Social Marketing for Safe Water

How to Reach the Base of the Pyramid in Rural India

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Abstract

Globally, around 780 million people lack sustainable access to safe drinking water sources resulting in serious water-borne diseases. In India, more than 97 million people drink unsafe water. Because the provision of safe drinking water is essential to enhance sustainable growth in developing countries and reduce poverty, continued collective efforts by the public and private sector are necessary. One company that has just recently entered the water supply market and seeks to solve the problem of inadequate drinking water supply in India is the social enterprise Spring Health. The objective of Spring Health is to sell affordable safe drinking water to people living at the bottom of the pyramid in rural villages through a network of local entrepreneurs and village kiosks. While the company has already set up a stable supply-chain, it carried out only a few demand-side interventions. In order to ensure continued use of safe water and achieve long-term behavior change, additional social marketing interventions and basic hygiene and health education are necessary. This thesis analyzes the company's current activities and outlines the findings from a field study to make recommendations and develop effective social marketing strategies to change the behavior of the target population at the bottom at the pyramid and increase the adoption rate of Spring Health water.

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Abbreviations

BoP	Bottom of the Pyramid
CSR	Corporate Social Responsibility
IDE	International Development Enterprises
INR	Indian Rupee
JMP	WHO/UNICEF Joint Monitoring Programme on Water Supply and Sanitation
MDG	Millennium Development Goal
NGO	Non-Governmental Organization
ORT	Oral Rehydration Therapy
POU	Point-of-Use
UN	United Nations
UNICEF	United Nations Children's Fund
US$	United States Dollar
VOC	Voice of the Customer
WHO	World Health Organization

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I INTRODUCTION

1. Overview

1.1 Defining the Problem: Lack of Access to Safe Drinking Water

Globally, around 780 million people lack sustainable access to safe drinking water sources resulting in water-related diseases like diarrheal diseases, arsenicosis, cholera and fluorosis (WHO/UNICEF, 2012). An estimated 1.8 million people, mostly children under 5 years of age in developing countries, die each year from diarrheal diseases, which are mainly a result of contaminated water, contaminated food, poor hygiene and lack of sanitation (WHO, 2008). Diarrheal disease is also a leading cause of child morbidity, because nutrients cannot be adsorbed. With the improvement of safe drinking water supply and prevention of waterborne diseases, a range of economic and social benefits comes along. The number of deaths and diseases related to contaminated water decreases, productivity and school attendance increases and health care costs for the patient and public sector are reduced. Because the provision and global monitoring of safe drinking water is essential to enhance sustainable growth in developing countries and reduce poverty, the international community has recognized that safe drinking water interventions are of primary concern.

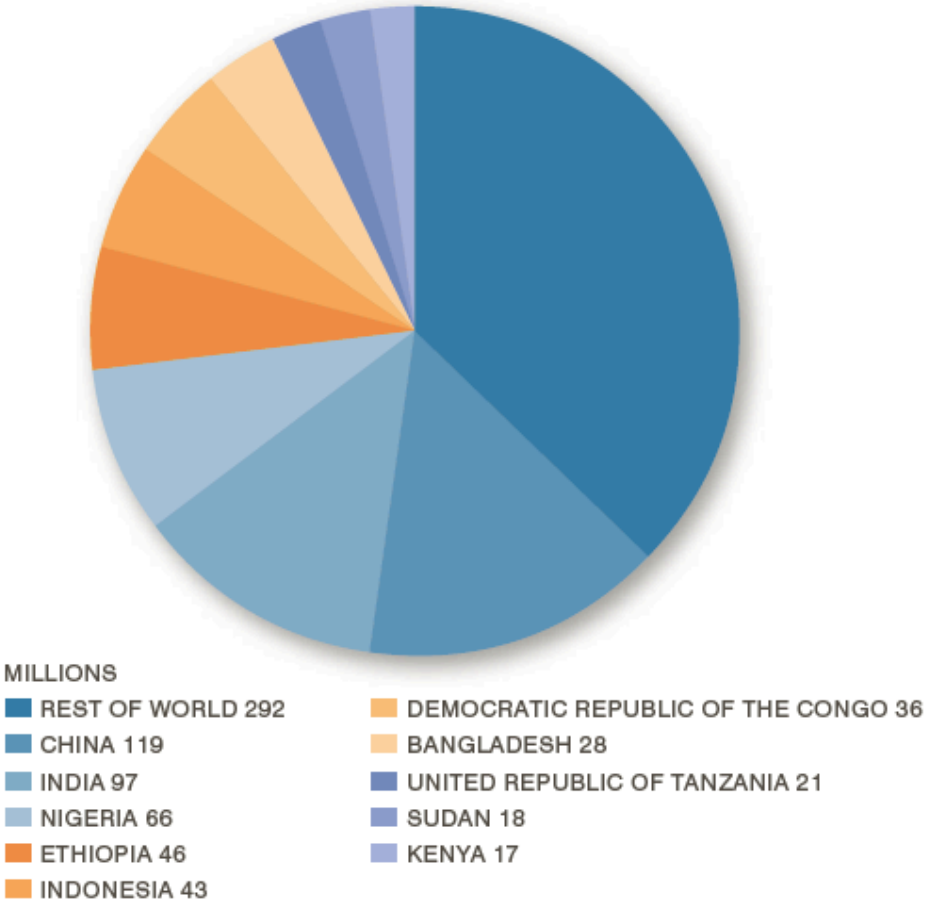
The UN Millennium Development Goal target (MDG) for safe drinking water is to halve the proportion of the population without sustainable access by 2015, from the baseline year 1990 (UN, 2012). In addition, the United Nations General Assembly and UN Human Rights Council declared access to safe drinking water as a human right in 2010.

According to the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP), the MDG drinking water target was already met in 2010, five years ahead of schedule. Although it is a major step that over 2 billion people have gained access to improved drinking water sources between 1990 and 2010, large numbers of people in many parts of the world, especially in rural areas, are still short of access to safe drinking water (WHO, 2012). Furthermore, the JMP acknowledges that the number of people having sustainable access to safe water may be overestimated, as there is currently no method and complete information available to measure water quality systematically on a global scale. For this reason, the JMP used the concept

'improved' drinking water sources, which is defined as those which are protected from outside contamination, as a proxy indicator for water quality to monitor progress towards the MDG target of safe water (WHO/UNICEF, 2012).

Coverage of improved water supply sources is especially low in sub-Saharan Africa (61%) and needs to be substantially increased. The progress of China and India is remarkable with 457 and 522 million people, respectively, who gained access to an improved water source between 1990 and 2010 (WHO/UNICEF, 2012). Nevertheless, these two countries combined count 213 million people, almost 28 percent of the global population, who remain without access to improved water sources (Figure 1).

Figure 1: Ten countries with the largest population without access to an improved drinking water source in 2010



Source: WHO/UNICEF. 2012.

In order to maintain current coverage levels and attain universal access to safe drinking water with a rapidly growing population, continued collective efforts are necessary. Despite high levels of financial expenditure, most governments in

developing countries will not be able to supply their total population with safe water in the near future. Although governments may be held accountable for meeting their human rights obligations and need to scale-up safe water supply services, effective and far-reaching interventions are only possible in cooperation with non-governmental organizations and the private sector. A considerable amount of public and private investments in safe drinking water supply and services is necessary to meet the remaining challenge. According to a WHO global economic study, the estimated financial capital cost of necessary interventions to attain universal coverage of improved drinking water sources is US$ 203 billion over the five-year period 2010-2015. For each US Dollar invested in adequate drinking water systems and services, the global economic return is found to be US$ 2.0 in terms of decreased mortality and morbidity, health cost reduction and increased productivity (WHO, 2012). In addition, it is important that investments in the operation and maintenance of existing supply infrastructure do not fall into oblivion. Otherwise, there is the risk that people who previously had access to a safe water source are forced to use unsafe water.

Although economic arguments to invest in drinking water supply are convincing, huge funding gaps remain. For this reason, alternative financing sources need to be explored and new technologies and business models developed to ensure that safe drinking water supply is affordable, efficient, reliable and convenient in the long-term.

1.2 Focus and Purpose: Spring Health - Finding Strategies to Deliver Safe Water to the BoP

The present thesis focuses on the Indian-based social enterprise Spring Health, which has just recently entered the Indian water supply market. It is a company that pursues a very innovative and promising business approach to solve the problem of inadequate water supply in Eastern India. The objective of Spring Health is to sell affordable safe drinking water to people living at the bottom of the pyramid (BoP) in rural villages through a network of local entrepreneurs. Each day, a delivery-boy or the local entrepreneur delivers clean water at a very affordable price directly to the house of the customers. This home-delivery approach ensures that also the poorest households and disadvantaged caste groups have access to safe water.

Spring Health started the pilot-phase of its operations in 2010 in the state of Orissa. By now, the company has already set up 29 operations in rural villages

across the state and sold over 500'000 liters of safe water in the month of October 2012. While it has already set-up a stable supply-chain in various villages, it carried out only a few demand-side interventions. While "hardware" interventions are essential to ensure that the population has access to safe drinking water, practitioners in the public health and development sector suggest that adequate "software" interventions, including social marketing campaigns, basic hygiene and health education, are necessary to achieve long-term behavior change (Mosler, 2012). Without a change of behavioral practices by the target population, interventions on the supply-side can become ineffective. People may not understand why it is unhealthy to drink raw water from their open well and mix clean with contaminated water. For this reason, it is of utmost importance that there is a combined hardware and software intervention for providing safe drinking water to poor people and ensuring continued use.

The purpose of the thesis is to analyze the company's current activities in order to make recommendations and develop effective strategies to change the behavior of the target population at the bottom at the pyramid in rural India. The combination of marketing and social marketing will be used as a tool to achieve long-term change of behavioral practices, making safe drinking water available and increase levels of continued use of Spring Health water.

The thesis is divided into a theoretical and practical part. The first part focuses on the existing theoretical literature of BoP business approaches and social marketing. The second part concentrates on the case study of the for-profit social enterprise Spring Health. Findings regarding current social marketing activities, the population's perception of Spring Health water and health awareness from a 3 month field study in Orissa including qualitative interviews and first-hand observations will be presented and analyzed against the theoretical background outlined in the first part. In the end, specific suggestions to improve the company's social marketing and behavior change interventions at the base of the pyramid in rural India, including a social marketing plan proposal, will be developed.

II THEORETICAL BACKGROUND

2. The BoP Proposition: Rethinking of Current Paradigms in the Private and Development Sector

„*If we stop thinking of the poor as victims or as a burden and start recognizing them as resilient and creative entrepreneurs and value-conscious consumers, a whole new world of opportunity will open up.*“

(Prahalad, 2005)

C.K. Prahalad’s and Stuart J. Hart’s groundbreaking piece “The Fortune at the Bottom of the Pyramid”, which postulates that there is a huge untapped market with significant buying power at the bottom of the world’s economic pyramid, was the starting point for a rethinking of current paradigms in the private and development sector. According to the authors, poor people who survive on just a few dollars a day should be seen as potential consumers, rather than as negligible charity cases. Until recently, private companies concentrated on the needs of the wealthy, while those of the worldwide four billion poor remained underserved (Prahalad & Hart, 2002). But there is a huge business potential to serve people living at the bottom of the pyramid with affordable goods and services that are necessary to meet their basic needs. Moreover, there is an increased belief among the development community that market-based approaches can help to reduce poverty, as traditional approaches have not been notably successful.

This chapter focuses on the origins, evolution and impact of the BoP proposition on the private and development sector, but also provides a critical examination of past BoP ventures and their shortcomings.

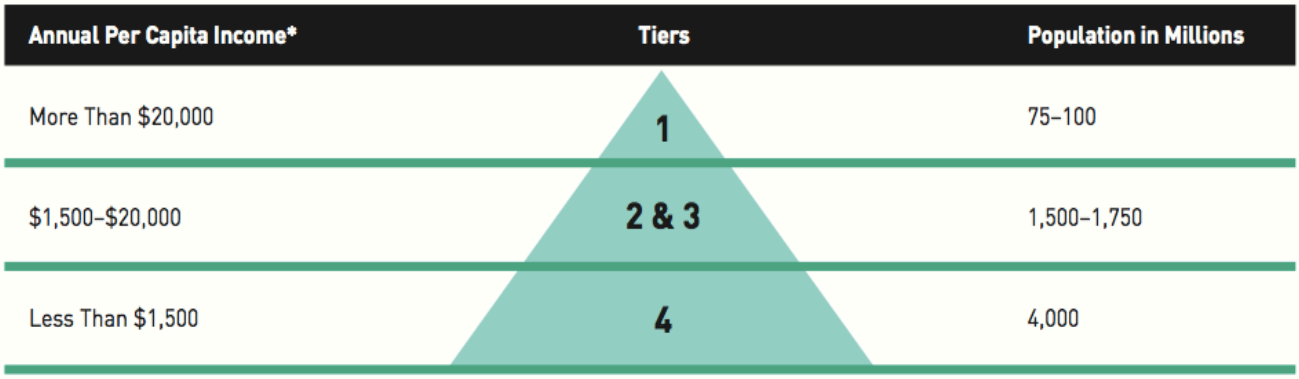
2.1 The Untapped Market of the Global Poor: Business Opportunities for the Private Sector

2.1.1 Combining Corporate Profit and Poverty Alleviation

According to the World Bank’s private sector arm and a policy research group, the bottom of the pyramid has an estimated aggregated purchasing power representing a market of 5 trillion US$ (WRI & IFC, 2007). This segment of the global population is characterized by an annual income of less than 1’500 US$ in local purchasing power,

which accounts for 4 billion people worldwide. It also includes the more than a billion people living on less than 1 US$ a day (Prahalad & Hart, 2002).

Figure 2: The World Economic Pyramid



*Based on purchasing power parity in US$

Source: Prahalad & Hart. 2002.

Until just recently, companies did not pay attention to the needs of these 4 billion people and their substantial purchasing power. C.K. Prahalad and Stuart Hart were the first to point out that this market presents enormous opportunities for the corporate sector (Prahalad & Hart, 2002). They argue that serving the poor with essential products and services is simultaneously profitable and helps to reduce poverty. Although each individual at the BoP has a negligible purchasing power, the collective purchasing power of BoP consumers, which account for more than two thirds of the world population, is massive. Prahalad and Hart postulate that doing business with the BoP population is essential for corporations in order to be viable in the long-term.

Apart from the profitability argument, there are other reasons to focus on BoP markets in all its dimensions. As the BoP population is mostly not integrated into the global market economy, they have to operate within a relative inefficient and uncompetitive informal market or are dependent on subsistence livelihoods, which makes them vulnerable to exploitation of middlemen or destruction of their natural resources (WRI & IFC, 2007). Integrating the BOP into the formal economy would help to overcome the so-called poverty-trap of informality and asymmetric information. It would substantially raise productivity and the income of the poor. Further, BOP consumers usually have access to lower quality products at a higher price compared to the middle-class and the rich (WRI & IFC, 2007). To help increase

the quality of life of the poor, companies need to serve them with essential high quality products and services at an affordable price. Serving the needs of low-income consumers and empowering their entry into the global marketplace is considered as essential for sustainable growth and poverty reduction.

2.1.2 Questioning the Fortune at the Bottom of the Pyramid

During the past years, when interest in the BoP concept since Prahalad's and Hart's promising proposition that the global poor are a potential profitable market segment rose, several companies launched business initiatives that targeted the BoP. Unfortunately, most BoP enterprises remain small, are inefficient and unprofitable. They are in the so-called "survival trap", which keeps businesses struggling and individuals poor (Kacou, 2010). Businesses often fail to adjust to the realities of BoP markets. In addition, they meet problems to reduce costs and prices for the products they serve to people living on a few dollars a day (Karamchandani, Kubzansky, & Lalwani, 2011). It needs substantial resources to design and produce affordable products for the global poor that often surpass the budgets. If ever possible, profitability will be reached only in the long-term. Until now, there are just a few businesses that are sizeable (Karamchandani, Kubzansky, & Lalwani, 2011). One of the earliest and most sizeable business models that engage with the poor is microcredit pioneered by Muhammad Yunus' Grameen Bank. But for most companies, it still remains unclear how to catch on the opportunities in the BoP market.

Based on this evidence and experiences, opinions about the effective business opportunities diverge. There is much debate among academic scholars and practitioners whether the claim that significant profits are hidden at the base of the pyramid is realistic. There are several limitations inherent to the BoP concept and the assumptions of the proponents. Critics argue that simply offering small packages to poor people, which has been originally proposed by Prahalad, is not a solution to successfully tap the BoP market and enhance the well-being of the poor (Jaiswal, 2007). There are also ethical concerns that arise when doing business with impoverished people (Davidson, 2009). Selling inappropriate goods like cheap skin whitening cream or tobacco products is from a moral point of view questionable. There are many products sold to BoP consumers that are not likely to increase their

quality of life and reduce poverty. Deciding over pricing is problematic too. The company can either set the price of a product at the maximum to capture every cent of the buyer's surplus or price the product less to leave some cents to the vulnerable customer (Davidson, 2009). Aneel Karnani even postulates that the BoP proposition is a mirage and that there is no fortune at the bottom of the pyramid (Karnani, 2006). In his view, most researchers overestimate the size of the BoP market. Contrary to Prahalad and Hart who claimed that there are 4 billion people at the BoP (Prahalad & Hart, 2002), the size of this market is according to his estimations between 600 million to 2.7 billion people. The purchasing power of poor people has also been overestimated. Most companies which entered the BoP market tried to sell their products and services at prices that most poor cannot afford. Additionally, the majority of the poor lives dispersed in rural areas and constitutes a culturally fragmented market. Therefore, large companies are unlikely to make profit. The distribution, marketing and transportation costs of serving the BoP are very high. Thus, Karnanni proposes an alternative perspective:

"The BOP proposition focuses on the poor as consumers. To the contrary, we argue for the need to view the poor primarily as producers, not as consumers. Rather than emphasizing selling to the poor, we should emphasize buying from the poor. By far the best way to alleviate poverty is to raise the income of the poor." (Karnani, 2006, p. 22) In his view, private enterprises should rather focus on improving the efficiency of markets, where the poor sell their services and products and provide solutions to raise their productivity. Generating huge profits by serving the BoP is an illusion. Still, he thinks that there are a lot of opportunities for companies in the realm of social responsibility.

Whether some critics are overstated or not, one thing is certain: companies have to dramatically rethink their current practices to tap the market at the BoP. They have to be aware of the institutional characteristics of developing markets and the unique needs for goods and services of the low-income consumers. Business models that were used for the developed market will not work at the Bottom of the Pyramid (Prahalad, 2010). Repackaging products or reformulating current products are not viable business strategies in the long-term, because these are rather attempts to "sell to the poor" without understanding the local needs and aspirations, than creating value for the poor (Simanis & Hart, 2008). Consumers at the BoP have for example different spending preferences than the top of the economic pyramid. They spend

most of their budget on food, followed by energy, housing, transportation and health (WRI & IFC, 2007). These markets bear enormous opportunities. The private sector just has to think about innovative and viable business models and effective strategies to meet BOP needs with market-based solutions. One innovative and promising business approach at the BoP is pursued by the social-enterprise Spring Health, which is presented and analyzed in the second part of the thesis.

2.2 The Power of Business to Alleviate Poverty: A New Approach by NGOs

Prahalad's BoP proposition and the growing number of literature and scholars, which deal with this subject, also influenced the current practices of international development assistance and non-profit organizations. While businesses mainly try to explore this lucrative market to make profits, non-governmental organizations (NGOs) consider the BoP approach as a poverty alleviation strategy. A market-based approach can help increase the effectiveness of their programs and financial sustainability (London, 2007).

Several scholars criticized the traditional approaches of foreign aid and questioned their validity. One of the most prominent opponents is William Easterly, who illustrated the ineffectiveness of development assistance in his famous book "The White Man's Burden" (2006). He notes that the attempt of Western organizations to impose solutions from above during the past 60 years has failed to help developing countries. Instead, he argues, only if the West frees itself from the utopian goal to totally eradicate poverty and starts to search for indigenous approaches for development, the poor can benefit (Easterly, 2006). Dambisa Moyo, another well-known author, even postulates in her controversial book "Dead Aid" that aid made poor people in Africa even poorer (Moyo, 2010). In her view, the huge flow of funds favored corruption and the outflow of foreign capital in the recipient countries. But even if some criticism may go too far, non-profit and development agencies recognized that traditional approaches to poverty reduction often failed. They started to consider a market-based approach as a promising alternative.

During the past years, a growing number of development and non-profit organizations ventured into the BoP market. But a few organizations have already explored market-based initiatives for poverty alleviation long before the BoP concept

emerged. Micro-finance and micro-credit institutions, for example, have a long history that started in the 1970's (London, 2007). Others launched projects that help to improve access to markets for local small and micro-enterprises in order to raise their living standards. They are often constrained by inadequate market information, weak bargaining power and lack of access to credit. CARE International, for example, implemented a program in rural Zimbabwe to enhance the access to financial services and agricultural input and output markets of smallholder farmers (Fowler & Panetta, 2011). Instead of giving free or subsidized inputs to them, the project aimed to develop a sustainable network of local agricultural input dealers, marginalized farmers and other market actors.

What is novel is that non-profit organizations started to play an increasing role in marketing and market development in low-income countries. International Development Enterprises (IDE), a pioneer in this field, conducted several successful mass marketing campaigns of affordable small-scale irrigation devices. Through concentrated social marketing interventions, IDE popularized the treadle pump, a human-powered irrigation device, which helps farmers to maximize return on their small plots (IDE, 2012). The treadle pumps are produced by local manufacturers and distributed through retail dealers. Since 1985, more than 1.4 million treadle pumps have been sold to smallholder farmers in Bangladesh. IDE considers mass marketing strategies essential to set-up sustainable programs that benefit large numbers of farmers (Egan, 1997).

There is also a growing trend of NGO and private sector collaboration, especially in the field of corporate social responsibility (CSR). The combined capabilities from both, the NGO and private sector, provide the means to find effective solutions to reduce poverty. During the past decades, NGOs often criticized corporate activities, but they increasingly start to recognize that a strategic partnership with the private sector can be fruitful. While companies can provide the necessary capital and business knowledge, NGOs can resort to their expertise and their widespread network of local marginalized suppliers and consumers. Oxfam, for example, collaborates with Unilever since 2010 to improve the livelihoods of smallholder farmers in Azerbaijan. Unilever's goal is to incorporate, with the support of Oxfam, 500'000 marginalized smallholder farmers and small-scale distributors in developing countries into the supply-chain of Unilever until 2020 (The Telegraph, 2010).

Although these initiatives are promising, the evolving role of NGO's as market actors raises some concerns. The main concern addresses the challenge of NGO's to balance between business goals and their original mission. How can it be assured that NGOs facilitate business with the marginalized poor without undermining the goals of development and poverty alleviation? The collaboration of NGOs with private companies can also raise controversies. Private companies may be rather concerned about corporate interests and their reputation, than in successful program implementation. For these reasons, it is utmost importance that NGOs define their specific role in markets in order to avoid loosing their credibility and legitimacy with the blurring of NGO and business boundaries. There is no doubt that market-based approaches play an important role in the global fight against poverty. Still, they have limitations in their scalability and effectiveness and cannot totally replace donor-based development assistance (London, 2007). Relying on market-forces for development should not be seen as the exclusive solution for poverty alleviation, but rather as complimentary to other proven approaches.

3 Social Marketing as a Tool to Influence Behaviors at the BoP

As Spring Health operates at the bottom of the pyramid, the previous chapter outlined the history and evolution of the BoP proposition and analyzed evidence from business approaches in the private and development sector. The present chapter focuses on a tool, which helps to influence and change behaviors at the BoP, which is necessary to make a BoP business viable: social marketing. Social marketing, an approach which draws on social sciences, social policy and traditional commercial marketing techniques to influence behavior, has rapidly evolved to a well established discipline during the past 40 years. Social marketing has been for a long time most extensively used in the public health sector. The social marketing approach became increasingly important in other areas, such as environment protection, safety and development, when it became evident that it is not only enough to raise awareness about a certain issue, but also to follow an integrated strategy to change behaviors in the long-term. In the following chapter, the concept and the principles of social marketing will be outlined in detail, which will serve as a basis for an effective social marketing strategy proposal for Spring Health in order to increase the adoption rate of safe drinking water.

This chapter is divided into four parts. The first section outlines the conceptual underpinnings of social marketing, its history and evolution. A section comprising the key principles and practices of social marketing follows. The third section describes the main differences between social and commercial marketing and the last section presents a planning process for a social marketing campaign, which will be subsequently adapted to the case study.

3.1 The Concept and Evolution of Social Marketing

“Why brotherhood can’t be sold like soap?” (Wiebe, 1952). Psychologist G.D. Wiebe raised this famous question 60 years ago in his paper “Merchandising Citizenship and Commodities on Television” from which the concept of social marketing evolved. With his question, he implied the ineffectiveness of efforts by sellers of social causes compared to those selling soap and other commodities. Wiebe found that the more a social campaign had the characteristics of a product campaign, the more successful its outcome.

The term „Social Marketing“ has been introduced in 1971 by marketing experts Philip Kotler and Gerald Zaltman. In their original publication „Social Marketing: An Approach to Planned Social Change“ in the „Journal of Marketing“ (1971) they positioned social marketing as „the design, implementation and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution and marketing research“. The authors argued that the same marketing concepts and techniques used for selling consumer products could be effectively applied to planning and implementing social change.

With Kotler and Zaltman's article, the discipline of social marketing was born. However, it expanded at a very slow pace until the mid-1980s due to an identity crisis. The field of social marketing had difficulties to distinguish itself from other social influence approaches. It was only in the 1990's when scholars realized that social marketing is not about *changing ideas*, as initially proposed by Kotler and Zaltman, but about *changing behaviors* (Andreasen, 2006). This shift helped social marketing to define itself better and make a clear line against other disciplines. For this reason, behavior change theories and models became an essential component of the social marketing concept.

Based on the insight that behavior is the "bottom line" of social marketing, Alan Andreasen proposed a version of a new definition, which is commonly cited and still valid, describing social marketing as "the adaption of commercial marketing technologies to programs designed to influence the voluntary behavior of target audiences in order to improve their personal welfare and that of the society of which they are a part" (Andreasen, 1994).

Although social marketing has been defined in various and diverging ways during the past decades, it can be generally described as a framework that draws from commercial marketing, psychology, sociology, anthropology and communications to design and implement a "marketing mix" (product, price, promotion and placement) in order to influence a socially beneficial behavior of a target audience. The acceptance of behaviors that are socially desirable should be promoted, while the undesirable ones should be dismissed.

While social marketing initially has been closely identified with the marketing of products that induce social change, such as contraceptives or oral rehydration

therapy (ORT), and has been commonly used in the sectors related to public health, it finds today its application in various areas. Social marketing campaigns have been used for example to reduce fast driving, avoid diabetes or encourage physical activity. Social marketing is now considered as an effective strategy in behavior change interventions. However, it should be kept in mind that although social marketing is widely accepted and applied, the field is still in its early maturity and needs to affirm its identity (Andreasen, 2006).

3.2 The Key Principles of Social Marketing

While various definitions of social marketing have been proposed and there is no clear consensus on its definition among scholars, there are some essential principles inherent to the concept of social marketing. These key principles have been outlined by Lee, Rothschild and Smith in March 2011 in "A Declaration of Social Marketing's Unique Principles and Distinctions" (Lee & Kotler, 2011) and are as follows:

Table 1: The Principles of Social Marketing

Principles Shared With Other Disciplines	Unique Principles
Audience Orientation	Value Exchange
Segmentation	Recognition of Competition
Behavior Focus	The 4P's of Marketing
Evaluation	Sustainability
Consideration of Upstream and Midstream Target Audiences	-

Source: Own illustration based on Lee, Rothschild & Smith, cited in Lee & Kotler. 2011. P18-19.

3.2.1 Principles Shared with other Disciplines

Social marketing is an integrative discipline. Many of its important principles have been developed in other fields and adopted. On the other hand, some of its key practices are used in other disciplines. For this reason, social marketing shares a

number of important characteristics with other approaches to behavior change (Lee & Kotler, 2011). These common principles are outlined in the following:

Audience Orientation: The fundamental principle of social marketing is audience orientation. It can also be referred to as consumer orientation that underlies many marketing concepts (Kotler, et al., 2002; MacFadyen, Stead, & Hastings, 1999). Rather than conveying information from the top-down and persuading people what is considered best for them, social marketing programs are planned by in-depth research of the needs and desires of the audience group. In order to plan and implement a successful social marketing campaign, it is crucial to understand the current behavior of the target group that needs to be changed. A consumer-centered approach means that the input of the target consumer is integrated at all stages of development of a social marketing program (MacFadyen, Stead, & Hastings, 1999).

Segmentation: Audience segmentation is an essential component of social marketing. Like a commercial marketer, the social marketer divides the market into subgroups with similar sets of interests and needs in order to enhance the efficiency and effectiveness of a program (Lee & Kotler, 2011; Weinreich, 1999). A “one-size fits all” program is not likely to be very effective. These fairly homogenous segment categories are then evaluated according to their relative potential and narrowed down to one or more target audiences to which the social marketing program is tailored. The segments chosen on which the resources are allocated should be the ones that are most easily reachable or likely to change their current behavior. The size of the social marketing program usually defines the number of target groups. A program with moderate resources can focus on one to three target audiences at a time, while a smaller program should concentrate on just one segment in order to be effective (Weinreich, 1999). Each segment is approached with a distinctive “marketing mix” that matches its needs and responsiveness.

Andreasen proposed a number of specialized segmentation criteria that can help evaluate the segments and select the priority target audience (Andreasen, 1995):

1. *Segment size*: What percentage of the population does this segment represent? Is it large enough to justify an allocation of resources?

2. *Problem incidence*: How many people in this segment are affected by the problem or engaged in an undesired behavior?
3. *Problem severity*: What is the level of severity caused by the problem?
4. *Defenselessness*: To what extent can the people in this segment "take care of themselves"? How much support do they need from outside?
5. *Reachability*: Is this segment easy to reach and identify?
6. *General responsiveness*: Is this segment ready, willing and able to respond to the social marketing program?
7. *Incremental costs*: Compared to other segments, how much is the estimated cost to reach and influence this segment?
8. *Responsiveness to marketing mix*: Is this audience likely to respond positively to a particular social marketing strategy (product, price, promotion and place)?
9. *Organizational capability*: Has the organization available resources and the expertise to develop and implement specific social marketing strategies to access this segment?

Behavior Focus: As already mentioned, social marketing is not about simply changing knowledge, attitudes, awareness or behavioral intention, but about influencing a socially beneficial behavior (Lee & Kotler, 2011). A social marketing intervention establishes clear measurable behavioral objectives. The measure of success of a social marketing campaign is the adoption of the proposed behavior by the target audience and constitutes therefore the bottom line of any social marketing strategy development and evaluation.

Evaluation: The three levels of evaluation in a social marketing program are process, outcome and impact evaluation (Weinreich, 2006). Every stage of the process of the social marketing intervention is monitored and evaluated in view of the defined behavioral goals and intended social benefits. Process evaluation provides data on the changing priorities of the target audience that helps to adopt the social marketing program plan and implementation accordingly (Lee & Kotler, 2011; Lefevbre & Flora, 1988). Outcome evaluation measures the adoption of the intended behavior by the target audience and impact evaluation looks at the societal benefits as a result of the adopted behavior.

Consideration of Upstream & Midstream Target Audiences: During the recent years there is an ongoing debate among scholars about including upstream & midstream target audiences into social marketing efforts. Instead of only influencing behaviors of individuals, it is recommended that social marketers also consider those who are upstream (e.g., corporations, policy makers and media) and/or midstream (e.g., friends and family) in order to increase the effectiveness of the intervention (Andreasen, 2006; Lee & Kotler, 2011). For upstream and midstream target audiences the same social marketing principles and practices are applied as those for individuals.

3.2.2 Unique Principles of Social Marketing

Although social marketing shares some of its key principles with other fields of behavior change, it is based on four unique characteristics that help distinguish it clearly from other disciplines. These principles are reviewed as follows:

Value Exchange: What is truly unique to social marketing is the centrality of exchange theory. Social marketing offers something beneficial to the target audience in exchange for performing the behavior intended by the intervention. This offered benefit motivates the audience to voluntarily change, abandon or adopt the desired behavior. According to Donovan and Henley, “value is calculated by the ratio of perceived benefits to the costs and this determines choice between alternatives” (Donovan & Henley, 2003). Therefore, the individual must perceive the provided benefit as equal or larger than the costs to perform the behavior (Lee & Kotler, 2011). In order to facilitate a voluntary exchange, it is crucial for the social marketer to identify the most appealing benefits that the target audience associates with performing the behavior (MacFadyen, Stead, & Hastings, 1999). The provided value can be intangible (e.g., better quality of life, time) or tangible (e.g., help line).

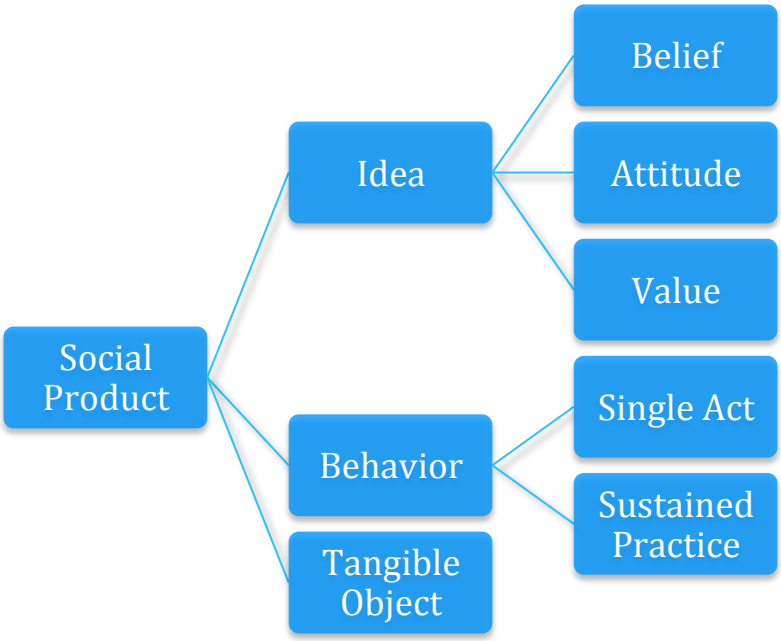
Recognition of Competition: Another core principle that underlies social marketing is the recognition that there are other forces and factors that compete with the promoted behavior. Competitors in the social marketing environment are not other organizations offering similar goods and services like in commercial marketing, but alternative behaviors associated with their pleasures and benefits. These can be a behavior the target audience has been doing “forever” (e.g., driving alone to work)

or behaviors they prefer over the ones the social marketer proposes (e.g., eating sugary food), and messages from organizations and individuals countering the desired behavior (e.g., tobacco and alcohol companies) (Kotler et al., 2002). To successfully develop a social marketing strategy, the relevant competition has to be analyzed carefully with regard to perceived cost, barriers and benefits.

The 4P's of Marketing: The so-called 4P's consisting of product, price, place and promotion, are the essential components of designing and implementing a social marketing plan. These 4P's are blended to a "marketing mix", which is tailored to reduce the barriers for the target audience to perform the desired behavior and to provide benefits for behaving the way the social marketer intends (Lee & Kotler, 2011). These four tools of the marketer's toolbox are all used at the same time to achieve a successful social marketing intervention. But in contrast to commercial marketing, social marketing uses an adapted version of the marketing mix and modified its elements. Each element of the social marketing mix is subsequently described.

Product: Compared to commercial marketing, it is rather difficult to "sell products" in social marketing, because it offers largely complex intangible products like ideas and (non-) adoption of a certain behavior. Before formulating a communicable product concept that is positively perceived by the target group, the social marketer needs to analyze the attributes of the product, which can be, for example, ease (difficulty to perform the behavior), image (attractive or unattractive behavior), duration (short- or long-term behavior) and cost (financial cost of the behavior) (MacFadyen, Stead, & Hastings, 2003). Depending on the target audience, the message of the social marketing campaign puts the emphasis on different attributes of the product. It should set the priority on the benefits of the product that are most appealing to the "consumer". For example, if the desired behavior is regular exercise and the target audience is older, the key issue may be health risk. The message of the campaign then points to the heart disease risks when not doing enough cardiovascular training. But if the target audience is younger, the message can put particular emphasis on attractive appearance.

Figure 3: The Social Marketing Product



Source: Adapted from Kotler & Roberto. 1989.

Price: Social marketing products have rather social, emotional or temporal costs than monetary ones. These costs constitute a barrier for the target audience to perform the desired behavior. A clear understanding of the associated price through research with the target audience is necessary to engage as much people as possible in the promoted behavior. After identifying the price, the social marketer minimizes the costs. In the end, the perceived benefits need to outweigh the price. But if the costs of performing the behavior are greater than the benefits, it is very unlikely that the target audience adopts it (Weinreich, 1999).

Place: Another element of the social marketing mix is the place, also referred to as distribution channels, where the product or service is available for the target audience. Place variables include among others distribution points, coverage, media, convenience and time. Prior to place decisions, the social marketer has to analyze the possible distribution channels and choose those where the customers are most likely to have access (Lefevbre & Flora, 1988). In addition, social marketing campaigns often rely on a network of intermediaries, such as teachers, social workers and health professionals, who act as distribution channels for media or retailers of the product (MacFadyen, Stead, & Hastings, 2003). They usually have

better access to the target group and other key groups, who may support the program and influence the target group (gatekeepers and stakeholders).

Promotion: Promotion includes all those activities that transport a message to the target audience and raise awareness of the idea or behavior. The purpose of promotional activities in social marketing is to ensure that the consumer knows the benefits of the behavioral product and has the intention to adopt it. Promotional techniques include advertising, publicity, public relations, personal selling, sales promotion and sponsorship (Donovan & Henley, 2003). The promotional strategy is designed with regard to the desired effect the campaign should have and the accessibility of the target group. Moreover, it is necessary that the promotion strategy pay attention to the other elements of the social marketing mix (Lefevbre & Flora, 1988). In the end, the components of the marketing mix should match each other.

Sustainability: Social marketing programs are by their nature sustainable, because they intend to influence behaviors in the long-term. To achieve sustained and repeated performance of the desired behavior, the program has to be monitored during the complete process. If the desires or perceptions of the target audience or some environmental conditions change, the social marketer needs to adapt his program accordingly. (Lee & Kotler, 2011)

3.3 Distinctions from Commercial Marketing

Social marketing may have a lot of common features with commercial marketing, for example consumer orientation, market segmentation, the mechanism of exchange, the 4P's and competition, but it can be clearly distinguished in a few ways. The key difference between the two approaches is their goal. Commercial marketing aims to sell a good or service for the greatest financial profit, whereas social marketing wants to influence the behavior of the largest possible percentage of the target audience to increase the welfare of the individual and the society (Lee & Kotler, 2011). Another basic difference is the time span between product purchase and resulting benefits. Commercial marketing offers in most cases immediate product and service benefits, while the benefits offered in social marketing may result after several years or will never take place (prevention of a certain behavior). A unique characteristic of social marketing is that it is not only focused on influencing the

behavior of the individual consumer, but also the social and political environment (MacFadyen, Stead, & Hastings, 2003). Other distinctions that have been already mentioned are the nature of the competitors and the complexity of the product. Generally, social marketing is perceived to be more complex as it promotes behaviors that are difficult to adopt or change (giving up an addictive behavior or performing an uncomfortable behavior) (Lee & Kotler, 2011). Furthermore, in social marketing, the demand is more varied, the target groups are more challenging to reach and the customer is more involved (Lee & Kotler, 2011; MacFadyen, Stead, & Hastings, 2003).

Box 1: Case Study: Promoting Oral Rehydration Salts in Burundi

In Burundi, diarrhea is one of the leading causes of mortality and morbidity among children under five. Most deaths result from dehydration and could be easily prevented with an effective and widely recommended treatment called Oral Rehydration Therapy (ORT), a sugar-salt solution.

Burundi launched a social marketing campaign with funding from USAID to promote ORASEL, a commercial Oral Rehydration Salt (ORS) product, to increase the use of ORT and reduce the incidence of child deaths. The target audiences were female caregivers of children under the age of five. ORASEL was promoted between 2004 and 2007 through various radio spots and rural and urban interpersonal communication activities. The promotional messages did not only include the characteristics and benefits of the product, but also emphasized the importance of ORS use and explained the causes and consequences of diarrhea. Another important component of the social marketing intervention were community outreach activities in schools and health centers that included the distribution of educational and promotional materials, such as brochures, posters and pens.

A subsequent evaluation analyzed the changes in ORASEL use and related behavioral determinants among the target audience and found that there is an obvious association between exposure to the social marketing campaign and increased uptake of ORASEL among caregivers. The findings demonstrate that the campaign was primarily effective as a result of the combination of mass media and interpersonal communication activities.

Source: Kassegne et al.. 2011. Evaluation of a social marketing intervention promoting oral

rehydration salts in Burundi. Available: http://www.biomedcentral.com/1471-2458/11/155.

3.4 A Guide to Develop a Social Marketing Plan

Like in generic marketing, an integrated strategic planning and development process is the base of every successful social marketing intervention. The process seeks to maximize the effectiveness of the intervention by combining the components of the marketing mix, the use of research and evaluation at every stage, the organization's available resources, segmentation of the market and target audience selection (Donovan & Henley, 2003; Weinreich, 2006). Nancy Lee and Philip Kotler proposed a useful and logical step-by-step methodology of a social marketing planning process. Each step is briefly described based on their book *Social Marketing: Influencing Behaviors for Good* (Lee & Kotler, 2011). Figure 4 presents the principal stages in their framework.

Step 1: Background, Purpose and Focus

The model begins with a clear description of the problem the intervention wants to address (e.g., heart disease) and the factors or events that contributed to the problem. A broad purpose statement helps to clarify to which end (benefits, impact) the social marketing campaign is conducted. At this stage, it should be further defined on what segment of the population (e.g., seniors) and/or solution (e.g., cardiovascular exercise) the plan will focus.

Step 2: Situation Analysis

In the second step, the social marketer analyzes the marketplace, where he will operate, in order to anticipate threats and opportunities, which may have some impact on his planning efforts. It is also important to identify the major organizational strengths and weaknesses relative to the plan, including factors such as available resources, past performance, service delivery capabilities, management support, current alliances and partners, issue priority and internal publics. The plan should involve strategies that maximize the strengths and minimize the weaknesses. At this stage, it is also useful to conduct a literature research on prior similar programs and their key lessons.

Figure 4: Social Marketing Planning Steps and Research Input

Source: Own illustration adapted from Lee & Kotler. 2011. P. 51.

Step 3: Target Audience(s)

At the third stage of the strategic social marketing planning process, a specific segment of the population is selected for positioning and developing custom designed strategies. After selection, the priority target audience is described with regard to demographics, geographics, psychographics, readiness to change, relevant

behaviors, social networks and community assets. Planners should also know the size of the audience they want to target. It is also possible that the marketing plan includes strategies to influence a secondary audience, such as strategic partners or opinion leaders.

Step 4: Behavior Objectives and Goals

After target audiences have been selected, the objectives and goals of the marketing plan are set. In social marketing, the objective is to influence the target audience(s) to adopt, reject, abandon or modify a specific behavior. The planner also establishes quantifiable goals regarding the identified objectives in order to develop marketing mix strategies and evaluate the process and outcome of the plan. These goals need to be specific, measurable, attainable, relevant and time sensitive (SMART).

Step 5: Identify Target Audience Barriers, Benefits, the Competition, and Influential Others

At this point of the planning process, the social marketer identifies the perceived barriers and costs associated with performing the promoted behavior to the target audience and potential benefits of the desired behavior, which motivate people to perform it. A customer-oriented approach includes a clear understanding of the needs and preferences of the target group. In addition, it is crucial to investigate and identify competing behaviors the target audience is doing instead and influential persons they listen to in order to develop a successful positioning statement and marketing mix strategies. Qualitative (e.g.: personal interviews, focus groups) and quantitative surveys may provide useful insights about the target audience and help prioritize the findings. The planner can also consult behavior change models, theories and frameworks to deepen his understanding these factors.

Step 6: Develop a Positioning Statement

A positioning statement describes the desired position of the promoted product in the mind of the target audience. How should they perceive the offered behavior and its benefits relative to competing ones? What kind of value does the organization offer? Prior research in Step 3 identifying the unique characteristics of the target audience and findings in Step 5 on perceived barriers, benefits, competitors, and influential others constitute the foundation of any positioning statement. The

positioning statement is a valuable reference for developing the strategic marketing mix.

Step 7: Develop a Strategic Marketing Mix (4P's)

The four elements product, price, place and promotion are blended together into an integrated marketing mix strategy that aims to influence the target audience to accept the desired behavior in exchange for value. For each element, a strategy is developed.

The planner begins with the creation of a product platform describing the offered benefits for performing the intended behavior. *Core product*, *actual product* and *augmented product* are the three levels of the social marketing product. The core product refers to the associated benefits from performing the behavior, the actual product are the goods and services offered and the augmented product includes additional product elements that enhance the adoption of the behavior.

In a second step, the planner identifies the costs the target audience associates with performing the behavior (e.g., time, money, effort). He has to determine any (non-)monetary incentives (e.g., discounts, public recognition) and disincentives (e.g., fines, negative public visibility) he wants to emphasize in the campaign.

The place usually refers to where and when the target audience engages in the promoted behavior and/or has access to the offered product or service. Convenience is the key to engage as many people as possible to perform the behavior. At this point, the planner also develops strategies for distribution channels (e.g., health workers, kiosks, home delivery).

Promotional strategies, the final tool of the marketing mix, are developed at the end of this sequence. The aim is to inspire the target audiences to action with creative strategies that communicate the features and benefits of the product, its price and how to access it through *key messages*, *messengers* (e.g., spokesperson, influential persons) and *communication channels* (e.g., television, posters).

Step 8: Develop a Plan for Monitoring and Evaluation

After the strategic marketing mix has been defined, the social marketer proceeds to the development of the monitoring and evaluation plan. First, he has to clarify the purpose and audience for monitoring progress and evaluating final results. As a second step, he outlines a plan, which includes particular measures that assess the progress and success of the social marketing intervention. He has to specify *what*

(inputs, outputs, outcomes, impact), *how* and *when* will be measured. It is necessary to do this step before establishing budgets to ensure that enough financial resources are available for this kind of activity.

Ste 9: Establish Budgets and Find Funding Sources

The budgeting process is based on the determination of costs for implementing each strategy and activity defined in the marketing plan, including monitoring and evaluation. After these costs have been identified and surpass the organization's available funds, it is possible to explore additional funding sources, such as government agencies, foundations or corporations. If additional contributions could not be secured, strategies and goals need to be revised.

Step 10: Complete an Implementation Plan

The final major step in the planning process is the transformation of the marketing strategies into specific actions to ensure accountability as well as sustainability. The planner develops a comprehensive working document including time frames, budgets, detailed activities and responsibilities (ideally) over a period of two to three years. The key questions answered in the plan are: *What* will we do? *Who* will be responsible? *When* will it be done? *How much* will it cost?

In addition to these 10 steps, marketing research is conducted throughout the entire process (see Figure 4). It is critical for the development of every step as it helps to better understand the target audience and to draft appropriate marketing strategies. At the beginning of the planning process (Step 1 and Step 2), exploratory research through literature review and/or interviews with colleagues is used to define the problem and to describe the purpose and focus of the social marketing plan. Formative research is usually conducted from Step 3 to Step 6, indicating which target audience should be selected and what their preferences and barriers are. It helps to develop an integrative marketing mix strategy relative to the target audience's characteristics. After the marketing mix has been specified, pretest research with people from the target audience (e.g., focus groups) evaluates the effectiveness of possible strategies and identifies shortcomings of the concepts (Step 7). Internal assessment follows during the last steps (Step 8 to Step 10). (Lee & Kotler, 2011)

Applying these ten steps with appropriate research is the key to a successful social marketing intervention. A systematic planning process ensures that real and sustained behavior change takes place among the selected target audience and that the allocation of resources is efficient. The preceding theory and proposed framework by Lee and Kotler (2011) will be applied to the Spring Health case study in the next chapter to develop strategies which increase the consumption of safe water among the poor population in rural Orissa.

Box 2: Case Study: Developing Community Action Plans with Social Marketing Concepts in Washington

The Washington Department of Health developed local community action plans together with coalitions of two mid-size cities, Moses Lake and Mount Vernon, to find policy and environmental approaches that help prevent obesity. The principles and practices of social marketing served as a guideline during the development process of the community action plans.

At the beginning of the planning process, the coalitions defined the problem through environmental assessment. Members from the community were recruited to describe their physical environment regarding accessibility and facilities of the community (bicycle parking, parks, grocery stores). With this method, the coalitions could identify environmental factors that contribute to obesity.

After defining the problem, community stakeholders broadly identified target audiences. Further, each priority area conducted formative research in order to develop effective environmental and policy approaches that would persuade the target audience to increase physical activity and healthier eating. Consultations with the target audience helped to understand the perceived barriers associated with the recommended behavior change. The focus groups, of which participants were mainly Hispanics in Moses Lake and children in Mount Vernon, also served to identify community-level changes that would help overcome these barriers. In the following, each coalition developed and prioritized intervention strategies based on the target audience insights. A network of linked paths throughout the community and the creation of community gardens for the provision of fresh fruits and

vegetables were the priorities of the Moses Lake coalition, whereas the coalition from Mount Vernon decided to prioritize healthy nutrition in schools and physical activity opportunities for school-aged children. At the end of the campaign planning process, each coalition developed a final action plan and set up work groups for the implementation of the action steps and the exploration of funding sources.

Source: Center for Disease Control and Prevention. Washington uses social marketing concepts to develop community action plans. 2012. Available: http://www.cdc.gov/nccdphp/DNPAO/socialmarketing/pdf/Washington_0906.pdf.

III CASE STUDY

4 The Case of Spring Health

The following part of this thesis focuses on the case of Spring Health, an Indian-based for-profit social enterprise that provides safe drinking water to the poor rural population in Orissa (India). This chapter starts with a general overview of the current situation of safe drinking water in India, different POU water treatment technologies and its market potential, followed by a short synopsis of the foundation and evolution of Spring Health Water. In the second part, the business model of the company is quickly outlined. The subsequent presentation of the findings from a critical field assessment of the current marketing and social marketing activities provides a detailed picture of strengths and weaknesses. Lastly, the results from a survey with the target audience conducted by the author are presented in detail and serve as a basis for the development of a social marketing plan proposal in the last section.

4.1 Background and Overview

4.1.1 Safe Drinking Water in India

India is after China the most populous country with an estimated 1.21 billion people (Indian Administrative Service, 2011) and is considered to be home to about one third of the world's poor, which represent 37.2% of the total population (UNDP, 2011). Although it experienced impressive economic growth during the past years and became a powerful economic player, India is still a country with enormous socio-economic disparities. Poverty is a prevalent problem and will not disappear without extensive structural changes.

As mentioned at the beginning, India lags together with China behind the rest of the world in access to safe drinking water (WHO/UNICEF, 2012). India reached its MDG target for water five years ahead of schedule, but an estimated 97 million people are still unserved with improved drinking water sources. Especially the poorest and most disadvantaged households have the lowest access to an adequate water source. Unsafe and unsustainable drinking water supply is a major national economic burden in India and is estimated at US$ 600 million a year (WaterAid India, 2008). According to official estimations of the Indian national Census 2011, only 32% of the Indian households use treated drinking water and 17% need to travel

more than half a kilometer in rural areas or 100 meters in urban areas to fetch drinking water (The Hindu, 2012). Due to season and availability, people often get their drinking water from different water sources. The main source of drinking water in India is tap water (43,5%), followed by hand pumps (42%) and 11% of the Indian population still use open wells as a drinking water source (The Wall Street Journal, 2012). It is estimated that every year, 37.7 million Indians are affected by water-related diseases (WaterAid India, 2008). In the state of Orissa in Eastern India, less than 10% of the population has access to tap water from a treated source, 17,3% use uncovered well water and 38.5% households in rural villages have to travel more than half a kilometer to get drinking water (Ministry of Home Affairs, 2011). The largest socioeconomic census ever attempted in history revealed that most Indian households are struggling with drinking water.

4.1.2 Point-of-Use Water Treatment Systems and its Market Potential in India

For a longtime, it has been supposed that conventional source-based interventions (point of distribution) are effective for the prevention of waterborne diseases. However, during the last few years, several studies revealed that household-based, so-called point-of-use (POU), water treatment interventions and safe storage in improved vessels are significantly more effective (Wright, Gundry & Conroy, 2004). Water quality problems are, for the most part, a result of inappropriate hygiene and sanitation practices. Even if communities have access to a safe water source, microbiological re-contamination of drinking water often happens during water collection, storage and use at the household level (Sobsey, 2002). Diarrheal and other waterborne diseases can be effectively and quickly reduced with POU-interventions and improved hygiene behavior. Evidence shows that POU water interventions can reduce diarrheal and other water-related incidences by 6 to 50% depending on technology and specific economic and demographic factors (Nath, Bloomfield, & Jones, 2006). But despite growing interest in point-of-use water treatment and the evidence of substantial health gains with low-cost technologies, it is important to continue investing in safe community water supplies. Point-of-use water treatment interventions should be seen as a short-term alternative over the long-term goal of full coverage of piped (safe) water distribution systems.

There are a variety of different chemical and physical household-based water treatment technologies. The most common approaches of POU water quality treatment are boiling, chlorination, filtration (sand, cloth, ceramic pot), solar disinfection (SODIS) and combined flocculation/disinfection. Among these household-based water treatment methods, chlorination is the most cost-effective (WHO, 2008). But the intervention method needs to be adapted to the circumstances. Spring Health, the company examined in the following, uses a simple electro-chlorination technology, called WATA[1], to produce chlorine, which is used to purify the water at the point of sale.

As people in developing countries are often underserved with municipal water purification and supply systems, the household water treatment systems market became increasingly interesting for private companies. In India, this market is in a high growth stage and considered as a promising opportunity for investments. Although market penetration is still low, it is expected that the increasing purchasing power capacity of the lower income class households and the growing number of health-conscious Indians holds future market potential. Companies start to discover the "bottom of the pyramid" (BOP) consumer segment and develop innovative and affordable products. At the moment, around 150 national, regional and local participants compete in the Indian POU water treatment systems market. (Frost & Sullivan, 2012). Spring Health is one of these companies that developed an innovative approach to tackle the drinking water problem in remote villages in India. This consumer market has been largely unreachable and untapped. The company estimates the potential market at 200 million customers in East India alone (Spring Health, 2012). By chlorinating water at the point of sale and delivering it directly to the home of the customer in a clean jerry can, the company ensures that the likelihood of recontamination is minimized.

[1] The WATA technology is a simple tool developed by Antenna Technologies Foundation, which converts salt and water (sodium chloride) into a sodium hypochlorite solution through a simple process of electrolysis. The chlorine can be used for drinking water treatment or as a disinfectant. The WATA system is especially useful for communities in developing countries, as the chlorine can be produced locally and decentralized.

4.1.3 The Foundation and Evolution of Spring Health

International Development Enterprises (IDE) founder Dr. Paul Polak[2] established in 2008 the for-profit venture Windhorse International with the objective to provide low-cost and innovative products to millions of people living on less than 2 US$ a day. In 2010, he launched his first division, a for-profit social enterprise called Spring Health. The purpose of the start-up is to sell affordable safe drinking water to poor people living in small rural villages in Eastern India through a network of local water kiosk owners. Experienced and competent persons from the private sector were recruited for the operative management. First water kiosks have been rolled out in 2010 in 10 villages as part of a pilot. In November 2011 the company started to gradually roll out kiosks. At the end of October 2012, Spring Health operated water kiosks in 29 villages.

As margins are quite low, high quantities of water need to be sold in order to make the business profitable. While sales were quite low at the beginning, they started to accelerate in February. Between February and June 2012, sales increased from 80'000 liters a month to over 350'000 liters. Although the business is not yet profitable, it is estimated that profitability will be reached in the near future. The following table provides an overview of the sales performance between November 2011 and October 2012.

Table 2: Sales Performance of Spring Health Water

Month	Nov. 11	Jan. 12	Feb. 12	Apr. 12	Jun. 12	Aug. 12	Oct. 12
No. Kiosks	1	6	10	18	22	23	29
Water Sales Total (liters)	8'420	35'920	81'800	246'000	359'170	499'232	518'930
Average p. Kiosk (liters)	8'420	5'987	8'180	13'667	16'326	21'706	17'884

Source: Spring Health Water Sales Summary, October 2012

[2] Dr. Paul Polak, born in the Czech Republic and a former psychiatrist, is a social innovator and entrepreneur. In 1981, he founded International Development Enterprises (IDE), a non-profit organization with the mission to make practical products available to the world's poor through the creation of local markets and production networks. Later, in 2008, Paul Polak launched D-Rev, a technology incubator which designs and sells radically affordable innovations to the bottom billions. His approach to global poverty alleviation is the application of business models, considering poor people as consumers and producers. In his view, a deep understanding of the poor and their life is the key to success.

Today, the enterprise employs more than 24 persons full-time and seeks to expand its operations to neighboring states over the next year.

4.2 The Business Model of Spring Health

"Spring Health was started with the basic idea that poor people are customers and producers not recipients of charity and need to be treated with dignity."

Spring Health, 2012

The vision of Spring Health is to "provide safe and affordable drinking water to one and all" (Spring Health, 2012). In addition, the goal is to reduce the incidence of waterborne diseases and the related expenses for medical treatment. The long-term objective of Spring Health is to have a presence in the entire country.

The enterprise addresses the problem of safe drinking water access in rural India by offering customers a ten-liter jerry can with safe water for 3 INR (Indian Rupees). The cost of the water is around sixty times less expensive compared to alternative products, such as bottled water (1l = 15 INR) or packet water (150 ml = 2 INR).

The targeted segment are consumers living at the bottom of the pyramid in small remote villages in Eastern Indian states like Orissa, West Bengal, Bihar and Eastern Uttar Pradesh, where water tables are high and wells are shallow (Spring Health, 2012). These people are mostly bypassed by current formal markets and they have specific needs and problems, which had to be taken into account during the business model development process. For example, the product offered needed to be radically affordable due to the customer's lack of financial means. Another challenge was discrimination within the targeted population. Although it is decreasing, caste still plays a role in rural Indian villages. This became distressingly evident when a member of the untouchable community, the so-called Dalits (people considered as untouchable), accidentally touched the tap of a water tank and the other villagers refused to drink the water, because they considered it as impure (Toor, 2011). For this reason, Spring Health developed a non-discriminatory approach by offering a home-delivery service.

A central part of the model is the implementation of a profitable last-mile supply chain. Spring Health partners with local entrepreneurs or village shop owners and installs tanks next to their private shallow well at an affordable price. The tank is filled with usually contaminated water pumped up from the well and is purified with chlorine

by a company staff member. The local entrepreneur then sells the water through a home delivery service system. A delivery boy or the entrepreneur himself carries the jerry cans filled with the purified water with a bicycle or a trolley directly to the home of the customers within a radius of several kilometers. The revenue is distributed as follows: the delivery boy earns 1 INR per sold jerry can and the other 2 INR are shared between the entrepreneur and the company. In the first year, the entrepreneur receives 25% of the returns and in the following year 75%.

Building a strong brand identity is another important part of the Spring Health strategy. The target audience in remote villages should recognize and emotionally connect with the company brand. Spring Health's brand identity is created through a professionally designed logo, recognizable t-shirts and baseball caps worn by company staff members, unique jerry cans and branded posters around and close to the water tank. One of India's leading branding company, IDIOM Design, is responsible for developing a strong and reliable brand identity in rural villages.

Figure 5: Spring Health's Strong Brand Identity

Source: Pictures taken by the author in various villages in the state of Orissa (2012) and Spring Health (2012)

In a nutshell, Spring Health is a company that not only seeks to maximize its profits, but aims to improve the life of people living at the bottom of the pyramid. By creating new jobs, generating income and improving the health of the poor, the

company contributes a substantial part to helping them to move out of poverty. (Spring Health, 2012)

Figure 6: Spring Health's Supply Chain

Source: Pictures taken by author in various villages in the state of Orissa (2012) and Paul Polak (2011)

4.3 Critical Field Assessment of Current Social Marketing Activities

In February 2012, the author undertook a one-month field assessment of Spring Health's marketing and social marketing activities in the state of Orissa. At this point of time, the company has installed 6 water kiosks. As operations have just started recently, many business and organizational processes were still in the state of improvement and refinement in order to reach the company's goals, both effectively and efficiently. Delivering a reliable and excellent service to the customers is one of the main concerns of Spring Health. Marketing and social marketing activities have also just started and were tested.

Although some processes still needed to be worked out, the general impression of the company's activities in the field was positive. The following section will provide a detailed description of the observed social marketing activities and outline the outcome and limitations. The assessment served also as a basis for the voice-of-the customer survey conducted between June and August 2012, which is presented later.

4.3.1 The Water Testing Mela

Awareness creation and an effective commercial and social marketing mix are important factors to make the Spring Health model successful. Selling a product to people living at the bottom of the pyramid is not an easy task, because they have to be cautious about where they want to spend the little money they have. Before buying anything, they will critically think about the benefits the product offers. Another difficult task is to change the behaviors of the targeted population. Many poor people are not aware of the benefits of safe water and would not pay anything for it as long as they have water available in their well.

For this reason, Spring Health started to conduct so-called water testing melas[3], where villagers have the possibility to test the water they usually drink for bacteria. It is a tool to convince them that their drinking water is contaminated. The company sets up a branded booth for three to four hours in the center of the village, where people gather around bringing their water and observing the testing process. A

[3] Mela is a Sanskrit word used in the Indian subcontinent and refers to different kinds of gatherings or fairs.

company staff member adds 2 ml of each water sample to the liquid medium in a plastic Petri dish. After an incubation time of 24 hours at 25-35 degrees, bacterial colonies and parasites grew and are clearly visible. Around 2 to 5 days after the water testing mela, the Petri dishes are then personally returned to the villagers. A staff member explains the consequences of drinking water contamination, while the person has the possibility to study the bacterial colonies and parasites in the Petri Dish together with his family. In the end, he is asked if he wants to purchase Spring Health water and become a regular customer.

Figure 7: The Water Testing Mela

Source: Pictures taken by author in the villages Sarion and Balarampur. 2012.

4.3.2 Outcome and Limitations

The outcome of the water testing melas was generally positive. Most persons, who tested their drinking water, were interested to buy Spring Health water and become daily customers. They were surprised to find so many bacteria and parasites in their sample. Even persons who were aware of drinking water contamination, but never believed that their own water was contaminated because bacteria were not visible, were convinced. Regarding sales, the number of jerry cans sold increased obviously in villages, where a mela has been conducted.

Due to the lack of coordination between the water testing melas and other business processes, the positive outcome had its limitations. In one village, for example, Spring Health water could not be delivered to potential customers after the mela as the company staff member, who had the task to chlorinate the water, was on sick leave. In another village, the delivery boy could not deliver the jerry cans during the day because he had another job. These incidences revealed the necessity of a strong coordination between social marketing interventions and a systemic and immediate follow-up with marketing activities to reach as much potential customers as possible. Raising awareness is one part, but delivering the solution immediately after awareness has been created and being highly present after the social marketing intervention is crucial to ensure high long-term adoption rates. In addition, a reliable and pro-active delivery service is important to ensure continued use of Spring Health water.

During several interviews with villagers, other barriers to adoption became evident. One of the limiting factors was perceived taste of Spring Health water. Several persons stated to disliking the smell or taste. Another barrier was the presence of bacteria in drinking water was not perceived as an actual threat. Some interviewed persons were not aware of the health consequences of drinking water contamination or did not perceive them to be severe.

Generally, the water testing mela is considered to be a highly effective tool to raise awareness about drinking water contamination and increase sales volumes in a short period of time. But it is recommended to implement the intervention more systematically in the future. Thus, it appears that to make Spring Health a success, the targeted market needs to change its behaviors. But before designing or implementing any further interventions to change the behavior of the target audience, a deep understanding of the current behavior of the target audience and the barriers

and benefits associated with the product is necessary. Therefore, a survey based on personal household interviews has been conducted in summer 2012. The method and findings are presented in the next section.

4.4 Voice of the Customer (VOC) Survey

As outlined in the theoretical part, a deep understanding of the current behavior of the target audience of the perceived barriers associated with the promoted product/behavior and the identification of competing behaviors are necessary in the development process of a successful social marketing campaign (Lee & Kotler, 2011). To tackle the problem of access to safe water, it is not sufficient to provide products, services and technologies to the population, but to influence them to adapt their behavior accordingly and drink safe water exclusively. To gain insights about the target audience's barriers and their motivation to adopt the product/behavior, the author conducted a survey based on personal household interviews from June to August 2012 in various villages in the state of Orissa. The survey should also help to capture the "voice of the customer" (VOC) regarding satisfaction and experience with the product and service, thoughts and attitudes in order to enhance business processes, improve the quality of the product and service and increase sales volumes (Denove & Power, 2006; Gaskin et al., 2010). The results from the survey provide a basis to plan and develop an optimal marketing and social marketing mix for future interventions.

The following section is divided into three parts. First, the method used to conduct the survey is briefly described. Second, the main findings of the survey are presented, and lastly, the section is concluded by a discussion.

4.4.1 Method

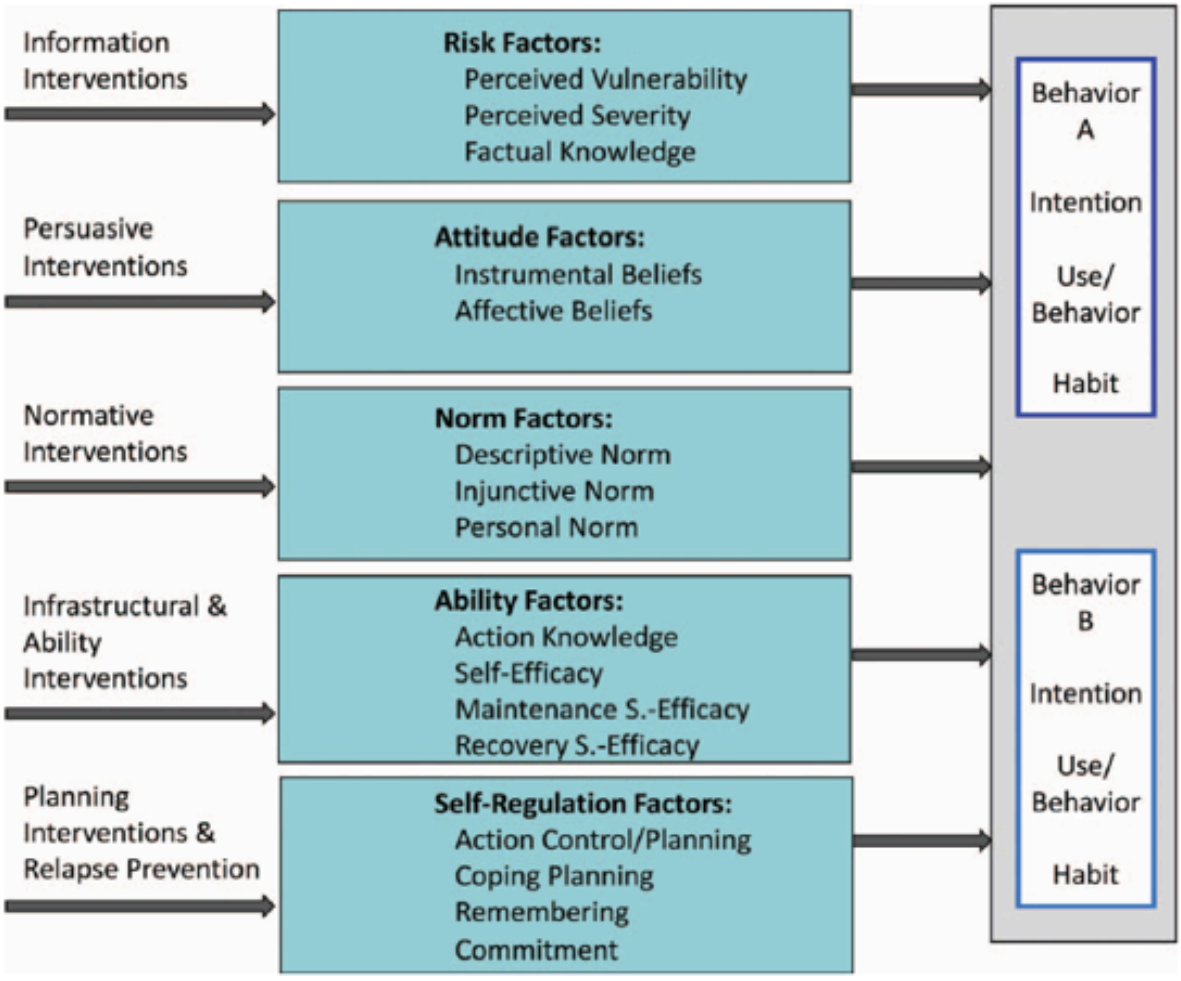
The management of Spring Health selected four villages in the state of Orissa to conduct structured face-to-face interviews: Balarampur, Begunia, Haza and Tankol. The surveyed population included households that already adopted Spring Health water, households that abandoned the product and households that never purchased it. In total, 178 households (of which 64 are users of Spring Health water, 76 non-users and 38 drop-outs) were interviewed. The team, which included a translator and the author herself, walked through the villages and selected households for interviews on a random basis. The company staff member responsible for the village

helped to choose the households that regularly purchase Spring Health water. Usually, the interviews were conducted with the female head of the household, as the male one was often absent for work during the day.

The questionnaire used for the interviews is based on a model derived from psychological evidence and behavior change theory, the so-called RANAS-model which refers to **R**isk, **A**ttitude, **N**orms, **A**bility and **S**elf-regulation (Mosler, 2012). This conceptual behavioral model has been proposed by environmental psychologist Prof. Hans-Joachim Mosler from the Swiss Federal Institute of Aquatic Science and Technology in order to identify the psychological factors of the target population that need to be influenced for long-term behavior change in the water and sanitation sector.

The RANAS-model is divided into factor blocks, behavioral factors, factor outcomes and behavior change interventions which correspond to each factor block (see Figure 8).

Figure 8: The RANAS Model of Behavior Change



Source: Mosler. 2012.

According to Mosler, “five blocks of factors must be favorable to the new behavior in order for it to take root: risk factors, attitudinal factors, normative factors, ability factors, and self-regulation factors” (Mosler, 2012, p. 2). These factor blocks, which are found to be the main determinants of behavior and habit formation, are then subdivided into behavioral factors like perceived vulnerability, instrumental beliefs or personal norm. The outcomes of these behavioral factors are behavior, intention, use and habit. In the case of Spring Health, behavior would relate to the use of Spring Health water, while habit would mean the long-term and repeated use of the water. Both behaviors, the desired and the competing one, have to be taken into account. In the model, Behavior A is considered to be the desired behavior (drinking safe water), while Behavior B refers to the competing behavior the target population is doing instead (drinking raw water). Finally, intervention techniques corresponding to one or several factor are developed in order to change selected behavioral factors in the target population.(Mosler, 2012)

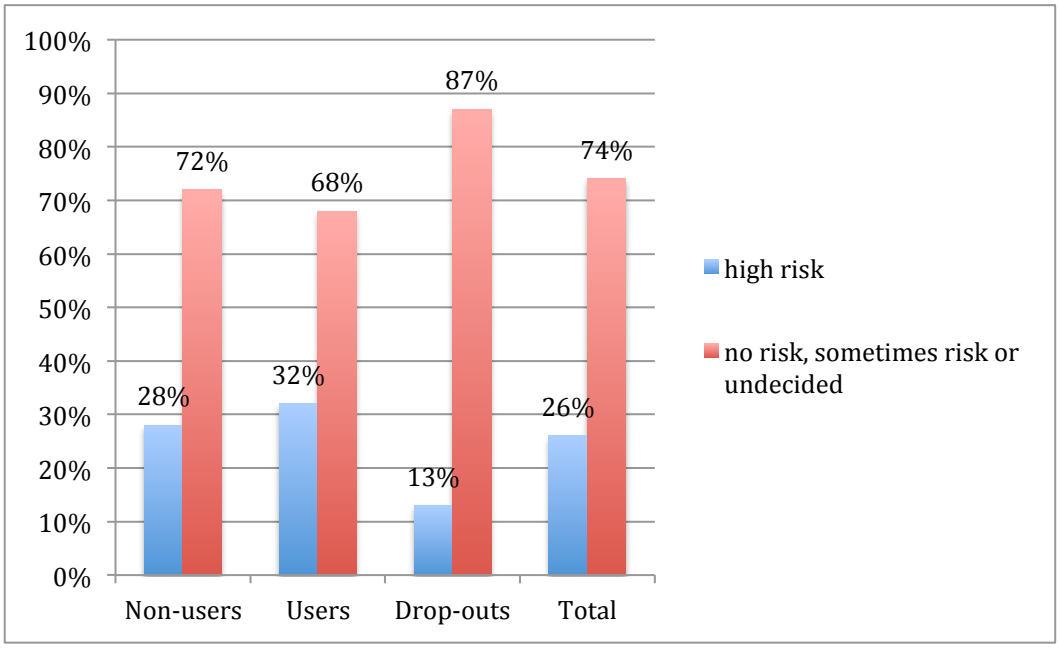
Mosler developed standardized tools to measure and determine the relevant factors that need to be changed. Some of these tools were used for conducting the representative survey with the target population in the villages in Orissa. He proposed amongst others to develop several questions for each behavior-determining factor by taking into account the local social and cultural context. Therefore, a standardized questionnaire including questions corresponding to the behavioral factors, intention, habits and the performance of the desired behavior has been designed and tested with a group of 30 persons of the target population in Orissa. During these test interviews, it became apparent that some questions were not relevant or have not been understood by the interviewed persons, that is to say, questions related to ability factors and self-regulation factors. The questions were adapted accordingly and the refined questionnaire has been subsequently used for interviews (see Appendix I). By comparing and analyzing data from users, non-users and drop-outs, it was possible to identify the behavioral factors, which were not yet in favor of the desired behavior (drinking safe water) and new product (drinking Spring Health water) and needed to be improved through corresponding marketing and social marketing interventions.

4.4.2 Main Findings

Risk Factors: Regarding *perceived vulnerability*, the majority of the interviewed persons think that the likelihood to contract diarrhea or other diseases when drinking raw water from an open well or tube well is low or only high during a specific season (mainly during rainy season). In total, only 26% consider it a risk for their health to drink raw water. There is no obvious difference between non-users and users of Spring Health water. However, it was revealed that former regular customers of Spring Health have a lower perceived vulnerability. 87% of the dropouts stated that there is almost no chance to get any water-bound disease from raw water.

Figure 9: Perceived Vulnerability

Question: Do you think the chances that you contract diarrhea or other diseases when drinking raw water are high?



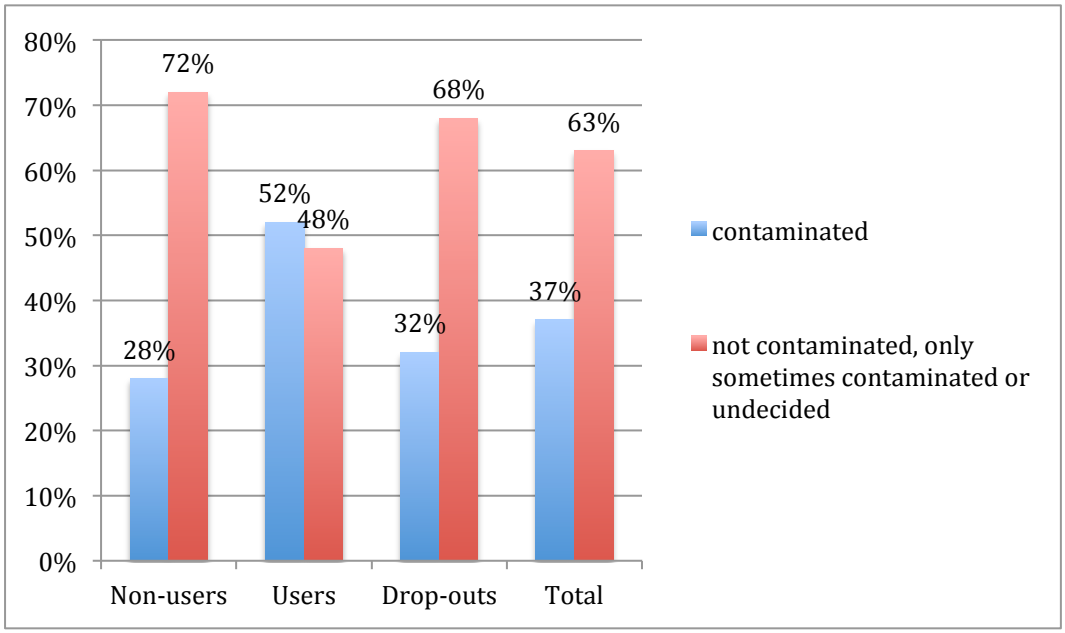
Source: Own illustration based on data from survey. 2012.

There is a significant difference between non-users and users/drop-outs regarding *factual knowledge,* especially the knowledge about water contamination. While more than half of the interviewed users indicated that they think their open well, tube well or government supply water is contaminated, only 28% of the non-users and 32% of the drop-outs believe their drinking water is contaminated throughout the whole year. In total, 63% of the interviewed persons consider their water as not contaminated or only during a specific season.

On the other hand, health knowledge was very high. The majority of the interviewed persons was absolutely aware of the health consequences when drinking contaminated water and could specify the resulting diseases like diarrhea or cholera.

Figure 10: Factual Knowledge

Question: Do you think your drinking water is contaminated?



Source: Own illustration based on data from survey. 2012.

Perceived severity is high among non-users, users and dropouts as all interviewed persons stated that the impact on their daily life if they would have diarrhea or another water-bound disease would be severe.

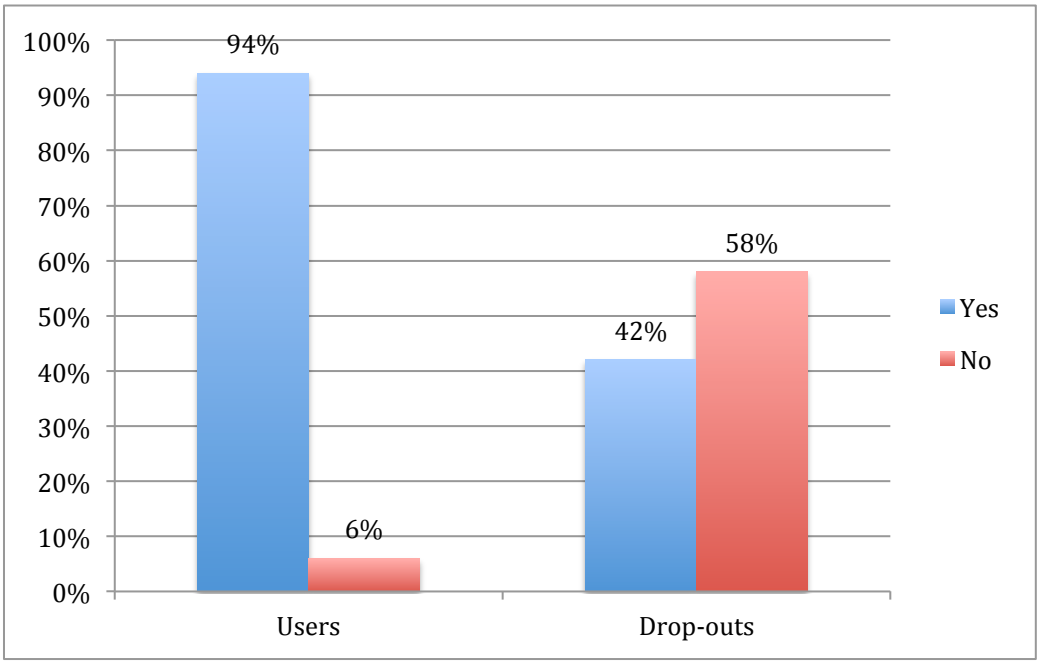
Attitude Factors: The questions corresponding to the attitude factors included perceived benefits, cost and taste of Spring Health water. Regular customers generally have a very positive perception of Spring Health water and the company's service. They consider the water beneficial for their health and 44% even indicated that their health condition significantly improved since regularly drinking Spring Health water (Figure A1 in Appendix II). Non-users stated that they do not know if this product is healthy, as they did not try it.

Regarding cost perception, there is no significant difference between non-users, users and dropouts, as distributions of those who consider it expensive and those who think it's not expensive are similar (Figure A2 in Appendix II). The majority of the interviewed persons indicated that they think the cost of the product is valid.

Obvious differences between users and dropouts were found in view of perceived taste. The majority of the interviewed users like the taste of Spring Health water, while 58% of the dropouts stated that they do not like taste and 38% even mentioned taste as the main reason for stopping to drink the water (Figure A3 in Appendix II).

Figure 11: Perceived Taste

Question: Do you like the taste of Spring Health Water?



Norm Factors: Customers indicated that their family and other important persons generally approved that they are consuming Spring Health water (*subjective norm*). Nevertheless, this high approval rate did not turn into a higher adoption rate of family members or friends. Furthermore, all interviewed persons, including non-users and dropouts, seemed to feel strongly obliged to consume safe water (*personal norm*).

Habit: Regarding habit, 70% of the interviewed users indicated that they exclusively drink Spring Health water. The other 30% still drink sometimes from other water sources like open well, tube well or government supply water.

4.4.3 Discussion

As all but a few users, non-users and dropouts were aware of the health consequences of contaminated water, the social marketing campaign does not need to focus on increasing awareness about waterborne diseases. An important finding of

the survey is that there is a difference in perception of water contamination between users, non-users and dropouts. The likelihood that a user considers his drinking water as contaminated is higher than for a non-user or dropout. Still, there are a great number of persons, including users, who think their raw well water is safe for drinking. 29% of the non-users even stated that they did not buy Spring Health water, because they already have a safe and good drinking water source (Figure A4 Appendix II). Future intervention campaigns should focus on educating and convincing the target population that their usual drinking water source is contaminated.

In addition, the majority of the surveyed population estimates the likelihood of contracting any disease when drinking raw water as low although they usually have only access to contaminated water sources. Some consider it as higher during rainy season. This could be observed among users, non-users and dropouts. Even though the majority stated that a disease would have a severe impact on their life, it has been found that the perceived vulnerability factor is quite low. Future campaigns should necessarily focus on increasing the risk beliefs.

An important determinant for consuming Spring Health water is taste perception. It has been observed that those persons who did not like the taste of the water have stopped drinking it. Several persons seemed to have a positive attitude towards Spring Health water and indicated that they think it was a good idea, but did not want to drink it because of the smell or taste. Taste is the main reason why people abandoned the product (38%). Other reasons mentioned were lack of financial resources, having no interest or irregular delivery. On the other hand, there was no major difference among users, non-users and dropouts regarding cost perception. In all samples, the majority (79%) considered the price of the water as acceptable or even as very affordable. However, 15% of non-users indicated that cost was the main reason they never bought the water (see Figure A4 in Appendix II).

Personal norms do not seem to play an important role in determining whether a person buys the product or not, because the whole population surveyed expressed the importance of drinking safe water. Descriptive norms were found to be very low. Most persons, including users, did not know anybody who drank Spring Health water. It could be even observed that family members drink from different water sources (father drinks Spring Health water, while the rest of the family drinks water from tube well). Yet, subjective norms were overall positive among users. Family members and

friends normally approved the use of Spring Health water. Although, some users and the majority of the non-users and dropouts could not say what important people think about Spring Health. It seems that drinking water is not an important topic during discussions with family members, neighbors or friends. Therefore, efforts are needed to increase descriptive norms, that is to say, make Spring Health water a product everybody talks about and wants to use, because others use it, too.

In view of these results, it can be inferred that perceived vulnerability, knowledge about drinking water contamination (of the own drinking water source), descriptive norm and taste perception are the factors that play the most important role for adopting Spring Health water and that future interventions especially need to target these specific factors.

4.5 Social Marketing Plan for Spring Health

The purpose of the following section is to develop a social marketing plan for Spring Health in order to ensure continued use of the product and increase sales volumes. Preliminary assessment helped to identify the strengths and weaknesses of current social marketing activities and the specific behavioral factors among the target population that need to be changed through interventions. The social marketing plan for Spring Health is based on the theory outlined earlier in this thesis and follows the 10 steps suggested by Lee & Kotler (2011).

Background, Purpose and Focus of the Plan

Spring Health is a company that aims to provide affordable safe drinking water to people living in remote rural villages. It started its operations in Orissa, because the population living in small villages in this underdeveloped state in Eastern India only has access, in general, to contaminated drinking water sources. Inadequate water supply in Orissa results from a general lack of government funds and inappropriate implementation of policies. The health consequences of contaminated water often lead to death in early childhood, absence during work or school and constitute a major economic burden. The purpose of the social marketing campaign is to reduce the incidence of diarrhea and other water-related diseases among the population. If people would drink safe water, they would live a healthier life and save money they

would have spent otherwise on medical treatment. The campaign focuses on increasing the use and ensuring long-term adoption of Spring Health water.

Organizational Factors

The plan aims to maximize the organizational strengths of Spring Health including the affordability of the product, direct contact with customers, a strong brand identity, robust last-mile distribution networks and a very good expertise and leadership experience in rural development and rural management. Limited financial resources for marketing and social marketing, taste and smell of the water, low incomes for entrepreneurs and delivery boys at the beginning of operations, competing issues within the company and a lack of alliances and partners that have access to the target population are the organizational weaknesses that have to be minimized. One threat in the micro-environment that must be taken account is the current behavior of the target population. Drinking raw water from an open or tube well is generally considered as “normal”. Most people do not understand why they need to pay for drinking water if they have a well where they get it for free. A macroenvironmental factor that has relevance for our social marketing plan is the existence of alternative water purification technologies (boiling, filtering) and potential introduction of similar products from peri-urban competitors like Naandi (Spring Health, 2012). While the plan aims to prepare for these threats, it also seeks to discover opportunities in the external environment. Spring Health should partner with organizations from the public or nonprofit sector, which have access to the target audience and experience in raising awareness of health and social issues. The company could benefit from activities of other groups and organizations that address safe water.

Target Audiences

The primary target audience, on which the social marketing campaign will focus, are people that earn less than 2 US$ a day, live in remote rural villages in the state of Orissa and have no access to safe drinking water. Although the campaign addresses a very broad audience, the persons within this segment have similar needs and characteristics to which specific strategies can be developed. However, we can further divide this segment into the following subgroups:

1. Households already treating their drinking water regularly (boiling, filtering)
2. Households treating their drinking water irregularly
3. Households that never treat their drinking water

It is assumed that those households who already treat their drinking water regularly or irregularly are more likely to be receptive to the product offered by Spring Health as they already know the value of drinking safe water. Nevertheless, the segment size of those who are already purifying their water is quite small and those households that never treat their water should be necessarily included into the social marketing efforts as they represent a higher percentage of the population and the level of water-borne diseases is higher in this segment. The marketing strategy needs to be adapted to each subgroup.

Behavior Goals and Objectives

The social marketing plan wants the target audience to consume Spring Health water in the long-term and stop drinking from traditional contaminated water sources. In order to increase the willingness to buy the water, the audience has to be aware that their own drinking water usually contains bacteria and parasites (knowledge objective). In addition, they are more motivated to buy the water if they had the information how much money and time they would save in one year when drinking safe water regularly.

The plan also includes belief objectives, which relate to feelings and attitudes towards Spring Health water. One of the main objectives is to make the target audience believe that safe water is necessary to live a prosperous and healthy life. As perceived vulnerability is very low, this behavioral factor especially needs to be targeted. A lot of persons among the target audience still think that drinking sometimes raw water is not harmful. But they need to believe that they are very vulnerable and that drinking raw water can have a severe impact on their own lives as well as those of their family members. Another objective is a more positive attitude towards the taste of Spring Health water.

Target Audience Barriers, Benefits, the Competition and Influential Others

The preliminary household survey already revealed the perceived barriers and benefits of the target audience in order to design customer-centered marketing

strategies. Barriers to buy Spring Health water are cost, taste and lack of factual knowledge. Motivators for buying the water are better health, fewer expenses on medical treatment and a convenient and timesaving service. The competing behavior the target audience exhibits instead is drinking raw water from open or tube wells, as it is a habit, it does not cost anything and tastes better compared to Spring Health water, from the perspective of the target audience. At the moment, most influential persons to whom the target audience listens to or looks up to are not consuming Spring Health water or do no publicly demonstrate it. As social marketers advise to also target midstream and upstream audiences, these persons have to be integrated into Spring Health's social marketing efforts.

Positioning Statement

The following positioning statement, inspired by the previously identified barriers, benefits, competition and influential others of the target audience, is used as a guide for developing each component of the specific marketing mix strategy in the next step:

"We want poor people living in remote rural villages in Orissa to see drinking Spring Health water as a way to stay healthy in the long-term, save money and time and that this is a more convenient and safe option than drinking raw water from traditional water sources or using other water treatment technologies."

The Strategic Marketing Mix (4P's)

After defining the purpose and objective of Spring Health's social marketing plan and understanding the target audience, the strategic marketing mix including the four components product, price, place and promotion can now be developed.

Product: The most important element of the marketing mix is the product platform, which has the following three levels: *core product, actual product and augmented product*. Spring Health's actual product is purified water, a tangible good, which helps the target audience to perform the desired behavior, that is, drinking safe water. As a large part of the target audience perceives taste not quite positively, it is important that a company staff member monitors and tests the chlorination concentration in the tank. It may be safer to add more chlorine than required, but it is likely that customers would stop drinking the water because of the strong smell and taste. Spring Health

should also consider adding chlorine neutralizers to the water. An additional element of the actual-product level is Spring Health's integrated branding strategy, which generates visibility and recognition. The core product is the center of the product platform and refers to potential benefits the target audience associates with performing the desired behavior. In the case of Spring Health water, the benefit is better health together with saved money and time. As most persons interviewed during the research indicated that water-related diseases would have a severe impact on their lives, the campaign should highlight this concern. In addition, regular customers stated that they consider improved health the key benefit from drinking Spring Health water. The core product for Spring Health's campaign is therefore "By drinking Spring Health water, you have a healthy and prosperous life". An additional product element, the so-called augmented product, which helps to decrease barriers and assist the target audience to adopt the product, is the home-delivery system. Another enhancing element could be a product against the chlorine taste of the treated water, like lemon or a syrup-like supplement. This might result in an increased and continued adoption rate of Spring Health water.

Price: Determining monetary and nonmonetary incentives and disincentives constitute the core of the second component of the marketing mix: the price. The amount of money charged for Spring Health water has already been set at 3 INR per jerry can (monetary cost) and it is very unlikely that it will be reduced in the near future. There are almost no nonmonetary costs associated with the product. Customers save *time*, *effort* and *energy*, as the drinking water is directly delivered to their house and they do not need to fetch, boil or filter their water anymore. This is an incentive which needs to be included in promotional messages. The only non-monetary cost is perceived usage risk, which can be countered by offering the target audience a free trial of Spring Health water. A monetary incentive, which could be included into the pricing strategy are rebates that reward customers who buy a jerry can each day. Furthermore, a possible non-monetary incentive for Spring Health customers could be earning points with each purchased jerry can. These points can be redeemed in exchange for a branded glass or jerry can they can keep at home. The campaign can also reward regular customers by giving them public recognition, for example a visible sign at their house or, as already considered by the operative management, organizing a get-together, where free drinks and food are offered.

Place: Place refers to where and when the target audience performs the behavior, receives tangible goods or services and the additional augmented product elements (Lee & Kotler, 2011). Making access to the offered product as convenient as possible is one key to increase engagement in the desired behavior. The Spring Health business model already includes the convenient-access component by offering clean drinking water through home-delivery to the target audience. Drinking safe water is no more time-consuming or effortful. The management has already defined distribution channels for the product, such as local kiosks and home delivery by the entrepreneur or a delivery-boy. It is critical that these channels are functioning properly and reliable in order to increase levels of continued use of Spring Health water. People involved in the distribution channels need a high motivation, resulting from monetary or non-monetary incentives, to fulfill their task appropriately.

Promotion: Promotion is the final tool of the strategic marketing mix and communicates the product benefits, the price and accessibility. The target audience should be motivated to buy the product through key messages, messengers and communication channels. The key message of the campaign could be *"Drink Spring Health water and live a healthy and prosperous life".* It is important that educational and promotional messages refrain from finger-pointing at the undesired behavior of the target audience, but include positive aspects of the offered product such as convenience, affordability and healthiness. The key messages are transported through messengers and communication channels. To date, Spring Health has not included influential persons in the village, such as village leaders, priests, teachers and doctors, in their promotional strategy. Persons, who have influence on the target audience should play an important role in the upcoming social marketing campaigns to increase the credibility of the messages. Other possible messengers are volunteers and community organizations who spread the word about Spring Health water. Spring Health has just started to recruit rural management and development students who walk in groups through the village shouting slogans or conduct role-plays with educational messages in the centre of the village. These communication channels, the water testing melas and face-to-face selling are promising and should still be used. Spring Health should also continue to use posters and flyers, but they may need some improvement. The study in the field revealed that persons who are

illiterate do not understand the flyer, because it is written for the most part and the few illustrations are not understandable right away. Furthermore, there is the possibility to place educational messages about contaminated water and its consequences close to public open and tube wells. Another possible option is to partner with NGO's, who already educate the target audience on behavior related to water and sanitation.

The Plan for Monitoring and Evaluation

The development of a monitoring and evaluation plan is critical to assess the progress and success of the social marketing campaign. Particular measures for Spring Health in this respect are increase of sales volumes, levels of continued and appropriate use and decrease of water-related diseases among the target population. While the outcome is relatively easy to measure, is very difficult and effortful to measure the impact.

Budgets and Funding Sources

Spring Health already has financial funds for its marketing and social marketing strategy. Nevertheless, the necessary interventions and monitoring and evaluation activities are likely to surpass the available budget and additional funding sources need to be explored. Although Spring Health is a private company, it has a social mission and promotes basic messages on drinking water, which is generally considered a public task. Spring Health should therefore explore, for their awareness and educational interventions, additional funding sources from public agencies, international and nonprofit-organizations and foundations.

Implementation Plan

Before developing an implementation plan, Spring Health needs to pretest the planned activities with selected groups from the target audience (focus groups). This step is critical to ensure the effectiveness of the social marketing campaign, as it helps to identify the shortcomings of the plan, which can be adapted accordingly. Finally, the last task of Spring Health would be the development of a comprehensive implementation plan, including budgets, time frames, detailed activities and responsibilities. It ensures accountability as well as sustainability of the social marketing intervention.

While this proposal for a social marketing plan for Spring Health is not exhaustive and would need further critical inputs from involved stakeholders, it should be considered as a suggestion and basis for the development of an integrated social marketing strategy for Spring Health's future interventions. Several possible strategies could not be developed in detail. For example, the plan could also include specific strategies targeted at children, as they are at a higher risk for water-borne diseases. The services and product incentives, messages and messengers would have to be custom-designed for children and their perceived barriers and benefits. These and other considerations would have surpassed the scope of this thesis, but should be an integral part of Spring Health's future marketing and social marketing strategy development.

IV CONCLUSION

The purpose of this thesis was to analyze current marketing and social marketing activities of Spring Health, propose strategies how the company can successfully sell safe drinking water to the bottom of the pyramid in rural India and change the behaviors of the target population in the long-term. At the beginning, the thesis outlined the theoretical background on the BoP approach and social marketing, which served as a basis for the second part, the Spring Health case study. By reviewing a wide choice of literature, it has been showed that private companies became in recent years increasingly interested in the BoP market, as it allows them to make apparent large profits while contributing to poverty alleviation. Although, it became clear that it is not an easy task to sell products and services to the worlds poorest. It is not only necessary to provide them goods and services, which are useful and affordable, but that the population changes its behavior accordingly. For this reason, the social marketing approach has been chosen as an effective tool for behavior change. A practical step-by-step guide for the development of a social marketing plan proposed by Kotler and Lee (2011) has been presented and then adopted for the Spring Health case.

Before developing strategies for social marketing intervention, a critical field assessment and a household survey, which included users, non-users and dropouts of Spring Health water, has been conducted. It helped to reveal the perceived barriers and benefits the target population associates with the offered product and identify their motivation to buy the water or abandon it. The results from the survey showed that perceived vulnerability, factual knowledge on water contamination, and perceived taste are the main behavioral factors that need to be influenced through social marketing interventions. In addition, the study revealed that descriptive norms do not yet have an influence on the adoption of Spring Health water, as there is even inconsistent use of water within a family.

The results from the study were subsequently used to develop a social marketing plan proposal for Spring Health. It has to be kept in mind that the plan is not complete and should just give an idea how Spring Health's possible social marketing interventions could look like in order increase sales volumes and levels of continued use of Spring Health water. The proposed strategies focused on positive attributes of the offered product, such as convenience, healthiness and affordability.

In general, Spring Health can be considered as a promising private sector approach providing access to safe drinking water to poor people living in remote rural areas. The field assessment and household survey in rural villages in Orissa revealed that an effective coordination of marketing and social marketing strategies is critical to increase sales volumes and reach fast break-even. While social marketing activities like the water testing mela persuade the target population to buy Spring Health water, it is necessary that each element in the supply chain is working properly to deliver the water immediately after persuasion.

It will be a challenge for Spring Health to reach a high market penetration, but it is not impossible. With appropriate and massive social marketing campaigns that cover entire villages and are supported by public funds, long-term behavior change comes along, which makes it very likely that this approach is successful at scale.

References

Andreasen, A. R. (1994). *Social Marketing: Its Definition and Domain.* Journal of Public Policy & Marketing, 13, 108-114.

Andreasen, A. R. (1995). *Marketing social change: Changing behavior to promote health, social development and the environment.* San Francisco: Jossey-Bass.

Andreasen, A. R. (2006). *Social marketing in the 21st century.* Thousand Oaks: Sage Publications.

Davidson, K. (2009). *Ethical Concerns at the Bottom of the Pyramid: Where CSR meets the BoP*. Journal of International Business Ethics*, 1* (2), 22-32.

Denove, C., & Power, J. D. (2006). *Satisfaction: How Every Great Company Listens to the Voice of the Customer*. New York: Portfolio.

Donovan, R., & Henley, N. (2003). *Social Marketing: Principles and Practice.* Melbourne: IP Communications.

Easterly, W. (2006). *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good.* New York: The Penguin Press.

Egan, L. (1997). *Irrigation technology transfer in support of food security.* Rome: Food and Agriculture Organization of the United Nations.

Frost & Sullivan. (2012). *Strategic Analysis of the Point-of-Use Water Treatment Systems Market in India.* India: Frost & Sullivan.

Gaskin, S. P., Griffin, A., Hauser, J. R., Katz, G. M., & Klein, R. L. (2010). *Voice of the Customer.* Wiley International Encyclopedia of Marketing.

Indian Admistrative Service. (2011). *Census of India 2011: Provisional Population Totals.* New Delhi, India: Office of the Registrar General & Census Commissioner.

Jaiswal, A. K. (2007). *Fortune at the Bottom of the Pyramid: An Alternate Perspective.* Ahmedabad, India: Indian Institute of Management.

Kacou, E. (2010). *Entrepreneurial Solutions for Prosperity in BoP Markets: Strategies for Business and Economic Transformation.* Upper Saddle River, New Jersey: Wharton School Publishing.

Karnani, A. (2006). *Fortune at the Bottom of the Pyramid: A Mirage - How the private sector can help to alleviate poverty*. Ross School of Business Working Paper Series (Working Paper No. 1035).

Kassegne, S., Kays, M. B., & Nzohabonayo, J. (2011). *Evaluation of a social marketing intervention promoting oral rehydration salts in Burundi*. BMC Public Health, 11 (155), 1-13.

Kotler, P., & Roberto, E. L. (1989). *Social Marketing: Strategies for Changing Public Behaviors.* New York: Free Press.

Kotler, P., & Zaltman, G. (1971). *Social Marketing: An Approach to Planned Social Change*. Journal of Marketing (35), 3-12.

Kotler, P., Roberto, N., & Lee, N. (2002). *Social Marketing: Improving the Quality of Life.* Thousand Oaks: SagePublications.

Lee, N., & Kotler, P. (2011). *Social Marketing: Influencing Behaviors for Good.* Thousand Oaks: Sage Publications.

Lefevbre, C., & Flora, J. (1988). *Social Marketing and Public Health Intervention*. Health Education Quarterly*, 15* (3), 299-315.

London, T. (2007). *A Base-of-the-Pyramid Perspective on Poverty Alleviation*. Michigan: The William Davidson Insitute & Ross School of Business.

MacFadyen, L., Stead, M., & Hastings, G. (1999). *A Synopsys of Social Marketing.* Glasgow: Centre for Social Marketing, University of Strathclyde.

MacFadyen, L., Stead, M., & Hastings, G. (2003). *Social marketing*. In M. J. Baker, *The Marketing Book* (pp. 694-725). Oxford: Butterworth-Heinemann.

Mosler, H.-J. (2012). *A systematic approach to behavior change interventions for the water and sanitation sector in developing countries: a coneptual model, a review, and a guideline*. International Journal of Environmental Health Research, 1-19.

Moyo, D. (2010). *Dead Aid: Why aid is not working and how there is another way for Africa.* Vancouver: Douglas and McIntyre.

Prahalad, C. (2005). *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits.* Upper Saddle River, NJ: Wharton School Publishing.

Prahalad, C. (2010). *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits* (5. Edition ed.). Upper Saddle River, N.J.: Wharton School Publishing.

Prahalad, C., & Hart, S. L. (2002). *The Fortune at the Bottom of the Pyramid*. Strategy & Business (26), 54-67.

Sobsey, M. (2002). *Managing water in the home: accelerated gains from improved water supply.* Geneva: World Health Organization.

Spring Health. (2012). *Information Memorandum.* Bangalore: Spring Health.

United Nations [UN]. (2012). *The Millennium Development Goals Report 2012.* New York: United Nations.

WaterAid India. (2008). *Drinking Water Quality in Rural India: Issues and Approaches.* New Delhi: WaterAid India.

Weinreich, N. K. (1999). *Hands-On Social Marketing: A Step by Step Guide.* Thousand Oaks: Sage Publications.

World Health Organization [WHO]. (2012). *Global costs and benefits of drinking-water supply and sanitation interventions to reach the MDG target and universal coverage.* Geneva: World Health Organization.

World Health Organization [WHO]. (2008). *Water Quality Interventions to Prevent Diarrhoea: Cost and Cost-Effectiveness.* Geneva: World Health Organization.

World Health Organization/The United Nations Children's Fund |WHO/UNICEF]. (2012). *Progress on Drinking Water and Sanitation: 2012 Update.* New York: WHO/UNICEF.

Wiebe, G. (1952). *Merchandising commodities and citizenship on television*. Public Opinion Quarterly, 679-691.

World Resources Institute & International Finance Corporation [WIR & IFC]. (2007). *The Next 4 Billion: Market Size and Business Strategy at the Base of the Pyramid.* Washington D.C.: World Resources Institute.

Wright, J., Gundry, S., & Conroy, R. (2004). *Household drinking water in developing countries: a systematic review of microbiological contamination between source and point-of-use.* Tropical Medicine and International Health (9), 106-117.

Internet References

Centers for Disease Control and Prevention. (2012). Retrieved on October 17th, 2012 from www.cdc.gov: *http://www.cdc.gov/nccdphp/DNPAO/socialmarketing/pdf /Washington_0906.pdf*

Fowler, B., & Panetta, D. (2011). *Case Study: Improving Access to Basic Financial Services and Agricultural Input and Output Markets by Smallholder Farmers in Zimbabwe*. Retrieved on September 4th, 2012 from: *http://www.akdn.org/ publications/beyond_financial_services_access_by_smallholder_farmers_zimbab we.pdf*

International Development Enterprises [IDE]. (2012). *www.ideorg.org*. Retrieved on September 4th, 2012 from *http://www.ideorg.org/OurTechnologies/Treadle Pump.aspx*

International Institute for Environment and Development [IIED]. (2007). *NGOs as Market Actors: Roles and responsibilities in supporting small producers in low-income countries.* Retrieved on September 4th, 2012 from: *http://pubs.iied.org/pdfs/G02251.pdf?*

Karamchandani, A., Kubzansky, M., & Lalwani, N. (2011). *Is the Bottom of the Pyramid Really for You?* Retrieved on August 31st, 2012 from www.hbr.org: *http://hbr.org/2011/03/the-globe-is-the-bottom-of-the-pyramid-really-for-you/ar/1*

Ministry of Home Affairs. (2011). *Census of India.* Retrieved on August 22nd, 2012 from www.censusindia.gov.in: *http://www.censusindia.gov.in/2011census/hlo/ District_Tables/Distt_Table/21/HH2206-2100CRDC.pdf*

Nath, K., Bloomfield, S., & Jones, M. (2006). *Household water storage, handling and point-of-use treatment.* Retrieved on August 31st, 2012 from *http://www.ifh-homehygiene.org*

Oxfam Novib in association with ICCO. (2008). *The Base of the Pyramid as a Development Strategy.* Retrieved on September 4th, 2012 from www.icco.nl: *http://www.icco.nl/nl/linkservid/396D0DFC-BE0A-C3F7-402474F0802F98/show Meta/0/*

Polak, Paul. (2011). *TEDxMileHigh – The Future Corporation*. Retrieved on November 2nd, 2012 from www.youtube.com: *http://www.youtube.com/watch?v=ezVxt7TkyeM*

Simanis, E., & Hart, S. (2008). *The Base of the Pyramid Protocol: Towards Next Generation BoP Strategy. Second Edition.* Retrieved on August 31st, 2012 from *http://www.bop-protocol.org/docs/BoPProtocol2ndEdition2008.pdf*

The Hindu. (March 14th, 2012). *Half of India's home have cellphones, but not toilets.* Retrieved on November 2nd, 2012 from www.thehindu.com: *http://www.thehindu.com/news/national/article2992061.ece*

The Telegraph. (December 26th, 2010). *Unilever backs small farmers*. Retrieved on September 4th, 2012 from *http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/8224339/Unilever-backs-small-farmers.html*

The Wall Street Journal. (March 22nd, 2012). Retrieved on November 2nd, 2012 from www.wsj.com: *http://online.wsj.com/article/SB10001424052702304636404577297210490116688.htmlslide/1*

Toor, B. (April 8th, 2011). Retrieved on October 21st, 2012 from www.paulpolak.com: *http://blog.paulpolak.com/?m=201104*

United Nations Development Programme [UNDP]. (2011). Retrieved on October 18th, 2012 from www.undp.org: *http://www.undp.org/content/india/en/home/countryinfo/*

Weinreich, N. K. (2006). *Change for Good*. Retrieved on October 11th, 2012 from Weinreich Communications: *http://www.social-marketing.com/evaluation.html*

Declaration of Authorship

"I hereby declare that I have written this thesis without any help from others and without the use of documents and aids other than those stated above, that I have mentioned all used sources and that I have cited them correctly according to established academic citation rules"

Abtwil, November 16, 2012 …..…….

Amanda Ammann

Appendix

Appendix I: Questionnaire for Interviews

Village _____

Questionnaire for Spring Health

Name _____ **Sex** F □ M □ **Age** _____

Occupation _____ **No. pers. household** _____ **No. children** _____

1. User □ ***Non-User*** □ ***Dropout*** □

2. Regular User *Yes* □ *No* □

3. User: Cans/day _____

4. User: Other drinking water sources? *Yes* □ *No* □ *Open Dwell* □ *Tube Dwell* □

5. User: Did your monthly medical expenses decrease since consuming Spring Health Water?

_____

6. Non-user: Do you know about Spring Health? *Yes* □ *No* □

7. Non-user: Did you ever buy/try Spring Health Water? *Yes* □ *No* □

8. Non-user: Why did you stop buying it/Why you never bought it? _____

_____

9*. Non-user: Source of drinking water:* _____

10*. Non-user: Do you treat your water before drinking? Regularly?* _____

_____

11. Do you think your dwell/tube dwell water is contaminated? _____

12. What are the health consequences when drinking contaminated water? _____

_____

13. Do you know that contaminated drinking water can cause diarrhea? *Yes* □ *No* □

14. Do you think the chances that you contract diarrhea or other water-bound diseases when drinking raw water are high?_____

15. Imagine that you would contract diarrhea or any other disease from raw water, how severe would be the impact on your life in general?

Severe □ *Not severe* □

16. What do you consider the benefit of consuming Spring Health Water?

_____

17. Do you think there are any disadvantages? Which ones? _____

18. How much do you like or dislike Spring Health Water? *Rather like it □ Dislike it □*

19. Do you think that using Spring Health Water is expensive? *Yes □ No □*

20. Users: Do you think that drinking Spring Health Water improves your health?

Yes □ I don't know □ No □

Non-users: Do you think that drinking Spring Health Water is healthy? *Yes □ No □*

21. Users: Do you think, that overall, people who are important to you rather approve or disapprove that you drink Spring Health Water?

Nearly all approve □ Some approve □ Nearly all disapprove □

Non- Users: What do people who are important to you say about Spring Health Water?

_____

22. How many of your neighbors, relatives and friends drink Spring Health Water?

Almost everybody □ Some □ Almost nobody □

23. Do you feel a strong personal obligation to consume safe water? *Yes □ No □*

24. Users: How often does it happen that you forget to drink Spring Health Water?

Often □ Sometimes □ Never □

25. Users: Do you intend to drink Spring Health Water in the long term? *Yes □ No □*

Non-users : Do you intend to drink Spring Health Water? *Yes □ No □*

Appendix II: Graphs

Figure A1: Perceived Benefits

Question: What do you consider the benefit of drinking Spring Health Water?

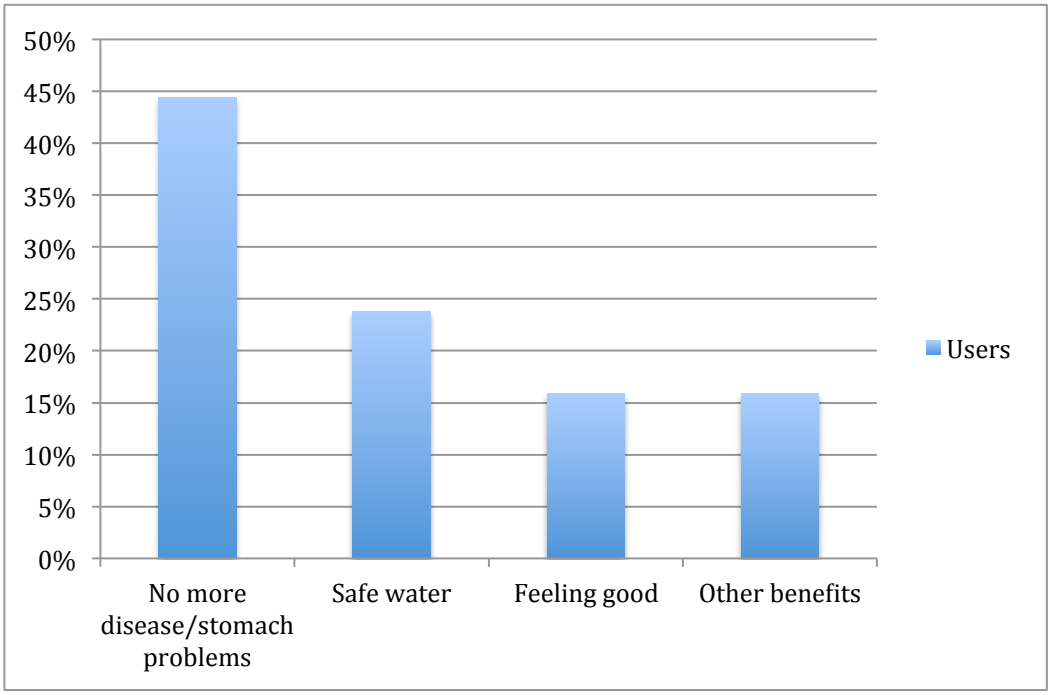


Figure A2: Perceived Cost

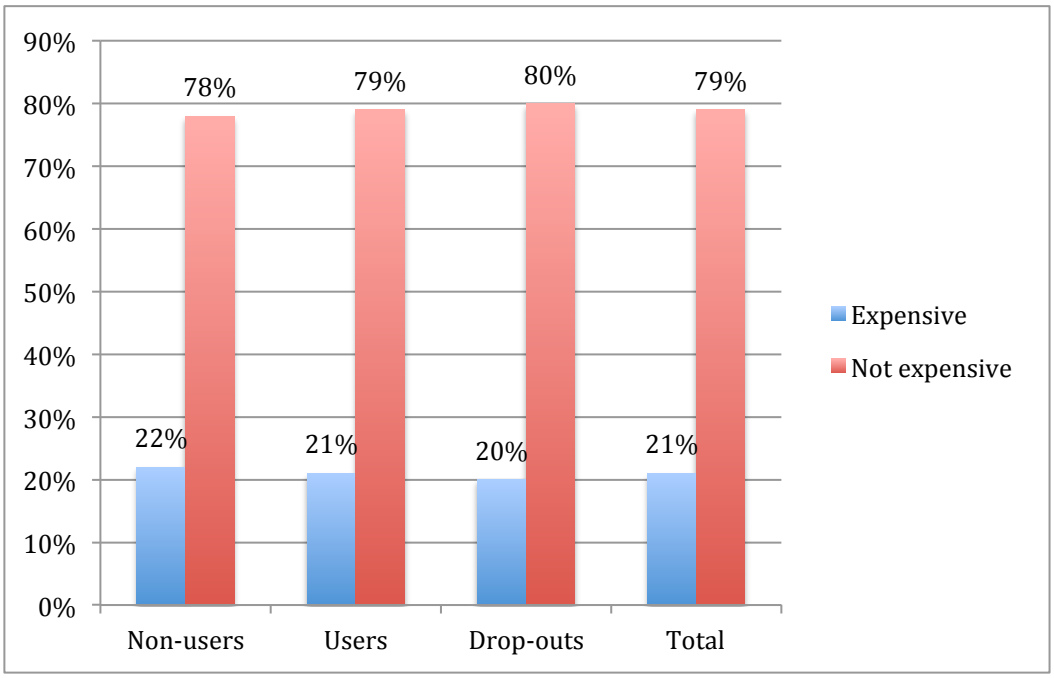


Figure A3: Reasons to Stop Purchasing Spring Health Water

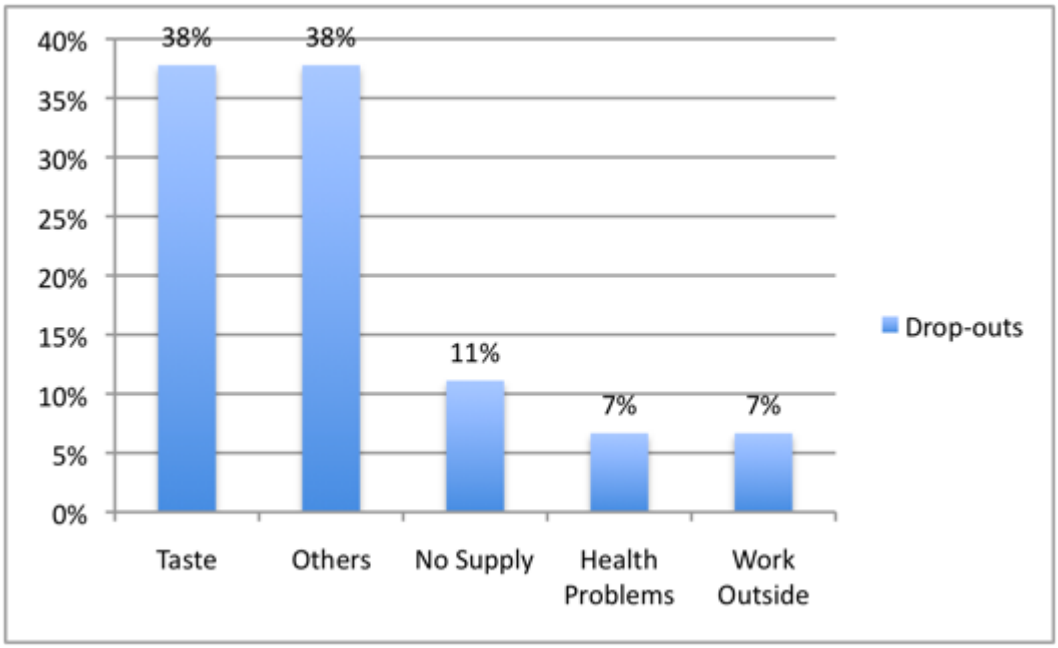
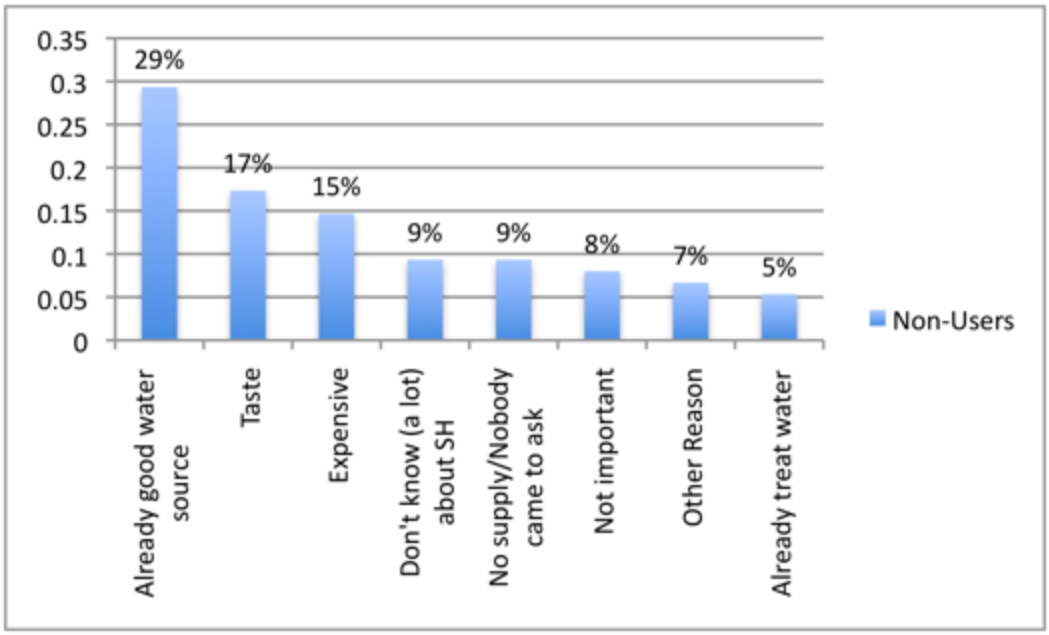


Figure A4: Reasons for not purchasing Spring Health Water



Marketing Research. Intermediary Report

Amanda Ammann, March 2012

Background

The purpose of our research inputs for Spring Health is to evaluate the current marketing methods used by the social enterprise and to find out the optimal mix between effective social marketing and marketing components. Special emphasis has been placed on the "Water Testing Mela"[4], which has already been implemented by the enterprise in a few villages in Orissa, India.

During the mela, every person in the village has the possibility to bring his or her own drinking water to get it tested for bacteria and other contamination. At the beginning of the research, a new water quality test was introduced, which was easier to use and showed the presence of bacteria more clearly than the test used in the previous melas. After adding 2 ml of the sample water with a sterile dropper to the growth media, the test has to be incubated 25-35 Degrees C. After 24 hours bacterial colonies and parasites become visible and give an indication of the level of contamination.

Spring Health planned to organize two successive melas with the new tests in the villages Sarion and Balarampur. We decided to monitor the implementation of these melas, evaluate their effect on sales and observe the reactions of the villagers to their own contaminated petri-dishes. Additionally, we gathered information about current awareness among the villagers about drinking water contamination, their knowledge about the presence of Spring Health in the village, their barriers to buying safe drinking water and reasons to stop buying Spring Health Water. Data was collected from 15 individuals in Balarampur through personal household interviews. To get more information about current customers and their reasons for buying Spring Health Water, 10 additional personal interviews were conducted in the village Taraboi.

[4] Mela is a Sanskrit word for „gathering", „to meet" or a Fair. The word is used in the Indian subcontinent

Findings

Implementation

Before the water test melas, contact was made with the heads of the villages to ask them to encourage people to bring their water samples for testing. Flyers were also distributed, informing villagers about Spring Health and drinking water contamination.

The first mela took place in the morning in Sarion, where 25 villagers seized the opportunity to test their drinking water. In Balarampur, the mela was implemented in the late afternoon and attracted 54 individuals. Out of 79 persons, only two women brought their sample. The common water sources for drinking water in these villages are open wells or tube wells.

After 2-5 days, the samples were returned personally by an executive of Spring Health. In the morning, the majority of the recipients were women, whereas in the afternoon the tests were shown mainly to men together with their families. The villagers had the chance to study their test samples, while they were informed about bacteria in drinking water an their impact on health. Finally they were asked if they want to purchase the water and become a customer of Spring Health.

Reactions

The majority of the recipients looked at their test samples with great interest and a trace of astonishment mixed with disgust, especially when they saw the dishes full of parasites that even moved around. Some couldn't wait to give the test back, while

others showed them to their children and relatives. All of the observed persons agreed to buy Spring Health Water and expressed their intention to become regular customers. The reactions were positive irrespective of caste or literacy.

Outcome

With regard to sales, the number of jerry cans sold in Balarampur increased from 11 to 26 after 3 weeks. In Sarion sales increased from 10 to 18 jerry cans. During the first two weeks, sales didn't increase in Sarion due to the delivery-boy, who didn't deliver the jerry cans properly. This shows the importance of inter-linking the social marketing activities with immediate marketing responses: if the awareness is raised, it is of crucial importance to immediately being able to deliver the solution.

Awareness

About 7 out the 15 interviewed persons were already aware of bacteria contamination in drinking water. However, they did not perceive the contamination as an actual threat as they have never seen the bacteria. Seeing the colonies of bacteria and parasites in their tests was important to convince them that their drinking water is indeed highly contaminated. In terms of knowledge about the existence of Spring Health in their village, less than half of the interviewed persons had heard about the enterprise. This again confirms the need to immediately act with marketing activities and a high presence after the social marketing campaign.

Barriers

During the interviews, several barriers to buying Spring Health water have been identified. First, 8 of the 15 interviewed persons had never heard of Spring Health and their operation in the village, before. Second, people were not informed about the delivery system that Spring Health offered. Other barriers are the chlorine taste, no regular delivery of water or perceiving – by some - bacteria and parasites as not a real problem.

Reasons to stop buying

Reasons for discontinued use of the Spring Health Water were various. Some children would refuse to drink the water due to the chlorine taste. Lack of financial resources for regularly buying Spring Health Water

was also cited. Certain individuals also did not understand the reason why regular purchase was necessary. Also important is a systemic follow-up by the entrepreneur, in order to avoid that people abandon the product.

Limitations

The social marketing campaign with the testing mela also showed some limitations, namely due to a lack of coordination with marketing activities. In one village, Balarampur, Spring Health Water was not available for three days after the tests were returned to the households, mainly due to a power outage, as the well water could not be pumped into the water storage tank. Additionally, the executive responsible for the village was not able to chlorinate the water in the tank as he was on sick leave. In the other village, Sarion, the delivery-boy was working for another job during the day and, therefore, the water was only delivered to a few of potential customers. At the end of the research, this problem has already been solved.

The limited availability of Spring Health water was a stumbling block to evaluating the true effect of the water mela tests on sales.

Reasons to buy

During the course of 10 interviews conducted in the village Taraboi, customers mentioned the following reasons why they purchased Spring Health Water:

- Good taste of the water
- Stomach problems
- Clearness of the water
- Improvement of health
- Bacteria-free
- It's just "good water"

Most of the regular customers were not aware of drinking-water contamination.

Conclusions and Recommendations

While observing people who received back their tested water sample, it was obvious that they were surprised about the amount of bacteria and/or parasites in their water. Most had not been aware of drinking water contamination or simply did not believe that bacteria or parasites do exist in their water. The water test mela is without a doubt an effective tool to raise awareness about bacterial and parasite contamination. With regard to sales, no definitive conclusions can be drawn. As sales increased by 15 jerry cans after the mela in Balarampur, there were still 39 households that did not purchase the water even though they witnessed the test and expressed their intention for buying Spring Health Water. It is, however, not known if they had no interest or if the entrepreneur didn't follow up on the households.

Interviews with the villagers revealed that more than 50% were not aware of drinking water contamination. Even regular customers mentioned other reasons for buying Spring Health Water. In addition, the existence of a Spring Health operation had not been well known.

We recommend therefore the following:

1. **Effectiveness**: It appears that water-testing melas are highly effective to create awareness about contamination of water. It should be determined whether petri-dishes showing bacteria and/or parasites should be used.
2. **Strong coordination** between social marketing and marketing: it is important that the water testing melas are strongly coordinated with a thorough follow-up with marketing activities to really "catch" the interested customers and by communicating the benefits of Spring Health Water.
3. **Delivery:** Special emphasis has to be put on the delivery service, which proves to be a decisive factor for households to be able to purchase the water regularly. A reliable and regular delivery service is fundamental to maintain the customer base.

4. **Holistic approach with schools**: With regard to customers who stopped buying the water, unfavorable taste was the most mentioned reason during the interviews. In the majority of cases, children refused to drink the water. As they play an important role, children should be included in upcoming marketing actions. Schools would be an ideal place to inform children about drinking water contamination and its consequences. They have to be convinced that taste is simply a matter of habituation.

Focus of marketing in the future

Our first study has shown very promising ways to increase the adoption rate and thus increase the volumes of sales fast. Our hypothesis is that these activities will become more effective if they are implemented in a more holistic manner.

Social marketing activities such as the water testing melas may need to be complemented with the planned campaign in the schools to avoid that the children refuse the Spring Health water due to the chlorine taste. The social marketing activities should also be closely intertwined with a) a comprehensive promotion campaign in the village to make Spring Health known to all households, b) a very proactive home delivery system and good incentives for the delivery boy and the entrepreneur to "catch" the additional demand; c) it seems that the use of trolleys for the delivery is absolutely necessary.

Outlook

We recommend that Spring Health will continue its social marketing campaigns with water testing melas and with schools, maybe not at such an early stage of introduction (only once the supply chain is

fully in place and operational).

During the next stay from June onwards, deliver some quantitative results on the effectiveness of the different measures.

We would like to sincerely thank the whole team of Spring Health for the hospitality and the insights into a very fascinating and promising program to scale up safe water in rural India.

Findings from a Voice of the Customer Survey: Final Report

Amanda Ammann, Urs Heierli, September 2012

Purpose and Method

Purpose

The purpose of the present research for Spring Health was to find the differences between users, non-users and former users/drop-outs of Spring Health Water and to understand the factors that motivate people to buy the water or the factors that keep non-users attached to drinking well or tube well water. The study should help to develop the optimal combination between effective social marketing interventions and the optimal components of the marketing mix.

Method

The survey questions are based on the behavior change theory and so-called RANAS-model, which has been proposed by and previously discussed with Professor Hans-Joachim Mosler of the Swiss Federal Institute of Aquatic Science and Technology. The reason for this approach lies in the common understanding of public health and development practitioners that it is not enough to provide safe water to the population, but that the necessary behavior change needs to come along with the "hardware". According to Prof. Mosler, behavior is the "result of psychological processing of factors within the individual".[5] In order to conduct successful behavior change and social marketing campaigns, these factors need to be taken into account. It is essential to know which factors keep the target population to the unhealthy behavior, in this case drinking contaminated water.

H.-J. Mosler proposed a conceptual behavioral model based on psychological evidence and theory, the RANAS-model. The model is divided in four distinctive components: (1) factor blocks, (2) behavioral factors, (3) target behaviors, and (4) behavior change interventions corresponding to the factor blocks (see Figure 1). The factor blocks focus on five different beliefs: risk beliefs, attitudinal beliefs, normative beliefs, ability beliefs, and maintenance beliefs. For the survey, several questions have been developed corresponding to each factor of the model. Questions related to ability beliefs and maintenance beliefs have been dropped after preliminary interviews with 30 households as they turned out for not being relevant for

[5] Hans-Joachim Mosler, *A systematic approach to behavior change interventions for the water and sanitation sector in developing countries: a conceptual model, a review and a guideline*, International Journal of Environmental Health Research, 2012.

the motivation to purchase Spring Health Water at this point of time. The standardized questionnaire has been adapted to the local conditions and made understandable for the target population. With this procedure it was possible to find the factors to be changed in the population in order to design intervention strategies to achieve long-term behavior change and increase the consumption of Spring Health Water.

Scope

The data collection was carried out through structured face-to-face interviews with 178 persons (thereof 64 users, 76 non-users and 38 drop-outs). Interviews were conducted in 4 villages: Balarampur, Begunia, Haza and Tankol in Orissa, India. If possible, the interviews were held with the main decision-maker of the respective households.

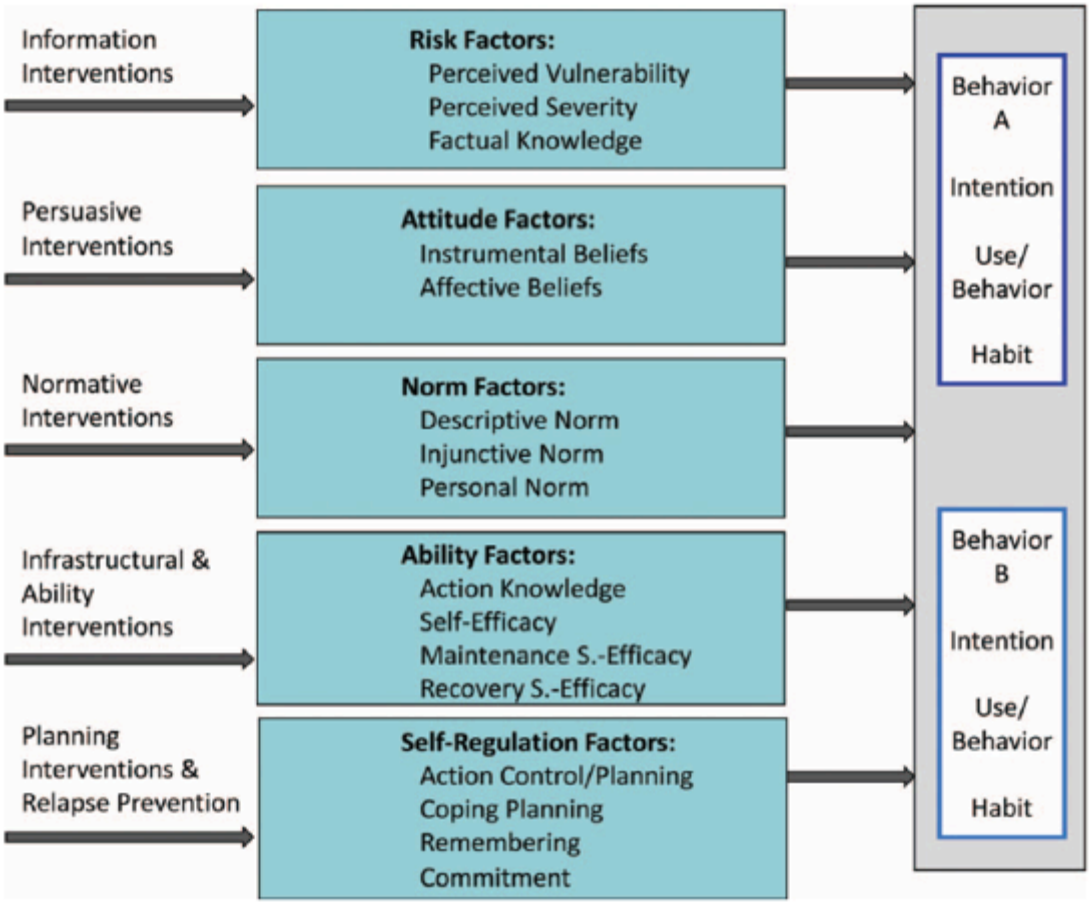


Figure 1: RANAS-Model of behavior change: Risk, Attitude, Norm, Ability and Self-Regulation factors

Table 1: Beliefs, determinants for behavior change and questions

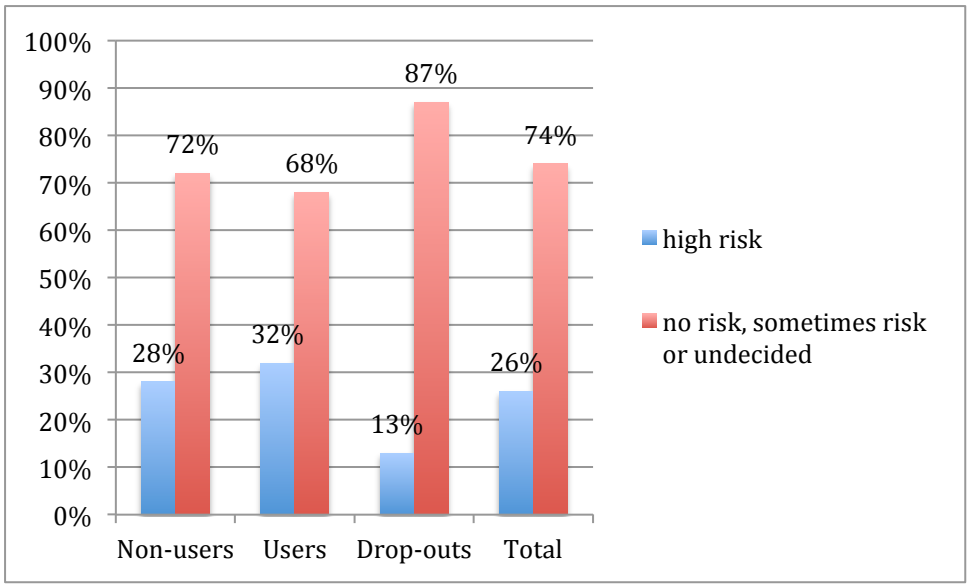
Beliefs	Determinants	Question
Risk beliefs	Perceived vulnerability	How high do you feel are the chances that you contract diarrhea or any other water-bound disease from your drinking water?
	Perceived severity	Imagine that you contracted diarrhea or another water-bound disease, how severe would be the impact in your life in general?
	Knowledge	Do you think your drinking water is contaminated?
		What are the health consequences when drinking contaminated water?
Attitudinal beliefs	Taste	Do you like the taste of Spring Health Water?
	Affect	Do you think Spring Health Water is healthy?
	Cost	Do you think Spring Health Water is expensive?
Normative beliefs	Descriptive norm	How many of your relatvies, friends or neighbors drink Spring Health Water?
	Subjective norm	What do people who are important to you think/say about Spring Health Water?
	Personal norm	Is it important for you to drink safe water?
Others		Do you drink from other water sources?
		Do you treat your water regularly?

Findings

Risk Factors

In reference to perceived vulnerability, **28 %** of non-users think that their likelihood of contracting diarrhea or other water-bound diseases is high. **72%** indicated that it is not high or only high during a specific season (especially during rainy season).

Do you think the chances that you contract diarrhea or other diseases when drinking raw water are high?



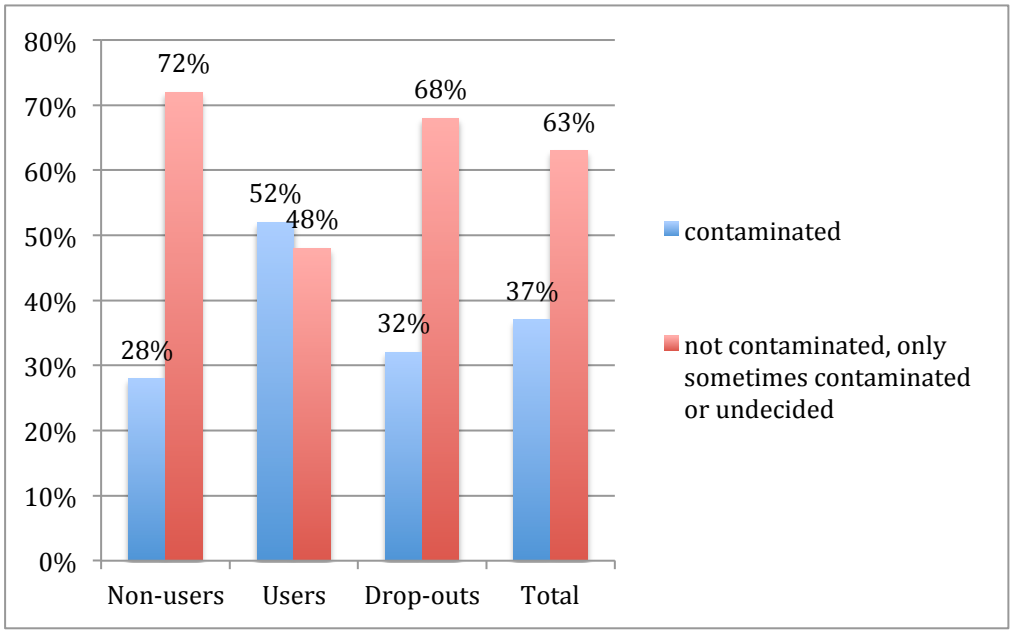
The percentage of persons, who think that their likelihood of contracting a water-related disease is high, is slightly higher among Spring Health customers. **32%** of users estimated the risk as high and **68%** as not high or only high during rainy season.

In total, including the drop-outs, **26%** of the interviewed persons think that there is a risk of contracting diseases when drinking their water. The other **74%** consider the chances as low or only high during rainy season.

Regarding water contamination, **72%** non-users believed that their drinking water is not contaminated or only during a specific season (most mentioned is rainy season). Only **28%** considered that their well, tube well or government supply water is contaminated during the entire year.

Compared to non-users of Spring Health Water, the percentage of users who consider their water contaminated is significantly higher. **52%** believe that their water is contaminated all year long and 48% think that it is not contaminated or only during rainy season.

Do you think your drinking water is contaminated?



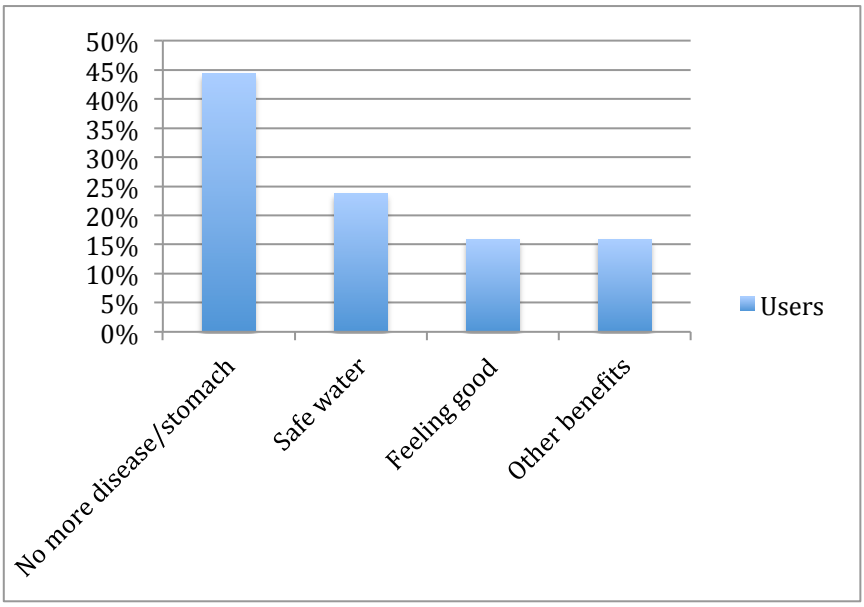
In total, **63%** of the interviewed persons think their water is not contaminated or only during a specific season, while **37%** believe it is contaminated.

With regard to perceived severity, the majority of the interviewed persons consider the impact of diarrhea or another water-related disease on their life as severe. Health knowledge about waterborne diseases is very good among users, non-users and former users. Only a few interviewed persons could not name the consequences of drinking contaminated water or the symptoms of water-related diseases.

Attitude Factors

In general, customers perceive Spring Health Water as very positive. Most indicated that they think Spring Health is healthy. **44%** even said that their health had significantly improved since drinking Spring Health Water. The cost is considered valid among **79%** of Spring Health users. Similar distributions regarding cost can be observed among non-users and drop-outs. In respect of taste, **94%** of users liked the taste of Spring Health Water, while the percentage is only at **42%** among drop-outs.

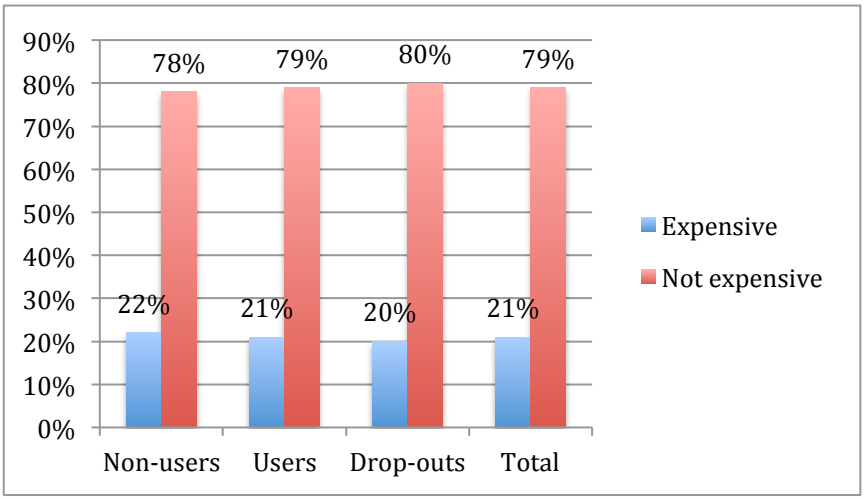
What do you consider the benefit of drinking Spring Health Water?



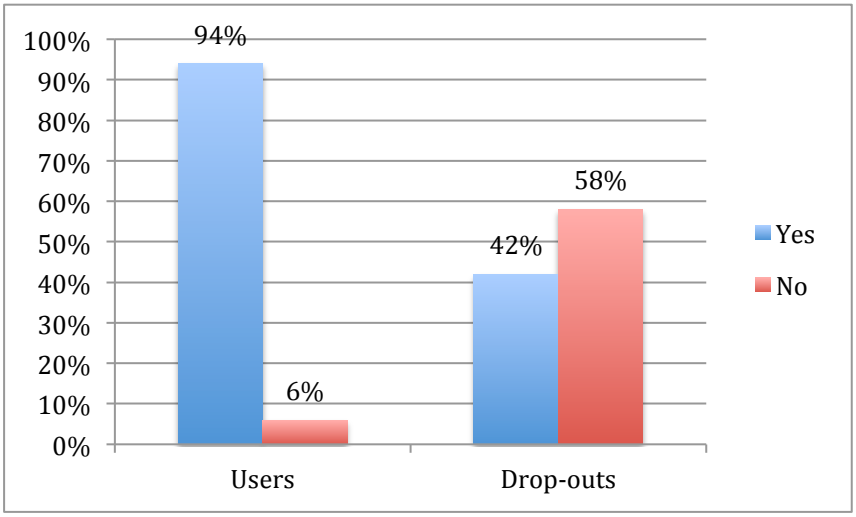
These children drink Spring Health water in the „Anganwadi“

Tankol: Interview with a customer

Do you think Spring Health Water is expensive?



Do you like the taste of Spring Health Water?

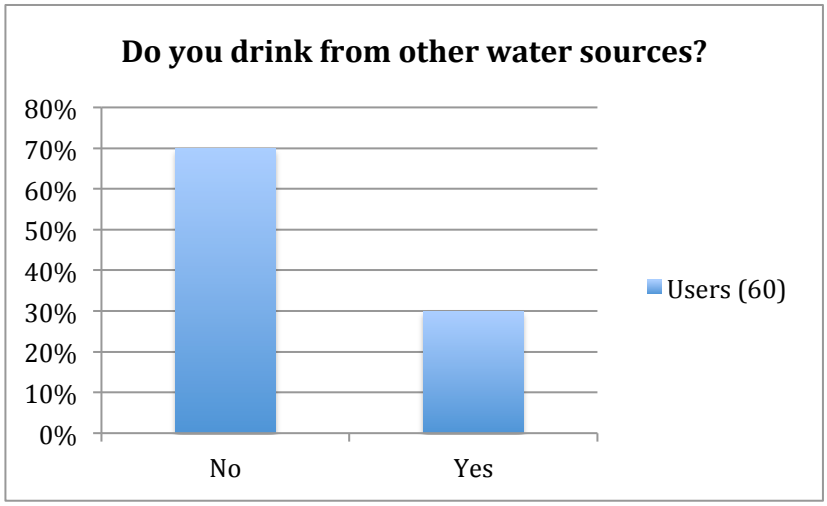


Norm Factors

The majority of Spring Health users indicated that their family members and friends approve the use of Spring Health Water. But there were several persons, especially non-users, who could not say what others think about Spring Health Water even if they knew about the operation within the village. With regard to personal norm, the majority of the interviewed persons stated that it is important for them to consume safe drinking water.

Other Findings

Out of 60 interviewed users of Spring Health Water, **70 %** stated that they drink exclusively Spring Health Water, while **30 %** continued consuming certain amounts of (raw) tube well, open well or government supply water.



Additionally, the following has been found during observation and interviews in the field:

- Decision-makers of the households are not at home during the day.
- Illiterate persons don‘t understand the flyer.
- Persons that belong to the untouchable community and work as day laborers or firewood collectors are very well informed about drinking water contamination and its consequences. The majority is interested in buying Spring Health Water.
- The most vulnerable households often don‘t have the financial means to buy Spring Health Water (untouchables and women without husbands).
- Some Shop-owners in Begunia reported that they use Spring Health Water for customers and for themselves during work. At home they drink raw tube well or open well water. Their family members are not necessarily informed about Spring Health Water.

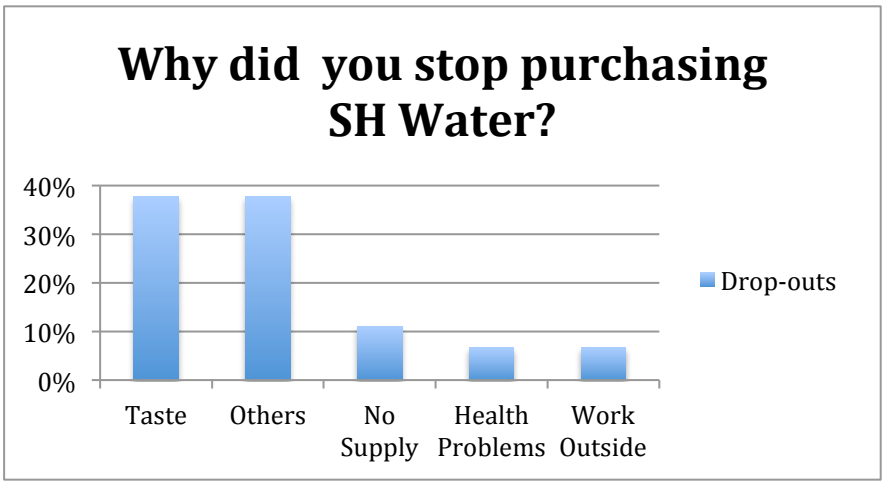
Conclusions

The purpose of our study was to reveal the relevant factors that determine the consumption of Spring Health Water in order to design possible social marketing interventions to increase the sales of Spring Health Water. We wanted to gain insights about the motivation of users and non-users for (not) purchasing Spring Health Water. Of particular interest was the identification of the reasons why people stop purchasing the water. Additionally, it was our goal to gain knowledge about the perception of Spring Health Water and the risk beliefs of people.

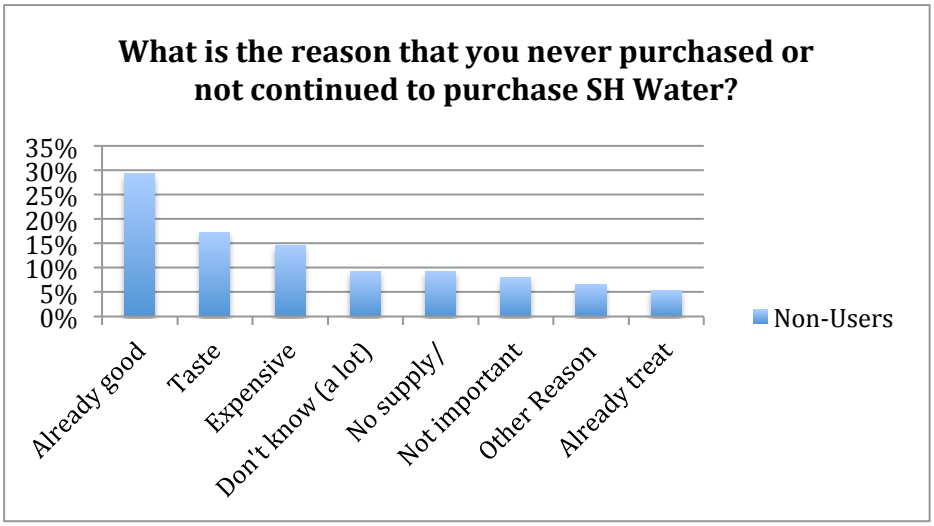
In general, people don't feel vulnerable to diarrhea or water-bound diseases. **74%** of the interviewed persons estimated that the likelihood of contracting any disease from their drinking water as low or only high during rainy season. This could be observed among all the interviewed persons, including users of Spring Health Water.

Although health knowledge about water-bound diseases is generally good among all the interviewed persons, only **37 %** of the interviewed persons think that their drinking water is contaminated during the entire year. There seems to be a general lack of knowledge about the contamination of the *own* drinking water. Because the percentage of users who think their water is contaminated is significantly higher, it can be assumed that a higher knowledge about the contamination of the personal drinking water source increases the likelihood to consume Spring Health Water.

Furthermore, attitudinal beliefs toward Spring Health Water seem to play also an important role for Spring Health Water consumption. People who don't like the taste of Spring Health Water stopped drinking it. 38% of former users indicated that it is the major reason for stopping to consume Spring Health Water. Other reasons mentioned were supply problems, health problems after drinking Spring Health Water and absence from home during the entire day. For **17%** of non-users negative perceived taste is the reason, why they never consumed or continued to consume Spring Health Water (there were several non-users who tested SH Water once or twice).



The cost of Spring Health Water is generally considered as acceptable and not too high, but there still a certain amount of people stated that it is too expensive. About 15% of the interviewed non-users indicated that they didn't buy Spring Health Water because they consider it expensive or don't have the financial means to buy it.



Normative beliefs are overall positive. Most users stated that their friends and other important persons approve that they are drinking Spring Health Water. But approval of relatives or friends doesn't result in their adoption of Spring Health Water. Some users and the majority of non-users even indicated that they don't know what others think about Spring Health Water. This is not surprising as drinking Spring Health Water is a private and not a publicly displayed behavior.

Subjective norms neither showed significant influence on behavior. All interviewed persons perceive a high personal obligation to drink safe water. There was no difference between users and non-users. The same has been observed regarding descriptive norm. The majority of persons don't have any relatives or friends who drink Spring Health Water.
Additionally, the study revealed that a not negligible percentage of users continued to drink from other water sources (**30%**). It seems that some users feel not very committed to consume exclusively Spring Health Water. This additionally indicates that customers not necessarily believe that their drinking water is contaminated and that the likelihood of getting water-bound diseases is high. The main reasons for non-users to stick to their water source is the belief that their water is safe. This is another major reason for non-users to continue drinking from their tube well, open well or government-supply water. **29%** of non-users indicated that it is not necessary for them to drink Spring Health Water, because they already have a good and safe water source.

In the end, it can be inferred that the main factors that have an influence on people to consume Spring Health Water are **taste perception** of Spring Health Water and **risk beliefs**. Interestingly, cost perception doesn't have a significant influence on Spring Health Water consumption, as the distribution of interviewed persons who consider it expensive is the same among users, non-users and former users.

Limitations of the present study have to be taken into account. It is important to know that the data is self-reported and that it can be biased.

Recommendations

To maintain and further increase Spring Health Water consumption, we recommend the following:

1. **Awareness and risk perception**: Water testing melas and similar methods are necessary to raise awareness among people and increase the customer base. But it is not only crucial that people are aware that their own drinking water is contaminated, but that they perceive it as a risk to drink it. Specific strategies should be developed to enhance risk perception.

2. **Irregular customers:** Inconsistent consumption of Spring Health Water should be in the focus of interventions. The probability to exclusively drink Spring Health Water increases if people know that their drinking water is contaminated and perceive it as a risk to drink it. Therefore, water testing melas, introducing safe water in schools (and informing the students on water quality), and similar methods are an effective tool to increase the regular consumption of Spring Health Water.

3. **Perceived taste:** Intervention strategies to maintain or increase the consumption of Spring Health Water should also target taste perception. It is crucial that customers perceive taste of Spring Health Water positively. New users should be advised to add some flavor like lemon to the water. Additionally, before delivering the water to the households, the water from the

Delivery-Boy in Haza

Message in front of a kiosk

tank should be tested and monitored with regard to taste. Another possibility would be to add neutralizers, which are already on the market (f. ex. *Katadyn Micropur Antichlor*).

4. **Jerry cans:** Furthermore, the advantage of smaller jerry cans for single or small households should be considered in order to decrease the number of customers who purchase a jerry can only every 3rd – 6th day.

5. **Convenience:** The convenience factor of the service that Spring Health provides can be used for promotion. Special emphasis should be put on time and cost for gaining new Spring Health customers.

6. **Social norm:** The study revealed that consuming Spring Health Water is not yet considered as a social norm and that relatives and friends of users mostly don't adopt Spring Health Water even if they think it's a good product. To further enhance Spring Health Water consumption and increase social pressure, a public commitment intervention can be considered. This intervention technique for changing behavior proofed to be effective in many cases. Long-time customers and village leaders could for example communicate in public that safe drinking water is important and that Spring Health Water is a possible solution.
An interesting idea proposed by Spring Health is to invite all users in a village for a dinner in order to distinguish them from the non-users. Such an intervention could lead to a broader identification, a higher self-esteem of the users (and probably also some jealousy among the non-users) and thus create a social dynamics towards more social norms.

7. **Vulnerable households:** Further, it is favorable to take into account the most vulnerable households within the community. Several really marginal households have not the sufficient financial means to buy Spring Health Water, but interestingly they showed a high degree of awareness that their water was contaminated and that they were at risk. A strategy to identify and include these households should be developed. Spring Health has already introduced a path-breaking social innovation with the home-delivery system that can make safe water available also to low caste members. Without this, it would be unthinkable that low caste members could buy the same water as the higher castes, at least in some conservative villages.

Outlook

To summarize, Spring Health is a very innovative and promising approach for bringing safe water at scale to rural households. The model works as it is, and this is commendable. Many aspects have been tested during the pilot phase and some aspects have undergone a further fine-tuning. Basically, we consider the model to be ready for a rollout and for going to scale.
However, some improvements could further enhance the viability, depth and thus also increase the speed for scaling-up the model:

1. **Village size**: It makes more sense to focus the rollout in villages with at least 500 families. In such villages, it is much easier to achieve the break-even volumes of 1'000 litres per day (or having at least 100 regular customers). Even then, it is challenging to reach a 20 % market penetration in a short period.
2. **Awareness creation and behavior change**: We should be realistic and acknowledge the fact that the large majority of villagers in rural India – Orissa to be specific – is not aware that their water is contaminated and that they – or their children – are at risk. It is, therefore, necessary to intervene with awareness raising campaigns **massively**, and it is not enough to just touch a small part of the villages. Water testing melas, school awareness programs are very suitable methods to create this awareness and should be introduced **area-wide** in the roll-out villages. As this awareness creation is a public health task – and not a duty for a private company – these campaigns can and should be financed with public funds. We also acknowledge that awareness creation alone is not enough to change behaviors, and that to some extent it is not even necessary to pass the messages only through rational means. It is not only possible to create a "hype" for safe water by banking on the fear of the people to get sick. For this, a certain awareness creation can pave the way and raise a general interest, but the main behavior change will only come if the social marketing is effectively **intertwined** with marketing activities: it does not help, if people see from a water testing mela that their water is polluted when the delivery boy is not ready to deliver Spring Health water immediately after a family has become inclined to buy it.

3. **Social marketing and marketing**: One of the key lessons learned from this Spring Health study is the optimizing of a new form of marketing mix: the optimal combination of social marketing and marketing activities. The secret for success is how to combine awareness creation activities – such as the water testing melas and school interventions – with marketing activities such as the introduction of trolleys for the delivery boy or introducing monthly payments. One has to invent the hen and the egg at the same time: social marketing may create a demand and at the same time, efficient delivery systems can make it viable for the delivery boy to go from house to house. If he does not make enough money – because the demand is too low – or if it takes too much time to deliver, the home-delivery approach is not viable.
4. **Fast break-even:** The focus of the rollout is rightly on the achievement of breaking-even in a short time. If this is possible – and it seems it is – then the Spring Health model becomes viable even faster than anticipated. Massive social marketing in combination with a marketing blitz may be the best way to achieve this.
5. **Market penetration**: In view of the fact that almost 75 % of the villagers do not perceive drinking their untreated water as a risk, it is important to not only cover the 25 % who are already convinced. In this case Spring Health would just have introduced a more convenient way to deliver safe water instead of transforming the consumption patterns of the entire population. The mission of Spring Health is – quite rightly - more ambitious: how can it reach a market penetration of at least 50 %, and ideally close to 100 %, is the challenge.

   This is possible with the right mix of social marketing and marketing, and it is very encouraging to hear that the newly introduced "marketing blitz" have led to a jump in market penetration. In some villages, kiosks could increase their sales to nearly 200 customers in a very short time. This successes of heavy marketing should probably also be combined with social and community strategies such as involving village leaders, health workers, teachers and other opinion leaders. It may also be needed to improve the communication strategy and focus more on gender relevant messages.
6. **Public funds for social marketing**: As mentioned before, the education of entire villages is not the responsibility of a private company but a public health task. If Spring Health has already done innovative social marketing activities, this is laudable, but in the long run, it may be too costly to introduce water testing melas area-wide. The cost of repeated and

area wide water testing melas amounts to 1'000 $ or 2'000 $, whereas the additional turnover may be only some 3'000$ if 200 more regular customers are found. [6]

It makes therefore sense to use initially public funding for this market creation and later carbon finance. Carbon finance in safe water is now becoming an interesting option (Hydrologic has already been able to certify such a program and has made an arrangement with DHL to sell them 40'000 tons of voluntary CO2 certificates (gold standard)).

It should also be explored how far Spring Health can piggy-back on existing social marketing campaigns (hygiene, hand-washing, sanitation and for example joint campaigns with Lifeboy-soap).

We would like to sincerely thank the whole team of Spring Health for the hospitality and the insights into a very fascinating and promising program to scale up safe water in rural India.

Interview with a family in Tankol

[6] In a village of 500 an entire coverage of 4 x 500 water tests may cost between 1000 $ and 2000 $ whereas the potential turnover is around 3'000 $ if 200 regular customers do result from such an intensive mela