Health Services at MoH and Dr Wazed at Department of Occupational & Environmental Health at the National Institute of Preventive & Social Medicine (NIPSOM). According to the head of the arsenic project at MoH, around 50 per cent of these patients are in the mild or moderate stages of the disease.

Generally, it can be said that far more rural than urban populations are at risk. This since it is easier and more affordable to implement and maintain arsenic removal technologies in urban areas.

[12] http://www.sos-arsenic.net/

4.2.1 Arsenicosis - the disease

4.2.1.1. Health, social and economic effects of arsenicosis

The dangers associated with a long-term exposure to arsenic are now days well known, both among experts as well as people suffering from the disease. The most prominent health problems in affected populations are skin disorders such as melanosis, keratosis and skin cancer. Non-visible symptoms include damage on lungs, kidneys, and other internal organs. In severe cases arsenic poisoning can lead to internal cancer in bladder, lung or kidney, cardiovascular diseases, peripheral vascular disorders, respiratory problems, and diabetes. The time taken to develop the disease varies from person to person and may take from 2 years up to 14 years. These effects may in worst cases lead to restrictions in the patient's ability to work, which is of course devastating for a poor family depending on daily income, according to Mr Shimamora, the Arsenic Mitigation Policy Advisor at JICA.

The social consequences of the disease used to be extensive, since due to illiteracy and lack of information, many confused the skin lesions caused by arsenic with leprosy. Within the community, arsenic affected people were banned from social activities and sometimes faced with rejection by family members. This situation has, according to the Directorate of Health Service at MoH, improved since people now are better informed about the disease.
Mr Ellery Water and Sanitation Specialist at The World Bank stresses that the economic impact of poor health arising from arsenic in ground water in Bangladesh, i.e. the cost of not acting, is very high. The gross domestic product (GDP) output lost due to illness and people becoming unable to work is estimated to be 23 billion US dollars, while the cost of treating arsenic related diseases is estimated to be 0.6 billion[13] US dollars.

4.2.1.2 Earlier/alternative treatments

Human exposure to arsenic occurs through a number of different routes. There is no other medicine developed especially for arsenicosis so far. The primary treatment for arsenicosis is to reduce on-going exposure as much and as quickly as possible (Mazumder, 1996). Thereafter the emphasis should be on the provision of a diet high in protein and vitamins. The country manager at Asia Arsenic Network (AAN) means that the great importance of a nutritious diet is a big issue for many poor people.

[13] For a constant discount rate of 10 per cent over a 50-year period.

Micronutrients such as vitamins A, C, E, zinc, selenium and folic acid have been shown to be effective in the alleviation of arsenicosis symptoms, especially skin lesions and in accelerating the natural excretion of arsenic from the body. The government is in charge of the providing of a guideline for what medicine that is preferable to use for the disease. Currently, the treatment recommended is antioxidant tablets, iron folic-acid and vitamins, such as vitamin C. In cases of keratosis, an ointment is used. For the people who do not have the ability to pay, the government provides some limited medicines for free. The treatment is for three months or more. If the condition still has not improved then the patient is referred to go to a specialized hospital to get further treatment and is then considered a complicated patient. However, since drinking arsenic contaminated water causes chronic toxicity, there is a crying need of development of an efficient treatment (Rahman et al, 2006).

Spirulina[14], garlic and maize have been tried out as potential remedies with differing results and the opinions are split about the potential treating effects from these materials. There seems to be a couple of other Bangladeshi pharmaceutical companies trying to develop new medication for the disease, but so far there is none on the market.[15]

The preventive measure, i.e. providing safe water, is considered the most important and urgent intervention.[16] The general opinion among Bangladeshis, according to the interviewees is that you can stop the progress but that there is no way to cure the disease. However, food represents a further potential exposure pathway to arsenic, particularly where crops are irrigated from high-arsenic groundwater and safe drinking water will not help this issue. In addition, people already suffering from the disease will need an effective medicine and Professor Misbahuddin, from Bangabandhu Sheikh Mujib (Medical University) stresses the fact that an effective medicine is required.

4.2.1.3. Neglected disease

Though considerable attention was initially focused on the arsenic issue, this problem has received little attention by both government and development partners over the last five years.

[14] A blue-green algae more commonly used for diseases such as diabetes.
[15] This information is collected from: World Economic Forum, 2009, *The Next Billions: Unleashing Business Potential in Untapped Markets - Executive summary*.
[16] The World Bank, Environment and Social Unit – South Asia Region, Water and Sanitation Program (WSP), *Towards a more effective operational response – Arsenic contamination of groundwater in South and East Asian countries*, Volume II Technical Report.

The institutional challenges to an effective arsenic response are large and currently seem to be increasing as arsenic drops off the list of top priorities. Poor communication, overlapping mandates, and weak accountability in some cases mean that the different actors involved have limited incentives to work together.[17]

According to the news journalist at bdnews24.com the interest from media has dropped as a cause of all other issues Bangladesh is suffering from, the political changes, corruption, killings, and strikes etcetera.

The Directorate General of Health Services at the MoH, claims that the arsenic issue is not a major problem for Bangladesh since there are only a few areas in the country that are affected by arsenic contaminated water. Dr Khandker, Senior National Consultant within Environmental Health at WHO, stresses that the decision makers, both in government and NGOs, are mostly located in Dhaka, while the people suffering are situated in rural areas. Due to this, the decision makers therefore do not see the range of the situation. The scattered rural communities most affected by arsenic often have limited political presence and are in particular need of support. In addition, arsenicosis is not an epidemic; it takes a long time to develop the disease and is therefore not considered as urgent. Thus, in terms of Bangladeshi health problems, arsenicosis is not a prioritized disease.

4.2.2 Actors operating on the arsenic issue

Government

The GoB elected in January 2009 committed in the election manifesto that the arsenic problem will be tackled and measures will be taken to ensure the supply of safe drinking water for all by 2011. The government has together with stakeholders undertaken a range of arsenic mitigation strategies guided by the National Policy for Arsenic Mitigation issued in 2004. However, a common opinion among the interviewees is that the current government is not putting much effort in the arsenic issue. Plenty of policies and implementation plans for mitigation projects have been written, however none of these are active today[18]. Both the

[17] Ibid

[18] According to executive summary of the arsenic situation in Bangladesh (a joint publication of FAO (Fiat Panis), UNICEF, WHO and WSP (water and sanitation project), published in March of 2010)

policy and implementation plan are said to need the revitalized by the GoB to bring a new dynamism to arsenic mitigation in Bangladesh.[19]

The GoB has divided the arsenic issue into two parts; the health issue and the safe water supply issue. The Ministry of Health is working on the first part. It is the Local Government Division (LGD) that is working on the safe water supply project, and is the managing unit on the arsenic issue. About 300 lakh[20] taka (approximately converted to 3 million SEK) has been spent by the government on arsenic remedies (vitamins, antioxidants and skin crèmes). Another 235 lakh taka (approximately converted to 2.35 million SEK) is under process of purchasing.[21]

The government started a tube-screening project in 2001 where local NGOs were involved as a way of covering the whole country. The NGOs trained field workers to find arsenicosis patients but unfortunately the education was not very effective which made it hard for the field workers to discover and identify the right symptoms. Dr Iftikhar from University of South Asia, and former head of the arsenic project at MoH, says that in addition the project was blamed to have some severe issues with bureaucracy. Too many, too complicated and too costly procedures made the project work very slow. In those days arsenic was a hot topic, which meant lots of funding, but unfortunately a lot of the money disappeared as a cause of corruption.

The president at the NGO *ESSD* (Elevating society through skill development), explains that many Bangladeshis seem to believe that the government neither has the technology, nor the knowledge or even infrastructure to handle the arsenic problem. The affected zones are growing and that the government has a hard time controlling the disease. The government has made several attempts to count the number of affected people but these have not been very successful and had a fairly large default due to the lack of knowledge held by the government workers on the symptoms of the disease. The government is now doing a new attempt, in order to find all the people suffering, searching patients going from house-to-house. Besides the general lack of knowledge on how to carry out effective action-oriented research and

[19] This information is collected from: World Economic Forum, 2009, *The Next Billions: Unleashing Business Potential in Untapped Markets - Executive summary*.
[20] One lakh= one hundred thousand taka
[21] This information is collected from the report *"On arsenic health issues"* by Directorate General of Health Services at MoH, 2009.

implementation on the ground, there is a low capacity for data and information management by the government. In addition, local government is not equipped to help communities with new water sources.[22]

NGOs

Asia Arsenic Network (AAN) is one of the few NGOs that solely focus on the arsenic issue. AAN works mainly on the safe water supply issue by setting up new water options in affected areas. For this, AAN pays 90 per cent of the cost and the community pays the rest 10 per cent. AAN also does mappings of the contaminated wells and studying the geological conditions by hiring local NGOs to control tube-wells. By now AAN have a strong local presence and connection with about ten districts and also good contact with the local governments, which is said to be crucial for AAN. AAN also provides remedies (vitamins and skin crèmes) to arsenic patients, the cost model is then the same, the patients pay 10 per cent of the cost and AAN pays 90 per cent. AAN's reason for charging 10 per cent is that people will misuse the free medicine. The wholesale price for the crème is 35 taka (approximately 3.5 SEK) and retail price is 50 taka (approximately 5 SEK).

Bangladeshi Rural Advancement Committee (*BRAC)* is the largest NGO in Bangladesh and is involved in many different causes. They used to have an arsenic mitigation project, but now it is included in other safe water programmes. By being widely spread out in Bangladesh and having an established network and infrastructure, BRAC has a significant comparative advantage compared to other NGOs. Thus, BRAC has no problems in getting funding for their activities and are engaged in almost all areas of social interest in Bangladesh, however, on the arsenic side, their focus is on the preventive parts.

WaterAid is working on increasing poor people's access to safe drinking water, sanitation, and hygiene education. The organisation has been operating in Bangladesh since 1986 and has got 21 local partners. WaterAid was one of the organisations that funded the tube-wells that started the catastrophe. They have, however, had all their funded tube-wells tested, and where arsenic was found they have helped communities to find alternative safe water sources. WaterAid is nowadays working on arsenic removable technologies at the house hold level. [23]

[22] This information is mostly collected from the interview with the vice president at ESSD.
[23] www.wateraid.org

4.3 Challenges and strategies related to the Bangladeshi BoP market

4.3.1 Low purchasing power and lack of financial services

According to the WRI report[24] and definition of the threshold income level of 3,000 US dollars per year, 99 per cent of the Bangladeshi population can be said to be BoP consumers. About 2/3 of the population has a yearly income as low as 1,000 US dollars. Hence, most companies targeting the Bangladeshi market do consequently target BoP customers.

A study conducted by Smiling Sun Franchising Program, SSFP, show that the average spending on medication and health care compared to their income is 1/13 among urban households and 1/8 in rural households, thus in both areas, people spend a relatively high proportion. Even the very poor spend relatively much of their income, which reinforces the view of Bangladeshis as positive to taking medicines. If a doctor during a consultation does not prescribe a medicine, the doctor is, by many, not perceived to be a good doctor.

Because of the low purchasing power, NGOs and government offer subsidised health care or sometimes even medication for free. The Senior Officer of Communication at BRAC mentions that they have a special program for the very poor where they sell the medicine to the wholesale price. Another approach to lower the price is to offer the patients to buy medicine piece by piece. As a cause, many Bangladeshi pharmaceutical companies produce these single packages, not only for medication but also for bandages and plasters etcetera.

Grameen bank is developing a health care system for the poor called Grameen Health. The mission is to create health care insurances, funded by micro loans, to cover a whole family, however, these do only reach a few per cent of people who would need this.[25]

4.3.2 Insufficient distribution nets

Since all of the thousands pharmacies in Bangladesh are independent and not a part of a pharmacy chain with centralized supply systems, reaching out to these providers demands a huge effort for any pharmaceutical company. In addition, since infrastructure such as roads are bad, the transport of medication is not as simple as in the western society. As a cause, for any provider of health care it is very important for a company to team up with other

[24] http://www.wri.org/stories/2008/07/strengthening-poors-roots-resilience
[25] http://www.grameenhealth.org/

organisations in order to be able to reach out to the country. Many NGOs such as BRAC operating all over Bangladesh are using local NGOs in order to solve this problem. There are about 3,000 BRAC branch offices in the Bangladesh with 85,000 female community health workers who cover more than 68,000 villages. The community health workers go door-to-door selling medicines and at the same time inform people about the most common diseases. They do not get paid but they do get a percentage of the medicine they sell.[26]

4.3.3 Marketing - Information to the market and from the market

Providing information to Bangladeshi customers is complicated by the fact that only 48 per cent of the population in Bangladesh is literate (CIA Factbook, 2010). When it comes to information about arsenic, the GoB has been using other media sources such as TV, ads with pictures, interpersonal communication of health workers, miking[27], billboards, advocacy meetings, posters, leaflets, orientation workshops for arsenic mitigation committees, video shows at village markets together with other growth centres, and through folksongs and other traditional methods and techniques. As a result, most people are now aware of the risk of drinking contaminated water, however, many people do not have the option to drink safe water.[28]

Several of the interviewees claim that for any provider of health care services and medications, a positive word-of-mouth is highly important in the rural communities. Because of the lack of traditional media channels as source of information, people talk to each other in order to know where they can get high quality health care services. A BRAC health worker stresses the fact that the rural people also have a high confident in doctor's prescriptions, patients will buy the medicine that is prescribed, and are not very likely to buy a substitute. Even though most Bangladeshis are poor, they find quality most important when choosing what medicine to buy. As long as they know that the medicine is efficient (and if they can afford it) they will find it worth the money.

An indirect way of marketing health care to specific rural communities is by informing local doctors and local practitioners about the products and services. By holding community

[26] This information is collected from the interview with the Senior Officer of Communications at BRAC.
[27] A person riding on a bicycle with a microphone, informing people.
[28] Director General of Health and Services, *On Arsenic Health Issues*, Dhaka, 2009.

meetings and seminars, patients will be informed, which in turn could lead to the creation of consumer demand.

In addition to the difficulties of getting information to the market, any company trying to establish on the Bangladeshi market will have a hard time getting necessary and appropriate information from and about the market. For example, there is no track record of how many patients that are diagnosed with arsenicosis. Furthermore, there seems to be a vagueness if WHO is the one institution to accept medication for arsenicosis or not, even among our interviewees who are in decision making positions of different organisations and institutions.

4.3.4 Cultural and institutional context

4.3.4.1 Corruption and bureaucracy

Bangladesh is one of the world's most corrupted countries and despite improvements made recent years; the country continues to be in the league of those where corruption continued to be pervasive. Among the people corruption is quite clearly a *" way of life"*. A recent survey reinforces found 95 per cent of the Bangladeshi people believed that the police were the most corrupt department in the country. 62 per cent believe that the primary responsibility for corruption in Bangladesh lay in the hands of government officials.[29]

Corruption is very common in the pharmaceutical industry as way for the pharmaceutical companies to convince doctors to prescribe their products. Fancy gifts such as cars, TVs and motorcycles are often given to the doctors. This makes it very hard for all smaller companies to stay on the market and compete against the larger companies with heavy financial resources. Another related problem at the Bangladeshi pharmaceutical market is the amount of companies producing fake medicines. A news journalist explains that this has made the Bangladeshi consumer suspicious when buying medicine from a company they do not recognize, which complicates the situation even further for smaller, not very well-known companies. Even though there is a high rate of corruption in Bangladesh, many of the large international corporations that are missing in, for example, Laos and Cambodia can be found in Bangladesh. The cheap and dedicated labour force makes the country highly attractive.

[29] http://www.ti-bangladesh.org/CPI/CPI2010/5_CPI2010_table_sources_2010-10-20[1]-latest.pdf

Doing business in Bangladesh is furthermore associated with plenty of paper work and several policies to follow. The power structures and hierarchies are obvious, good relations to important businessmen and politicians are a must to pass the chains of government authorities. Thus, to succeed in the bureaucratic environment, many companies rely and exploit on the misuse of power by government officials. It is almost impossible to achieve any kind of legitimacy towards the government for small companies (without the use of corruption); therefore influential cooperation partners are crucial. The same circumstances prevail when applying for grants; it is nearly only larger organisations with good reputation and track record that are able to get funding. Moreover, funding is often conducted by routine and on familiarity basis.[30]

4.3.4.2 The powerful NGO sector

"Muhammad Yunus was almost becoming a politician, that's how important NGOs are in this country; we consider them as the third force in the country".[31]

Bangladesh has the largest amount of NGOs in world, which strongly influences the development industry. The NGOs emerged following the war of liberation to help the communities suffering from the war. Afterwards, with assistance from foreign donor agencies, they expanded their activities to deliver a variety of services including microcredit, essential health care, informal education, women empowerment and rights advocacy. Nowadays, there is wide variation in the functions of different NGOs. Microcredit schemes are becoming popular due to the success of the Grameen Bank, which paved the way for wider adoption of microcredit amongst NGOs (Zohir, 2004).

The NGO sector engages by large in activities traditionally run by the government. The NGOs with their participatory approach are said to deliver the services to targeted groups of the population better than the hierarchically structured government agencies. This has in combination with the government failure has prompted donors to route funds through the NGO sector (Zohir, 2004).

[30] This information is mostly collected from Mr Rohan, journalist at bdnews24.com.
[31] Dr Iftikhar, Professor and Dean at UniSA School of Public Health & Life Sciences, Dhaka, 100512.

Due to the large amount of money being transferred to the NGO sector in Bangladesh, sadly the notion *NGO* has being abused. The senior national consult at WHO says that there are about 2000-3000 serious registered NGOs. The concept of NGOs has been a way of generating funds by organisations that do not have the right intentions. As a consequence of this, the notion itself does not have a positive connotation any longer for many Bangladeshis. The NGOs are often blamed for misusing their power and using the money meant to help the poor people, for themselves. According to several of the interviewees, the term *"development business"* is frequently used as a way of indicating that organisations such as Grameen are using their social and micro-credit business network in the name of poverty reduction, and some peoples even think that it is without creating any real improvement for the poor.

As a cause of the widespread suspicions against many NGOs, most aid agencies now give money to the largest NGOs with good reputation; these will then allocate the money to smaller NGOs. For example, SIDA distributes financial support via the World Bank, which in turn lets the government allocate the money to different projects. Many aid agencies are of the opinion that regarding corruption and how to make as little money as possible disappear, the best way is to go via the government, comparing to donating to smaller organisations and projects, where it is even more common that money just disappears.[32]

NGO involvement in health services runs parallel to the public health services. From the beginning, services provided by the NGOs were largely limited to consultations only, since major treatments require large investments. Much of the NGO support was also in the form of raising awareness and facilitating links with rural health centres. During the recent past, some of the NGOs have ventured into establishing their own hospitals, aiming to subsidise the health care for the poor. The Bangladeshi government collaborates with NGOs when there is a need for this, as the MoH views this collaboration, *"only if there is something the Bangladeshi government cannot do themselves"*. The directives for the NGOs are clear; no duplication of work is accepted. If the government already has what they consider a satisfactory health care service in a certain area, no NGOs are allowed to start their operations there. The government sometimes collaborates with NGOs, especially for doing research.[33]

[32] This information is mostly collected from the interview with Britta Nordström, SIDA.
[33] This information is mostly collected from the interview with Dr Ullah at the Arsenic Programme, Directorate of Health Service.

From a business point of view, collaborating with NGOs is accentuated by many as a key for success in Bangladesh for business wishing to target poor people in rural areas. Firstly, by having ventures and sites out on the actual country side, NGOs hold a lot of knowledge and contacts, secondly, larger NGOs most often have a close connection to the government and it is also more likely that these will achieve funding for a project than a for-profit company.

Consequently, the NGOs are greatly influential in Bangladesh and hold a lot of power, however, everyone does not like them. Especially the private sector holds great dubiousness against the development scene, which NGOs are a part of. The NGOs can be described as a body of institutional arrangements, which were created as a result of failures in government delivery of certain social services. Later, they expanded into many other territories, not always without complications and by using ethical methods. However, today the dynamics within the NGOs, the internal incentives, the pressures of donors and the domestic government, all shape the scope and character of NGO activities in Bangladesh (Zohir, 2004). Thus, when doing business with the poor in Bangladesh, not linking with the NGOs seems impossible.

4.3.4.3 Aid agencies as influential actors for the survival of NGOs and social businesses

Due to the poor financial situation in Bangladesh there are many aid organisations supporting the government and other organisations as to improve the living conditions for the poor within the country. However, is it not always the case that financial grants, given from these organisations, end up where they are most needed. Take the arsenic issue as an example, the political economy in the area has been described as such that many actors continue pursuing their own interests, not necessarily in a cost-effective manner contributing to solving the issue or to benefit of those affected by arsenic.[34]

In the end of the 1990s when the arsenic contamination situation was revealed, the topic was constantly discussed in media. Several of the interviewees explain that nowadays, more than 10 years later, the issue is not a recognized hot topic in media that it used to be. Bangladesh is suffering from many other and more urgent diseases and catastrophes, such as cholera, tuberculosis, cyclones, flooding etcetera. As a result the disease is not considered as urgent as other diseases and disasters. This has led to a shift in priorities among aid organisations; these

[34] This information is collected from an interview with Dr Khandker, Senior National Consultant at WHO.

are not showing that much interest in the arsenic situation anymore. The decrease of funding from aid organisations results in a changed focus from NGOs as well. Instead the NGOs start to work on new issues that achieve more attention and heavier donor support. Currently, environmental concerns and HIV are popular issues among donors and are therefore attractive topics among NGOs.[35]

4.4 Viola Vitalis

Viola Vitalis was founded in 2005 by the Bangladeshi micro-biologist Abdul Kader. Abdul Kader, hereby named as Kader, holds a PhD in Molecular Microbiology from Karolinska Institutet in Stockholm. A Bangladeshi office is set up in Dhaka where about 4-6 people are employed to run the business. Viola Vitalis is associated with Allium Vitalis Inc., located in Berkeley California. Viola Vitalis and Allium Vitalis have developed the treatment for arsenicosis together.

4.4.1 Company mission and vision

Viola Vitalis' mission is to develop products, such as medicine, for marginalized people. By taking leverage of available research and common knowledge the company designs and developed what they call, neutraceuticals, nutrient based health care and medicinal products. Kader explains that the company aim is not only to work with the arsenicosis issue but also with other market-based solutions that can benefit the poor people. Kader wants Viola Vitalis to be an example of how cheap innovative techniques, that improves the life conditions for poor people, can be developed. Right now, the company is discussing a cooperation with the Danish company Vestergaard Frandsen, who has invented the *"Life Straw"* (a straw including a filter), a point-of-use solution to access safe water.[36]

4.4.2 Products and services

Products

Viola Vitalis has developed two types of products for people suffering from arsenicosis, Ars-detox, a capsule and Arsenicure, a lotion. Both should be used to mitigate the effects of arsenic poisoning. The capsules are for internal purposes and the lotion is used for the skin symptoms. The products are unique in since they are supposed to be the first known treatment

[35] The World Bank, *Towards a more effective operational response – Arsenic contamination of groundwater in South and East Asian countries*, 2008.
[36] http://www.vestergaard-frandsen.com/lifestraw.htm

ever developed especially for arsenicosis. Viola Vitalis does not see any others as direct competitors since it is no one that has developed this type of product before. They are aware of a company producing spirulina, which is not approved by the Drug Administration so far, and additionally other companies producing various dietary supplements etcetera, but Viola Vitalis does not consider them as direct competitors.

According to Kader the research used in the development of the products has been public for a long time. He means that by using this common knowledge, the large overhead costs for R&D that pharmaceutical companies have, can be let go. The reason why no pharmaceutical company has used this knowledge or made further research in the area to develop medicine for arsenic treatment, is in his opinion, that the main target group, the people suffering from arsenicosis are very poor and lack purchasing power. In Kader's point of view the pharmaceutical companies are not interested to develop products or services for the marginalized people as the companies' *"interest is on return on investment"*. Kader stresses that Viola Vitalis on the other hand is more concerned about *"return on impact"*, which he claims can be measured in social value and how many poor people who are benefited from the business.

The FDA, Food and Drug Administration of the United States classify all the ingredients as GRAS, Generally Recognized As Safe for Human Consumption, which means that the product itself is not harmful but this does not say anything about the efficiency of the product. A three-month treatment is considered a complete cure. If the patient stops drinking the contaminated water, the symptoms should not recur.

The company calls the products neutraceuticals, nutrient-based products with pharmaceutical effects. This means that products consist of natural preparations i.e. food substances. For example, the main ingredient in Ars-detox is garlic and whey-protein. Since the company argues that the products have pharmaceutical effects but are not pharmaceuticals, the products do not fit within the category systems in Bangladesh. There is one institution for the regulations of food, dietary supplements and nutrient-based products, and then there is the Drug Administration who approves pharmaceutical products. Consequently, by calling it a nutrient-based product with pharmaceutical effects, there is no institution in Bangladesh that can judge the medical effect of the product, approve or dismiss it. However, a professor at the Medical University means that if a product claims to have medical effects on the human body,

it should be classified as a pharmaceutical. In addition, it is un-legal to sell products which claims to have pharmaceutical effects, if this is has not yet been verified. As already mentioned in the methodology section, our conclusion is that Viola Vitalis must get their products accepted by the Drug Administration in order to sell the products for the purpose of treating arsenicosis. Thus the starting point for the analysis is that the products are can be sold as pharmaceuticals.

Besides, the arsenic products the company has developed some other products, one antioxidant lotion, one anti-oxidant capsule and one anti-inflammatory cream. These products does not target the specific poor people segment, rather it is sold relatively expensively in Bangladesh and in the US. By cross subsiding, these have covered the costs for the arsenic products so far.

Services- distribution by mobile teams

Identification and diagnosis of the disease is crucial in order to make sure that accurate treatment is given. A doctor's presence is required to set a diagnosis as a way to prevent that the products would be used for other skin related diseases and to increase the credibility of the medicine. This also affects the range of potential re-sellers. There are special types of pharmacies where doctors are available and these types are opted for.

As a way to overcome the problem with identification and the lack of knowledge about the diseases and treatment, Viola Vitalis has developed a system to both deliver these services, diagnosing and care in addition to the products. By using mobile teams, Viola Vitalis can reach out to provide both treatment and information about the disease. A mobile team consists of one base clinic that has several satellite clinics under supervision. The base clinic, a truck, holds both arsenic products and testing equipment. It should have one doctor, one nurse and one person called the awareness worker. The awareness worker is responsible for visiting the arsenic affected areas in beforehand to gather and inform the affected patients about the forthcoming treatment possibilities. In addition, a person who in turn is responsible for communicating with the patients is recruited from the village. The satellite clinic can be a school, a community house or whatever is suitable and vacant at the moment. A base clinic visits several satellite clinics where the patients come to meet with the doctor, receive the arsenic products and learn about the treatment. The doctor stays for approximately two days at every visit and those who are in need of further help will be transferred to the base clinic.

Viola Vitalis means that there is a low establishment cost for this system, which means that most of the resources are directly utilized for curing the patients.

4.4.3 Company status

Network and initiated collaborations

The company has created a fairly large international network of supporting partners. In addition to Allium Vitalis, the Helmholtz Centre for Environmental Research in Germany and the Swedish Sustainability Foundation are collaborating with the company. In Bangladesh there are different types of collaborations. The company is using the testing labs of ICDDR,B's, a renowned health research institution located in Dhaka. They have also started some experimental cooperation with an NGO called Ledars as a way to make their operations in the rural areas more effective. In addition, a wide network of influential people has been developed; professors, doctors, politicians and researchers at WHO among others.

The market for the arsenic products

The customer segment is principally said to be poor people suffering from arsenicosis, however, due to the low purchasing power of the most effected patient group, the country manager at AAN means that, a large group of these are not likely to be able to pay for their own treatment. Viola Vitalis' view is that medicine should not be given for free; Kader means, if medicine is provided for free to NGOs, it could be misused and sold in the marketplace. This view is very common among actors in the health care sector in Bangladesh. Kader is most interested in selling to the public health institutions or larger NGOs since these often buy large quantities and are not as price sensitive as the end-consumers. These could later on sell the products with subsidised prices. A common opinion among the interviewees is that selling to these actors is generally *"very good business"*, nonetheless, this means that the competition is high.

Marketing activities

So far there has not been much effort put into neither marketing of the product, nor finding potential investors for the company. When asked about how Viola Vitalis currently are considering attracting its customers, different PR-activities[37] are mentioned. To reach the government and other middlemen customers a couple of press-conferences and seminars have

[37] PR is here referred to as marketing communication in unpaid media channels.

been arranged with good results. Many articles has been published in both Bangladeshi and international media about Viola Vitalis and the arsenic products. Internationally, Kader has been very successful in attracting the attention from the media. The Swedish public service channel, SVT showed a video clip showing the company operating in Bangladesh in the news report and British BBC has showed interest in doing a similar feature. In June 2010, Kader held a speech at the Tällberg conference, a world famous forum for social entrepreneurship. However, Kader thinks these types of PR activities are too costly in terms of organisational and monetary resources and does not give the results he aims for. He is sure that his company gains from the arsenic issue getting more attention in media, however it is too expensive. One way of getting the journalists to write about it is to make them visit and see for themselves how the patients out in the villages are effected by the treatment. However, according to the news journalist at bdnews24.com, a company trying to attract journalists, often has to pay for the costs of getting the journalists there.

Financial situation

For Ars-detox, the company is charging 600 taka for 100 capsules (approximately converted to 63 SEK) The lotion, Arsenicure, costs 130 taka (approximately converted to 13,5 SEK).
One container of 100 capsules lasts for approximately one month since the recommended consumptions is 3 capsules a day. The lotion is also deemed to last for one month. For a whole treatment of three months, both the capsules and the lotion are needed. This means a total cost of 2190 taka (3* 600+ 3*130) which corresponds to approximately 230 SEK. As already mentioned, this is the production price so most likely the costs will be higher and perhaps include the service cost for the doctor. Viola Vitalis understands that this is considered as very expensive for the poor people of Bangladesh but stresses that for intermediary customers such as government, this is not expensive. So far the company has only experienced income from the sales of anti-inflammatory products in the U.S. and Bangladesh. According to the finance manager at Viola Vitalis, there has been no sales of the arsenic products, only a product sample has been produced; 500 containers of Ars-detox, and 1,000 Arsenicure lotions. Kader has also risen some funding from a private friend but beyond this, Kader stands for all other expenses himself. Right now, the revenues generated from Kader's consultancy business covers the operational overhead costs.

The ingredients of the arsenic products are imported from the U.S. In Bangladesh and a local manufacturer is putting the ingredients together and this is the reasons to why the products are

fairly expensive. A way to cut down on costs would be to use local ingredients. The price could perhaps be reduced if the production scaled up since then manufacturing price would go down. Right now, the amount that Viola Vitalis buys is considered as a very trivial order for the manufacturer. If Viola Vitalis had their own production plant, of course it would be cheaper to produce. On the other hand, setting up a production plant demands heavy investment from the business and Kader also means that it requires long processes with the authorities. The company's overhead costs consist of wages to the employees in Dhaka, office rent and transportation costs for going to business meetings and visiting the arsenic areas. As by now, the company offers their products for the production prices i.e. no marginal and no profit for Viola Vitalis.

4.4.4 Company challenges and unresolved difficulties

Long start-up phase

Even though the company has been running for five years, it is still considered to be in the start-up phase due to the difficulties with getting the approval for the products. The company is right now waiting for the government to give some kind of certificate that would allow them to sell, but due to the bureaucracy, corruption and the long timetables, this is thought to take several years. Consequently, an employee at Viola Vitalis means that this is seen as the largest challenges in combination with the lack of understanding the term and meaning of neutraceuticals. The company can afford to wait for the approval for a couple of more years, according to the financial manager. However, Kader expresses that he is tired of the lack of understanding and cooperation willingness from the government. His firm belief is that the arsenic issue is the government responsibility and thus they should buy the products and deliver these to the patients. The professor at the South Asia University stresses that in order to put pressure on the government a lot of things has to be done; lobbying, negotiating, and impressing ministers (with for example bribing), where the last activity is most likely thought of as corruption from a European point of view.

Resistance to collaboration

As already mentioned, Bangladesh has a history of corrupt regimes and unethical methods used in the development business. This has a great influence on the decisions and strategies made within the company. Kader points out that even though it is due to a social cause it is

hard to find someone to that can help with social marketing etcetera without requiring a lot of money; *"Everyone has a hidden agenda"*[38].

This dubiousness against other actors, both governmental and within the aid industry complicates collaborations. For example, a relationship with the NGO Ledars, mainly working with water issues in areas in the south of Bangladesh that are affected badly by the arsenic, has been under discussion. Ledars has been helping Viola Vitalis to find and communicate with arsenicosis patients in the villages in their areas. However, Professor Yousuf, who is doing some consultancy work for Viola Vitalis, mentions that disagreements regarding what the best strategy should be and distrust in each other's intentions make the collaboration standstill. Ledars means that Viola Vitalis lacks an understanding for the situation of the patient and their behaviour etcetera. The executive director at Ledars continues that they could help with distribution, but that Viola Vitalis need to set up a plan for marketing and sales. Furthermore, they believe that Viola Vitalis should use Ledars' knowledge since they think it is a gap between the research done by Viola Vitalis and the actual *"field"* where Ledars operate.

Some other brief attempts to collaborate have been done with two NGOs called ESSD and AAN. ESSD has offered to help Viola Vitalis in establishing a first contact with smaller NGOs in the arsenic affected areas, thus ESSD can be helpful in setting up a network of local NGOs. With AAN, there is an on-going disagreement about the price of the products where AAN deem the products to be way too expensive to even consider passing them on to the arsenicosis patients. The crèmes currently sold costs about 1/4 of Viola Vitalis'. Furthermore, the country manager of AAN explains that the organisation would never collaborate with Viola Vitalis out of policy reasons since it is a for-profit company.

Kader's response to collaborating with above-mentioned organisations is that none of them are big enough to be of any help for Viola Vitalis in the long run. In addition, since NGOs are not allowed to make any profit and generate any money on their own, they have to apply for grants. Kader means that NGOs change their focus in accordance with what they get grants and donations for and this makes it troublesome to find a sustainable co-op partner. The one

[38] Kader, CEO at Viola Vitalis, 100422.

and only NGO Kader can possibly think of when it comes to collaborating is the Smiling Sun Franchise Program (SSFP). SSFP is a US Aid founded program who mainly works with family planning and basic health care. The NGO has a pharmacy shop at every clinic where medications are sold and here Viola Vitalis could possibly sell their products.

The satellite clinic system can, according to Viola Vitalis, complement the products with the services, distribution etcetera needed. However, Kader shows little interest in doing this, or of being part of a total solution i.e. providing safe water, which is a fundamental part of becoming fully healthy. In his opinion, the aim of the company has matured into developing techniques for innovations at the BoP; he does not want or have time to think about how the distribution should work in Bangladesh. His ideal solution seems to be that a product invented by Viola Vitalis is sold to the government, an NGO or some other organisation that would be responsible for distribution, marketing etcetera. *"I am open to collaborating but that is another business area. I want to focus on selling."*[39]

Kader is furthermore relatively negative to aid and giving medicines for free, since he thinks that people who can pay should pay. However, he is not against achieving grants for Viola Vitalis but wants to find a more sustainable solution. He views himself as a businessman who, invents, develops and sells products. Accordingly, Kader is in general not very interested in starting any cooperation with external partners in Bangladesh. The company would, however, want to sell the products to aid agencies, hospitals, NGOs or the government. Acquire monetary resources from donors, is considered acceptable by the company, as long as it is not considered aid.

5.0 Analysis

The analysis of the study will be structured into two parts. The first part will consist of a market analysis, an external and internal analysis, seen from Viola Vitalis' point of view. In the second part, the most apparent BoP challenges and strategies, derived from the literature and the empirical findings, will be analysed as to give an answer on the first and second research questions. This analyse will play a great role in suggesting an appropriate strategy for Viola Vitalis, the third research question.

[39] Kader, CEO at Viola Vitalis, 100414.

5.1 Market analysis

5.1.1 External industry analysis for Viola Vitalis and the Bangladeshi BoP market

Customer analysis

Viola Vitalis' potential customers can be divided into two types of customer groups. First, there are the end-consumers themselves who have the ability to pay, and second, there is another type of intermediary customers such as NGOs who could possibly buy the treatment but not for the purpose of using it themselves. The doctors are important influencers no matter what group that are attended to, since they are an important source of information and give recommendations of what treatments to use. Bangladeshis would rarely question a doctor; the doctor's recommendation or choice of medication is the basis for what is perceived as *"quality medications"*.

For both groups of customers, Viola Vitalis' products are corresponding to an unmet need; there is a vast demand for the products, nonetheless, the groups have some differing characteristics.

End-consumers

The great part of the end-consumers is very poor and thus very price-sensitive; the reason they are being sick is because they cannot afford to buy safe water. This means that the chance that they can afford a whole treatment of Viola Vitalis' products is fairly low. Even though the disease is not as stigmatic as it used to be, arsenicosis is still considered as severe health problem and the affected patients are eager to get rid of the skin symptoms. Hence, there are great benefits for the end-consumers when using Viola Vitalis' products. The motivation to buy among the end-consumers is however not straight correlated to the benefits achieved. Many of the very poor end-consumers are suffering from other more acute diseases. It is rather unlikely that these consumers will pay for Viola Vitalis' treatments if they not feel that is absolutely necessary. Since arsenicosis is not considered an acute disease, it is not likely to be prioritized before other diseases.

Nevertheless, the attitude and acceptance towards similar medical products is very open among poor people; they spend a relatively high amount of their income on health care. They also spend relatively more on health care than the wealthier Bangladeshis. The buying behaviour of the Bangladeshi people is quite complicated and originates from the large

amount of health care providers. People seek health care from several different sources, which makes it nearly impossible for Viola Vitalis to reach out to even a fraction of them. In addition, the lack of track record of the arsenicosis patients means that Viola Vitalis has to literally find the patients themselves. Due to the lack of traditional market and information channels, this implies going out to the villages to look for the patients.

Intermediary customers

The intermediary customers, on the other hand, are not as price-sensitive as the end-consumers. The government has a fairly large sum earmarked for this issue and currently spends large yearly amounts on treatments (vitamins and skin crèmes). The GoB seems to be positive disposed to buying from local pharmaceutical companies, like Viola Vitalis. Since both government and NGOs are dedicated to improving the lives of Bangladesh's many poor people, providing treatment for one of the worst poisoning catastrophes in the history is clearly beneficial and motivational.

Some of the NGOs have argued that the price of the products, in relation to the end-consumer income and in relation to the price of other medicines, would be too high. However, it is not likely to be a problem for the NGOs themselves to pay for the products. Of course, searching for donations and grants is a very tough task for an NGO, however, arsenicosis is acknowledged as a severe health issue and the organisations that can be of any help to provide cure will attain both status and legitimacy. For any larger NGO, achieving grants that could enable the treatment to be carried out should not be completely impossible.

On the other hand, the country has to put up with numerous health problems; in addition, the country is badly affected by the climate changes. That is why arsenic is being deserted for other more acute problems. Furthermore, since providing safe water is the key to becoming healthy, many of the decision makers seem to think that treatment is unnecessary, and there is reluctance towards the possibilities of treating arsenicosis.

The attitude is not overly positive towards medication for arsenicosis, safe water is prioritized. However, the MoH and other health care organisations has revealed an interest in purchasing products proven to be effective. Yet, even if the government or an NGO shows interest in supporting the company, the buying process among these actors is however very time consuming and it is not obvious that these will support the issue until the situation is

solved, i.e. all affected people are cured. NGOs and government are run by political wills and the interest of the issue can change in accordance to trends in donations or what party that is currently ruling. Besides this, bribes influence doctors' and NGOs' choice of what treatment and medicines to use and recommend.

Demand

The potential market includes all individuals, firms and organisations that have some interest in Viola Vitalis' products. In this case that would be all end-consumers, NGOs, the public health care, national and international organisations. There are today about 40,000 registered patients suffering from arsenicosis in Bangladesh. In addition, about 57 million people in Bangladesh are still exposed to arsenic contaminated water and so far there is no promising solution to providing safe water, thus the spread is growing day by day since people are drinking contaminated water. This means that the number of affected people will increase in the future. Furthermore, arsenic poisoning is not only prevalent in Bangladesh; regions in China, USA and India are also struggling with the issue. Thus, the demand is far from local, which means great expansion possibilities for Viola Vitalis.

One thing that could affect the demand negatively is if the technological development of safe water system. This would then by far reduce the number of potential customers, but as mentioned this is not very likely to happen in a near future. If, or when, a safe water system is developed, this would be seen as a conquest for Viola Vitalis. The company is driven by social values and the aim is to achieve a better health status.

Competitor analysis

For Viola Vitalis there seems to be few direct competitors and due to the great uncertainty in the marketplace, little information can be found about potential competitors. However, a medical university, Bangabandu Sheikh Mujib, BBSM, in Dhaka is doing research on arsenicosis treatment and is likely to present this product in the near future. Direct competitors would be the pharmaceutical companies providing the current lotions and antioxidants used today, to cure the disease. Considering the company producing spirulina as a cure, there are some split opinions about how effective spirulina is. Viola Vitalis' products has so far shown more effective results than spirulina. This means that Viola Vitalis holds a stronger position against the spirulina producer, but on the contrary if the BBSM comes up

with a treatment, they are likely to have a head start due to their status of being a medical university with the government's eye on them.

Indirect competitors are all other pharmaceutical companies providing products for health care, such as medicine for malaria and intestinal diseases, since these compete for a buyer's choice as much as Viola Vitalis does. Beyond this, since many of the people suffering are very poor, an indirect competitor might even be a supplier of food, clothes or other basic necessaries. When asked upon main priorities, the BoP consumers in Bangladesh, put food as a first priority, then health care which includes doctors' consultation fees and medicines. Within the health care segment, treatments for acute syndromes are prioritized since they are considered as compulsory. This situation is more or less the same when considering the intermediary customers.

Industry analysis

The pharmaceutical industry in Bangladesh is large and highly competitive; about 1/4 of the companies care for most of the total market and the larger companies are constantly trying to push out the smaller ones by lobbying for stricter regulations that the smaller companies cannot fulfil. Only a small amount of the pharmaceutical products used in Bangladesh are imported, the rest is locally produced. Hardly any research on new medicines is taking place in Bangladesh, instead only generics are being produced. In the light of this, Viola Vitalis' competitive advantage is having lower costs for research than traditional pharmaceutical companies. In addition, as mentioned in the methodology section, Viola Vitalis will most likely have to make further investments in research in the future, in order to prove their case.

The industry was previously more profitable but due to increased price of raw material and packing materials, in combination with price regulations and the boom of new companies, profitability has gone down. The industry might be open for potential growth; many Bangladeshi companies are exporting profitably to Africa and Europe. Although, it is more likely that a few large-sized companies will take part of this growth rather than new small-sized companies, because of entry and exit barriers such as the large costs and regulations when setting up manufacturing plants. This also implies that the companies without plants have some rigorous cost structure disadvantages since they have to outsource the production, which is even costlier.

Dhaka is said to be the main market for pharmaceutical companies, since this is where the wealthiest people live, as well as the clusters of hospitals and pharmacies. Companies, like Viola Vitalis, operating outside of Dhaka are then consequently serving most of the BoP market. A focus on small affordable packages and well-oiled, well-known distribution systems is needed to get through to the thousands of small shops selling pharmaceuticals in Bangladesh. To get the economies of scale that is required to serve the BoP market; low marginal and high volume is important to reach out to the BoP customers by extensive marketing and distribution nets. For this, large-sized companies have a substantial advantage. There are several alternative distribution channels such as collaborations with NGOs and education of own work force like BRAC. The pharmacies are the most important and powerful distribution channels. However, due to their number, collaboration with communities and NGOs can be a helpful tool for negotiating with the local pharmacies.

There are 2000-3000 registered NGOs in Bangladeshi who are said to be managed seriously, however, there are only a few NGO who focus their work solely on arsenic poisoning. Most of the organisations working with the arsenic issue in some way, do only concentrate on providing safe water i.e. preventive measures.

As mentioned, the pharmaceutical companies spend huge amounts on aggressive marketing activities towards doctors. The size of these competitors (significantly larger than Viola Vitalis) and their positioning strategy (often including corruption) puts smaller companies like Viola Vitalis in a tricky position if they cannot afford these *"marketing"* expenses.

The government and other political institutions hold large power over the pharmaceutical industry. Firstly, there are heavy regulations for pharmaceutical companies; secondly, for all health care providers in Bangladesh, it is important to be endorsed by the government. To get through the bureaucratic and corrupt system, connections and/or family relations with politicians and other socially influential people are required. How much the arsenic issue is paid attention to, vary depending on the ruling party and their particular interest in the issue. The empirical findings show that several of our interviewees believe that the arsenic issue not seems to be of much interest for the current ruling party, which means that heavy lobbying and negotiation is required from all companies wishing to change regulations to benefit arsenicosis treatments.

5.1.2 Internal analysis

Challenges and threats

Being a very small company with about four full-time employees is troublesome out of many reasons, many of them discussed in the external analysis. Being small also means that they most likely are not qualified to receive financial support, such as grants from aid agencies like SIDA, the World Bank or NGOs. Furthermore, when buying pharmaceuticals, NGOs and other intermediary customers more or less only trust larger pharmaceutical companies with proven track records.

A general opinion in Bangladesh (according to the interviewees) seems to be that it is impossible for any small organisation to cover all arsenic affected areas by themselves. Viola Vitalis has already established some shallow relationships with other organisations such as the NGOs Ledars, ESSD and ICDDR,B, all three in Bangladesh, and the organisation SSF in Sweden. However, this network is far from enough to get the support and political advocacy that will be needed to break through. In addition, the initiated collaborations have been far from successful due to the deep suspiciousness between Viola Vitalis, the private sector and not-for-profit organisations in Bangladesh.

One of Viola Vitalis' biggest issues is attracting investors to the company. Viola Vitalis believes the reason to this is due to the poor end-consumers, which will not likely lead to a return on the money invested. Social businesses, similar to Viola Vitalis, with no or little requirements on return on investment, do however sometimes get financial support in Bangladesh.

It is a fact that the prices of Viola Vitalis' products are too high for most end-consumers. At the same time they are not able to lower the price of the products because of the high production costs connected to the outsourcing of the production and the expensive raw materials. Producing large-scale would result in lower production costs per unit; however this requires vast amounts of products produced.

Opportunities and strengths

The collaboration with Vestergaard Frandsen could be a positive turn for the company. By collaborating with a company known for improving access to safe water, this could have a spill over effect on Viola Vitalis and thus enhance the company reputation. In addition,

initiating a relationship with a global company can enable the implementation of structure and routines into the small company.

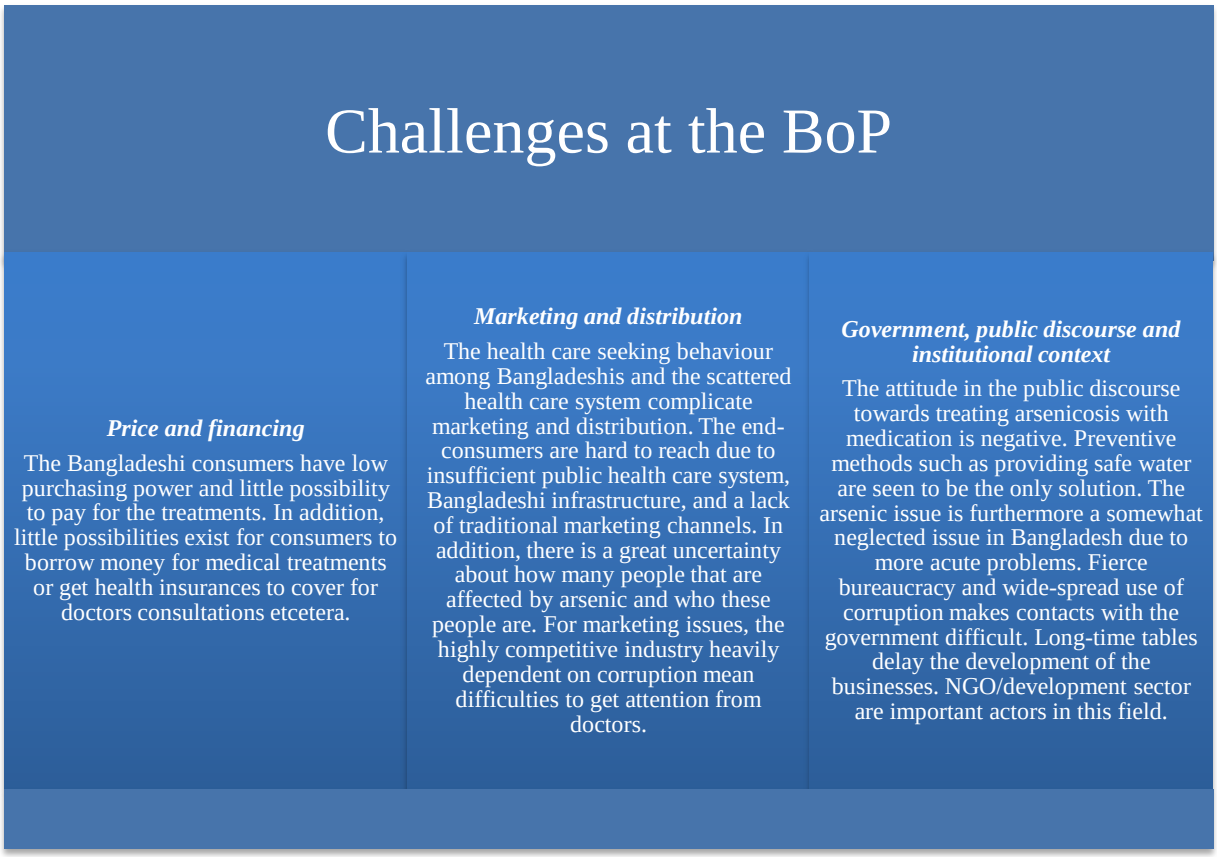
The greatest company strength and opportunity is Viola Vitalis' products. By having a unique offering and being the first company to develop a medicine especially designed to cure the symptoms from arsenicosis, the company can distinguish themselves from other social businesses seeking for financial investments or governmental support. In addition, since the ingredients are imported from the U.S., the products will most likely be perceived as high quality by consumers and their willingness to pay will increase. The vast demand in Bangladesh but also internationally makes the predictions look promising.

From the external and internal analysis, a SWOT analysis for Viola Vitalis is derived.

STRENGTHS Unique product offering Ingredients used are perceived as of high quality Initiated collaborations; both national and international	WEAKNESSES Lack of track record and reputation Insufficient local network Lack of financial resources
OPPORTUNITIES Growing demand of the products from increasing patient group World spread disease means opportunities to expand	THREATS Poor end-consumers Great uncertainty about end-consumers Complicated health care seeking behaviour among patients in combination with scattered health care system Insufficient infrastructure system and marketing channels Highly competitive pharmaceutical industry, dependent on corruption Arsenicosis: a somewhat neglected issue and a negative attitude towards treating the disease

5.2 Challenges & strategies at the BoP market

In this part, BoP challenges found in the empirical material and BoP theories will be discussed with a focus on Viola Vitalis. The challenges are grouped in 3 areas which follow the theoretical framework, but the areas of marketing and distribution have been put together. Moreover, a discussion of the strategies used to overcome these challenges will follow each area. As to find an appropriate strategy for Viola Vitalis, these strategies, found in the BoP literature and empirical material, will be evaluated with regards to Viola Vitalis' current situation.



5.2.1 Price and financing - challenges

In accordance with the BoP literature, the target consumers for Viola Vitalis are price-sensitive and value-conscious. The customers cannot afford to pay for something that is not known to be of high quality and effective. In Viola Vitalis' case, the customers wish to pay when the result from the products is shown, i.e., when they are cured, since it is not yet proved to be efficient. This goes in line with Prahalad's theory that BoP consumers are unlikely to spend money on something they do not trust or understand. In addition, these BoP

consumers will not put price before quality by choosing a cheaper brand of the same product; if the doctor prescribes or recommends a certain brand, this is what they will buy. To afford quality products and medicines, purchases are made daily, and goods and products are bought in small quantities; paracetamol and Band-Aid is bought piece per piece. Priority wise, after quality comes a low initial cost. In accordance with the BoP literature, the Bangladeshi BoP consumers prefer products with lowest initial cost; this means a demand for products in small quantities and single unit sachets.

However, the majority of the target group of Viola Vitalis is extremely poor and as a consequence of their poor financial situation, they are getting sick. Since they cannot afford the expensive bottled water, they have to drink the contaminated water, and hence they get poisoned.

Parts of the target group of Viola Vitalis cannot afford to spare a single taka for medicines; food is without a doubt prioritised. Because of this, government seems to be the most profitable customer for Viola Vitalis since they have greater purchasing power than any single NGO or end-consumer. However, as the empirical findings imply, the public health care system struggles to efficiently carry out health care services for the whole population of Bangladesh. This means that if selling to the government, most likely there is a need for one or several NGOs to reinforce the distribution of medicines and health care services such as doctor consultation.

In addition, even though the government and several NGOs have sufficient resources one cannot count on their support and willingness to provide the patients with medicine. Many times these are influenced by political wills and not by the consumer demand. A more sustainable solution would then be to target and sell straight to the end-consumers even though these are very poor, rather than solely focusing at institutional marketing towards NGOs and politicians. This approach requires finding a business model that creates buying power and is not reliant on monetary support from other actors. Grants or government support would be a great relieve, especially for initial investment, but as said, it is nothing that can be taken for granted. Applying for grants from donors is neither a very realistic option, since the competition for the grants is extremely fierce and additionally very human resource demanding, nor a sustainable option. Not many donors are willing to make a contribution to smaller organisations like Viola Vitalis. Furthermore, donors are influenced by *"hot topic"*-

trends and right now the interest for arsenic is fairly low. Even though this approach implies that it is probably hard to provide the poorest of the poor with medicines, since these have not the required purchasing power, the company can at least reach the part of the patient group that has got the ability to pay for the products. Selling to a few would then better fulfil the social aim of the company than selling to nobody which could be the case if only focusing on government and NGOs and these turn out to be immovable.

5.2.2 Pricing and financing - strategies

As, ascertained, since having the government or NGOs as customers is quite of a risk and also time consuming, selling to the end consumer will be the more sustainable option for Viola Vitalis. In line with empirical findings and the BoP literature, the people will, even though their low purchasing power, be willing to pay for a medicine if it is of high quality, reliable and evidently superior.

To face the price challenge and to encounter the behaviour that the people prefer products with lowest initial cost, Viola Vitalis could produce the products in smaller packages as a way to make their products affordable for the poor. A great part of the costs today is the expensive container. By packaging the capsules piece per piece in a plastic bag, this cost could be let go. The smallest capsule package would contain one-day consumption i.e. 3 capsules. However, from a public health perspective, unit-sachets can turn out negative. If people cannot afford a whole treatment, they might stop taking medicine when they *"feel"* healthy or if they do not seen any recovery signs instantly. Education and information about the treatment is thus exceptionally important to prevent this behaviour.

Cost cutting could also be done by out-sourcing sales and marketing, since those parts so far have been done by the company itself via the mobile distribution system. By having independent re-sellers selling on a commission based program, this resource demanding activity could be let go and the organisation would become more flexible. This strategy will be more explained in the following parts concerning marketing and distribution.

In line with both literature and empirical findings, if it still turns out that the price is insurmountable for the poorest of the poor, a cross-subsidy solution, where the less poor patients could pay a higher amount for the products and thus enable poorer patients to achieve

a discount, is possible. However, this requires that the re-seller is well informed about the financial status of the patients to decide who should get the discount. With this local re-sellers approach, which resembles the BRAC community health force by having individual price settings, this is made possible since the re-seller most likely hold information about the patient's ability to pay. Another solution that would ease the poor people's inability to pay the upfront costs for the treatment could be to collaborate with a micro-lending institution as suggested in the BoP literature. A loan or health insurance organised via the lending institution such as Grameen Bank could cover the cost for the medicine. This sum could subsequently be repaid by the patient when being healthy enough to get back to work and earn incomes. These alternatives, require some kind of cooperation which will be discussed in later parts of the analysis.

5.2.3 Implications of pricing and financing strategies for Viola Vitalis

To sum up, in the short-term perspective, the main focus should be selling to end-consumers, however in the long-term, selling to the government and NGOs is likely to be much more profitable. As mentioned, both government and NGOs have long time tables for decision making etcetera, therefore an incremental approach where selling to the end-consumers, is preferred to begin with. By starting small-scale and experimenting with, for example, local re-sellers and package size etcetera, Viola Vitalis will gain knowledge, reputation, trust and brand awareness will slowly be built. In addition, possible mistakes due to uncertain environments can be corrected. This *"step by step"* method makes the chances to partner with either a larger NGO or the government later on, more plausible.

Even though focusing on the end-consumer implies that Viola Vitalis is not able to provide the poorest of the poor with medicines since these have not the required purchasing power, the company can still reach the part of the patient group that has got the ability to pay for the products. Selling to a few would then better fulfil the social aim of the company than selling to nobody which could be the case if only focusing on government and NGOs and these turn out to be immovable. Then, in the long run, a program designed exclusively for the very poor could be elaborated. However, since margins are low in BoP business, producing and selling large-scale is important to stay financially sustainable. As a cause of this, Viola Vitalis would be in great use of a subsidy such as a grant or low cost loan to cover the costs connected to achieving a wider customer base and for scientific research.

Viola Vitalis has to consider that their customers are very price sensitive and make some adaptations in the business model; as the literature suggests, providing of unit-sachets, dumping the containers to lower the costs and outsourcing the marketing and sales function are of great importance. This would lead to Viola Vitalis being able to keep prices down and make their products affordable for the very poor. One of the major principles in the BoP concept, creating buying power (and not giving away medicine for free), is then satisfied.

5.2.4 Marketing and distribution - challenges

With support from literature and empirical findings, it can be said that one of the main challenges when serving Bangladeshi BoP consumers is, reaching them (making consumers aware of the products (marketing and information) and the actual supply of the products (distribution)). This challenge occurs out of several reasons. First of all, the Bangladeshis health seeking behaviour complicates both marketing and distribution. The main source of health care services and products is the pharmacy. There are thousands of pharmacies; all being independent re-sellers with little cohesion. In addition, traditional healers and other laymen play a large part in providing health care. Neither the pharmacists, nor the healers hold any medical education at all, and it is very likely that these cannot give the right diagnosis. The Bangladeshi health seeking behaviour is most likely a consequence of the insufficient public health care and the inability to pay for modern health care and doctor consultations. No matter what; this scattered system of health care providers makes it harder for smaller companies to reach consumers who are searching for health care than if there would have been if a solid public health care system; then marketing efforts could have been focused towards the public health care institutions. The problem with fragmented distribution channels comes as no surprise and goes in line with how the BoP literature describes most of the distribution system at BoP markets; complex and unwieldy. Furthermore in this concrete case with arsenicosis, the empirical findings imply that arsenicosis patients live in quite remote rural areas. The roads in Bangladesh are in bad shape, rivers have to be crossed by ferries, and monsoons make this even worse. All this adds up to the distribution costs leading to poverty penalties not only for arsenicosis treatment, but also for water and other basic needs.

The remoteness and difficulties reaching the patients is not only a distribution problem but also a problem for marketing and sales. There is a great uncertainty about the market and

information lack. Even though Viola Vitalis is benefited by having the demographic advantage of knowing in what areas the most affected people are located, there is no track record of exactly how many people that are thought to be suffering from the arsenicosis and who these are. Little information or research about these potential consumers can be found. In accordance with the BoP literature and empirical findings, information and knowledge is often transmitted orally. Along with the remoteness and difficulties of reaching the consumers, comes the problem with the absence of traditional marketing channels, especially in the rural areas. Many of the arsenicosis patients live in what the BoP literature call *media dark zones* without any access to Internet, TV or radio. Moreover, a challenge within the health care sector is the fact that advertising for pharmaceutical products is prohibitive in Bangladesh. However, pure advertising would, due to the media dark zones, not have been an option anyway.

What even more complicates the marketing strategies is that many Bangladeshis are not only unaware of the disease; they are also illiterate which make mass-marketing efforts such as flyers handed out less useful. This means that potential customers have a harder time understanding the value and use of the product, and it is less likely that they will be attracted by Viola Vitalis' products.

5.2.5 Marketing and distribution - strategies

As already mentioned, a way to keep the organisation lean and most part of costs flexible would be to outsource marketing and distribution to independent local re-sellers; these could be people who are already engaged in community activities. Since both theoretical and empirical finding suggest that most important in a BoP setting is to create trust in social networks; the main activity for Viola Vitalis, as to increase awareness and build brand attitude among the consumers, should be by creating word-of-mouth and having strong personal relations to these re-sellers. In accordance with the literature and empirical findings, social sources such as friends and family are considered as more trustworthy than government agencies, local authorities, shopkeepers and expert sources in Bangladesh. This explains why home visits have proved to be a very effective strategy for NGO health workers and implies that someone, whom the end-consumers can trust and who know them, have to be involved in carrying out successful distribution and marketing strategies for Viola Vitalis.

A way to make the potential consumers trust and accept the local re-sellers would be to make the re-sellers provide more than arsenicosis medicine, but also other useful product, such as malaria nets, sanitary pads, soap, diapers etcetera. As the empirical findings show, being a health worker is popular since the people who perform these achieve social status in the villages. Besides, these people, mainly women, would not too seldom, come forward themselves to join. Hence, in collaboration with an NGO, Viola Vitalis would not have too much effort to find potential health workers.

Since it is forbidden for companies to advertise pharmaceuticals, no traditional marketing channels could be used. One alternative for Viola Vitalis could be to try to get free publicity through news articles about the treatment. However, due to the BoP consumers alienation and media darkness, this is foremost a method for influencing decision makers, which is highly important to create acceptance and demand from the government, but this will probably not reach and/or affect the end-consumers buying behaviour. Moreover, all marketing methods that need text processing is useless because of the low literacy rate in Bangladesh.

5.2.6 Implications of marketing and distribution strategies for Viola Vitalis

The difference to Viola Vitalis' current system of mobile teams would be the cut back of Viola Vitalis' engagement in the contact point with the end-consumers. Building or setting up own resources, such as the mobile clinics as a way to overcome infrastructural deficiencies and improving access, is a method often used by BoP businesses and have shown to be an effective measure in Bangladesh. However, outsourcing the mobile system to NGOs and cooperating with local businesses and local people would be an economical and less resource-demanding alternative. If Viola Vitalis adopts this, either they or an NGO could be the coordinating body and together create a network with health workers/re-sellers. By creating manuals for training and start-up kits with diagnostic devices, products and informational sheets, much similar to those of BRAC, Viola Vitalis would attain a work force that cares for all contacts with the individual customers. Viola Vitalis would then have little or no contact with these; instead the company monitors the services through the local contact.

One advantage with outsourcing the mobile systems is that they are not as dependant on the doctors' approval, since these in many times demands bribes for cooperation. However, when this system is grounded, in order to expand the business, the products can additionally be

offered to doctors and pharmacies. The local re-sellers will support themselves through the profits from the medicines, and will preferably receive training, supplies, and coordination from the NGO (or if possible by Viola Vitalis). This will gain both Viola Vitalis, who will easier reach out to the customers, but also the re-sellers who will earn an income.

A local work force solution will in addition lessen the problem that the absence of doctors in remote areas implies. By collaborating with NGOs who have expertise in education and training, who could educate the local re-sellers to identify the symptoms, fewer doctor consultations would be necessary. Curing the early symptoms from arsenicosis requires that the affected people stop drinking the water. Changing this developed habit stresses the importance of collaborating with NGOs that hold legitimate in the health care area.

The lack of skills and education concerns not only professional health workers but also the end-consumers. A great part of the BoP customers are illiterate and the knowledge about how to treat the disease is, as mentioned, almost non-existent. Education as such is invaluable; if the consumer does not understand the products or how to use them; they might, as previously mentioned, stop using the products too early. De-skilling both health workers/re-sellers and consumers is not only a handy method for Viola Vitalis (the customers will associate the products to arsenicosis treatments); but it also creates value at the local level by incorporating new competencies. As learned from the literature, since social networks many times makes up for literacy, breaking into these networks seems ever more crucial for creating the trust, acceptance and social embeddedness that is needed to succeed in a BoP market. By having locals explaining the products to potential customers, important relations are built to the customers without Viola Vitalis interfering with them by themselves. The local re-seller approach can also partly solve Viola Vitalis' lack of information about the customers and their financial situation. As found in Bangladesh, people in a rural village is more than often well informed about who that are sick, how long they have been sick, how much they can afford for a treatment etcetera and this could be used for strategic tactics. In accordance with the literature, communities are great for information about the market, and to the market.

One difference from Viola Vitalis' current marketing activities is the new focus on the end-consumer via the relationship to local re-seller. Previously, Viola Vitalis' marketing activities have been focused on influencing and putting pressure on decision makers in the government, and not as much on the actual users. By using this method, the local re-sellers could engage

in different type of BoP marketing activities targeted to end-users such as courtyard meetings, public film shows and information meetings for school teachers. Still, informational meetings for private and public health care doctors can be arranged in cooperation with NGOs or other societal workers, however, as mentioned, it might be hard to make an impact on doctors due to the common use of corruption. With a bit of luck, the product uniqueness is a reason for doctors to recommend the product to their patients. The recognition acceptance from the doctors is important since Viola Vitalis have no previous products, and thus there is no brand recall or brand awareness among the consumers already. In addition, Bangladeshi consumers will prefer the doctor's choice of recommended drugs.

If creating a local work force seems to be a too human resource demanding and costly alternative, linking with partners that already have existing franchise networks in the health care sector, such as BRAC and Grameen is another option. This will also lead to improved legitimacy among end-consumers and an increased trust for the brand. Whether organising an own work force or using an existing NGO, both solutions would be process innovations in infrastructure and communication made by Viola Vitalis. As learned from the literature, these innovations are just as important for the BoP markets as the actual products. In addition, by building from the *"bottom-up"* with the help of local mapping, this will lead to the fulfilment of the second and third major BoP principle; improving access and tailoring local solutions.

5.2.7 Public discourse and institutional context - challenges

There are some bureaucratic and institutional barriers at the Bangladeshi BoP market to be found. Burdensome pharmaceutical industry-regulations in combination with corruption, black-markets and bureaucratic government, leads to a high cost of doing business for all companies but which have a more significant effect on smaller companies such as Viola Vitalis. In accordance with the BoP literature, there are incentives for both customers and entrepreneurs to operate in the informal economy because of the cost and time associated with entering the formal economy. It is not the opening of the business itself that is the major constraint, but rather applying for all necessary certificates required to provide, in this case health care, is a time-consuming activity. Several layers of applications, judgements and paperwork have to be gone through and the business needs to have personal relations to both business men and politicians, to carry out this bureaucratic jungle. The one way to speed up the processes is to pay the *"right"* amount of money to the *"right"* person, thus what the

literature call *unfair advantages for refusing to pay bribe* is obvious in Bangladesh. The high level of corruption does most likely prevent firms to engage in start-ups in the Bangladeshi BoP market. The capacity to facilitate commercial transactions through a system of laws is critical to the development of the private sector in Bangladesh. Thus, as indicated in both empirical findings and the literature, the main problem is not the Bangladeshi government's lack of financial resources; it is the lack of management of the resources, the corruption, the unclear policy goals and need of skilled professionals, what makes it troublesome.

The institutional and bureaucratic barriers are especially problematic since Viola Vitalis is operating in the health care sector and therefore need to deal with the government. Besides this, the large influence of NGOs in Bangladesh along with other international institutions such as The World Bank and aid agencies make the Bangladeshi development/health care sector context even more complex. There are several influential, powerful actors involved in the arsenic issue and little coordination seems to exist.

A large challenge for the particular arsenic case is also the negative attitude in the public discourse towards treating arsenicosis with medication. The preventive measure i.e. providing safe water is seen to be the only solution to the disease; hence the focus tends to lie on the innovation of water solutions such as filters and self-testing equipment. As described in the literature, the value attributed to the activity of Viola Vitalis within the framework of prevailing cultural and social norms is likely to determine the chances of it being accepted. This indicates that Viola Vitalis should be accepted, since there is a high value attributed to the activities of the company, the arsenic issue is well recognized as an alarming issue, nationally and internationally, even though it is neglected for more severe diseases. However, as mentioned, the attitude among decision makers regarding curing treatments (compared to preventative), along with the fact that Bangladesh as a country is struggling with several other problematic diseases makes the arsenic issue to a somewhat forgotten issue in Bangladesh, which makes it even more difficult. In addition, most NGO headquarters and government bodies are situated in Dhaka. Due to the fact that arsenic contamination is not prevalent in Dhaka, this is not of much interest to them. The government is accused for not taking enough responsibility for the issue and it is most likely that the arsenic issue being misused as a political mean to achieve support or resources in elections. This complicates Viola Vitalis' interaction and handling of relations to the government.

5.2.8 Public discourse and institutional context - strategies

The BoP literature has, as mentioned, some different suggestions on whether to collaborate with the government or not as a way to deal with bureaucracy and problematic institutional barriers. It is said that collaboration with public health authorities, WHO etcetera could be a positive step. However, for a small company like Viola Vitalis it would probably be substantially suppler if they could *"fly under the radar"* and avoid all interference with national authorities and instead focus on local and regional level authorities. However, all organisations operating in the health care sector in Bangladesh are forced to have involvement with and an approval from the government to make sure no duplication work is being done. This could be a problem for Viola Vitalis since the government has a firm belief that they are taking sufficient measures in the arsenicosis area. Having strong relationships with the government is, in accordance with the more recent BoP literature the best advice to ensure a positive market environment for BoP business activities for Viola Vitalis and any company operating in the health care sector in Bangladesh. Yet, creating strong links with local and regional level is also crucial, thus Viola Vitalis should focus on gaining a local presence and acceptance via their local re-sellers.

5.2.9 Implications on institutional marketing strategies for Viola Vitalis

National authority level

To raise the awareness for the issue once again and convince the government about the necessity to deliver curing treatment for arsenicosis, some intense lobbying and institutional marketing are required by Viola Vitalis. Building local support and awareness is straight correlated to how much interest Viola Vitalis themselves will attain. However, it is very unlikely that a small company such as Viola Vitalis is able to do any of these actions, by themselves. Hence, collaboration with prominent actors in the arsenic field and/or development industry is required to mutually make an impact on the government and decision makers.

Community level

In the rural villages, however, there are not as much policies and regulations as on the top authority levels in Dhaka. Here, social contracts, as described in the Grameen Bank example, constitute law; peer pressure is enough to serve as collateral. This cultural aspect could be leveraged when offering credit schemes to the end-consumers as an alternative of paying for

the full treatment at once, and instead have the customers to pay daily, weekly or even monthly parts of the treatment.

The creation of strategic partnerships, such as relationship with local re-sellers and local NGOs is not only for simple marketing and distribution issues. It is for getting the acceptance to be let in by the society, which is of great importance for Viola Vitalis. The company needs to achieve trust from local leaders and convince them about the appropriateness of the product. When the village leaders have approved the company and its products, these can themselves convey the benefits of the products to the village people. The relationship with the village leaders can be undertaken by the partner NGO or by Viola Vitalis themselves, and later be maintained, by the local re-seller.

5.2.10 Implications of cultural aspects that obstructs successful collaborations

All three areas discussed; price & financing, distribution & marketing and institutional context, shows the importance of collaboration to succeed at BoP markets. The reoccurring approach to the strengthening of the value chain is to create value networks that can support the weaker parts. Viola Vitalis has the advantage of knowing where their consumers are situated demographically, which means they could fairly easily choose a location to start their business; where the concentration is high and suffering patients are plenty. Viola Vitalis also holds an advantage to multinational companies; they have much more local knowledge and understanding of how local conditions affect them. Nevertheless, being small means they do not have sufficient power to reach out in terms of marketing and distribution by not having structured supply and communication channels. In addition, the size of the company correlates to the apprehended legitimacy by external actors such as government.

Both theoretic and empirical findings support the great advantages that can be achieved by co-operations, both on regional and national level. Creating networks is crucial in achieving social embeddedness and acceptance of the products on the BoP consumer level, but also important in influencing governmental and other institutional decision makers whom can enable improvements in market conditions. Consequently, the involvement of external actors, organisations and communities seems to be the only resort for Viola Vitalis since they are too small, and lacks the financial resources needed to make the necessary investments in marketing, distribution channels etcetera when establishing at the Bangladeshi BoP market.

Viola Vitalis current model, the mobile satellite systems is a true BoP solution, however, to fully succeed, the company has to become rooted in the villages and achieve social embeddedness. This can only be achieved by linking with external partners. In addition, the slow governmental processes point to the need of collaboration since the company does not have enough initial investment to survive the long establishment procedures. It seems like when targeting a BoP market, just like the literature suggest, a company cannot only act as a pure producer of the actual product. If there is no system for distribution and marketing, this has to be solved by collaboration with external partners, in order to become successful.

Nonetheless, even if collaboration is proved to be one of the most important strategies for overcoming constraints in a BoP market, there are difficulties with collaboration. Just like the BoP literature suggests, the private sector and the development sector are considerably separated in Bangladesh. Even though the country has many examples of successful cases in the social business area, social business as a concept is not very established. Still, the private sector holds the predominant belief that the development industry and/or the government should care for the poor and that they would not profit from serving the poor with products and services. Vice versa, the NGOs and aid organisations cannot see how market-based solutions would benefit the poor.

In addition, a vast suspiciousness between NGOs, private sector, government and nearly all organisations involved in the development industry at the Bangladeshi BoP market has been identified. This makes the possible alternative strategies for overcoming challenges at the BoP market, which all requires some kind of cooperation, much less likely to succeed. Thus, the troubles in keeping up relationships to collaborative actors turn out to be one of the greatest challenge of them all, for BoP business. For example, as already touched upon, some of the Bangladeshi NGOs refuses to cooperate with for-profit businesses since this increases their own risk of being distrusted. The private sector is considered as greedy by the NGOs, and they have a hard time accepting a commercial solution to a societal problem. On the other hand, many Bangladeshis, especially among in the private sector, accuse the NGOs for being charlatans. Viola Vitalis, for example, is very sceptical to NGOs and the interference with these. Representatives from the government consider the work of the NGOs and international aid agencies as of little importance for the country. Besides this, many Bangladeshis are sceptical to the term *"social business"*, and by some it is even thought of as rather negative expression. This seems to relate to the cynicism towards Grameen Bank and their operations

in Bangladesh. As a consequence of this, collaborations are deemed to fall short. This general lack of trust for external actors among the Bangladeshi organisations and institutions could originate from the wide use of corruption. This is an important cultural aspect of the Bangladeshi business context that any enterprise has to take in account when establishing at the BoP.

Besides suspiciousness, there are great differences in competencies between Viola Vitalis and the potential cooperation partners such as the NGO BRAC. For example, BRAC holds more expertise about the end-consumers than Viola Vitalis, however, BRAC is by far larger than Viola Vitalis and as a consequence, inert. As suggested by the BoP literature, in order to succeed, Viola Vitalis has to respect and deal the different priorities of the co-operation partners, their decision cycles, culture, norms, and policies, as to avoid upcoming conflicts. For example many NGOs are involved in several other problem areas as well, which they might prioritise higher than the arsenic issue which leads to longer processes than expected for Viola Vitalis. In addition, the NGOs have another way of dealing with and solving an issue; Viola Vitalis, based in Dhaka, might have a different opinion from organisations located in the rural areas. Information sharing and open discussions on how to operate have to be prioritised by the company as to decrease the risk of upcoming misunderstandings.

Thus, the challenge for Viola Vitalis and any BoP company lies in managing the complexities related to multiple partnerships. For Viola Vitalis specific, the clash between Kader's wish to be a pure innovator and producer of market-based solutions for the poor, and the reality where an extensive network with local actors has to be built and nurtured, is a dilemma for the future of the company.

However, instead of collaborating with national actors, a possible solution to this challenge of cultural suspiciousness among Bangladeshi organisations would be to cooperate with international actors such as the initiated interwork with Vestergaard Frandsen. This type of international collaboration could be beneficial in several ways; Vestergaard Frandsen's repute as an successful international BoP company can provide Viola Vitalis with the required legitimacy in order to operate in the Bangladeshi BoP market. Hence, Viola Vitalis achieve the reputation and the influential power that the collaboration partner brings about, in combination with an expanded network of stakeholders. Also, business routines and structure capital could be transferred from the large company into the small company. Vestergaard

Frandsen, on the other hand, attains the national knowledge and influential contacts within Viola Vitalis' already established network in Bangladesh. The contribution of an international co-partner could be a potential legitimacy driver in order to achieve respect and reputation for Viola Vitalis but also to learn important business procedures.

6.0 Conclusions, discussion and further research

Here the answers to the research questions will be given, followed by a discussion about the implications of the results. Furthermore, as a way to contribute to existing theories, an attempt to make general assumptions out of the results will be made. A concluding remark of the possible weaknesses of the study results together with suggestions on future research will put an end to the study.

6.1 Conclusions

R1: What challenges does a business face in a BoP market?

A BoP business will face several challenges related to the absence of running distribution systems and traditional marketing channels. In addition, a company will face difficulties related to the poor financial status of the target consumers and the country specific cultural and institutional context.

R2: What are the alternative strategies for managing constraints in a BoP market?

Many of the BoP challenges can be dealt with by establishing collaborations with external organisations such as an NGO, aid agency or a governmental institution. Collaborations make up for a lack of resources in the company value chain and/or in the BoP market system.

R3: What are the potential strategies for Viola Vitalis' progress in Bangladesh?

For Viola Vitalis to succeed in the Bangladeshi BoP market, an external collaboration partner who could add legitimacy, business frameworks and even financial support, is needed to get the necessary attention from, and create relationships to, Bangladeshi NGOs and national government authorities. Moreover, to meet the low purchasing power of the BoP consumers, cost reductions could be made by stripping the packaging along with the outsourcing of distribution and marketing to local re-sellers. The use of local capability will create social embeddedness, and tolerance from the BoP consumers. By gradually starting off small-scale

and making incremental improvements in the business model, Viola Vitalis can demonstrate a sustainable business to external actors, and in the long run achieve their trust and acceptance.

6. 2 Discussion, contribution to theory, further research and critique to the study

6.2.1 Discussion and contribution to existing BoP theories

Challenges in BoP markets can be related to dysfunctional market systems. This study reinforced the idea that is the basis of the BoP concept; in BoP markets, it is not enough to only be the producer of a good. If there are missing or inadequate, supply systems and channels to reach the end-consumers, a company will have to care for these themselves. As stated in the conclusions, this can be dealt with by creating extensive networks and engage in various collaborations. Collaboration does also play an important part for navigating the institutional context. The involvement of the government is compulsory when delivering products and services aimed to target social needs; needs that are unfulfilled by the government itself. It is a perquisite to develop a relationship with actors involved in the issue that the BoP business is aiming to affect. Nonetheless, the dominant logic held by both development sector and private sector along with a cultural rooted doubtfulness against each other, complicates the establishment of these relationships and also decreases the degree of successful outcomes. For example, aid and grants could be a feasible part in the BoP business model, however, due to the political and cultural context; this is associated with further challenges.

Most likely, this cultural aspect stemming in the frequent misuse of power, makes the private sector reluctant to enter the Bangladeshi BoP market. Ergo, this study shows that *"the dominant logic"*, as advocated by Prahalad, is not the single answer to why the BoP markets have been unexplored for so long. It is rather a combination of the dominant logic, dysfunctional market systems, corruption, bureaucracy and cultural mistrust that prevents BoP business to flourish.

Most likely, there is no *"hidden"* fortune at the Bangladeshi BoP market for Viola Vitalis to discover. The poor infrastructural context, the inflamed issue, the bureaucratic and corrupt business environment, and the trends in donor support and public discourse, are constraints that most likely obstructs the process of putting a similar product to the market. In addition, these facts are presumably the reason why Viola Vitalis have a hard time attracting investors.

However, at the moment Viola Vitalis is not only the company developing medicine for arsenicosis. Whether the competitors will fail or succeed depends most likely on their respective relationship to the government, magnitude of network of influential stakeholders, size of monetary funds and the ability to mobilize and coordinate local community organisations or NGOs.

Furthermore, an interesting finding of the study is that being local is not always an advantage. Rather, it can work as an obstacle due to dubiousness towards small local business; often customers and other company stakeholders favour large global enterprises. In addition, the slow processes at government level require sufficient initial investment to survive the lengthy establishment period. Due to this, MNCs are presumably better at handling BoP challenges than smaller local enterprises. The notions *"imported"* and *"international"* serve as a door opener into the market, and furthermore, most MNCs are more liquid than their local equivalents. In Viola Vitalis case, it is possible that the partnership with Vestergaard Frandsen will act as a door opener and a beginning of an enhanced national and international network, however, a small local firm like Viola Vitalis, holds invaluable knowledge of the market and cultural aspects. An interpretation of this finding is that as much as MNCs need local companies to achieve social embeddedness; local companies need the MNCs to reach legitimacy and trust. Hence, a contribution to BoP theories, is the reinforcement of the importance of collaborations with non-traditional partners, however, if the BoP company already holds local knowledge, an international partner might be needed to achieve legitimacy at decision making level and end-consumer level. Thus, for establishment in a BoP market, a semi-local, semi-international business structure is preferred over an entirely local.

6.2.2 Further research

This result, showing how contextual constraints such as corruption, bureaucracy and culture, to a large extent obstruct the development of business at the BoP market, indicates that companies wishing to establish in a BoP market need a deeper knowledge of how to handle these issues. In the existing BoP literature, little direction can be found; collaboration is recognized to be the golden solution to all problems. However, the governance cost that comes with collaboration and the management of government relations and public discourse seems to be disregarded. Furthermore, as ascertained in this study, the BoP literature does not

picture the importance of personal networking for BoP entrepreneurs the attention, as it deserves. Consequently, further research into the area is needed.

Studies that examine successful structures of collaborations, how to reduce governance cost and how to interact with governmental institutions, both local and national could be done. In addition, lobbying, also known as institutional marketing, as a topic should be further addressed since this appeared to be a substantive part of doing business in BoP markets.

6.2.3 Critique and possible weaknesses with the study results

One could argue that the obstructive conditions met by Viola Vitalis only apply for companies dealing with pharmaceuticals and health care. It is true that heavier difficulties occur for these companies due to strict regulations in the pharmaceutical industry. In addition, the problems related to the negative public discourse towards curing treatments for arsenicosis are also specific for Viola Vitalis. However, one must remember that any organisation looking for carrying out any type of societal service in Bangladesh has to apply for permission from the national government. This means that these constraints occur by large as a consequence of the social aim of the company. When providing products to BoP customers, not meant to target a social problem, these challenges are most likely not as significant. Thus, these specific issues might have decreased the general applicability of the thesis.

Having the BoP theories as a theoretical framework for strategies is likely to reduce the likelihood of Viola Vitalis' possibility to target the very poor. The BoP-critics mean that so far, hardly any of the extreme poor people have been benefited by BoP business. These mean that the customer have instead been the middle-class in developing countries, which might seem poor to a Western researcher. This indicates that the strategies evaluated in this study do not offer any solution on how to in reality target and help the extreme poor people suffering from arsenicosis. Hence, the only way of providing treatment is to design and operate a delivery system only for them specifically. Since this study has not dug into how big part of the target group that would need this special services i.e. how many that are extreme poor with absolute no ability to pay for the products and services, it might be possible that the strategies suggested would not solve the problem for the poorest of the poor.

Moreover, since some BoP theories were chosen from the beginning to set up the theoretical framework, the results of the study are for certain limited. The theoretical framework outlined the search for particular challenges and strategies. This makes it look like there is an overly strong correlation between the empirical findings and the BoP literature. However, Bangladesh is the largest of the least developing countries and somewhat the land of origin for social business and several studies have been made on the success of ventures such as Grameen Foundation. Hence, these studies make up part of the groundwork of the BoP literature since the research area is fairly unexplored. However, one key finding is the how a cultural and deep-rooted suspiciousness among BoP actors leads to negative consequences for BoP business. As such, the study contributes to the research arena and suggests future research to furthermore understand the implications on delivering market-based solutions to social problems.

In addition to what already is mentioned, a deeper investigation into the area of arsenicosis in Bangladesh would be beneficial. It is of vital interest to conduct an extensive research in order to further examine the spread of the disease, the size of the target group and how many of them those are too poor to pay themselves for the treatment.

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Appendix: Interview questions

1. Who are the most influential providers of health care in Bangladesh?
2. How does NGOs catch the attention from aid agencies/donors and government to gain support and funding?
3. What would you recommend an organisation that wants to highlight an issue to do?
4. How do you collaborate with the government?
5. Does the Ministry of Health provide free medicine for the poor people? What type of medicine?
6. From where do you buy the medicines you use?
7. How do you get on the pharmaceutical producer list? What type of certificate do you need?
8. Who is making the buying decision at your organisations when it comes to pharmaceutical procurement?
9. How do they reduce the price when selling to their customers (patients)? How are the prices compared to the market prices?
10. Does every clinic have a pharmacy?
11. From where does the health/ worker volunteer get her medicines?
12. If the poor people cannot pay for medicines, how is this solved?
13. How do you define the ultra poor?
14. How to market the health care services to the people in a village?
15. How much can the average Bangladeshi people pay for medicine each year? Statistics?
16. Do you co-operate with other organizations upon the delivery of health care services? For example local NGOs that have special knowledge in an issue.
17. Can NGOs cooperate with for-profit companies? Is it common in Bangladesh?
18. What is needed for a for-profit company to successfully cooperate with a NGO? (Reputation, network, know person, trust, scale of company large vs small)
19. Is it common that for-profit companies collaborate with NGOs to find resources or to highlight issues?
20. What do you know about the arsenic situation in Bangladesh?
21. How come there has not been any treatment so far?
22. Is it mainly the poor people in the rural areas that are affected?
23. What other organizations do you know of work with the issue?
24. What do the government do?

25. Will BRAC start up a new arsenic program? Why did the last one stopped?
26. Is arsenic no longer a hot topic?
27. Is there a big market for arsenic treatment? Have you had any medicines for arsenicosis? Would you be interested in buying?
28. Who would they collaborate with?
29. How would people react to arsenic medicine? Prices?

Questions to organizations working with arsenic issues

30. On what areas are you operating? How many people are covered in the areas? How many patients are suffering in that area?
31. Do people know that they have arsenicosis? Are they aware that they are suffering from a deadly disease?
32. How do you cooperate with local health workers? In what way? How do you cooperate with the government? What is the government role in the arsenic issue?

33. How do you market the services to the people in the villages/ smaller towns? Is important to have a local connection?
34. Is it competition between the health care providers/ NGOs?
35. If there is more than one NGO delivering health care at the place. Who do people go to?
36. How is the organisation financed? How does AAN catch the attention from aid agencies/donors and government to gain support and funding?
37. Do you have any important partners in Bangladesh that gives them credibility?
38. How much do the patients pay for the medicines? How much can the average Bangladeshi people pay for medicine each year? Statistics?
39. From what companies do you buy medicines? How does that process work? Any reductions?
40. What type of medication do you provide? Does it work well? Why do you think it has not been any type of medication developed for this disease before?
41. What other organizations work with the arsenic issue? Do you collaborate with any? Who are your main cooperation partners?