University of St.Gallen

Market penetration of safe water at the base of the pyramid (BoP) in India

Masters Thesis

23. 05. 2016

University of St. Gallen

Referee Dr. Urs Heierli

Viola Zoller

09-613-399

Störenbergstrasse 13

8265 Mammern (TG)

viola.zoller@hotmail.com

A Abstract

Access to clean drinking water is a basic requirement for a decent living and a prerequisite for the realisation of other human rights. Although government organisations, development aid initiatives and private entities have put effort in mastering this challenge, millions of people all over the world are still affected by contaminated water and its negative impact on human health and economic development.

In regard to this severe situation, the following thesis aims to provide a deeper understanding of the diverse aspects of the drinking water situation in India and outlines various ways forward. It focuses on the social-business TARA (headquartered in India) and its product Aqua+ (a water purification liquid). To reach the target market (low-income households in rural areas) effective and efficient distribution channels are *the* key to success. Therefore, a field study was conducted to evaluate the current distribution network, as well as to gain a better understanding of (prospective) consumers. Based on these findings, recommendations are given on how to enhance the current distribution system as well as new models suggested. These findings will support TARA by showing ways to increase the reach and effectiveness of the existing Aqua+ business model and distribution system.

The field study revealed that the consumers are generally happy with the product and experience a positive change in their well-being. Having said that, non-consumers do not think that it is necessary to treat their water as they are not aware about the importance of safe drinking water. Moreover, the study showed that trust in people and brands are critical and channel partners need to be adequately motivated.

Two new channel models are developed on the basis of the study as well as the discussed theory. TARA could form new partnerships with well-established large companies or implement a system in which Aqua+ is sold in local shops and at the same time through door-to-door sellers.

B Acknowledgments

I am very grateful to Urs Heierli and the whole TARA team, who made it possible for me to gain important and valuable insights of the work they do in rural India. This thesis would not have been possible without your assistance, sharing of experience and encouragement. Special thanks go to my major adviser in India, Faustina Gomez, for her support and guidance during my work with TARA and especially the field visits.

I would also like to thank Montse Jofresa, Abishek Svrivastava, Pryali Bharwaj, Ayesha Bhatnagar, and all other TARA team members, who showed me around Delhi and introduced me to the wonderful and stunning Indian culture and way of life.

Very special thanks also go to my parents, who supported me throughout my studies and endeavours and always encouraged me to follow my heart and intuition.

Viola

Figure 1: Farewell event organised by TARA (Picture taken by Pryali Bharwaj)

C Content

D Abbreviations

BoP	Base of Pyramid
CP	Channel partner
CSF	Critical Success Factors
DA	Development Alternative Group
DALY	Disability-Adjusted Life Year
HH	Household
INR	Indian Rupee
LM	Last-mile distributor
MDG	United Nations Millennium Development Goal
MNC	Multinational Company
MoU	Memorandum of Understanding
NGO	Non-Governmental Organizations
P&G	Procter & Gamble Co.
QF	Qualifying Factors
RMP	Registered Medical Practitioner
SHG	Self-help-groups
TARA	Technology and Action for Rural Advancement
TCO	Total cost of ownership
UN	United Nations
US	United States
USD	United States Dollar
WASH	Water, Sanitation and Hygiene
WHO	World Health Organisation
WSP	Water and Sanitation Program

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Part I – Introduction

1 Access to safe drinking water saves lives

"The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights."

- General Comment No. 15: The Right to Water (UN Committee on Economic, Social and Cultural Rights, 2002)

Air, food and water, as well as shelter and clothing are seen as the basic requirements for a decent living (Ganiger, 2014, p. 45). Yet, the World Health Organisation [WHO] argues that regarding sustainable development and poverty alleviation, both improved access[1] to safe drinking water[2] and adequate sanitation are two of the major challenges that need to be addressed (WHO, 2004, 1. Paragraphe). This is reflected in the United Nations Millennium Development Goal [MDG] target 7c to halve the proportion of individuals without sustainable access to safe drinking water and basic sanitation by 2015 with 1990 as the baseline year (Hutton, 2012, p. 17). The broader context shows that the United Nations [UN] General Assembly and the Human Rights Council follow this paradigm as well by recognizing clean drinking water and appropriate sanitation facilities to be a "human right essential to the full enjoyment of life and all other human rights" (United Nations Secretary-General's Advisory Board on Water and Sanitation, 2013, p. iii).

In this regard, the next chapter will provide the broader context of the drinking water situation both worldwide and in India, outlining further why major International organisations see the improvements of drinking water and sanitation as one of their priorities.

1.1 Statement of issue: Lack of access to safe drinking water

The health implications associated with contaminated drinking water are well documented: Diarrhoea, a symptom of gastrointestinal infections caused by a host of bacterial, viral or parasitic organisms, occurs world-wide and causes 4% of all deaths (WHO, 2015, 1. Paragraph). Moreover, an estimated 3.6% of the total 'Disability-Adjusted Life Year' global burden of disease [DALY][3] is determined by diarrhoeal disease

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[1] *Definition of Access*: The UN (2014) defines access in regard to physically accessible sources by stating that "everyone has the right to a water and sanitation service that is physically accessible within, or in the immediate vicinity of the household, educational institution, workplace or health institution. […], the water source has to be within 1,000 metres of the home and collection time should not exceed 30 minutes" (United Nations, 2014, What is…?).

[2] *Definition of Safe:* The UN (2014) points out that the water for both personal and domestic use must be safe and therefore defines safe water, as water that is "free from micro-organisms, chemical substances and radiological hazards that constitute a threat to a person's health" (United Nations, 2014). It is important to notice that usually national and/or local standards are used to measure the drinking water safety. The WHO Guidelines for drinking-water quality can be used as basis when developing national standards. (United Nations, 2014, What is…?)

[3] *Definition DALY:* DALY quantifies the burden of diseases from mortality and morbidity, as one DALY equals one lost year of 'healthy' life. The sum of these DALYs across the population (= the burden of disease) describes the gap between the current health status and an ideal health situation in which everyone lives to a high age, without any disease or disabilities. The DALY

(WHO, 2015a). Globally, every year nearly 1.7 billion cases of diarrhoeal disease occur (WHO, 2013, Key facts), which lead to the death of around 2.2 million people, mostly children in developing countries (WHO, 2015, 1. Pragraph). In fact, diarrhoea is the second most common cause of death for infants under five years old, and kills around 760 000 children every year - more than 2’000 every day. In less developed countries, infants younger than three years old undergo on average three incidents of diarrhoea annually. Each one deprives the offspring of integral nutrition necessary for growth. Hence, diarrhoea is also a leading cause of malnutrition in children. (WHO, 2013, Introduction)

In India, the health burden of miserable water quality is tremendous – especially as it is combined with poor hygiene practices, which further increases the spread of diseases. For example, hand washing is uncommon and latrine usage is extremely low, especially in rural areas where only 14% of the population has access to such facilities. (water.org, 2015, The water & Sanitation crisis in India) Thus, it is not surprising, that some 37.7 million Indians are affected by waterborne illnesses every year (Kumar & Muckerjee, 2014, p. 1), whereof more than 1’600 die daily due to diarrhoea - the same as when eight 200-person airplanes crash to the ground. (water.org, 2015, The water & Sanitation crisis in India)

Besides these direct negative effects on human health, it is reported that inadequate access to clean drinking water has a negative impact on the country’s economy: A study conducted by the World Bank estimates yearly economic losses of USD 4.2 billion for India due to the lack of safe drinking water (Unitus Seed Fund, 2014a, Poor health leads to vasted rupees). According to the Water and Sanitation Program [WSP] administered by the Wold Bank, the main factors causing this figure are premature deaths, costs for both treatment and medicines for the sick, as well as loss of productivity due to illness (WSP, 2011, pp. 7-9). For example, it is estimated that each year 73 million working days are lost due to waterborne disease (Kumar & Muckerjee, 2014, p. 1). Other major sources of economic loss are the enormous costs arising from polluted water: There are various methods households use to react to contaminated water, such as using filters, boiling water or purchase bottled water. Alternatively, household members may travel long distances to haul water from cleaner sources. (WSP, 2011, p. 8) Indeed, when travelling across rural India, one is likely to spot groups of women carrying water pots on their heads: Women in villages, and often their daughters, spend hours collecting water from far areas, wasting time that could otherwise be used for more productive activities. (Rajan, 2015, 1. Paragraph) In a nutshell, the lack of safe drinking water does not only negatively affect the health of the people, but also the development of the country.

On the other hand, the benefits of clean water are evident: The broader context shows that diarrhoea occurs more often in times of shortages of safe water for drinking, cooking and cleaning (WHO, 2015, The cause). Thus, a significant amount of illnesses could be prevented through improved access to safe water, improved sanitation facilities and enhanced hygiene practices (WHO, 2015a). As a matter of fact, it has been calculated that an amended water supply is likely to reduce diarrhoeal morbidity by 6% to 25%. Furthermore, advancements in drinking water quality through household water treatment, for instance with chlorine, can lead to a reduction of diarrhoeal incidents by around 35%. (Kumar & Muckerjee, 2014, p. 1) This can be summarized with the words of Dr LEE Jong-wook (former Director-General, WHO): "Water and Sanitation is one of the primary drivers of public health. I often refer to it

for a specific disease is the calculated sum of the ‘Years of Life Lost’ due to premature deaths and the ‘Years Lost due to Disability’ for people living with the illness or its consequences. (WHO, 2015b) as 'Health 101', which means that once we can secure access to clean water and to adequate sanitation facilities for all people, irrespective of the difference in their living conditions, a huge battle against all kinds of diseases will be won" (WHO , 2004).

The good news - recalling the MDGs - is that since 1990 more than 2 billion people got access to improved sources of drinking water. Additionally, 116 countries have met the set targets. However, over 700 million individuals still lack access to safe drinking water. Moreover, while successes can be recorded, stark disparities are seen between both urban and rural regions as well as rich and poor households. Indeed, the achieved progress has enlarged inequality by predominantly benefitting wealthier households, leaving behind poorer people in rural areas. (WHO & UNICEF, 2014, p. 6) In India, even if the MDG target was achieved, 244 million people in rural provinces and 90 million in urban areas will still lack access to a safe and sustainable water supply (D'Monte, 2005). Thus, much more needs to be done.

1.2 Case study: Aqua+ - clean water, better future

As seen above, it is clear, that safe drinking water is crucial for poverty alleviation and the development of India - especially in rural areas. In general, when purifying drinking water, there are two main methods: 1) treating water centrally (near source) or 2) treating water at the point of use (for instance at home or workplace). (Unitus Seed Fund, 2014b, Two choices: treat water centraly or at point of use) Yet, it is challenging to implement this knowledge on the ground:

According to Kumar and Muckerjee (2014, p. 2) is the Indian state the prime provider of drinking water - or at least supposed to be. Access to safe drinking water has been given priority with Article 47 of the Constitution of India conferring the duty to the Government for both advancing public health standards and supplying clean drinking water. The Union and State Governments put effort in extending policies and invested billions of Indian Rupee [INR] in technologies and rural water supply schemes. (Kumar & Muckerjee, 2014, p. 2) As a positive outcome of these efforts, the coverage (measured in number of people) increased: For instance, every year between 1990 and 2000, the State was able to extend the water supply to an additional 8 million urban-dwellers. However, it seems that greater emphasis was put on the number of installed community taps or household connections, than the quality, reliability and sustainability of the service. (D'Monte, 2005) Indeed, coverage refers to the installed capacity, and not to the amount or quality of the water actually supplied. Thus, despite these huge public expenditures, no significant improvement in provision of safe water could be observed. (Kumar & Muckerjee, 2014, p. 2) For example, Uttar Pradesh (State in Northern India) with one million out of the 3.5 million hand pumps installed, and Bihar (State in East India) are considered 'fully covered', yet numerous people in these areas suffer from waterborne diseases, such as gastroenteritis, cholera or dysentery. (D'Monte, 2005)

Turning to private organisation, the story looks a bit different, but eventually with the same outcome. For most of these entities, a rural water project provides a "warm feeling and an improved image" (Unitus Seed Fund, 2014b, 5. Paragraph). As a result, implemented water systems rarely work, as they are driven by "big hearts rather than sustainable models" (Unitus Seed Fund, 2014b, 5. Paragrap). Drinking water is provided for free or a symbolic fee, which results in funds insufficient to cover the costs of operating the system. Therefore, due to both scarce funding and commitment rural India is strewn with non-operational water systems set up by well-intended organisations. (Unitus Seed Fund, 2014b, 5. Paragraph) Other private entities implemented water systems, in which people are metered and thus pay for the water they use. The advantage of this is that all consumers bear their part of the cost of the water supply, however, the downside is that when poor consumers cannot pay for their supply, examples show that they get cut off. (D'Monte, 2005)

Therefore, what is needed is an approach that leads to sustainable financial returns, but also keeps the situation of the rural people in mind. The social enterprise TARA [Technology and Action for Rural Advancement], follows this paradigm by recognising the need of sustainable solutions, which can be scaled and are therefore suitable to solve India's drinking water problem. TARA is the incubation engine of the Development Alternatives group [DA], headquartered in New Delhi, India. Its vision is to achieve sustainable positive impact in the areas employability, entrepreneurship, clean technology, natural resource management, institutional strengthening and fulfilment of basic needs. In this last category, one sector focuses on Water, Sanitation and Hygiene [WASH] with the aim to ensure the provision of WASH related basic needs for the Base of the Pyramid [BoP][4]. (Gomez, Chaturvedi, & Bountra, 2014, p. 1)

In view of the severe drinking water situation in India, in 2010 TARA partnered with Antenna Technologies, Switzerland, with the goal to supply safe drinking water through an enterprise model. The partnership began shortly after a joint workshop by Antenna Technologies providing TARA with the WATA Technology used to produce liquid chlorine. TARA carried out a market study to get an understanding of the consumer needs for safe drinking water, their behaviours and willingness to pay for this good, as well as their spending related to health. Using the insights of the study as a base, TARA developed a prototype product - a 50 ml bottle of Sodium Hypochlorite Solution (Liquid Chlorine), two drops of which could purify one litre of water, and named it Aqua+. (Gomez, Chaturvedi, & Bountra, 2014, p. 2) A pilot was carried out to test the product and possible distribution channels on the ground. As a consequence of the successful pilot, TARA established the for-profit company TARA*life* Sustainability Solutions Pvt. Ltd [TARA*life*]. Since its inception in 2014, TARA*life* is responsible for putting in place a distribution network required to take Aqua+ to scale in rural areas. (Gomez, Chaturvedi, & Bountra, 2014, p. 23)

1.3 Aim of the Thesis: Make safe drinking water available for the BoP

Although effort has been put into optimising the production process as well as the distribution network, TARA*life* has not been able to achieve the target sales volumes for Aqua+ and thus a sustainable market penetration rate (Mewar, 2015). As growth will only occur when the strategy is adjusted - doing business as usual will always result in the same outcomes - the challenge is to meaningfully alter the already existing business model around Aqua+. (Banda, 2010).

Former studies done by the organisation revealed that an effective distribution network is *the* key to success (Gomez, Chaturvedi, & Bountra, 2014, p. 14). Thus, this thesis aims to provide further insights about how the existing distribution channels work, which challenges exist as well as how to improve the distribution system for Aqua+. The study was designed and carried out in cooperation with TARA

[4] *Definition BoP*: The term 'BoP' describes the segment of low-income households. Refer to chapter 2 for further information about the concept behind the term 'BoP'.

to ensure that the results can be used as a basis when making decisions about strategy adjustments and business advancements. It was agreed to follow a bottom-up approach by taking into account the knowledge, attitude and practices of consumers and the specific needs, preferences and motivations of the Channel Partners [CP] and Last-Mile distributors [LM]. Broadly speaking, the study will look into understanding the product experience of users, CPs and LMs as well as the key triggers/barriers towards buying/selling Aqua+. In a nutshell, it focuses on the following three questions (with sub-questions):

A) *Who are the consumers of Aqua+?*
   How regularly do they buy it? Why do they buy it? Which values offer the product?
B) *Who are the non-consumers of Aqua+?*
   Why do they not buy it? How can they be convinced? Why do they not see a value in the product?
C) *Imagine: How can DA/TARA reach them?*
   Mainly focused on the development of a viable and sustainable distribution channel: Which channels do already exists and how can DA/TARA improve them? Which channels do not exist and why?

To achieve these objectives the author combines theory with practical experience: The discussion of international literature provides a theoretical base enriched with various case studies and examples. The analytical part builds upon the authors 3.5 months stay with TARA (New Delhi, India), during which she gained knowledge about the work of TARA and experienced the living conditions and mind-sets of the rural BoP.

The thesis is divided in the following parts:
Part I – Introduction: Here an overview of the global severe drinking water situation is given, as well as the case study and the aim of the thesis presented.
Part II – Theoretical part: As seen above the target group of Aqua+ is India's rural BoP. To be able to follow the bottom-up approach the first step is to understand the consumers and their specific needs and values. Therefore, this part focuses on the BoP, followed by a detailed analysis of the buying behaviour of consumers and values attached to products. Equally important, and therefore also presented in this chapter, are theories about distribution channels and learnings from other projects. This theoretical basis is crucial for the discussion of the case study Aqua+.
Part III – Case study Aqua+: In this last part the process of the field study and the main findings will be presented. Based on that recommendations will be given.

Part II – Theoretical Basis

2 BoP market and its opportunities

"These unhappy times call for the building of plans that rest upon the forgotten, the unorganized but the indispensable units of economic power...that build from the bottom up and not from the top down, that put their faith once more in the forgotten man at the bottom of the economic pyramid".

- President Franklin D. Roosevelt in his bid for the Democratic nomination for U.S. President, in a radio address on April 7, 1932, titled 'The Forgotten Man' (Roosevelt, 1932)

U.S. president Franklin D. Roosevelt used the phrase 'bottom of the pyramid' as an earliest during his bid for the Democratic nomination for U.S. President, in a radio address on April 7, 1932, titled 'The Forgotten Man' (Donohue, 2009). Yet, as it will be discussed in this chapter, the more current usage refers to the billions of low-income households spread across the world.

The following chapter will give an overview about the BoP, especially focusing on the Indian BoP and the specific characteristics of these people.

2.1 The need of a new approach on poverty alleviation

Turning on a television one is likely see calls for money to help the world's poor - people who live on less than USD 2 (based on purchasing power parity) a day, often referred as the Bottom or Base of the Pyramid [BoP]. Even though many hear the cry and see the chronic needs, the accomplishments so far are limited: For more than 50 years, donor nations, development aid agencies, national governments, and civil society organizations have all "fought the good fight" (Prahalad C. K., 2010, p. 27), the strategies, however, have not been remarkably successful. The adoption of the MDG by the UN confirms this reality, as also in the begging of the 21st century poverty remains one of the world's most severe problems. (Prahalad C. K., 2010, p. 27)

Traditional approaches to erase poverty usually focus on the poorest of the poor people, starting from the assumption that low-income households are unable to help themselves and therefore need public assistance or charity. Consequently, unmet needs such as health care and safe water are tent to be addressed through direct public resources, subsidies and other handouts. These efforts lead rather to a donor based system, where funding is crucial, than sustainable solutions. (Hammond, Kramer, Katz, Tran, & Walker, 2007, pp. 6-7) When services and goods are given for free or at a very low price combined with inadequate ongoing funding and commitments, then there is not enough money to cover costs and, more importantly, operating and maintaining the services and systems (Unitus Seed Fund, 2014b). The fact that these top-down, grant-based approaches could not alleviate poverty, put not only into question the effectiveness of the traditional logic, but also increased the pressure on the development sector to expand its impact and thereby to explore new approaches. Following this, leading development scholars, like Jeffrey Sachs, William Easterly, Robert Chambers, and Amartya Sen expressed their concerns about the poverty alleviation strategies adapted by development organisations as well as outlined different methods for moving forward. (London, 2007, pp. 5-6)

One way forward was presented by Professor C.K. Prahalad in the book 'The Fortune at the Bottom of the Pyramid: Eradicating poverty through profits' (2002) by questioning the traditional logic that sees "the poor are wards of the state" (Prahalad, 2010, p. xiii). He suggests that private firms, and especially large multinational companies [MNC], can make significant profits by marketing to the people living at the BoP, as there is a great number of specific product needs that have been only partly fulfilled to date, due to the perception that these people lack spending power and thus cannot afford the offered products (Alur & Schoormans, 2013, p. 190).

By doing this the companies would simultaneously help to eradicate poverty (Prahalad & Hart, 2002, Creating buying power). In a paper published in 2002, Prahalad and Hart claim that "companies with the resources and persistence to compete at the bottom of the world economic pyramid, the prospective rewards include growth, profits, and incalculable contributions to humankind. […] Furthermore, MNC investment at 'the bottom of the pyramid' means lifting billions of people out of poverty and desperation, averting the social decay, political chaos, terrorism, and environmental meltdown that is certain to continue if the gap between rich and poor countries continues to widen." (Prahalad & Hart, 2002 4. 6 %. Paragraph). This untapped potential is estimated to consist of 4 billion people who are unserved or underserved by the large organized private sector (Prahalad, 2010, p. xv)

The BoP proposition of 'doing well by doing good' as well as the prospect of making huge profits were, of course, very appealing and have attracted much attention (Garette & Karnani, 2010, p. 3). Indeed, some of the world's biggest corporations have aimed to address the unmet basic needs of the BoP by selling them everything from clean water to electricity (Simanis, 2009). As the company has to cover its costs, the usual business model used was to offer products at low prices and thus low margins, and hope to generate profits by selling enormous quantities. This 'low price, low margin, high volume' model was seen as the way to go for more than a decade, based to a large extend on Hindustan Unilever's success in selling a detergent, called Active Wheel, to low-income consumers in India. (Simanis, 2012) However, apart from some successful companies operating in industries such as telecommunications, fast-moving consumer goods, and pharmaceuticals, most global corporations have not been able to serve poor consumers in an economically sustainable way. Researches show that only a minority of companies which have engaged with people at the BoP have created businesses with 100'000 or more customers in Africa or 1 million in India. (Karamchandani, Kubzansky, & Lalwani, 2011) Indeed, one has to realize that the conversion of the BoP into an active market is essentially a developmental activity, as it is by far not only about serving an existing market more efficient: Creative approaches have to be developed and implemented to transform poverty into an opportunity. (Prahalad, 2010, p. xv) In fact, rather than imposing 'Western' business models, a company that aims to serve the BoP needs a strategy that bases on the existing resources, expertise, and social infrastructure already established in the target market. This might also include investments of the company in local capacity building, such as educational awareness or skill building, even if it is outside the organisational boundaries. (London, 2007, p. 24)

Beneath this negative examples from the economy, also ideological critic is widely spread. Jaiswal (2007, p. 16) raises one concern by claiming that Prahalad's assumption to eradicate poverty in just 15 years (by 2020) is only "wishful thinking" (Jaiswal, 2007, p. 16). Furthermore, he criticises that it is not clear how selling products like candy, shampoo, or detergent to the BoP will magically decrease poverty - Prahalad has not outlined the mechanism that will lower the hardship of the poor once they start purchasing products from big companies: Truth is, consumers at the BoP cannot buy more than they currently do due to their low disposable income. (Jaiswal, 2007, p. 16) Jaiswal (2007, p. 4) is furthermore convinced that the main development task is to support the BoP to become selective consumers and thereby avoiding undesirable inclusion and exclusion. The first one means marketing products to the BoP which presumably do not enhance their wellbeing or that they are likely to abuse. The latter refers to the fail to offer them products or services which would enhance their wellbeing. He, thus, suggests that it should be assessed which large corporations should operate at the BoP market. (Jaiswal, 2007, p. 4) Another approach comes from Karnani (2007), who argues that if the objective is to reduce poverty and increase the income level of the poor, one should view them as producers, not as consumers – one should buy goods from the BoP and not selling to them. (Karnani, 2007, p. 28) Therefore, he is convinced that the best way for a company to eradicate poverty is to invest in skill development and thereby enhance the productivity of the people at the BoP and at the same time create more employment opportunities for them. (Karnani, 2007, p. 40)

Yet, from a development cooperation's perspective, the BoP market analysis, and the market-based approach to poverty reduction on which it is based, are important, as it results in the idea that business-oriented motivations of growth and profits can be aligned with the development community's poverty reduction efforts – due to Prahalad's view that unmet needs are basically business opportunities (London, 2007, pp. 8, 22). This perspective differs from the traditional grant-based poverty alleviation strategies, in the sense that the goods and services offered by the organisation are not free of charge (London, 2007, p. 12). Indeed, a market-based proposition starts from the perception that being poor does not eliminate commerce: in essence, everyone trades cash or labour to be able to fulfil his/her needs as well as the ones of the household. Therefore, this approach can support a debate on poverty reduction that focuses more on enabling opportunities and less on providing aid. In addition, a successful implementation of this strategy would bring substantial new private sector resources into play, allowing development aid organisations to focus mainly on segments and sectors for which no economically viable solutions are available (yet). In a nutshell, initiatives should focus on people at the BoP as consumers and producers – rather than beneficiaries – and simultaneously on solutions that likely lead to more efficient, competitive and inclusive markets so that low-income households can benefit from them. Besides, these solutions have to be market-orientated and demand driven, to make the economics work for the initiative. (Hammond, Kramer, Katz, Tran, & Walker, 2007, p. 6)

To date, various development aid organisations have implemented business tools and techniques that enhance the effectiveness and financial sustainability of their efforts. Others are going even further by adopting business models that generate profits, which in turn allow them to expand their activities to new target groups and regions. In comparison to strategies of for-profit companies, the latter may accept smaller financial returns, while still expecting the organisations profits to be high enough to scale the positive societal impacts. (London, 2007, p. 7)

To sum up, as it is probably out of question that the market-based approach is not the only solution for poverty alleviation, several benefits cannot be denied: In contrast to traditional approaches people living at the BoP are perceived as consumers and therefore a pay a price for the offered products. It is crucial that an organisation can raise enough money to further develop their products and services as well as to guarantee an ongoing service. However, an active market has to be created, that truly benefits the BoP by creating values for them, for which they are willing to pay. Thus, one needs to understand the BoP market to be able to develop a suitable strategy. Thus the next chapter will provide a deeper understanding of the BoP.

2.2 Portrait of the Indian BoP

In the book 'The Fortune at the Bottom of the Pyramid: Eradicating poverty through profits' (2002) Professor Prahalad outlined that the "distribution of wealth and the capacity to generate incomes in the world can be captured in the form of an economic pyramid with four tiers (Prahalad C. K., 2010, p. 28). At the 'top' are the wealthy individuals with high levels of income and at the 'bottom' (the term has changed to 'base') the people that live on less than USD 2 per day (based on purchase power parity). (Prahalad C. K., 2010, p. 28) Yet, around the world they constitute a large share of the population: Data from national household surveys in 110 countries showed that 72% of the 5,575 million people covered by the study are part of the BoP, and thereby represent an overwhelming majority of the population in Africa, Asia, Eastern Europe, Latin America and the Caribbean. (Hammond, Kramer, Katz, Tran, & Walker, 2007, p. 3)

India is commonly seen as being home to one of the world's largest BoPs (Alur & Schoormans, 2013, p. 190). However, it is unexpectedly challenging to actually define the Indian BoP - the estimates range from 335 million (official Government of India poverty line number, which accounts for 30% of the population, but has been publicly criticized for being irrationally low) to 1.05 billion people (McKinsey Report on 'The Rise of India's Consumer Market' (2007), which applies a broader definition that suggests that 5 out of 6 Indians live in poverty). There are numerous other estimates located somewhere in the spectrum between these low-end and upper-end definitions. Additionally, the huge disparity between urban and rural areas have to be taken into account when estimating the Indian BoP, as most likely different numbers have to be applied. (Unitus Seed Fund, N.D, How we arrived at our BoP definition)

Even though there is more than one way to define the Indian BoP, it is evident that people living at the BoP share certain socio-economic characteristics, such as low and irregular incomes, limited mobility options, low literacy rates and moderate access to formal markets. All of these characteristics pose challenges on an organisation operating at the BoP. (Goyal, Sergi, & Kapoor, 2014, p. 27). Notably, a volatile cash flow causes difficulties: Prospective consumer are not just poor, they live in a state of uncertainty, which puts up-front payments for certain products simply out of question. For example, in Kenya many small farmers are aware of the benefits of fertilizers, but do not use them, as they simply cannot afford the 50-kilogram bags that it typically comes in. (Karamchandani, Kubzansky, & Lalwani, 2011, Uncertain cash flow)

In addition, people at the BoP usually experience a demand-supply gap for various goods and services: Many households lack access to water and sanitation services, basic health care and electricity. Most individuals do not own a phone and have no bank account or access to modern financial services. (Hammond, Kramer, Katz, Tran, & Walker, 2007, p. 4) This is caused by the challenge to simply reach these people and deliver products to them: Inadequate infrastructure, such as the lack of a reliable supply of electricity and water, poor road conditions and transportation means, as well as low technology use, isolates these people from the market. (Goyal, Sergi, & Kapoor, 2014, p. 27) These factors combined are usually referred to as the 'Last-mile challenge' (see chapter 4.3 for further information). (Chevrollier & Schmidt, 2014, The "last-mile" in Europe) Last, people at the BoP are impacted by the so called 'BoP penalty' due to their geographical isolation: Many, or even most, of poor people pay higher prices for the fulfilment of basic needs than do wealthier consumers - either in terms of money or in the amount of effort they must expend to obtain them. For example, people living at the BoP often face exorbitant fees for loans or higher costs for transportation to a distant hospital or clinic. On top of that, they often receive lower quality. (Hammond, Kramer, Katz, Tran, & Walker, 2007, p. 5)

On the other hand, most people at the BoP lack a decent access to markets to sell their labour, produced goods, or farming output. Consequently, they have no other choice than selling to local employers or to middlemen to their conditions. (Hammond, Kramer, Katz, Tran, & Walker, 2007, p. 4) Therefore, engaging the BoP in the formal economy has to be a major part of any poverty alleviation strategy (Hammond, Kramer, Katz, Tran, & Walker, 2007, p. 5). Rangan, Chu, and Petkoski (2011) point out that a company should view the local population as co-producers, and thus offering them work and income. For instance, Hindustan Unilever has trained 50,000 women as door-to-door sellers for soap and toothpaste and thus gave them the possibility to generate income. If consumers can earn a little bit more income, also the company might profit from that, as then people will spend more money on their goods and services. (Rangan, Chu, & Petkoski, 2011, Co-Producer).

3 Gaining a deeper understanding of consumers

> *"You don't find customers for your products. You find products for your customers."*
>
> \- Seth Godin (Godin, 2009)

It is crucial for every company to know their consumers well – especially when operating at the BoP. To really make the product aspiring for the target group, the company has to be informed about the general buying behaviour as well as factors and values influencing their purchase decision. Theories of consumer behaviour consider various personal, situational, psychological, and social reasons why people shop for products, as well as how they buy, use and dispose them. In general, the following questions can be of interest for a company: 'Why does a person buy the things he/she does?', 'Where does he/she like to shop and when?' or 'Do his/her friends shop at the same or different places?'. Companies seek to know the answers to these questions, as then they will have a much better chance of designing, creating and communicating about products that people at the BoP will want to get. (Tanner & Raymond, 2010, p. 63) The next chapter will provide more information about consumer behaviour, by first presenting general theories about the purchasing decision, followed by specific cases regarding the BoP in India.

3.1 Stages in purchase decisions

Consumers always make a purchase decision – when they buy large items like a house, but also when they shop small articles at the grocery store. Every purchase decision starts with the recognition of a need or want, as then consumers begin to search for products or services that fit and fulfils their needs. (Brookins, N.D., 1. Paragraphe) Until a consumer comes to a decision, he/she goes through several stages about which a person is more or less conscious. At any given time, every person deals with some sort of purchasing decision: thinking about the different things he/she wants or needs, about how to find the one with the best quality at the lowest price, or where and how to buy them. Meanwhile, there are other products this person has already bought and is now evaluating: Some might be better than others, thus the person might think about whether these things should get discard and replaced by another product. (Tanner & Raymond, 2010, p. 65). Tanner & Raymond (2010) summarize the different stages of a purchase decision as shown in figure 3:

Figure 2: Stages in the Consumer's Purchasing Process (Own illustration, based on Tanner & Raymond, 2010, p. 66)

Stage 1 - Need Recognition: Here, consumers get stimulated through marketing or other factors to realize that they have a need for a product. For example, it's not a coincidence that Gatorade, Powerade, and other beverage makers locate their machines in gymnasiums so customers see them after a long, tiring workout. Another example are previews at cinemas: How many times have you heard about a movie, which you were not interested in—until you saw the preview and felt like you have to see it? (Tanner & Raymond, 2010, p. 66)

Stage 2 - Search for Information: After realising that one has a need, a person gathers information about the different options available to fulfil it. Maybe this person has already owned several products of the same type and know what he/she likes and does not like about them. Thus, he/she uses experiences to decide for future purchases. However, if the person thinks that the knowledge or experience he/she already has is not enough to make a solid decision, one will usually gather more information from various sources, like asking friends, family, and neighbours about their experiences with products or read magazines and customers reports. In addition, internet shopping websites like Amazon.com have become a source of information about products, as it offers for example product reviews written by consumers. People prefer to consult such 'independent' sources, when they are looking for product information. However, they also consider non-neutral sources of information, like advertisements, brochures, company Web sites, and salespeople. (Tanner & Raymond, 2010, pp. 66-67)

One additional thought, the person might have purchased a product from a specific brand in the past and liked it. This is a great position for a company and also something firms strive for, as this often means that prospective customers will limit their search and simply buy this brand again. (Tanner & Raymond, 2010, p. 66)

Stage 3 - Product Evaluation: People regularly get diverse and sometimes even contradicting information about a product, as there are usually different types of the same product available to choose from. As it is not possible for a person to examine all of them, everyone develops so-called evaluative criteria, which help to narrow down the choices. Evaluative criteria are certain characteristics that are important to a person such as price, size or colour, whereas some of these features are more important than others. In this context, companies typically try to convince a potential customer that the evaluative criteria one should consider are reflected in the strengths of their products. (Tanner & Raymond, 2010, p. 67)

Stage 4 - Product Choice and Purchase: Stage 4 is the point at which one decides which specific product to purchase, where and how to purchase it and also on what terms: Maybe one good was cheaper at one store than another, but the salesperson there was impolite. Or maybe a person decides to order it online because he/she is too busy to go to the shop. A last example, if one is buying a high-definition television, he/she might look for a store that will offer credit or a warranty. (Tanner & Raymond, 2010, p. 68)

Stage 5 - Post-purchase Use and Evaluation: At this point in the process the consumer decides whether the purchased product is everything he/she imagined it to be - and, hopefully, it is. If it is not, one is likely to suffer from the so-called 'post-purchase dissonance' or 'buyer's remorse'. For example, one begins to speculate whether he/she should have waited to get a better price, purchased something else, or gathered more information before making a purchase - everyone wants to feel good about his/ her purchase, but not everyone does. Consumers commonly feel this negative way, which is a problem for the selling organisation. If a consumer does not feel good about what he/she has purchased, one might return the item and never purchase anything from this company again - or, even worse, he/she may tell everyone how bad the product or the experience with the product was. Companies commonly use different strategies to prevent buyer's remorse: They offer a money back guarantee or encourage their salespeople to tell a consumer what a great purchase he/she made. Furthermore, companies might offer a warranty and a service line. In addition, some salespersons even call the consumer to see if someone needs help with the product. (Tanner & Raymond, 2010, p. 68)

Stage 6 - Disposal of the Product: Traditionally neither companies nor consumers thought much about how products got disposed of - but that has clearly changed. Whether and how products are being disposed have become important to consumers and the society in general, as there is more consideration about the environment and its conservation. Also companies are following this trend. (Tanner & Raymond, 2010, p. 68) The fact that more and more grocery stores around the world began to sell reusable bags, instead of continually purvey new plastic bags is one example of this tendency (Tanner & Raymond, 2010, p. 69).

Tanner & Raymond (2010, p. 69) point out that consumers do not necessarily go through all the buying stages when they consider to make a purchase. Chand (2015) is stressing the same by claiming that the decision-making process varies with the type of purchasing decision: There are, for example, great differences between buying toothpaste or a new car. Generally speaking, expensive and/or complex purchases are likely to involve a higher amount of consideration and more participants. (Chand, 2015, 1. Paragraph) Four types of consumer buying behaviours can be distinguished (Brookins, N.D., 1. Paragraph):

Impulse Purchases: The typical example for an impulse purchase is, when a consumer stands at the checkout and notices lip moisturizer, magazines and gum, and adds one of these items to his/her shopping. In this type of buying behaviour the consumer makes a purchase with little to no planning or deliberation involved. (Brookins, N.D., 2. Paragraph) In other words, consumers who buy something impulsively do not know or plan to buy this particular item upfront, but all of a sudden for whatever reason, they are inspired to buy it (Jones, 2014, Impulsive Buying).

Routine Purchases: Every person is used to purchase certain items every day, once a week or monthly, like a morning cup of coffee from a nearby convenience store or food he/she buys regularly.

Characteristically for this type is, that customers spend very little time deciding whether or not to purchase these items and do not need to read reviews or consult with friends for their opinions before this purchase. (Brookins, N.D., 3. Paragraph)

Limited Decision Making: When a person engages in a purchase that requires limited decision making, he/she may research a few options, seek advice or a suggestion from a friend, however the search is not as thorough or time consuming as for an extensive decision making (Brookins, N.D., 4. Paragraph). Jones (2014, Limited decision making) points out that in this scenario, people might do a little bit of research, but they go with what is affordable for them or just seems to be the most practical.

Extensive Decision Making: Purchases, which are expensive or significant, such as buying a family home, require consumers to do extensive decision making. Here consumers usually spend substantial amounts of time researching numerous potential options before they buy. For example, they speak with trusted friends, family, colleagues and sales professionals, read reviews and ratings or consumer magazines. (Brookins, N.D., 5. Paragraph)

In the broader context, it is important to remember, that those four types of behaviour are not universal - what might be a routine purchase for one person, can be an extensive decision making purchase for someone else. In addition, also external circumstances can have a major influence on a consumer's buying behaviour, as not only economic factors influence the purchase decision, but also social and personal reasons (see chapter 3.4). Thus, it is crucial to understand what goes on in the mind of a consumer. (Jones, 2014, Everyone is different)

3.2 Values attached to product offerings

In order to be able to understand what is going on in the mind of a (prospective) consumer, the concept of values can be useful. In this context, the term 'value' refers to the benefits buyers receive by purchasing and consuming a company's offering. (Tanner & Raymond, 2010, p. 5) Vice versa, offerings are products and services designed to create value for consumers and thereby fulfil their needs and/or satisfy their wants (Tanner & Raymond, 2010, p. 183). Therefore, it is crucial for a company to create an offering that results in a positive so-called 'personal value equation' for the consumer, which is defined by the following formula (Tanner & Raymond, 2010, p. 5):

Value = benefits received – [hassle + price]

The factor 'hassle' refers to the time and effort the consumer puts into the shopping process (Tanner & Raymond, 2010, p. 5). 'Price' reflects the amount of money people spend to receive the offering's benefits, which can be a one-time payment, or something more than that. Consumers commonly think of a product's price as only the money they pay for it. However, the concept of 'Total cost of ownership' [TCO] includes the total amount of effort someone has to invest to own, use, and eventually dispose this item. For example, when comparing two sweaters - one that can be hand-washed and one that must be dry-cleaned- the former one might cost less initially at the store, but probably cost more to own in terms of time and hassle to get it clean. A smart consumer takes the whole TCO into consideration. (Tanner & Raymond, 2010, p. 184)

Every person judges the received benefits of a product different, as features matter differently to certain consumers based on individual needs. In addition, each consumer puts a unique amount of time and effort into shopping. Thus the 'personal value equation' varies for each consumer and reflects the individually received value of an offering. Consequently, although the company created the offering, the value is determined by the consumer. (Tanner & Raymond, 2010, p. 5) Therefore, the capability of a company to serve a market is defined by customer value, which in turn is determined by the product offering, and consists of two aspects (Fontana, 2008, p. 8):

1. Qualifying Factors [QF]: These are threshold product features that all organisations must be able to offer if they want to stay in a specific market. (Fontana, 2008, p. 9)
2. Critical Success Factors [CSF]: These include product features that are strongly valued by a consumer group and therefore the organisation must exceed to outperform competition. (Fontana, 2008, p. 9)

Especially in the context of the BoP, one can find many examples of products and services for energy, water, healthcare and durables, which were designed and tested in leading research laboratories across the world, but are not accepted among rural consumers (Rao & Murthy, 2014, p. 4). Also Karamchandani, Kubzansky, & Lalwani (2011) support this view by adding that the confusion of 'need' with 'demand' is a widespread mistake among organisations operating at the BoP. Many companies have wasted a great deal of time and resources trying to sell products that were built for the poor, but that the BoP did not want. (Karamchandani, Kubzansky, & Lalwani, 2011, Gauging demand).

Another common mistake is the confusion of 'needs' and 'latent needs'. Historical purchase decisions, product associations and conventional wisdom have lead BoP consumers to deny or not recognize their latent needs and therefore, to only strive to fulfil immediate, tangible needs. As a consequence, products that would otherwise qualify only as substitute products actually drive demand and use up most customer spending. (Shukla & Bairiganjan, 2011, p. 5) For example, research in rural India showed that when given a choice between beneficial products, like solar-powered lanterns and low-energy stoves, and aspirational products, such as gold coins, 85% of customers went for the latter (Karamchandani, Kubzansky, & Lalwani, 2011, Gauging demand). The following case studies further underline this crucial point, that the value of a product is determined by the consumer and not by the producer:

Rao & Murthy (2014, p. 3) describe as an example the introduction of a newly fuel-efficient cooking stove, which was an eco-friendly and healthier household option for the BoP in India, than the traditional mud stoves powered with wood. However, the project was not as successful as predicted. According to the research of Rao & Murthy (2014, p. 4) the following factors led to the poor outcome of the introduction of the new cooking device: First of all, the prospective consumers had not much interest in saving wood, as there was plenty available in the forest area. Secondly, men had an even lower interest in saving some of the time they usually spend collecting wood, as this was commonly done together with their sons, and therefore perceived as an excellent way to spend time together and, on top of that, learn about nature. The wives further added that the homemade mud stoves warmed up the home during cold days. Thus, although the newly introduced fuel-efficient cooking stoves, had advantages over the traditional one, the additional benefits attached to this practice, as perceived by the users, were not taken into account by the developers. (Rao & Murthy, 2014, p. 4)

A second example and a showcase of how an apparently can't-miss product can flop, is the case of PUR. Procter & Gamble Co. [P&G], in partnership with the Centers for Disease Control and Prevention, developed a chemical treatment - called PUR - that converts contaminated water into safe drinking water. During the development huge effort was put in understanding the target market: Inputs from thousands of low-income consumers were gathered, the homes of potential customers were visited to understand their needs, tests were launched around the world and local health workers were used to spread the word. Meanwhile, the final product seemed perfect for the BoP: One sachet of PUR could purify almost three gallons (around 11 litres) of water and was sold for just 10 cents. Additionally, it was simple to use and shelf-stable, a crucial factor given the distribution challenges in rural areas. (Simanis, 2009, Thirsty work) However, despite investing more than USD 10 million in PUR, P&G eventually had to shift the product to its philanthropic branch, as it struggled to exceed 5% market share (Karamchandani, Kubzansky, & Lalwani, 2011, 2. Paragraph). To its credit, P&G turned this story of commercial failure into one of philanthropic success: Since 2004, the company donated or provided at cost several millions of packets of PUR through its Children's Safe Drinking Water initiative. (Simanis, 2009, Thirsty work)

So why did it all go wrong? Simply put, there was no market. Yes, when asked, rural people told the researchers that they want safe drinking water and are willing to pay for it. However, when the product was ready to be sold and used, the villagers decided, for whatever reasons that it was just not worth the effort. Imagine some of the changes a woman has to pursue to make PUR part of her daily routine: She might have to reassess age-old folk knowledge and home remedies, learn about bacteria, and/or discard long-held beliefs about how safe drinking water looks and tastes like. In addition, the social component has to be considered: The woman might face conflicts with her husband or children when money is spent for PUR instead of the usual can of Coca-Cola. Last, the time spent buying the product might hinder the woman’s weekly chat with friends. To sum up - from a villagers perspective - these discussed disruptive changes outweighed the potential benefits of PUR. (Simanis, 2009, Thirsty work)

Thus, recalling the value equation from above, the hassle and price related to these products were obviously higher than the perceived benefits by the prospective consumers, and thus the formula resulted in a ‘negative’ value. These two examples show clearly that when talking about ‘perceived benefits’, ‘hassles’ and ‘price’, not only the direct features of the product have to be taken into account, but also the lifestyle and its benefits around it. In this context, Rao & Murthy (2014, p. 4) point out that the most common competition for new products in rural markets are ‘non-consumption’ or ‘existing practices’, as one could clearly see in these examples. Indeed, also P&G stated that the real difficulty to master is to make consumers understand the benefit of doing something in a different way. (Simanis, 2009, Thirsty work)

Last, but not least: When marketing to the BoP, organisations should be positive. Instead of telling that the product will decrease hardship, companies should point out how it can make the daily life more enjoyable. The heart-rending stories that move donors are usually not the same ones that persuade prospective consumers. PUR's marketing, for example, could have shown women socializing as they cook together, families enjoying meals or kids having fun buying fruits and making fresh juice out of it. (Simanis, 2009, Act it out)

However, although the consumer determines the value of a product, a company can still influence the individual value equitation. This argument can be illustrated with the following example: Buying bottled water was a foreign idea to most Americans in the 1970s, as it was clearly not part of their lifestyle. It took decades until the majority of the population accepted the notion of paying for something they could get out of a tap for free— thereby creating a big business for bottled water.

(Simanis, 2009, Introduction) According to Simanis (2009) for many people living at the BoP the idea of paying for clean water or sanitation products seems just as bizarre. Organisations facing this challenge need to create, as a first step, a market for their goods and services. The key thereby is to make the idea of paying money for the offerings seem natural, and to induce consumers to integrate the new product into their daily life (Simanis, 2009, Introduction) In this context, however, Karamchandani, Kubzansky, & Lalwani (2011) point out that it is generally challenging to sustain a profitable business when the demand for its products has to be generated, due to the trade-off between investments in marketing and the aim to keep prices as low as possible. Therefore, companies should preferably focus on product categories for which they can serve an existing market with either cheaper products or better quality than the present options. (Karamchandani, Kubzansky, & Lalwani, 2011, Gauging demand)

3.3 Trust, as a major factor in rural emerging markets

Any firm seeking to sell goods and services must as a first step establish trust with the target consumers. The company Coca-Cola can achieve this effortless in the United States [US], as the brand name Coca-Cola is popular, strong and trusted by the people. Additionally, US-Americans automatically accept a new product from Coca-Cola due to the US-government law enforcement, which guarantees product safety as well as prevents both sale and distribution of counterfeits. However, the situation is completely different for an entity with an unknown brand entering a rural market in a developing country: Prospective consumers are not only less aware of many brands, but also have lower innate faith in new ones. Reasons are that these people have less access to information and, moreover, made plenty of experiences with fake or low quality products. (Neuwirth, N.D., p. 20) This much needed trust can be successfully established using different strategies:

Brand: One option is to establish a strong and trusted brand, as when evaluating the purchasing options (see chapter 3.1), people also take a brand's reputation into account, before marking an acquisition (Brookins, N.D.). For example, analysis conducted in India by MART (a rural marketing consulting firm) show that once rural consumers have established confidence, they become resistant to switch to new brand. This behaviour is known as ‘brand stickiness’ and highly contributes to an organisation’s long-term success in a market, as it leads to purchase loyalty. (Neuwirth, N.D., p. 20) An example introduced by Prahalad (2010, p. 45) to illustrate the importance and power of brand trust is the company Bimbo. Bimbo is the largest bakery in Mexico and supplies fresh bread and other baked goods to the BoP. The brand is highly trusted and especially the trucks are seen as symbols of trust between the company and its consumers: Shop owners allow the truck drivers to enter the stores to which they deliver, stock them with bread and take the money out the cashbox without the presence of a supervisor. (Prahalad C. K., 2010, p. 45)

One option for a company entering the BoP market with an unknown brand is to take advantage of the so-called ‘piggybacking’ strategy (Neuwirth, N.D., p. 20). Main concepts about piggybacking have been introduced in 1988 by Terpstra & Yu in the book ‘Piggybacking – A quick road to Internationalization’: “In piggybacking firms join together voluntarily […] to reach some objectives together that they cannot reach efficiently by themselves” (Terpstra & Yu, 1988, p. 2). It involves at least two parties: the carrier and the rider. Broadly speaking, the carrier uses its established distribution network to sell the rider's goods and services along with its own ones. Both parties have their own reasons for engaging in this cooperation: The rider chooses this strategy to take advantage of the carrier's knowledge of the target market and/or the carrier's distribution network already in place. The carrier uses the rider's products to expand its own product range in this market. (Terpstra & Yu, 1988, p. 3) When looking for a trusted brand or established organisation to piggyback on, the rider should take the following points into account (Neuwirth, N.D., p. 21):

- The carrier does not brand a competing or substitutable good or service: For instance, if a company produces shampoo, it should not start a piggybacking relationship with Hindustan Unilever, as this company already sells competing products.
- The carrier's brand image is compatible with the message the rider wants to communicate to its consumer.
- The carrier has a long-term interest, either commercial or social, in the piggyback relationship. (Neuwirth, N.D., p. 21)

In general, there are two main types of piggybacking relationships an organisation can form (Neuwirth, N.D., p. 21):

Commercial Brands: A company can piggyback on a firm that has an established and strong brand in the target area. A leading example of this is Coca-Cola's market entry into India in 1993. Although the brand Coca-Cola is well-known worldwide, the company desired to quickly gain brand equity in the Indian market. To achieve this, Coca-Cola bought local – and popular - beverage brands such as Thums Up, Limca, and Citra. The strategy was successful: Coca-Cola as well as its subsidiary brands are flourishing in India. For a company, which is not in the position to make such a purchase due to limited capital, the next best option is to strive for association with a trusted local brand. One strategy to accomplish this is to place products at trusted retailers: Because of the shortcoming of both education as well as trustworthy information in rural emerging markets, small retailers are trusted brands in themselves. They therefore possess remarkable power in helping consumers decide which products to buy. Moreover, thanks to the proximity of the local shop owners in the local community, they often form close relationships with consumers, which further enhance the influence of the shop owners regarding product recommendation. (Neuwirth, N.D., p. 21)

Local Non-Profit and Individual Brands: In this strategy, organisations gain consumer trust by piggybacking on the trust that consumers have in local non-profit organisations or local residents. ITC limited (Indian company) used this approach to extend its business to rural communities. First, rural farmers were hesitant to trust ITC, as they generally distrust traditional crop purchasing companies due to a long history of mistreatment and corruption. ITC responded to this challenge by appointing in every target village a so-called 'Sanchalak' - a prominent farmer - who was in charge of ITC's local agriculture commerce. In short, the farmers trusted the Sanchalak, because he was one of their community, while by extension, ITC became a trusted brand itself. (Neuwirth, N.D., pp. 22-23) The Indian bank ICICI (Industrial Credit and Investment Corporation) applied a similar piggybacking strategy by engaging Women's Self Help Groups [SHG] to extend its banking business into rural villages. Like in the example above, commercial banks were broadly mistrusted by some rural people due to past experiences with suspicious bank agents. In supporting proactive women in the process of establishing SHGs, which in turn managed group loans, ICICI increased its business by taking advantage of the trust placed by female consumers in the SHG institution. (Neuwirth, N.D., p. 23)

Opinion leaders: Because of both low levels of income as well as low risk appetites, rural BoP customers abstain from taking independent decisions about whether or not to purchase a new products without 'social proof' for it. (Shukla & Bairiganjan, 2011, p. 6) In this context, 'social proof' is defined as „a psychological phenomenon that occurs in ambiguous social conditions where individuals or group of individuals are unable to determine an appropriate rational behavior by themselves. Thus, making the assumption that others (individually or collectively) in similar conditions possess more knowledge and deeming their behavior as appropriate or better informed." (Shukla & Bairiganjan, 2011, p. 6) The typical product diffusion curve illustrates this: The model shows the rate of adoption of a new good or service in a particular region or consumer segment, whereas purchasers of the product can be clustered in five adaptation groups based on how quickly they take up a new product, namely Innovators, Early adopters, Early majority, Late majority and Laggards. Consequently, opinion leaders play an important role in convincing a critical mass to buy the product. (Shukla & Bairiganjan, 2011, p. 6). An opinion leader is defined as "a peer group leader in the sense that this person tends to lead the view and beliefs of a group of people in a reference group" (Shukla & Bairiganjan, 2011, p. 6). Moreover, opinion leaders are seen as people with expertise in a certain area - consumers respect these individuals and often ask for their opinions before making a purchase. On top of that, the purchases of these people often indicate upcoming new trends. Thus, his/her opinion of the latest products is likely to have more power than any other advertisement. (Tanner & Raymond, 2010, p. 94) To sum up, it is crucial for a company to identify these opinion leaders and convince them about the benefits of the new product: Once they are in favour of the product/company, then other people will follow, as they trust the choice and opinion of the leaders.

3.4 Other influencing factors: Learning, reference groups, family & culture

To be able to influence a market, a company has to take into account four more factors, namely the influence of learning, reference groups, family as well as culture.

Learning: Learning describes the process by which individuals change their purchase behaviour after experiencing a product or gaining information. Simply speaking, it is the reason why a person does not purchase a displeasing good or service twice. The factor learning does not only influence the decision what to buy, but also affects individual shopping behaviours: In general, people with limited knowledge about a product, brand or company, attempt to gather more information than experienced consumers. Companies use different strategies to inform people about their offerings: Car dealers arrange test drives, pharmaceutical representors provide free samples to doctors and various companies send small test packages for free with the mail to prospective consumers. (Tanner & Raymond, 2010, p. 88)

Trying out a new product requires a steep learning curve for the BoP, as they are not accustomed to experimenting with different products (Simanis, 2012, high-touch sales and marketing are costly). Thus, organisations should implement a wide-ranging marketing approach to provide the target group with as many reasons as possible to give the company's offerings a try. This accelerates the chances that a person sees something which intrigues him/her enough to make the step of testing the product and thereby discover its benefits. In turn, the positive experience of the hands-on experiment makes people way more likely to integrate the good or service into their shopping behaviours and daily routines. One example of how this marketing approach could look like, is the implementation of a campaign that shows 20 separate things one could do with a kitchen or garden tool. Recalling the case of PUR, the marketing of this product could have followed that approach as well – instead of limiting the pitch to water purification, P&G could have showed how PUR can be used to make delicious soups, rice and curries or even juices by mixing purified water and fresh fruits. (Simanis, 2009, Act it out)

Reference groups: Everyone probably knows a person, who is not wealthy but nevertheless owns an expensive car. This phenomena can be explained with the influence factor 'reference groups'. Broadly speaking, reference groups are circles an individual identifies with and, more importantly, desires to join. Here one example is that the company Nike hires celebrities like Michael Jordan to promote its products. (Tanner & Raymond, 2010, p. 94)

Family: Another influence factor is the consumer's family, whereas many market researchers consider this "to be one of the biggest determiners of buying behaviour" (Tanner & Raymond, 2010, p. 95). Indeed, an individual's consumption pattern is likely to be similar to the one of his/her parents, as an infinite number of goods and services a person buys as well as does not buy are a consequence of what his/her parents do or do not acquire. For example, the soap and toothpaste a child grew up with are products it is likely to prefer as an adult. Organisations are also keen to know which family members have the most influence over which acquisition. Various studies came to the conclusion that children often strongly influence a great deal of household purchases. (Tanner & Raymond, 2010, p. 95)

Culture: The last major influence factor is culture. In general, rural BoP consumer only consider to change their purchasing behaviour when the new product is highly customised. Deep cultural beliefs and previous negative experiences are commonly seen as causes of this phenomena. (Shukla & Bairiganjan, 2011, p. 4). This can be illustrated by having a closer look at the perception of drinking water in rural India. The criteria used to select suitable water sources are sophisticated, as way more concerns than just access, reliability, or convenience are taken into account. As a starting point, the domestic need for water is divided into five categories, namely drinking and cocking, washing and cleaning, bathing as well as sacred and therapeutic use. Therefore, the choice of the right water source is mainly guided by water qualities determined by cultural and traditional considerations. In the case of drinking water four physical attributes are used to assess the quality of the water: It has to be odourless, colourless, sweet and fresh, as these criteria are closely related to local believes of purity, health and hygiene. Freshly drawn water is thus considered as pure and safe to drink, while water collected on the previous day might be used for bathing or washing, or even discarded, as stored water is seen as stale and unhealthy. Last, the factor 'purity' typically possesses two connotations: purity in regard to health and purity for ritual use. Fresh water is usually seen as pure from both perspective, thanks to the marginal handling and exposure to pollution. (Singh, Aström, Hydén, & Wickenberg, 2008, S. 190-191)

4 Understanding distribution channels & its actors

"You can buy a Coca-Cola anywhere in the world, but affordable products that provide essential value like water treatment or lighting often do not reach billions of poor populations around the globe."

- Nicolas Chevrollier (2014)

Every day, people in over 200 countries drink 1.9 billion servings of Coca-Cola. Yet, selling a product people enjoy is by far not the only prerequisite needed to become one of the world's best known and, moreover, most valuable companies – a well-functioning distribution network is equally important.

(Feloni, 2015) Indeed, making sure that every single one of its customers gets the desired product, at the right time and for a reasonable price is one of the company’s priorities. Another major goal of the distribution network of Coca-Cola is to guarantee that all of its clients receive tailored services, irrespective of where this person is - in New York City, Tokyo or an isolated rural area. (Jiménez-Lutter, 2014, p. 2) To achieve that Coca-Cola takes the different needs of its target customers into account. For example, when a refrigerated distribution is required the supply chain varies substantially from where an ambient, or even aseptic delivery is required. Thus, Coca Cola is only able to be so present in various continents, as it adapted the product and the way of delivery to the local needs. (Jiménez-Lutter, 2014, p. 3)

As seen in this example as well as recalling the introduction of the BoP, having an appropriate distribution channel is crucial for doing business successfully at the BoP: “It is all very well to have a fantastic product with a well-recognised brand, clever promotion and a price your customers will pay; if they can’t get a hold of it then your efforts are worthless” (Department of Trade and Econimic Development, N.D., p. 1). In short, businesses are obliged to find a way to serve their customers, wherever they might be located (Linton, N.D., 1. Paragraph). Thus, considerable thought, effort, and investment should be put into creating and maintaining a distribution channel (Mulky, 2013, p. 179).

Yet, companies are prone to fall into the trap of assuming that their task is complete as soon as their goods or services have been moved to the first entity of the distribution chain. However, each member in a distribution network has to fulfil its duty adequately and competent. Thus, a company has to develop the capability to manage all facets of the channel network until the product is available for the consumers in a desirable and satisfactory way. This is not easy for most organisations: Finding the most suitable associates might require substantial expenses, which increases the importance of analysing a potential partners’ distribution capabilities and to put it in comparison with the unique channel requirements of the goods and services delivered. (Shukla & Bairiganjan, 2011, p. 48) Therefore, the next chapter will discuss different structures of distribution channels as well as various benefits and disadvantage when involving intermediaries.

4.1 Channel structure and channel partners

In general, distribution channels are defined as pathways along which goods and services travel from producers to consumers and financial means and information get exchanged. Although some companies deal directly with their consumers, most use a distribution network to deliver products to their target group. (Mulky, 2013, p. 179) Therefore, a distribution channel commonly involves a series of intermediaries, which move the product down the chain to the next unit until it eventually reaches the consumer (Shukla & Bairiganjan, 2011, p. 8).

There are several advantages and disadvantages when using intermediaries. The main benefit of involving intermediaries lies in their superior efficiency in making the company’s output widely available and, even more important, accessible to target markets, as the crucial functions performed by intermediaries are among others information, promotion, negotiation, ordering, financing, and risk taking. (Fontana, 2008, p. 5) This then allows the company to focus more on its core competencies. Depending on what the company negotiates with the intermediaries, the responsibility for establishing sales offices or the cost of add-on services might be passed on to the channel partners. In addition, promotional costs can be shared between the associates. (Department of Trade and Econimic

Development, N.D., p. 1) Indeed, the channel partner's role is not restricted to the physical distribution of products, but also includes the provision of other inputs, which might influence the purchase decision of the target consumers (Shukla & Bairiganjan, 2011, p. 8).

However, the longer the chain between producers and consumer, the less communication between the two and the less control of the company over the contact with the end consumer. Furthermore, engaging intermediaries might increase the price the consumer has to pay for the goods and services delivered. Another major disadvantage is that the company is reliant on the channel partners' enthusiasm and knowledge of the market. (Department of Trade and Econimic Development, N.D., p. 1) Consequently, as the relationship between the company and consumers is controlled by the entities involved in the distribution channel, the right choice of associates is critical (Linton, N.D., 1. Paragraphe). Hitt et al. (Hitt, Dacin, Levitas, Arregle, & Borza, 2000, p. 460) studied the aspects of partner selection in emerging markets. The outcome is a ranking of key criteria, which have to be taken into account when choosing a suitable channel partner: 1. financial assets, 2. complementary capabilities, 3. unique competencies, 4. industry attractiveness, 5. cost of alternatives, 6. market knowledge/access, 7. intangible assets, 8. managerial capabilities, 9. capability for quality, 10. willingness to share expertise, 11. partner's ability to acquire new skills, 12. previous alliance experience, 13. special skills to learn from partner, 14. technical capabilities. (Fontana, 2008, p. 28)

In this context Linton (N.D., 6. Paragraph) states that occasionally the "obvious distribution channel may not be the best choice". Hence to select the right channel partner, it is critical for the company to consider who can offer what in regard to location and reach, skills and resources, management costs and degree of control. (Linton, N.D, 1. Paragraph):

Reach: The channel the company chooses has to be easily accessible for (prospective) customers. If the company sells a products locally, it should team up with a retailer or distributor, who knows the local market and is actively involved in it. If it wants to expand its business, it should preferably side with a partner who is active in this new target market. (Linton, N.D., 2. Paragraph)

Skills: A company seeks to deliver the best possible service to its customers. That is not simple when dealing with consumers via a third-party channel network. If the goal is to sell high-value or complex goods and services, the enterprise needs sales people with excellent knowledge of the product and the know-how to build relationships with customers. (Linton, N.D., 3. Paragraph)

Customers: Using a distribution network does not only support the company with delivering products to its target markets, but it could also open the door to a much larger customer base. Ideally, a company should look for a network already in place that sells complementary products. By offering sales incentives to the channel partner, the initiative may tap into their customer base and therefore increase its sales volume. (Linton, N.D., 4. Paragraph)

Control: The company needs to motivate its allies to give preference to its products and to ensure that the partners operate with the same standards of customer service. One recommendation is to allocate a team to monitor and manage the performance of the distribution network. (Linton, N.D., 5. Paragraph)

There are several indicators, which might be useful to assess a channel networks performance. According to Geldard (2014, p. 6) optimal performance of a distribution channel displays itself in the following points: First of all, the chosen network creates and sustains a 'triple A-rated' distribution chain, which means that goods and services are delivered in an 'Accessible', 'Affordable' and

'Appealing' way to the target market. Furthermore, a high availability of the product should be maintained, while the wastage is minimised. (Geldard, 2014, p. 6)

Another indicator is the channels ability to adapt to changes: Channels permanently change - even if the transformation seems to be very slow. Shifts may be influenced by one or several of the following three drivers (Mulky, 2013, p. 180):

1. Market drivers such as volatility in consumer needs
2. Environment drivers like a competitors' change in strategy
3. Firm drivers such as company size or financial means (Mulky, 2013, p. 180)

Thus, having an implemented built-in feedback mechanisms that secures front-line data fast and accurately, and thereby empowers prompt reaction to changes is crucial (Geldard, 2014, p. 6), as a company can only improve its service, when it has a clear understanding about how the service is currently delivered (Smith, N.D.). This can be summarised by a quote of Dr. H. James Harrington "Measurement is the first step that leads to control and eventually to improvement. If you can't measure something, you can't understand it. If you can't understand it, you can't control it. If you can't control it, you can't improve it" (Smith, N.D., 3. Paragraphe). Indeed, to achieve and maintain a suitable distribution channel, knowledge, which is latent in the system, needs to be captured, analysed and leveraged. Every key aspect of sales activity has to be measured and its impact clearly understood. This can include monitoring of specific campaigns and/or performance measurement. (Geldard, 2014, p. 11) This can in turn lead to competitive advantages of the company by minimising costs and maximising consumer satisfaction. (Ross, 2015, p. 39)

4.2 Indian's unique channel network

The broader context shows, that the structure of a channel is influenced by various factors, such as "the country's economic development, social taboos, ethical standards, local, state and federal, laws, geographic size, population patterns, typology, cultural traits, changing lifestyles, and technical advances" (Fontana, 2008, p. 26). For example, it can be observed that in general distribution networks in developed markets are characterised by organised retail chains and advanced logistic system, significant use of technology, internet and data by channel members, well informed customers, and powerful laws and regulations. In contrast, distribution channels in less developed markets are frequently illustrated by unorganised and small retailers, more levels of intermediaries, less use of technology and data combined with a scantier internet penetration rate, and weak laws and regulations. (Mulky, 2013, p. 180) Furthermore, rural emerging markets impose specific challenges, namely low population density and inadequate (transportation) infrastructure (Neuwirth, N.D., p. 6). (See chapter 4.3 for more information).

Mulky (2013, p. 180) describes the structure of the distribution channels in India "as largely traditional and quite unique" (Mulky, 2013, p. 180). The retail network - a major component of the Indian channel structure - consists of over nine million outlets, including traditional stores, like kirana shops (small neighbourhood stores), and specialised shops for clothing, mobile phones and consumer durables, as well as newer formats such as supermarkets, online stores, beauty parlours, or fitness centres. (Mulky, 2013, p. 180) Traditional shops are spread across urban and rural districts, newer stores, however, are foremost located in urban centres. An average traditional store is very small in regard to shop size, number of employees, and amount of units in stock. However, it commonly offers consumers a number of advantages such as credit or personalised service by the shop owner. (Mulky, 2013, p. 181) (See Figure 4 for examples of traditional outlets)

Having said that, modernisation is picking up in India, as a result of changes in both supply side and demand side factors. Supply side factors relate to vast investments in malls and shopping centres and the market entry of large Indian businesses, especially as grocery and electronics retailers. As demand side factors are seen an enlarged disposable income among consumers, increased appreciation of ambience and air conditioning as well an increased perception of going shopping as a leisure activity. Regarding the food sector it can be said that the pace of modernisation has been very slow: The majority of food purchasing in India still happens at kirana stores and traditional markets. Reasons for this popularity of traditional food stores are the presence of a large rural BoP population, which does not have access to modern outlets as well as cultural barriers, which prevent people with a lower socioeconomic status from shopping in modern stores. Brand image consciousness, store loyalty, desire for variety and individual leisure and entertainment preferences are seen as other influencing factors. (Mulky, 2013, p. 181)

Selling services and goods online, so-called e-retailing format, has become popular in developed markets, especially for products such as durables, phones, and apparel. In India, for a long time, the internet penetration rate was perceived as being too low to support e-retailing, however the rapid increase in the number of smart phone owners allows individuals nowadays to access the internet more easily. This might lead to a growth in e-retailing in India (Mulky, 2013, p. 181).

Figure 3: Pictures of local shops in rural Northern India (Pictures taken by author during field visits)

4.3 Last-mile challenge: Learnings from other projects

As seen in chapter 2.2, individuals at the BoP suffer from the so called ‘Last-mile challenge’, which is primarily caused by isolation—isolation due to poor infrastructure in rural areas as well as the lack of available information. Although the ‘last-mile challenge’ is usually associated with developing countries, also developed countries are dealing with this issue. There, isolation is caused by aging populations in rural districts or people having mobility problems. In both settings, the solution is to reduce the isolation of the affected people. There are several models invented and implemented by entrepreneurs, development agencies and governments to master this challenge with passion – and, above all, patience. (Chevrollier & Schmidt, 2014, The ‘last-mile’ in Europe) The following chapter provides an overview of these used strategies.

Leveraging existing retail channels*:* By making use of existing distribution networks, channels and infrastructure, organisations can establish new routes to their target markets. In the Philippines, for instance, *Hapinoy Stores* improved a network of small neighbourhood convenience stores by creating new business opportunities to sell products such as medicaments, solar products, or financial services through mobile platforms. The owners of the shops, foremost women, were trained in both business administration and personal development to increase the business profitability and, if required, were given access to finance to expand the commerce. (Chevrollier & Schmidt, 2014, Innovative distribution system for underdeserved poplations)

Also the successful market entry of the detergent *Active Wheel,* underlines the effectiveness of this strategy: Unilever used its well-established distribution channels, which already served middle-class consumers, to deliver the detergent to low-income households. As Active Wheel was placed alongside other goods from Unilever in Kirana shops visited by both middle-class and BoP consumers, the revenues from the poorest households only needed to cover incremental costs. As a result of the possibility to reuse existing channels as well as the familiarity of the product type (detergents were not new to the target group), Unilever was able to sell Active Wheel for a 30% lower price than its other detergents. Yet, the opportunities to leverage existing infrastructure are usually limited: Even Unilever had not been able to duplicate the success story of Wheel with *Project Shakti* in rural areas, where the company had no distribution network in place. (Simanis, 2012, Why Low Prices and Margines don't work).

Creating hybrid partnerships: One example for this strategy is the so-called *'Project Last Mile*' invented by the company Coca-Cola. In a TEDTalk given by Melinda Gates in 2010, she presented the idea behind the project by raising a critical question: If Coca-Cola can successfully deliver its products to remote areas (see introduction to chapter 4), why do development organisations and governments struggle to achieve the same thing? (Gates, 2010) This talk was the inspiration for *Project Last Mile*, in which Coca-Cola and Ministries of Health in Africa – the project was first piloted in Tanzania, and then expanded into Ghana and Mozambique - set up public-private partnerships. While it is clear - at least at a first glance - that beverages and medicines are two different types of products, the similarities in the management processes necessary to accomplish an efficient product distribution are obvious: In Tanzania, both products have to get through the same challenging port in Dar es Salaam and are transported on the same roads through rural areas to reach the consumers. Moreover, both initiatives need skilled employees, and require warehouses as well as a system to monitor large stocks. Yet, this project is not about distributing medicines in Coca-Cola trucks, as drugs clearly require a more sensitive handling than bottles, but purely about knowledge sharing: Employees of the two initiatives, who work in a similar function, were paired for training and mentoring. (Cook, 2013)

Hybrid partnerships can also be formed with well-established NGOs or other trusted institutions, as they commonly possess a direct network to the local communities. The success of *Grameenphone* in Bangladesh - the outcome of a hybrid partnership between Grameen Bank and the Norwegian mobile company Telenor - is a showcase of such a win-win cooperation: Female clients of the Grameen Bank received a mobile phone and thereby became mobile public call offices – so-called 'village phones'. This allowed the for-profit organisation Grameenphone to operate in rural areas, which were often neglected by other mobile companies. (Chevrollier & Schmidt, 2014, Innovative distribution system for underdeserved poplations) Cooperating with NGOs or other locally established organisations is commonly seen as an effective way for initiatives to enhance their knowledge about the target market and extend their reach. Yet, despite some successful examples, many companies have abandoned this form of partnership. Mismatches in priorities (social versus business), operational differences (such as different quality standards), and/or the perception that allies are not always transparent about their strategy have been listed as reasons. (Karamchandani, Kubzansky, & Lalwani, 2011, Barriers in search of solutions)

Tapping into village entrepreneur forces. Another strategy to create a reliable distribution channel is to empower local people, preferably leaders and entrepreneurs, to become sale agents. For example, in Guatemala the New Development Solutions Group set up a delivery system to remote villages for health-related goods and services by empowering the local population to help themselves. As the appointed sales agents were trusted members of the community, they were able to bridge cultural differences, point out needs of the community as well as support the product adoption process by spreading awareness about the importance and the health benefits of the products sold. (Chevrollier & Schmidt, 2014, Innovative distribution system for underdeserved poplations)

4.4 All about money? - Needs and Aspirations

A major challenge is to keep channel members motivated, especially when markets are tough and channel partner’s profitability low (Mulky, 2013, p. 180). Thus, offering appealing financial incentives, such as pay-for-performance, is one option to master this challenge, as it may increase the effort put in the process. For example, in government schools in rural Andhra Pradesh (India) the introduction of financial bonuses based on improvements of exam scores led to better test results. However, it is questionable whether the provision of financial rewards is always the most effective method for motivating behaviour, especially when the task generates social benefits rather than a private ones. Indeed, in the case mentioned above pay-for-performance bonuses were successful, yet they were not evaluated against non-financial incentives. (Ashraf, 2013, 1. Paragraph)

In another field experiment in Zambia, Ashraf (2013) thrived to identify the type of reward that evokes the highest motivation for hairdressers to sell condoms to their clients: “Hairdressers who were offered non-financial incentives – in the form of a publicly visible thermometer that displayed a star for each female condom sold, and linked the stars to the social impact of preventing HIV – sold twice as many condoms as hairdressers who were offered financial incentives.” (Ashraf, 2013, 2. Paragraph) (See Figure 5). Moreover, the study found that hairdressers, who were offered - necessarily small - financial bonuses, were not more animated to sell the product than members of a volunteer group, which did not receive any form of incentive. (Ashraf, 2013, 2. Paragraph) Thus, these examples state that money is not the only factor affecting channel member satisfaction and motivation. (Mulky, 2013, p. 180)

Figure 4: Thermometer as non-financial incentive to prevent HIV (Ashraf, 2013)

Another theory expresses the importance and potential of so-called ‘altruistic capital’. Each person has an internal barometer – an individual mix of his/her own sense of justice, morality, purpose and enjoyment – that determines the person’s actions and intrinsic motivation. When this internal barometer is in favour of positively impact the local community, a person possesses the asset ‘altruistic capital'. Therefore, community recognition and public expressions of gratitude are all non-financial incentives that could have an important role to play in motivating partners. (Ashraf, 2013, 3. Paragraph)

In India more research is required about the effectiveness of different types of incentives (Mulky, 2013, p. 180). Yet, there are certain tactics, which an organisation can use to enhance the motivation of its channel partners (MIT Entrepreneurship Review, 2011, The role and management of rural entrepreneurs):

Motivation or spirit instillation: Broadly speaking this means convincing partners to care more about their tasks. As seen above, there are generally two different categories of incentives: economic benefits and social rewards. The first type is easy to understand, but does not necessarily animate all partners. Although, the implementation of social benefits might require more investment by the organisation, it could result in better outcomes. In this regard, one possible strategy is to inform the partners about the following: 1. the issue that the product attempts to address, 2. how the offering addresses the problem, 3. the benefits users of the product experience, and 4. personal reasons for why the partner should contribute to this mission. (MIT Entrepreneurship Review, 2011, The role and management of rural entrepreneurs)

Skills training: This tactic includes teaching partners sales skills and strategies about how to best organise their business (MIT Entrepreneurship Review, 2011, The role and management of rural entrepreneurs). Indeed, the broader context shows that companies should also take into account the softer aspects of channel capabilities, for example through enhancing the skills of both employees as well as managers via training (Mulky, 2013, p. 182).

Training for mind-set creation: Often, rural channel partners have the task to push a mission-motivated product, yet they are usually more focused on the actual sales figures than the underlying issue the product seeks to address (for example solving the drinking water problem). As a consequence, potential clients do not understand why they should purchase the offered good or service, which makes selling the product extremely difficult. Thus, channel partners should not only convince prospective consumers to buy the product, but rather help them to understand the reason behind it and exactly this min-set has to be taught by the company. (MIT Entrepreneurship Review, 2011, The role and management of rural entrepreneurs).

5 Summary: Comprehensive view

Neuwirth proposes a framework, which incorporates all the topics discussed above. The model focuses primarily on the needs of the consumers, and thereby points out three critical activities a company has to manage, namely activating customers, delivering products, and maintaining customers. The first two activities are required to enable clients to buy the company's product offering, while the third one is essential for the consumer to obtain long-term values from the good or service. (Neuwirth, N.D., p. 26) According to Neuwirth (N.D., p. 26) by building a distribution network that executes these activities in a cost-efficient and effective way, a company increase its chances of succeeding in a (new) market. Figure 6 gives an overview of the model:

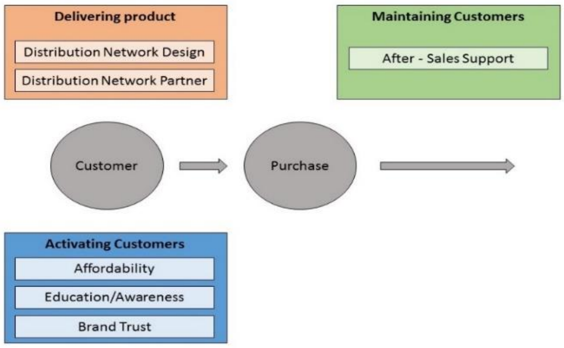


Figure 5: Comprehensive view (Own illustration, based on Neuwirth, N.D., p. 27)

Activating Customers: Before a person at the BoP considers to make a purchase, he/she has to be enabled to do it. Thus, an organisation has to undertake activities that unlock the person's latent desires, which, in turn, leads to demand for the product. There are several strategies an organisation might consider: Companies should first examine how target groups currently perform the behaviour of interest and learn which gaps in knowledge exist. Based on these insights, organisations should design education and awareness campaigns - either on their own or in partnership with local organisations. (Neuwirth, N.D., p. 27) Due to the low and volatile income of consumers in rural emerging markets, companies have to master the 'affordability challenge' that results from the fact that a company has to consider the financial restrictions of the consumers, while simultaneously respect the company's own financial needs when formulating a strategy. Moreover, due to the lack of credible information and the long history of fake and low-quality products offered in rural emerging markets, BoP consumers are hesitant to trust new brands and products. Yet, creating a credible and popular brand is essential for a successful market entry, as once a brand gains trust, it will more than likely retain it due to the brand stickiness of rural consumers. (Neuwirth, N.D., p. 28)

Delivering products: A proper distribution network delivers goods and services in an effective and capital efficient manner. Yet, many initiatives have struggled to master the trade-off between delivering goods and services to the most remote rural areas and operating distribution channels that are affordable for the company. To overcome this challenge companies have to make sure that their distribution network design matches the specific requirements of the product offerings. For example, if an enterprise sells fast moving consumer goods, the products are preferably placed at the village-retailer level. Here one might mimic Coca-Cola's distribution network design and use a 'hub-and-spoke model' in which products get first delivered to a central distribution point and then distributed into villages by independent entrepreneurs, who purchase the products upfront from the company. (Neuwirth, N.D., p. 28) Another recommended strategy is to piggyback on well-established distribution networks, by either partnering with popular corporations to reach the consumers through their networks, or by focusing on business-to-business sales and thus handling over the complete ownership of distribution to a local initiative. (Neuwirth, N.D., p. 29)

Maintaining Customers: After purchasing a product the consumer might need additional assistance from the organisation. Yet, offering a pleasing after-sales service is an often overlooked, but nonetheless critical, task that companies should take into account when designing their distribution strategy. As a matter of fact, when a company is not able to ensure an ongoing enjoyable product experience for its consumers, eventually a drop in sales will occur as customers start to look elsewhere for their next purchase and/or even share their negative impressions with neighbours and friends. (Neuwirth, N.D., p. 29)

Part III – Case study Aqua+

6 Background & Overview

After the theoretical part, the next few chapters will evaluate the existing distribution network for Aqua+ and give recommendations on how to improve it. In the light of the fact that the anticipated sales target for Aqua+ are currently not met, the author conducted in an initial step interviews with key persons of the organisation to gain an understanding of the present business model and distribution network. These first insights were then used as a basis to design the field research, which is described in the second part. After that the main findings will be presented and recommendations discussed.

6.1 The magic of two drops

Already in ancient Greek and Sanskrit (Indian) writings dating back to 2000 BC, is was recommended to purify water by using methods such as heating the water or using sand and gravel filtration. (Enzler, N.D.) Indeed, most of the methods or processes used today to make water safe for drinking can "be historically traced back to ancient versions of them" (Sobsey, 2002, p. 11). The major driver for water purification was better tasting drinking water, as not much was known about micro-organisms or chemical contaminants (Enzler, N.D.). Only in the 1700s, after the invention of the microscope - and thus the new possibility to observe water microorganisms - the first water filters for domestic use were installed. British scientist John Snow claimed that the direct cause of an outbreak of cholera can be water contamination by sewage water and thus the conclusion was finally drawn that good taste and smell alone do not guarantee safe drinking water. He applied chlorine to purify the water – and thereby paved the way for water disinfection. (Enzler, N.D.) Nowadays, several physical methods, like boiling or heating, exposure to Sunlight, UV irradiation with lamps, plain sedimentation, filtration, aeration as well as chemical methods, like ion exchange, chlorination, ozonation among others are used for water treatments (Sobsey, 2002, p. 12).

In India, a common point-of use system in India is the usage of water filters**.** Eureka Forbes, Kent, and TATA are popular companies selling home water filter systems in India. Prices of these systems range from INR 1,500 (USD 25) to INR 15,000 (USD 250), making them out of reach for most low-income households. In addition, most home filters require regular maintenance and membrane/filter changes which makes them even more expensive (Unitus Seed Fund, 2014b, 3. Paragraph).

From a global perspective, a common way is chemical disinfection, which is considered the essential and most direct treatment to inactivate or destroy pathogenic and other microbes in drinking water. (Sobsey, 2002, p. 41). Of the disinfectants, free chlorine is the most commonly used, as at doses of a few mg/l and contact times of 30 minutes, this disinfectant inactivates >99.99% of waterborne bacteria and viruses. For household use, one of the most practical forms of free chlorine are liquid sodium hypochlorite – the disinfectant used for Aqua+. (Sobsey, 2002, p. 44) Due to its features, Aqua+ is advertised with the slogan *"The magic of two drops"* (Gomez, Chaturvedi, & Bountra, 2014, p. 2)

According to Agarwal[5] (2015) TARA*life* positions Aqua+ mainly as a health product, which can enhance the living conditions of a household [HH]. The main advantages are that the products is easy to use and cheaper than other processes to purify water. Moreover, HHs are told that they can save money on medical expenses. Indeed, in previous studies, many users reported less stomach related illnesses as well as a general improvement in health and wellbeing. Last, HHs also stated a decrease of their medical expenses. Both can usually be experienced after using Aqua+ regularly for 10 days. Here it is crucial to know that Aqua+ is a prophylactic product, which means that it cannot be seen as a medicine to cure illnesses caused by contaminated water, but that people should use it to prevent the negative impact of water not safe to drink. Thus, the goal is to convert consumers and non-consumers in regular users, as only then the positive impact of Aqua+ evolves. (Agarwal, 2015)

The consumers pays INR 42 (USD 0.70) for a bottle of Aqua+, whereas - according to the field visits - the Last-Mile distributor [LM] receives a commission of in average INR 10 and the Channel partner [CP] INR 7 per bottle. Yet, the exact number is dependent on the individual distribution model of the partners. One bottle is designed to last for one month for a HH with 5 members. (Gomez, Chaturvedi, & Bountra, 2014, p. 2)

Figure 6: 1. Picture: Aqua+ at a local shop, 2. & 3. Picture: Advertisements for Aqua+ at local shop (Pictures taken by author during field visit)

6.2 Distribution model around Aqua+

TARA*life* is responsible for producing Aqua+ in India and distributing it to the BoP in a sustainable and scalable way. According to Mewar[6] (2015), when TARA*life* started its operations in 2014, it was confronted with three main challenges regarding the distribution network - and is still facing them (Mewar, 2015):

1. Low density of HHs in rural India, thus LM distributors are crucial
2. Product and concept of Aqua+ is new to rural India. Therefore TARA*life* has to educate users and create awareness with the goal to create demand (social marketing)
3. TARA*life* has a restricted amount of resources, especially man power

[5] Rachit Agarwal is the Deputy Manager for Marketing & Sales of TARAlife. The author interviewed him during her stay in India (See Appendix II for interview).
[6] Sanjay Sing Mewar is the Chief General Manager of TARA*life*. The author interviewed him during her stay in India (See Appendix I for interview).

In the light of this context, TARA*life* is dependent on partnerships to deliver Aqua+ to rural India. As an initial approach, TARA*life* seek to build partnerships with commercial channel partners, but experiences from the field showed that these commercial channel partners were not willing to take Aqua+, as they only buy a product up-front, when they can also sell it. In other words, they are only willing to take a product, when there is also demand for that product. As a result, TARA*life* changed its strategy and focused on NGOs, as they are already settled in the villages. Here was the challenge to find a good partner who has the same goals as TARA*life*. (Mewar, 2015)

At present, CPs have to buy Aqua+ up front from TARA*life* – it used to be a package of 5'000 bottles, but the amount got reduced to 2'000, as the former number was too overwhelming for the CPs and thus they were hesitant to do anything. The partners then distribute the bottles through their own network to the consumers. As the CPs are responsible for developing sales strategies suitable for them, every CP adopted a unique distribution model. These models differ for example in number of sub dealers, amount of commission per bottle sold and/ or inclusion of special groups like the youth or women (See Figure 8). TARA*life* provides no rules or guidance for this matter, as one aim is to keep the possibility to have flexible models for every distribution partner. (Mewar, 2015)

Finding the right CP is therefore crucial. Currently, TARA*life* has a base of 10 direct channel partners (NGOs, social enterprises & commercial enterprises) who reach the end consumer through LM distribution channels such as village level entrepreneurs, health workers, mobile traders, etc. (Mewar, 2015) The distribution network is as shown in the figure below:

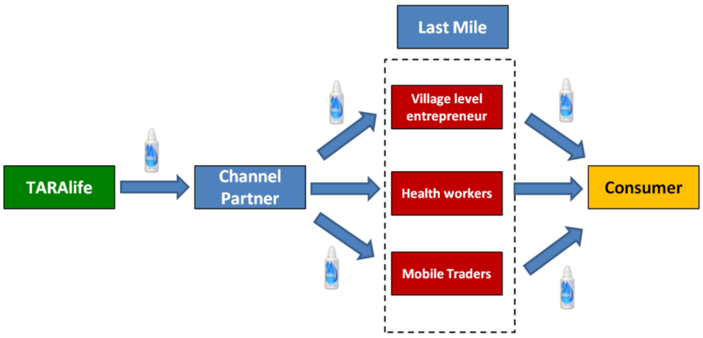


Figure 7: Current distribution model of Aqua+ (Figure created by TARA, see Appendix IV)

When it comes to selecting CPs, TARA*life* has developed a selection process. During this process potential CPs first fill out a questionnaire. In a second step, TARA*life* decides according to different criteria if it wants to engage with this CP or not. However, at the moment, not potential CPs are coming to TARA*life*, but rather TARA*life* is screening and looking for partners. The reason for this is, that Aqua+ is a new product and thus no one is ready to make investments up-front. (Mewar, 2015)

TARA*life* supports CPs and LMs in various ways regarding communication and marketing of Aqua+. First of all, TARA*life* provides stickers, calendars and flyers to the CP. In addition, there are at least two visits of a new CP by TARA*life*. During the first meeting, trainings for LM regarding sales activities and product features are held. Special emphasise is put on hands-on training, like door-to-door pitching or how to organise and conduct a community meeting. Furthermore, trainings for local shop owners are offered. Besides these various trainings, another goal is to find out, which would be the best communication strategy in this specific target area and which other communication channels already exists (for example television or radio) that TARA*life* could use. During the second visit, which is usually a month later, the goal is to keep the LMs and CPs motivated and to discuss challenges they experience. In addition, TARA*life* wants to find out in which villages sales are high respectively low and why, as there are always some LMs who cannot perform in their villages. After this initial support, TARA*life* calls the CPs regularly to find out if the CP experiences any difficulties and which additional support TARA*life* can provide. In this context, it is important to note that a customer's experience depends to a large extent on the value and esteem the LM holds for the product which translates into his/her abilities to convince a customer to buy it as well as his/her regularity of HH visits to make the product available to the customer. (Agarwal, 2015)

6.3 Assessment of current challenges perceived by TARA*life*

TARA*life* put effort into delivering the product to the end consumer, like building up partnerships with CPs, keeping the CPs engaged to increase sales, as well as providing social marketing to increase the awareness level of channel partners, However, TARA*life* has not been able to achieve the target sales volumes for Aqua+. (Mewar, 2015)

The biggest challenge regarding sales is still that the mass of people is not aware about the importance of safe drinking water. Consequently, enough awareness must be created to be able to sell Aqua+. CPs put effort in trying to sell the product, but does not convert into sales as there is a lack of awareness among consumers. Especially the BoP of rural Northern India has a low education level, are less aware than people from South India and do generally not bother about the topic. There is a high level of awareness in cities which get overflooded every year, as the government launched education programs in these areas. However, in rural villages, people are generally not aware about the importance of safe drinking water. (Mewar, 2015) According to Agarwal (2015) the basic challenge to change this lies in communication. In some cases the LM is not motivated or does not know how to communicate and pitch the product and its benefits. In some villages, there are also no other awareness creation related activities for this matter beneath the efforts of the CPs. However, one always needs extra activities to create awareness and attention to achieve sales. (Agarwal, 2015)

In addition, there is a low density of households and usually only 250-1000 HHs per villages. Since one bottle of Aqua+ is enough for a HH of five people for a month, sales persons need to cover a lot of HHs to make enough profit. Thus one proposal is to cluster villages, so that one sales person can cover more possible consumers as one village has not enough sales potential. Also for the CPs enough financial incentives must be given: CPs start the sales, but when there is no adequate response in the field, than they stop it. They usually have other projects too and Aqua+ is only an add-on/ additional income. Trust and willingness to put effort in the sales process are building up, when sales take up, otherwise CPs lose their interest in Aqua+. So far, there is no comprehensive data about how much a CP or LM seeks to earn so that he/she stays interested in the partnership. Another point to take into consideration is that sales of Aqua+ are seasonal, because of changes in weather, especially changes between rainy and dry periods. During winter there is almost no demand for Aqua+, thus in December and January no sales can be achieved and during November and February the volume of sales is very low. (Mewar, 2015)

TARA*life* offers sales training for new CPs and LMs. Also here challenges arise. The CPs have no time for that, as they usually run other projects at the same time. Furthermore, it is very difficult to train all the sales persons at once as they usually come from different municipalities. A complete training goes for 6 days, however, as it depends on the wishes of the CP, it is usually shorter. (Mewar, 2015)

Currently, there is no comprehensive system in place for monitoring sales as well as the activities of the CPs. The reason is that TARA*life* is not in the position to enforce tasks from CPs, as they are partners. TARA*life* is also careful to not disturb CPs with additional work because of the fear that they will drop out. If sales would go up and CPs get more interested in selling Aqua+, this situation could change. Consequently, TARA*life* is asking for regular reports, but cannot force CPs to submit one. Thus, sometimes the CPs provide a report and sometimes not. Moreover, the reports TARA*life* receives commonly contain incorrect figures and numbers. This is not because CPs consciously provide incorrect data, but rather because they do not know exactly how to gather and present it: As soon as they get support from TARA*life*, the quality of the figures enhances. In some areas there are monitoring mechanisms executed by LMs. He/she writes down the name, address and phone number of customers. When it comes to availability of Aqua+, TARA*life* has to go to the CPs and convince them to buy another stock of bottles (push-strategy). The vision is that when sales get better then the CPs will come and ask for it (pull). (Mewar, 2015)

In short, the following key challenges were detected in the current distribution system that are posing as an impediment to achieving adequate sales figures and/or impacting sales of the product on ground:

- Low engagement as well as loyalty levels of partners including lack of interest of CPs in sales training
- Low level of awareness among the rural BoP about the importance of safe drinking water
- Low status of Aqua+ (both among consumers and LMs)
- Non-existence of a comprehensive sales strategy
- Lack of a comprehensive tracking system to track consumers on ground, combined with irregular reporting by CPs

7 Outline of the study

Following these first insights the research objectives and aims were formulated. The study seeks to identify and further evaluate these challenges as well as analyse the causes to get a deeper understanding on what is happening on the ground. This is followed by recommendations of necessary and meaningful adjustments of the existing business strategy in order to achieve a higher market penetration rate. Here it is to notice that the goals and research process were developed together with TARA, in order to be able to provide them with insights needed and to support them in their endeavour.

Insights and information will be gathered through field visits. Thereby, one goal is to give an overview of different distribution models and their implications for the channel management. Special emphasis is put on how to retain customers (on the basis of consumer behaviour and how they make choices) as well as on how to enhance the attractiveness of Aqua+ for channel members (by gaining an understanding of the support they need to sell the product and the value they associate with the product). As seen in chapter 2, a company has to be truly market-orientated to be successful in doing business at the BoP. That is why this study follows a bottom-up approach, basing the recommendation on the consumer needs of the rural BoP, followed by the aspirations of the channel members. To sum up, the study strives to understand the experience of HHs, CPs and LMs and the key triggers/barriers towards buying/selling the product.

7.1 Research process

In line with the aims of the study, the following research process was chosen:

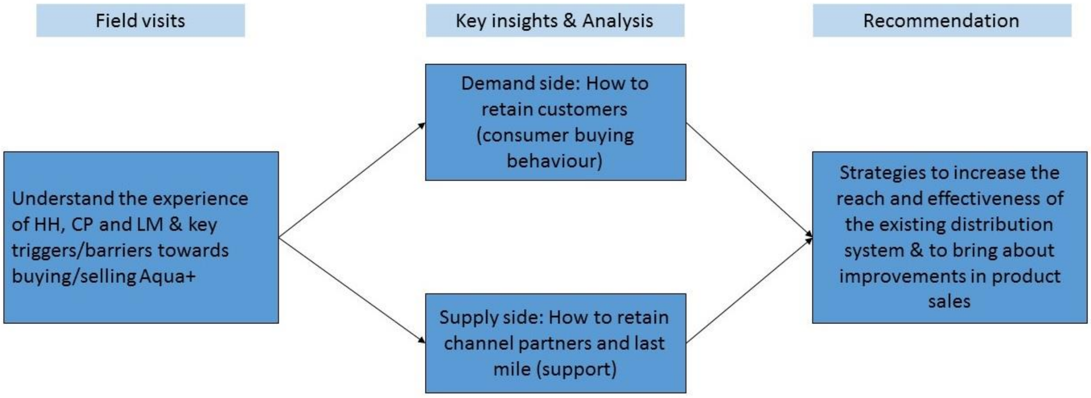


Figure 8: Research process (Own illustration)

The focus lies on three groups of stakeholders:

Households: The group 'households' contains the consumers (bought at least one bottle, still using it), non-consumers (never bought/used the product) and drop-outs (bought the product, usually only one bottle, but stopped using it). The study aims to give a better understanding about a person's usual buying behaviour in regard to (consumer) goods, how they want to be approached, as well as who they trust the most. On the other hand, also group specific issues will be examined:
Consumers: which values do they associate with the product and what do they need to buy it regularly
Non-consumers: which non-values do they associate with the product and what do they need to start buying it
Drop-outs: why did they stop buying it and what needs to be changed so that they start buying it again

Last-mile distributors: Here is the goal to find out how LMs sells the product, to understand his/her motivations and aspirations to sell Aqua+, as well as to find ways to improve the sales process, so that it meets the consumer's needs.

Channel partners: Here the aim is to understand his/her motivations and aspirations to sell Aqua+, to find out how the CP sells the product and find ways to improve the sales process so that it meets the needs of the households as well as the LMs.

The following table summarizes the research objectives, which are divided in demand side objectives (consumer perspective) as well as supply side objectives (LM & CP perspective):

Demand side objectives	**Supply side objectives**
To understand the general buying and spending behaviour	To understand the general selling behaviour of LMs and CPs
To understand who the people trust	To understand aspirations
To identify perceived benefits and drawbacks of Aqua+ in the minds of consumers	To identify perceived motivations and barriers associated with selling Aqua+
To find out how the sales experience for the consumer can be enhanced	To find out how the support system for LMs and CPs can be improved

Table 1: Research objectives (Own illustration)

According to these objectives, the questionnaires were designed for each stakeholder group (see Appendix V).

Once gained an understanding of what is happening on the ground, the following recommendations will be given:

- Recommendations for ways to improve the distribution system so that it meets the consumers and channel members needs
- Recommendations on characteristics that an optimal distribution channel should fulfil
- Recommendations on new channel possibilities

Refer to Appendix IV for the detailed outline of the study.

7.2 Data collection through Field visits

The following two CPs were chosen for the study, as they differ in their business model: Shakti Foundation in Shikohabad, Uttar Pradesh (1st visit) and Kansal Traders in Lucknow, Uttar Pradesh (2nd visit). The following table summarises the samples collected during the field visits:

	Shakti Foundation	**Kansal Traders**
Target area	Shikohabad, UP	Lucknow & Sitapur, UP
Type of CPs	NGO	Commercial partner
Type of LMs	Social workers (door-to-door sellers)	Mainly shop-owners & few door-to-door sellers
Number of interviewed LMs	10	8
Number of interviewed HHs	9 Consumers 15 Non-consumers 11 Drop-outs Total: 35	20 Consumers 0 Non-consumers 8 Drop-outs Total: 28

Table 2: Summary of collected samples (Own illustration)

TARAlife provided support for choosing the CPs, which has then selected LMs as well as consumers and non-consumers in the target villages. The interviews were designed as face-to face meetings for each person separately to prevent influence in answers. The questionnaires were written in English and the interviews were carried out in Hindi by people from TARA. The questionnaires were tested first whether they were understandable and how long it will take to answer them. Also different explanations were introduced and practiced with the interviewer to prevent any possible misunderstanding.

The interviewed CPs are differently organised, as the Shakti Foundation is an NGO and Kansal Traders a for-profit enterprise (see Table 2). The different distribution models had a great influence on the sample collection. Thus, during the first field visit, social workers were visited and during the second shop owners were interviewed. For the first visit, after the separate interviews with the LMs a group discussion followed, in which experiences regarding Aqua+ sales were shared (see Appendix VI and VII for detailed reports of the field visit).

Following are the distribution channels of the two interviewed CPs, according to the results of the field visits:

Shakti Foundation:

Figure 9: Distribution model Shakti Foundation (Own illustration)

The Shakti foundation is a channel partner of TARA*life* for a year. Currently, around 20 social workers are employed by the Shakti Foundation, which serve around 20 villages, wherase, in average a village consists of 100 HHs.

Kansal Traders:

Figure 10: Distribution model Kansal Traders (Own illustration)

Kansal Traders is a CP of TARA*life* since December 2014. Kansal Traders is an Amul franchise and also sells other products in the main shop in Lucknow as well as through a network of small shops in different villages to which he delivers products. Beneath that, packages of the company BSNL (Bharat Sanchar Nigam Limited is an India telecommunications company) are sold in rural areas through door-to-door sellers, who also sell Aqua+. Currently, Kansal Traders delivers Aqua+ to 25 last-mile ditributors (mainly shop owners).

8 Main findings – What is happening on the ground?

The next chapter will discuss the main findings of the field visits separately for the demand side (understanding of consumers and non-consumers) as well as for the supply side (understanding of CPs and LMs) and analyse them in a comprehensive view.

8.1 Consumers and Non-consumers of Aqua+

As seen above it is important to understand the BoP to be able to serve them properly as well as to design a distribution channel suitable for them. Thereby the focus lies on the following topics: characteristics of an average HH and their buying behaviour for (consumer) goods and health and hygiene products, perceived drawbacks and benefits of Aqua+ as well as trust in products and people.

1.1.2 Characteristics of an average household

As the study focus on the demand side and one aim is to better understand the current consumers, an average HH will first be presented. In Shikohabad, the Firozabad slum and rural villages were mainly visited, whereas in the second field visit, the interviewed people lived in the urban area Lucknow itself. Thus, several differences in an average HH can be observed:

	Rural area	Urban areas
Avg. family size	7	4.5
Avg. spending power (per month)	INR 5'800 per HH INR 850 per person	INR 20'200 per HH INR 4'500 per person
Avg. medical expenses of HH (per month)	INR 830 per HH	INR 1'757 per HH
Health problems	Cough, weakness, stomach problems	Cold, fever, stomach problems

Table 3: Characteristics of an average household (Own illustration)

In urban areas an average HH consists of 4.5 members (1 child) and has a monthly family income of around INR 20'000. The HHs have purchased between 1 to 3 bottles so far. However, in rural areas an average HH in the target area consists of 7 members (4 children) and has a monthly family income of INR 6000. However, a huge disparity in income exists as it ranges from INR 1250 to INR 15'000.

Also when asked what they need to buy a new product, the interviewed people had different preferences. In rural areas people answered the most that they like to the possibility to try it out, they want someone who explains the product, that other people in the community also buy it or wish that a sales person visits them. In Lucknow, people preferred that someone explains it to them and want to try it out. Other reasons were that the brand must be known and trusted, an advertisement has to convince or the product has to look nice (See Figure 12).

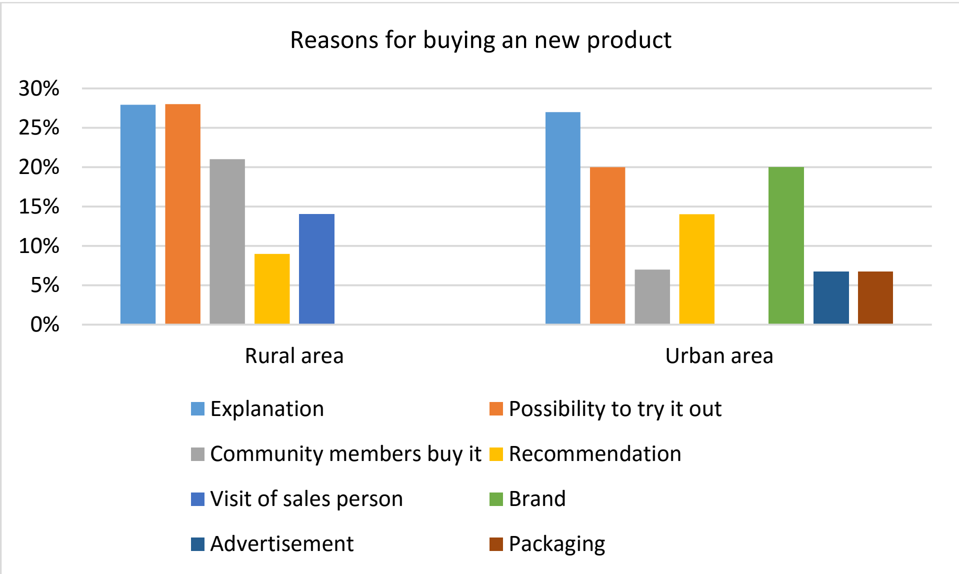


Figure 11: Reasons for buying a new product (Own illustration)

Although the average HHs differ, similarities could be observed: First of all, in general the person, who buys the product, also makes the decision what to buy. Moreover, there is no major difference regarding sex, as the decision making power is distributed equally between the two groups. In addition, in both observed areas the interviewed persons buy their products in a local shop or from the market.

None of the HHs get their products home delivered. They all consider their way of shopping as convenient, as the shop is nearby, the quality of the products is good, they know the owner, and they have the possibility to shop on credit.

When it comes to the actual products that the people buy and the amount of money spent, differences can be observed between the rural areas and the city, as the HH were asked to list items they buy monthly in different categories (INR 50, INR 100, INR 200, INR 500, INR 1’000): In Shikohabad the categories up to INR 200 people mentioned a lot of different products and one person stated that nowadays everything costs up to INR 50. However, for INR 500 and INR 1000 several HHs claimed that they do not know of a product in these categories. Following, the results are summarized:

- INR 50: vegetables for one meal, soap, toothpaste, slippers, hand food for children, sweets
- INR 100: Oil (1 l), wheat (5 kg), shampoo (bottle), artificial jewellery
- INR 200: sugar, rice, wheat (10 kg), cloths, water connection
- INR 500: Saree, cloth for parents, shoes
- INR 1000: gas connection

For the interviewed persons in Lucknow the situation is a bit different. As HH have more income to spend and more shopping opportunities the products that they mentioned were more diverse in all pricing categories.

The questions also covered the basic health & hygiene products usually bought by the HHs. Products in four main categories were mentioned in both target areas, namely soap, shampoo, toothpaste & cream. In regard to the brands Soap No. 1, Vatika, Colgate, and fair & lovely were the common names. Especially in rural areas these brands were unanimously stated by the interviewed persons (for example: people did not say ‘toothpaste’, but ‘Colgate’). In Lucknow, apart from the products listed above other products, like food supplementary or disinfectant as well as more different brands were mentioned. However, the four stated above were still the main ones. Asked about why they buy this specific product the following answers were given (See Figure 12):

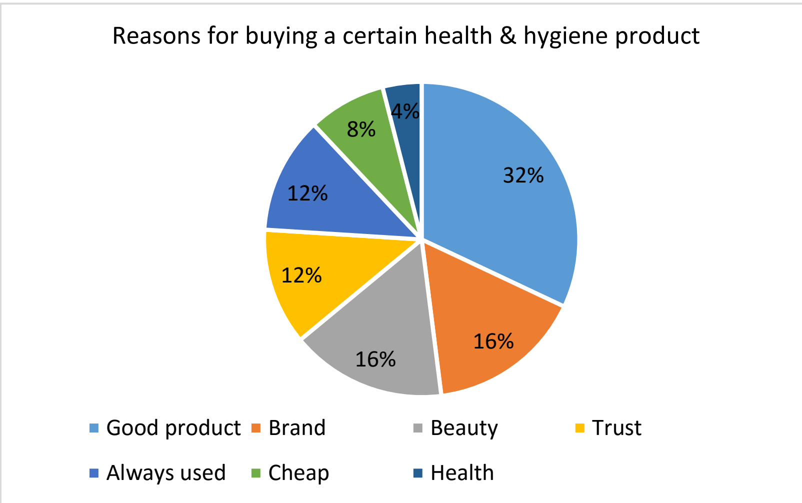


Figure 12: Reasons for buying a certain health & hygiene product (Own illustration)

8.1.2 Perceived benefits and drawbacks of Aqua+

Consumers: In general, over 90% of the consumers are happy with the product, as they experience less gas, less infections and less stomach problems. In addition, they notice a positive change in the taste of the water. The ones who are not happy with the product stated that they do not feel any change at all. The consumers were also asked why they started to buy Aqua+. The following graph presents the results:

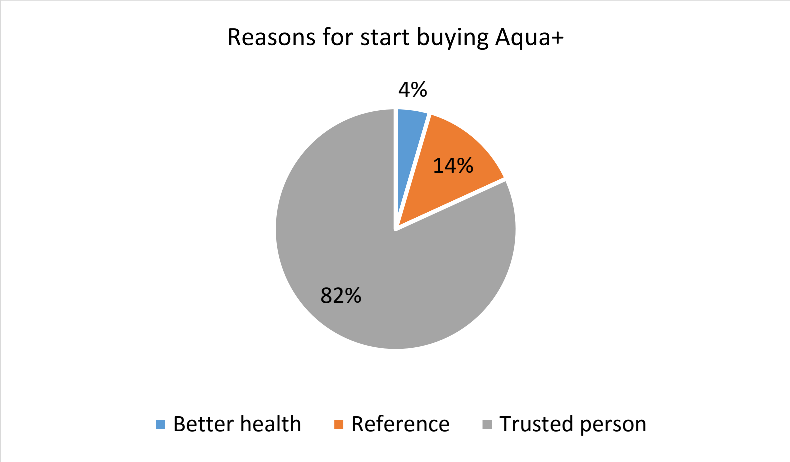


Figure 13: Reasons for start buying Aqua+ (Own illustration)

The results from the field visits show clearly that people started to buy Aqua+ due to a recommendation from a trusted person of the community or a reference of someone they trust. The following to example illustrate how powerful trusted persons are in a community:

- In Lucknow, most of the people started to use the product, because Mohan (Head of Kansal Traders) recommended it. Moreover, some people stated that they only buy and use the product because Mohan 'told them so'.
- A similar result was seen in the village Naraya Nagar (near Shikohabad): The social community worker Sita was seen as the most trustable person and in this village all the interviewed people stated that she is their trusted source of information and that the follow her advices (i.e. buying Aqua+). The next chapter will discuss the topic trust in detail.

Similar results could be observed for what consumers need to buy it regularly: To buy it regularly, consumers in Lucknow need to see Mohan regularly, the product should be available at Mohan's shop and/or they wish to get a reminder. In Shikohabad the needs are to get a regular visit of a sales person (which is not always given) or regular income. Consumer also liked the possibility to order a new bottle by call or text message. This would to a degree solve the shortcoming of some LM not visit the HHs regularly. Here on observation is that one cannot see how much Aqua+ is left in the bottle and when it is time to get a new one.

Non-consumers: Only 3 out of 15 non-consumers believe that they have to treat their water before they drink it. The reason is that the water from the pipeline or well looks fresh and clean. The analogy is that fresh water does not contain bacteria and is thus safe to drink. Consequently, although all of them have heard of Aqua+ before through a sales person, they do not think that they need the product.

Drop-outs: In Shikohabad, all the people who dropped-out stated that they do not like the taste of the water and that especially their children refused to drink the water treated with Aqua+. However, in Lucknow**,** 6 persons stated that they droped-out, as they could not feel any changes in their health, thus they do not see a justification for the product. All of them would like to see a proof that Aqua+ really purifies water. Two drop-outs have installed a filter system at their home and thus, do not need Aqua+ anymore. During travelling the interviewed persons prefer bottled water over using Aqua+.

8.1.3 Trust in people and products

This chapter will further elaborate the observation from above about the importance and predominantly influence of trusted people in the decision-making process.

In rural areas, interviewed people trust the most either persons from their community, like neighbours, social workers and elderly people or family members, such as parents or husband. In regard to health advices they usually ask family members or neighbours first or go to a doctor, who someone from the community recommended to them. In general, people do not trust individuals from 'outside' the community. In Lucknow the majority of the interviewed people stated, that they trust Mohan (CP representative) the most for general advices, followed by doctors and RMPs [Registered Medical Practitioner in India]. In regard to opinions related to health all interviewed people stated that they trust the most a doctor as an educated, experienced and qualified person. The family plays almost no role. Figure 15 summarizes the results:

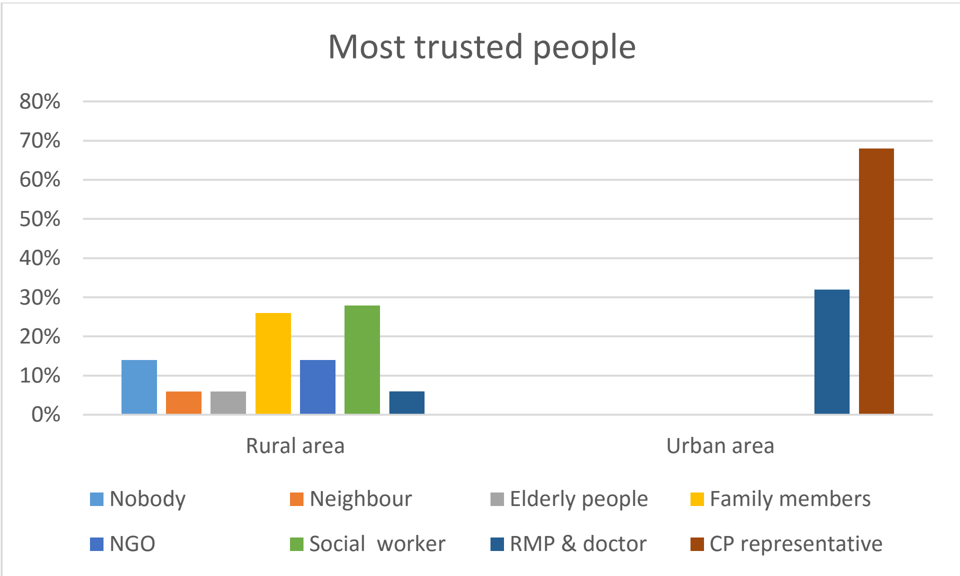


Figure 14: Most trusted individuals (Own illustration)

As seen above people buy a (new) product when they know and trust the brand. Here it is crucial that neither 'Aqua+' nor 'TARA' are known or seen as trusted brands (yet). Thus, Agarwal (2015) stresses the importance of having extra activities to enhance sales. One option is to hold community meetings during which not only awareness is created about the benefits of safe drinking water, but also the names 'Aqua+' and 'TARA' get promoted as strong brands by presenting and explaining what TARA does for rural advancement and what it has achieved so far. This is especially significant for RMPs, as they commonly ask for the company behind the product - when they trust a company, they also trust a (new) product from it. For example, everyone buys TATA salt (although it is more expensive than other salt), but people know and trust the company. Furthermore, the channel partners usually have a strong presence in their target villages and thus people know and trust them. Consequently, TARA can also profit from this already existing trust. Last, Agarwal sees it as important that Aqua+ gets official certificates, which will enhance the level of trust in the product. (Agarwal, 2015)

In addition, people expressed the desire to try out a new product for free, as they build up trust when they experience the benefits for themselves. They consider this hands-on experiences as way more valuable and convincing than when someone just tells them about them.

Figure 15: 1. Picture: Woman working at home, 2. Picture: Water pump in rural area, 3. Picture: Children in Firozabad Slum (Pictures taken by author during field visit)

8.1.4 Summary: Aqua+ in the buying cycle

Figure 17 summarizes the findings of the demand side by putting them in relation to the stages in the consumer's purchase process presented by Tanner & Raymond (2010) (See Chapter 3.1). Note: 'green' marks features, for which Aqua+ is doing good and 'red' indicates challenges, which Aqua+ has to overcome:

Figure 16: Stages in purchase decision of Aqua+ (Own illustration, based on model of Tanner & Raymond, 2010)

Need Recognition: The purchase decision for Aqua+ starts, like every purchase decision, with the recognition of a need. In this case, it would be the want/need to drink safe water and provide it to the family. The study showed that there is a lack of awareness about the importance of safe drinking water, as for example all non-users stated that they do not believe that it is necessary to treat the water before drinking. One challenge is that people in rural India are not aware that water that 'looks clean' and is 'freshly' drawn from the source can be contaminated with bacteria. Another obstacle is to make the 'magic of two drops' visible, as individuals cannot see what Aqua+ does to the water. TARA already recognised this shortage of communication and is currently developing and implementing a comprehensive awareness creation campaign and social marketing campaign.

In addition, people wish to try out Aqua+, however, this is not foreseen in the business model. Yet, a positive experience of the product is likely to create demand.

Search for information: As there is no need recognition for Aqua+ of (prospective) consumers, there is also no active search for information by the target group. Therefore, a potential consumer primarily receives product related information by attending a community meeting organised by TARA*life* or hearing a product pitch of an LM. Here, it could be observed that not all the LMs know the product well and have the ability to present it to the consumers in a convincing and informative way, yet people usually know as much about the product as the LM tells them. On top of that, the names 'Aqua+' and 'TARA' are not well established brands in the target area, which makes it difficult for the consumer to make a decision.

Product Evaluation: It is not entirely clear, which evaluative criteria a consumer uses to evaluate the different options for water treatment. Yet, it can be said that the price, respectively affordability, is seen as an influence factor. The field visits showed that the price of Aqua+ is affordable for people, as no one stated that the HH has to abstain from using another product in order to be able to buy Aqua+. Also Mohan (Head of Kansal Traders) believes that people can afford Aqua+. Regarding the general insights of the buying behaviour of the people living at the BoP it can be concluded, that the criteria Trust, Reference (other people in the community buy it too), Recommendation by a trusted person, Better Health (for people knowing about the importance of safe drinking water), Explanation, Brand, Advertisement, and Packaging are crucial in the context of the buying decision.

Product Choice and Purchase: When it comes to the actual purchase of the product, it has been observed that Aqua+ is easy to purchase at doorstep (door-to-door sellers), or at local shops. The consumers, who get Aqua+ delivered, depend on the regular visit of a sales person/ LM. However, the interviews revealed that this regular visits are not always done.

Post-purchase Use and Evaluation: After purchasing and (ideally) using the product, consumers generally evaluate the experience. Some consumers are happy with Aqua+, as they observe a positive change and improvements in health. Others suffer from the so-called buyer's remorse (drop-outs and unhappy consumers), as they do not feel a change in health or do not like the new taste of the water.

This can be also evaluates with the 'personal evaluation equitation' (Recalling: value= perceived benefits – [hassle + price]). Perceived benefits mentioned by the consumers are less stomach problems and a general improvement of well-being. Having said that, consumers who do not experience this positive change, do not perceive any benefits from using the product (= zero perceived benefits) – their personal equitation will never be positive. The influence of the factor 'hassle' is moderate, as consumers stated that Aqua+ is can be purchased almost effortless. Yet, the process of purifying the water was seen as time consuming, due to the 30 minutes long waiting time, as especially in rural areas people are used to drink water immediately when they are thirsty and, even more importantly, are not accustomed to plan ahead. The factor ‘price’ has nearly no influence here, due to the affordability of the product. In a nutshell the factor ‘received benefits’ decides about whether a person buys Aqua+ or not, as people who do not encounter any improvements will never reach a positive value equitation irrespectively of the level of price or hassle. Here it is to notice that TARA*life* has no comprehensive strategy to avoid buyer’s remorse.

Disposal of Product: As TARAl*ife* does not offer any means to dispose the product, the consumers have to individually deal with the empty bottle.

8.2 Supply side

After the analysis of the demand side, also the supply side will be analysed, as each element of the chain has its own specific needs and stimulus, which have to be take into account (Shukla & Bairiganjan, 2011, p. 8). First, an overview of the two CPs are given, followed by an evaluation of the LMs.

8.2.1 Channel partners: Assessment of current situation and needs

Two current channel partners were interviewed: The first interview was conducted with Mr. Dilip (Founder of Shakti Foundation) and the second one with Mohan Narain Agrawal (Head of Kansal Traders).

Shakti Foundation: The Shakti Foundation was founded in 1992 by Mr Dilip and his wife with the aim to prevent child labour as well as foster child education and women empowerment. As the Shakti Foundation is an NGO, it does not sell anything else besides Aqua+.

In general, Mr. Dilip is not happy with the responses he gets from the LMs, as they face difficulties in selling Aqua+. As a consequence, his motivation to sell it is rather low (2.5 out of 5). To solve this challenge, Mr. Dilip suggested to use more social marketing tools to enhance the sales of Aqua+, like promotion through a vehicle or TV commercials. Besides that, he pointed out, that it is important to motivate the LMs, for example the person who sells the most will get a woollen dress for winters, an appreciation certificate, a trip to Delhi, and/or medical coverage. He wishes more support from TARA*life* regarding the creation of awareness about the importance of safe drinking water.

The CP does not track the LMs, due to of lack of time and resources. He would do it, if he gets resources for tracking from TARA*life*. However, all the LMs track their customers and write name, village and phone number in a book. They would like to get a template to fill out and access to modern technology, to make the tracking easier. Consequently, the main question here is, how this gathered data will reach TARA*life* in an efficient and up-to-date way.

Kansal Traders: Mohan gets a range of information material from TARA*life*, namely flyers, posters, stickers and canopies. He did not attend a sales training for Aqua+, but would like to learn more about the product in order to be able to inform his network better. This is important, as so far he pushed Aqua+ through local shop owners to which he has a good relationship and thus were willing to start selling it. However, he is not satisfied with the responses he gets from his LMs regarding sales of Aqua+, as the sales volume is low. However, he sees a potential in the product and thinks that the sales volume could be immense.

To enhance sales he needs more awareness and marketing for the product as well as LMs, who are dedicated to promote and sell Aqua+. As for him everything is about reaching high volume of sales, it is important to keep LMs engaged. In this context, he believes that a LM should get at least INR 10 as a commission per bottle sold. He is willing to transfer some of his commission to the LMs to enhance their motivation to sell the product. For example, the door-to-door sellers get INR 60 commission for a BSNL package sold compared to only INR 9 for Aqua+. In short, the CP itself is not so interested in the high of margin per bottle sold, as when he can sell a high volume the earnings will be fine. In this context, he asks for other products, which the door-to-door distributor could sell together with Aqua+. He suggests to use other basic goods, like cooking stove, light bulbs or solar lamps, to push this products along with Aqua+. Furthermore, he thinks that it is important to have clear sales targets for the LMs and rewards when the targets are met. As non-financial incentives he suggests pocket diaries or little gifts. However, besides the lack of incentives, he believes that at the moment the LMs do not have the capacity to sell the product effectively as they are not enough trained for it. Until now, he informed LMs about the product and most of them are using it for themselves, so that they can experience the benefits.

He is motivated to push the sales of Aqua+ further, but also requires more support from TARA*life* for example for planning, marketing and awareness, as he has not the capacity to do everything on his own. He believes that TARA*life* should develop strategies and that he is only responsible for implementing them. He also requests support staff from TARA*life*, as it is in his opinion not only the task of TARA*life* to find CPs, but also to support them in their daily business. Finally, he suggests, that TARA*life* should sponsor a person, who calls people in the villages to both inform them about Aqua+ and takes feedback from them (as other companies do it as well). He tracks his LMs by calling them every third day. Here, he wishes access to modern technology and staff for his local office, who conduct the calls and/or a salary to cover his expenses and working time.

His motivation lies by 4.5 out of 5 points and he speaks enthusiastically about the product, has a lot of ideas how to promote it and pushes initiatives to enhance sales. Beneath financial incentives, his aspirations are to serve the community and to improve the quality of life of rural people.

The following table gives summary of the two interviews:

	Shakti Foundation	**Kansal Trader**
Type of partner	NGO	Commercial partner
Satisfaction with sales	Not satisfied with responses (face difficulties)	Not satisfied with responses (low volume of sales)
Sales support	Got information material	Got information material
Sales training	Did attend sales training	Did not attend sales training (would like to)
Understanding of partnership/tasks	NGO perspective: main goal to support villages	Only responsible for delivering the product, TARA*life* should develop strategy and create demand
Motivation (1-5)	2.5	4

Table 4: Overview Channel partners (Own illustration)

8.2.2 Last-mile distributors: Assessment of current situation and needs

Like the opinions of the CPs also the needs of the LMs have to be taken into account. Also here the insights are separated for the two distribution models, as shop owners have different needs as social workers.

Social community workers (employed by Shakti Foundation): In this setting, the LMs are social workers, thus their main tasks are teaching and educating. Therefore, Aqua+ is the only product they sell. Consequently, they sell it in their free time or when they visit the HHs for their usual work. Their aspirations for selling Aqua+ are mainly to support the community, learn new skills, and enhance the quality of life of both the people in the villages as well as their own, by earning some extra money and doing something meaningful. In average, the 10 interviewed LMs are selling Aqua+ for 6 months and sold 54 bottles, but high differences exist, as the range goes from 9 to 130 bottles sold. They usually sell the product to the female person of the HH.

According to the LMs, besides getting some good responses from customers, who said that they are less ill, most of the people are not aware of the importance of safe drinking water and thus do not want to buy the product. In general, people in the villages believe that problems related to the stomach are rather caused by eating something wrong than by the water they drink.

The majority of the social workers attended a sales training and the others had a meeting in the beginning, in which they were informed about the product. All of them receive sales support, like information material and are happy with it. However, new social marketing materials were suggested, like wall painting, short film clip on safe water or community meetings as well as improvements of the existing material, as it should be made more attractive and informative. Precisely, the sticker is seen as being too small and the calendar should be valid for a year and not only three months.

Although all interviewed person like the product, the motivation to sell it lies by 3 points out of a maximum of 5. The reason is that they experience low demand and thus low earnings as a consequence of the lack of awareness of safe drinking water. In addition, their free time is limited and therefore there is lack of time to sell Aqua+. They ask for training, higher margins, free samples for customers to try it out, as well as tools and means to be able to proof the effect of Aqua+, like microscopes to observe bacteria in the water.

Figure 17: 1. and 2. Picture: Social workers support interb^views with HHs in Firozabad Slum, 3. Picture: Social workers gathered in school building for LM-interviews (Pictures taken by author during field visits)

Shop owners (employed by Kansal Trader): Here, Aqua+ is just one product that the LMs sell beneath others (visited 2 grocery stores, 1 beauty store, 2 medical stores, 1 electronic shop & 1 chemist, see Figure 4 for some impressions of rural shops). They started selling the product, because they either trust Mohan or because there is some pressure from Mohan to offer the product in their shop. 50% of the shop owners are satisfied with the answers they get from the consumers, as they state that they feel better or they use it as they cannot afford an Aqua-guard (water filter system). Others are not happy with responses as people claim that they do not feel any effect of the product and will thus not buy it anymore. The majority of the shop owners use the product on their own as well.

None of these LMs attended a training for selling Aqua+. 50% of them would like to attend a training regarding sales process and the benefits of Aqua+. This lack of training can also be seen in the ability of the shop owners to explain the product: 1 has no idea for what the product is for, 3 of them have a very limited knowledge, as they only know that it purifies water, but do not know how to use it, and 4 people have a better understanding of the product and can broadly explain it. However, none of them could fully inform a potential user about the product and its benefits. 50% of the LM state that they get sales support, like flyers or posters, which they hang up in their shops. The ones who get support are also happy with it, because people see the poster when they step in the shop. The other shop owners wish to get information material as well.

Around 50% of the interviewed people like the product. However, the motivation to sell it is very low (in average around 2 out of 5). Suggestions to enhance the support are that TARA*life* should offer trainings, demonstrate the benefits of the product and take action to enhance the awareness of both the importance of safe drinking water as well as Aqua+ itself.

The following table gives a summary of the interviews:

	Social workers	**Local shop owners**
Type of LM	Engaged in teaching and education -> Aqua+ is only product they sell	Grocery stores, Chemists, Beauty shop, Electronic shop
Awareness	All attended sales training & knowledge about safe drinking water and Aqua+ is advanced	None of them attended sales training & knowledge about Aqua+ is very limited
Aspiration	Want to support community and enhance living conditions & earn extra money for family	Started selling the product, because of Mohan (pressure) & want to generate income
Contact to consumer	Visit HHs, know HHs, tell HHs about the importance of drinking water/Aqua+	Do not visit HHs, no awareness creation
Motivation (1-5)	Avg. 3	Avg. 2

Table 5. Overview Last-mile distributors (Own illustration)

8.2.3 Summary: Key Learnings and Take-aways

There are several key learnings and take-aways regarding the supply side of the case studies:

	Shakti Foundation	Kansal Traders
Key learning	Consumers buy the product as they trust the community workers or other powerful individuals of the community (Recommendation of trusted person)	LMs sell and consumers buy Aqua+, because of Mohan, as they trust him or because he uses certain pressure (Recommendation of trusted person)
Positive aspects	• Locally well-established & trusted • LM motivated to support community • Advanced knowledge about Aqua+ of CP and LM • Social workers are trusted persons in community & support community in various ways (use trust for selling) • LM knows consumers of Aqua+	• Mohan is well known, trusted and respected person • Mohan is motivated to push sales forward • Uses his network of established shops to distribute Aqua+ • Shop owners have 'business sense' & experience in sale
Aspects to improve/ Concerns	• NGO-perspective vs Business case • Aqua+ is only add-on & not main focus • Effort vs income (low earning) • LMs sell only to female person • No regular visits of HHs	• Consumers only buy Aqua+, because of Mohan and not as they see value in it • Mohan is frustrated, as does not get the requested support & feels 'to be let on his own', with limited follow-up support from TARA*life*, as he is used to 'franchisee package' • LMs did not attend a sales training & have very limited knowledge about Aqua+ • Shop owners do not know to whom they sell Aqua+ (no overview of consumers)

Table 6: Key learnings and take-aways (Own illustration)

In a nutshell, out of these findings it can be concluded that the features 'motivation to sell Aqua+', 'support community', 'own network', 'business sense & experience in sales', 'trusted enterprise and people' as well as 'knowledge about Aqua+ & consumers' are crucial factors for a successful channel.

Yet, two serious deficits could be observed during the field visits:

1. Door-to-door sellers do not always visit HHs on a regular basis (i.e. once a month)
2. Shop owners do not push Aqua+ (they display it in the store, but do not actively promote it).

These observations share the same underlying cause: LMs are not motivated (enough) to pro-actively sell Aqua+, which imposes a huge challenge on TARA*life*, as the LMs are key actors in the distribution process. Consequently, three main questions have to be discussed: How to motivate LMs? How to strengthen LMs? And how to control LMs?

9 Recommendations – What is needed to improve the distribution channels?

Recalling the discussed theories in this paper, it is clear that the nature of rural BoP markets is challenging: The target consumers are widely spread, infrastructure and roads are poor, HH incomes are low and volatile, and trust is a critical factor in the decision-making process. The recommendations for TARA*life* on how to successfully enhance its market penetration rate in this difficult environment are structured in two different parts: First, recommendations will be given on how to improve the existing channels, as the surveys showed potential for enhanced channel efficiency. As a matter of fact, not only new channel partners may enhance the market penetration rate, but through small changes in the existing ones better sales results can be achieved. The second part will then discuss new possible channel structures that TARA*life* could explore for distributing Aqua+.

9.1 Recommendations for enhanced distribution channels

The recommendations follows the concept by Neuwirth (N.D.) presented in chapter 5, which focuses on the needs of the consumers and thereby discusses the topics activating customers, delivering products, and maintaining customers:

Activating customers:

Education/awareness: In rural areas, people are usually not aware about the importance of safe drinking water and the majority of the people do not believe that purifying water is necessary. TARA*life* has done awareness creation programs for channel members, but not for the communities and thus potential consumers. This will change as TARA*life* is designing and implementing a comprehensive social marketing campaign.

In this regard, new social marketing materials were suggested by the LMs, like wall painting, short film clip on safe water or community meetings as well as improvements of the existing material, as it should be made more attractive and informative. Precisely, the sticker is seen as being too small and the calendar should be valid for a year and not only three months. Having said that, the real challenge is to develop new social marketing tools, which focus on a hand-on way to show the BoP the 'magic of two drops', as people do not 'see' what Aqua+ is doing to the water. For this, not new flyers or posters are needed, as TARA already has strong ones, which are popular among CPs, LMs as well as consumers. According to the interviewed people, way more important are events in which the effect of Aqua+ is demonstrated. It was suggested to use microscopes to provide villagers the opportunity to observe their drinking water, 'see' whats 'in' the water and thus get an understanding of what water actually is. Another method used by one social worker in Shikohabad is the following: When she visits a HH, which is not using means to make water safe to drink, she takes the offered glass of water and puts Aqua+ in it. She then waits for 30 minutes (in this time she does her other work and explains also about Aqua+). After 30 minutes she drinks the water. She found that a highly effective method. This could be shown to other LMs as one possibility for creating awareness in a hands-on way. Last, Water testing melas[7] is one method already used in India by SpringHealth to overcome this visibility challenge (Ammann, Boulloud, & Heierli, 2014, p. 7).

[7] 'Mela' is a Sanskrit word (Indian language) and refers to different kinds of gatherings or fairs. SpringHealth uses 'water testing melas' in India as a tool to convince villagers that their water is not safe to drink. During these meetings, villagers get the opportunity to have their drink water tested for bacteria contamination. SpringHealth

Having said that, LMs are key for the selling process and the awareness creation. However, the LMs of Kansal Trader did not attend sales trainings and have thus very limited knowledge about the product. This needs to be changed, as they can only sell the product when they can also explain it to consumers and highlight the benefits. To strengthen the LM in their key position a ‘communication toolkit’ with various sales strategies could be developed, which the CPs and LMs can implement. As seen above, trust is a very important element. Here, TARA could further engage with SHGs, as these women are well accepted around local communities. Furthermore there are used to educate people and have a sense for doing business. Although TARA is already engaged with SHGs, it is highly recommended to explore possibilities of further partnerships.

Another challenge regarding awareness creation is that the decision making person does not (always) hear the sales pitch. This could mainly be observed in Shikohabad, where the LMs only address the female person of a HH during a visit. In this regard, Agarwal (2015) points out that people from different villages might have different mentalities: In some villages, the society is male dominated and thus men decides what is best for the HH. In others villages, female persons can also make a decision on their own. (Agarwal, 2015) Consequently, the LM should visit a HH at times, when the decision-making person is around. The reason is that when the LM visits a HH at a time when the decision making person is not around (usually away for work), he/she pitches the product to another person. However, as this person cannot make the decision to buy Aqua+, he/she has to ask the decision-making person in the evening and explain the product to him/her. In this setting, HHs usually do not buy Aqua+ as the decision maker did not hear the pitch directly. However, in villages where the LM presents the product to the person, who will actually make the decision about buying the product, sales are higher.

Brand trust: People, especially in rural areas, have a strong connection of products with a brand name. This could be observed during the field visits: Certain products were only known under the brand name such as ‘Colgate’ for toothpaste (see Chapter 8.1.3). ‘Aqua+’ and ‘TARA’ are not known as strong brands (yet). Brand trust can also be build up, when trusted people in the community speak in favour of the product. This could be achieved by motivating trusted people to become brand ambassadors or by giving incentives/ rewards to people, who recommend a new consumer (word of mouth). In this regard it is foremost important that TARA is successful in identifying the opinion leaders and convince them about the various benefits of Aqua+: Once the opinion leaders use the product, a critical mass will follow and thereby further enhancing the trust of the community in the product.

Affordability: As seen above the aspect of affordability is a minor challenge, as people stated that they do not have to abstain from using another product to be able to buy Aqua+. Also the list of the products on which the people spend money, suggest that families can afford it. To illustrate this a new pricing system was tested during the study, namely a coupon system. There the consumers had the chance to buy coupons for Aqua+ for 3, 6 or 9 months in advance and in turn receive a discount on the price. Some consumer indicated interest in this deal, preferring a 3 month package as they are not sure if they have enough disposable income for a higher upfront investment. However, most of the interviewed HHs were not interested, as they have not yet accepted Aqua+. Last, people expressed the

sets up a branded boot, where villagers gather around, bring their water and observe the testing process (2 ml of each water sample is added to a liquid medium in a Petri dish). Thanks to an incubation time of 24 hours at 25-35 degrees, growing bacterial colonies and parasites become clearly visible. The Petri dishes are then personally returned to the households and a staff member explains the negative consequences of drinking water contamination. Finally, villagers are asked if they want to become regular consumers of Spring Health water. (Ammann, Boulloud, & Heierli, 2014, p. 7) desire to try out Aqua+, before they buy it. To sum up, regarding the price no action as required, as it is not possible to lower the commission of the LM and CP.

Summary of key recommendations part 'Activating customers':

- Realisation of hand-on event to demonstrate the effect of Aqua+
- Mandatory sales training for all LMs
- Identification of opinion leaders/key persons of community and market Aqua+ to them
- Establishment of brand recognition and trust

Delivering products

As seen in chapter 8.2 LMs are not motivated enough to actively push Aqua+. As the LM acts as a bridge between the CP and the consumer, TARA*life* should take actions on both sides to animate and strengthen the LMs, namely create demand on the consumer side and increase the support from the channel partner's side:

Consumer side: Simply speaking, there is no awareness and thus no demand and therefore no sales. When LMs cannot sell enough Aqua+ bottles to make satisfactory earnings, they are not motivated to put effort in the sales process.

Channel partner side: CPs should support, motivate and control LMs and help him/her to achieve high levels of sales. Yet, as the CPs are not motivated to take on these tasks, the LMs do not get the needed support.

Recommendations can be given on how to master the second challenge: Currently, TARA offers financial rewards for every bottle sold, however there is no system in place for 'no-sales punishments'. As told in interviews, TARA*life* even takes back expired bottles and replaces them, at no cost, with new ones. Indeed, CPs have no obligation to actually distribute Aqua+ and are free to do whatever they choose to do - or *not* to do. As a recommendation the strategy 'carrot and stick' is suggested. Several 'carrots' are already integrated in the system, yet, 'sticks' could not be detected, as there is no pressure on the CPs or LMs. One suggestion is that TARA creates a Memorandum of Understanding [MoU] in which the tasks and goals of the partnership are clearly defined, so that partners know what they can expect from each other and which tasks they have to perform. If one of the parties do not fulfil its shares, the other one can impose 'sanctions'. On the other hand, also rewards for outstanding performance can be included. This system of clear defined tasks, would also have another advantage: The interviews revealed that the CPs feel 'let on their own', as the support they receive from TARA is considered as minimalistic. Especially Mohan from Kansal Traders (a franchisee of Amul) is used to receive a whole 'business package', with the only task to implement it. Having said that, also NGOs which are not used to think in business terms, find it difficult to develop and implement their own sales strategies. TARA*life* should engage with CPs on a regular basis to inform each other about the progresses of the tasks set by the MoU and thereby further fostering the partnership.

In the broader context, keeping track of the daily business is another recommendation. At present, TARA experiences a lack of both up-to-date data about what is happening on the ground (such as sales activities of CPs, amount of stock at CP level or challenges that LMs encounter in the selling process), as well as about the general impact of the initiative (for example, insights about to what extend Aqua+ enhances the living conditions of the target group or information about if funds are used in an effective and efficient way). One strategy is to introduce a monitoring system, which is able to track every single bottle and the amount of stock, so that TARA is able to react to changes in time, but also measures the impact of Aqua+ and the used resources. In this context Dhawan[8] (2015) points out that in general, effective incentives for LMs are crucial, as they are the key persons, not only for the monitoring system but for the whole distribution channel. One suggestion is that LMs should get a fixed amount of money from TARA*life* when they track the consumers. However, it is important to offer high enough incentives, as otherwise LMs do not think that it is worthwhile to deliver the tasks sked for. In other words, if the monetary incentive is too low it actually has an opposite effect. Besides that, simply paying money is not a sustainable solution and consequently, a system should be found where the LM is motivated intrinsic and not exclusively by monetary incentives. (Dhawan, 2015) Appendix VIII outlines in detail the monitoring system developed by Faustina Gomez and the author during her stay with TARA.

Summary of key recommendations part 'Delivering products':

- Signing of MoU with CP, which includes clear defined tasks as well as rewards for outstanding performance
- Implementation of monitoring system to track the sales on the ground and the impact of the project
- Development of an incentive system that is appealing for shops owners and social workers

Maintaining customers

The study revealed that HHs dropped-out, because there was no regular visit of a sales person. Having said that, if a sales person has to visit a HH regularly the question about the economic viability of Aqua+ sales for LMs arises, as there has to be a balance in margin and effort. The issue here is that when LMs only sell a single product, sales can hardly be economically viable. If a LM can offer several products, the chance that he/she can sell one or more is higher. If Aqua+ would be sold together with strong branded and trusted products, it could benefit from these. Another strategy is to target consumers in clusters within a village, as references from neighbours are important in rural areas: Once a critical mass of a community uses and likes the product, then also late followers will start buying the product. Here it is crucial to identify the opinion leaders in a village and specifically target them.

Another consideration is that TARA*life* might offer the possibility to order a new bottle per call or text message. This is essential in areas where the consumers purely rely on the delivery of a sales person and cannot buy it in a local shop. Thus it may happen that the consumer runs out of Aqua+ and has to wait until the LM visits him again. However, through a closer look at the bottle, it could be observed that it is no possible to figure out exactly how much Aqua+ is left and for how long this will last. One suggestion is to make a mark on the bottle which indicates when a HH has to order a new bottle of Aqua+.

Another point is the fact that there is no strategy for used bottles. As TARA has the goal to implement environmental sustainable solutions and the amount of waste in rural villages is already a problem, there should be a solution for what happens with the empty bottles. Moreover, a strategy to solve this problem could also be used as a method to maintain consumers. Two different models could be considered: the first one is that every time a consumer gives an empty bottle back, he/she gets a

[8] Arjun Dhawan has already implemented a monitoring system for TARA*life*. The author interviewed him during her stay in India (See Appendix II for interview).

discount on the price of the next one. The second approach could be, that the consumers collect the bottles and gets something (financial or non-financial award), when return, for example 6 bottles at once. This would also enhance the pressure on the LM from the side of the consumers as well as give additional incentives to become a regular consumer. It requires some calculations, but there is chance that TARA*life* would not only safe resources by reusing/refilling the bottles, but also costs of production.

Another strategy to mountain consumer would be to implement feedback loop, where consumers could complain when they are not satisfied with the service or product delivered, as a strategy to prevent buyer's remorse.

Summary of key recommendations part 'Maintaining customers':

- Improvements in economic viability of sales
- Development of a strategy for used bottles
- Implementation of feedback loops as an after-sales strategy

9.2 Suggestions of new channel possibilities

TARA has already explored several channel models: hybrid partnerships with commercial partners as well as NGO partners, medical institutions and SHGs organisations. Concluding from the theory as well as the field studies, the following additional channel possibilities can be proposed:

Piggybacking Strategy (see chapters 3.3 & 4.1 for theoretical basis): One new possibility would be to partner with well-known and established brands, like TATA or Unilever. Advantages of this partnership would be that TARA get access to a bigger market by tapping in the partner's consumer base. At the same time, the brand of TARA would get a wider recognition, as it could piggyback on the established brand. Moreover, costs for marketing, awareness campaign and product developments could be shared.

One challenge here is that TARA is only a small company compared to these national wide enterprises. It is crucial that TARA stays independent and that both partners aspire the same outcomes, as otherwise conflicts could appear about the best strategy to follow. As seen in the theory, it is important that TARA*life* enters in a partnership with a company that sells complementary products, so that both can benefit of these partnership. Another down side is that this new channel could lead to less control from TARA*life* over the contact with the BoP consumers and less overview over the service actually delivered. Also the price could go up as there are more actors involved. Last, TARA would be reliant on the enthusiasm and action done by the partner.

The following figure gives an example of how this new channel network could look like:

Figure 18: Piggybacking Strategy (Own illustration)

Table 7 summarises the pros and cons of this model:

Chances	Risks
• Benefit of established brand, visibility and distribution network, therefore more sales • Less effort and expenditure required from TARA*life,* as when establishing own distribution network • Gain market knowledge and expertise of carrier	• Less control regarding how the product is distributed and how the benefits are communicated • Less visibility of the brand TARA, as the carriers brand is in the focus • Difficult to find the right partner • Risk that partner ends partnership • Partner has not the same long-term vision • Without enough awareness there will be no sales

Table 7: Chances and benefits of Piggybacking Strategy (Own illustration)

Dual distribution model: An untapped option so fare is distributing Aqua+ through a mix of door-to-door sellers and local shops. For example, in Shikohabad the users are very dependent on the regular delivery of Aqua+ by social workers. Simply put, they do not have a single option to get hold of the product, when the social worker does not visit them. In addition, people find it convenient to do their grocery shopping at the local shop, so it would be a low hassle for them to buy Aqua+ there as well or could even pick it up while doing other shopping. Having said that, just displaying it at the shop is not enough as people first have to be aware of the product, before they actively go and buy it.

Drawbacks of these methods are that it is already difficult for door-to-door sellers to generate a pleasant level of income – if they have to share the markets will local shops, the already lower earning will further decrease. This could lead to the drop-out of LMs.

Figure 20 gives an overview of the dual distribution system:

Figure 19: Dual distribution system (Own illustration)

In the following table the chances and risks of this new model are summarised:

Chances	Risks
• Competition can also enhance strategy, foster innovation and forces stakeholders to put more effort in it to compete • Consumers can buy product independently and choose which way they prefer •	• Competition and less earnings for the actors involved, and therefore les return for sellers (which is gefährlich in areas with low HH density) • Find enough Partners in the same target area •

Table 8: Chances and Risks Mixed distribution Strategy (Own illustration)

10 Concluding remarks

This thesis contributed in various ways to the important and necessary work of TARA in rural India.

First of all the study provides a good overview about the current situation of TARA*life* and the distribution models used for Aqua+ by taking into account the views of both key partners and critical persons of the organisation. Another contribution is that it gave the consumers as well as the distribution partner a voice to raise their concerns towards TARA*life*. Being aware of the challenges is an important first step to solve and overcome them. The thesis then also outlined some ways forward by using the knowledge gathered during the field visits put into perspective of the concepts discussed in the theoretical part.

However, several limitations have to be acknowledged as well. This thesis is not (yet) an answer on how the perfect distribution network should look like. Yet, it proposes new ideas and gives a fresh perspective on the distribution challenge. As only two partners were visited, opinions of other stakeholders could not find a voice in this study. Also the analysis focuses more on a qualitative perspective, than quantitative and thus not claims to be comprehensive. Furthermore, not all the questions TARA was interested in could be included in the questionnaires, as people loose interest, when the interview is too long. Last, TARA is operating in a fast moving environment, thus upcoming trends and changes have to be detected and constantly included in the framework.

All in all, it became clear that to solve the drinking water problem TARA, and other initiatives, have to constantly move forward and expand their reach. This requires a great deal of patience and motivation, but, hopefully, results in a rewarding outcome.

G References

Agarwal, R. (2015, May 1). Marketing and Distribution channels. (V. Zoller, Interviewer)

Alur, S., & Schoormans, J. P. (2013). Retailers and new product acceptance in India's base of pyramid (BoP) markets. (L. Emerald Group Publishing, Ed.) *International Journal of Retail & Distribution Management, 41*(3), 189-200.

Ammann, A., Boulloud, F., & Heierli, U. (2014, June). *A business approach to access to safe water at the household level: Introduction to the Indian chlorinated water, delivered at home by SpringHealth.* Antenna Technologies. Retrieved April 10, 2015, from http://www.antenna.ch/en/medias/Factsheet-SpringHealth_June-2014.pdf

Ashraf, N. (2013, January 4). *How to motivate India's community workers?* Retrieved May 20, 2015, from Ideas For India: http://www.ideasforindia.in/article.aspx?article_id=89

Banda, B. (2010). *Increase Profitability Through Market Penetration.* Retrieved July 13, 2015, from Banda Marketing Group: bandamarketing.com/pdfs/advisor-2010-summer.pdf

Brookins, M. (N.D.). Types of Consumer Buying Behaviors & Product Decisions. *Hearst Newspapers, LLC - small business*. Retrieved April 10, 2015, from http://smallbusiness.chron.com/types-consumer-buying-behaviors-product-decisions-10273.html

Chand, S. (2015). Consumer Buying Behaviours: 4 Important Types of Consumer Buying Behaviours. *YourArticleLibrary*. Retrieved April 10, 2015, from www.yourarticlelibrary.com/consumers/consumer-buying-behaviours-4-important-types-of-consumer-buying-behaviours/22153/

Chevrollier, N., & Schmidt, S. (2014, February 17). Overcoming The Last Mile Challenge: Distributing Value To Billions. *Forbes*. Retrieved April 2, 2015, from http://www.forbes.com/sites/ashoka/2014/02/17/6459/

Cook, P. (2013, August 5). *The Last Mile Logistics Of Consumer Beverages Ans Medical Supply Chains: An Opportunity For Public-Private Collaboration*. Retrieved July 25, 2015, from Gorgetown University - School of Foreigne Services: https://blog.sfs.georgetown.edu/2013/08/the-last-mile-logistics-of-consumer-beverages-and-medical-supply-chains-an-opportunity-for-public-private-collaboration-submitted-by-peter-cook/

Department of Trade and Econimic Development. (N.D.). *Selecting a Distribution Channel Checklist (Biz Facts).* Adelaide: Government of Soth Australia - Department of Trade and Economic Development. Retrieved June 7, 2015, from http://smallb.in/sites/default/files/knowledge_base/selection_of_a_distribution_channel.pdf

Dhawan, A. (2015, May 26). Discussion of planned monitoring system. (V. Zoller, Interviewer)

D'Monte, D. (2005, October). 2015: 334 million Indians will still lack access to safe water supply. *Infochange India*. Retrieved July 13, 2015, from http://infochangeindia.org/agenda/the-politics-of-water/2015-334-million-indians-will-still-lack-access-to-safe-water-supply.html

Donohue, P. D. (2009). *The Forgotten Man - an early history of the BoP*. Retrieved Octobre 28, 2015, from Brinq: http://www.brinq.com/resources/bop/early-history

Enzler, S. M. (N.D.). *History of water treatment*. Retrieved October 4, 2015, from Lenntech: http://www.lenntech.com/history-water-treatment.htm

Feloni, R. (2015, June 12). 7 brilliant strategies Coca-Cola used to become one of the world's most recognizable brands. *Business Insider*. Retrieved July 5, 2015, from http://www.businessinsider.com/strategies-coca-cola-used-to-become-a-famous-brand-2015-6?IR=T

Fontana, K. V. (2008). Sales Channels for Targeting Base-of-Pyramid Markets in India. *Dissertation of the University of St. Gallen(Dissertation no. 3486)*. Zürich, Schweiz: Druckerei Irchel.

Ganiger, S. (2014, January). Issues and Approaches to Rural Water Crisis in Karnataka: An Evaluation of Jal Nirmal Project. *GJRA - Global Journal for Reserach Analysis, 3*(1), pp. 45-46.

Garette, B., & Karnani, A. (2010). *Challenges in Marketing Socially Useful Goods to the Poor .* Retrieved from http://deepblue.lib.umich.edu/bitstream/handle/2027.42/64347/1135_r10_karnani.pdf?sequence=4

Gates, M. (2010, September). What nonprofits can learn from Coca-Cola. TED. Retrieved November 10, 2015, from http://www.ted.com/talks/melinda_french_gates_what_nonprofits_can_learn_from_coca_cola

Geldard, C. (2014). *Gaining Supply Chain Advantage in Emerging Markets.* Paris, France: Solving Efeso. Retrieved September 28, 2015, from http://solvingefeso-eventos.com.br/painel/arquivos/obtendo-vantagens-no-supply-chain-em-mercados-emergentes-artigo-em-ingles06_06_2014_10_04_05.pdf

Godin, S. (2009, December 23). *First, organize 1,000*. Retrieved July 3, 2015, from Seth's Blog: http://sethgodin.typepad.com/seths_blog/2009/12/first-organize-1000.html

Gomez, F., Chaturvedi, V., & Bountra, S. (2014). *Fact Sheet India - Aqua+ 'Creating a Social Enterprise Delivering Safe Water to the Base of the Pyramid (BoP)'* (Vol. 1st Edition). New Delhi: Cooperation of Swiss Agency for Development and Cooperation (SDC), Urs Heierli (MSD Consulting) and TARA.

Goyal, S., Sergi, B. S., & Kapoor, A. (2014). Understanding the key characteristics of an embedded business model for the base of the pyramid markets. (C. o. Research, Ed.) *Economics & Sociology, 7*(4), 26-40. Retrieved June 12, 2015, from http://www.economics-sociology.eu/files/06_80_Goyal_Sergi_Kapoor.pdf

Hammond, A., Kramer, W., Katz, R., Tran, J., & Walker, C. (2007). *The next 4 Billion - Market Size and Business Strategy at the Base of Pyramid.* Washington: World Resource Institute & International Finance Coperation. Retrieved July 12, 2015, from http://www.wri.org/publication/next-4-billion

Hitt, M., Dacin, T., Levitas, E., Arregle, J.-L., & Borza, A. (2000). Partner Selection in Emerging and Developed Market Contexts: Resource-Based and Organizational Learning Perspectives. *The Academy of Management Journal, Vol. 43*(No. 3), 449-467.

Hutton, G. (2012). *Global costs and benefits of drinking-water supply and sanitation interventions to reach the MDG target and universal coverage.* Geneva: World Health Organisation. Retrieved July 3, 2015, from http://www.who.int/water_sanitation_health/publications/2012/globalcosts.pdf

Jaiswal, A. K. (2007). *Fortune at the Bottom of the Pyramid: An Alternate Perspective.* Ahmedabad: Indian Institute of Management. Retrieved November 10, 2015, from http://www.iimahd.ernet.in/publications/data/2007-07-13Jaiswal.pdf

Jiménez-Lutter, M. (2014). A Local Company. *The Coca-Cola Company*, p. The cover story. Retrieved July 13, 2015, from http://www.managementtoday-magazine.com/images/pdfs/2014/coca-cola.pdf

Jones, S. (2014, March 25). Understanding the Types of Consumer Buying Behavior. *Business2Community*. Retrieved April 10, 2015, from http://www.business2community.com/consumer-marketing/understanding-types-consumer-buying-behavior-0822037

Karamchandani, A., Kubzansky, M., & Lalwani, N. (2011, March). The Globe: Is the Bottom of the Pyramid Really for You? *Harvard Business Review*. Retrieved March 29, 2015, from https://hbr.org/2011/03/the-globe-is-the-bottom-of-the-pyramid-really-for-you

Karnani, A. (2007). *Fortune at the Bottom of the Pyramid: A Mirage - How the private sector can help alleviate poverty.* Michigan: Ross School of Business. Retrieved December 5, 2015, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=914518

Kumar, M., & Muckerjee, R. (2014). Safe drinking water for rural populations in India: An effective service delivery model by Naandi Foundation. *Field Actions Science Reports (Online)* (Special Issue 12). Retrieved October 5, 2015, from http://factsreports.revues.org/3655#toc

Linton, I. (N.D.). Distribution Channel Selection Factors. *Hearst Newspapers, LLC - Small business*. Retrieved July 12, 2015, from http://smallbusiness.chron.com/distribution-channel-selection-factors-13111.html

London, T. (2007). *A Base-of-the-Pyramid Perspective on Poverty Alleviation.* Mitchigan: William Davidson Institute/Stephen M. Ross School of Business at the University of Michigan. Retrieved October 15, 2015, from http://www.erb.umich.edu/News-and-Events/colloquium_papers/BoP_Perspective_on_Poverty_Alleviation__London%20(UNDP).pdf

Mewar, S. S. (2015, March 19). Distribution channels Aqua+. (V. Zoller, Interviewer)

MIT Entrepreneurship Review. (2011, January 2). *Rural Entrepreneurs Go the Last Mile in India's Hinterland*. Retrieved May 20, 2015, from http://miter.mit.edu/articlerural-entrepreneurs-go-last-mile-indias-hinterland/

Mulky, A. (2013, September). Distribution challenges and workable solutions. *IIMB Management Review, Volume 25, Issue 3*, 179–195. Retrieved July 10, 2015, from http://www.sciencedirect.com/science/article/pii/S0970389613000591

Neuwirth, B. (N.D.). *Marketing Channel Strategies in Rural Emerging Markets - Unlocking Business Potential.* Kellogg School of Management at Northwestern University. Retrieved July 12, 2015, from http://www.kellogg.northwestern.edu/~/media/files/research/crti/marketing%20channel%20strategy%20in%20rural%20emerging%20markets%20ben%20neuwirth.ashx

Prahalad, C. K. (2010). *Bottom of the Pyramid: Eradicating Poverty Through Profits - Revised and Updated 5th Anniversary Edition.* New Jersey: Upper Saddle River (United States of America): Pearson Education, Inc. Retrieved June 10, 2015, from http://ptgmedia.pearsoncmg.com/images/9780137009275/samplepages/0137009275.pdf

Prahalad, C., & Hart, S. L. (2002, January 10). The Fortune at the Bottom of the Pyramid. *strategy+business* (Issue 26). Retrieved July 3, 2015, from http://www.strategy-business.com/article/11518?gko=9a4ba

Rajan, S. (2015, March 06). Selling clean water is still a dirty business. *Forbes India (Business & Strategy)*. Retrieved June 10, 2015, from http://forbesindia.com/blog/business-strategy/selling-clean-water-is-still-a-dirty-business/

Rangan, V. K., Chu, M., & Petkoski, D. (2011, June). The Globe: Segmenting the Base of the Pyramid. *Harvard Business Review*. Retrieved Sebtembre 30, 2015, from https://hbr.org/2011/06/the-globe-segmenting-the-base-of-the-pyramid

Rao, S., & Murthy, S. S. (2014, November 6). The Last Mile: Gateway to rural empowerment in India. *Field Actions Science Reports [Online]* (12 - Special Issue: Last Mile Delivery). Retrieved July 3, 2015, from http://factsreports.revues.org/3711

Roosevelt, F. D. (1932, April 7). *128 - Radio Address From Albany, New York: "The 'Forgotten Man' Speech"*. (J. Wolley, & P. Gerhard, Editors) Retrieved June 20, 2015, from The American Presidency Project: http://www.presidency.ucsb.edu/ws/?pid=88408

Ross, D. F. (2015). *Distribution Planning and Control: Managing in the Era of Supply Chain Management* (Third Edition). New York: Springer Science+Business Media.

Shukla, S., & Bairiganjan, S. (2011). *The Base of Pyramid distribution challenge: Evaluating alternative distribution models of energy products for rural Base of Pyramid in India.* Chennai, India: Centre for Development Finance & Institute for Financial and Management Research [IFMR]. Retrieved June 10, 2015, from http://web.mit.edu/idi/idi/India-%20The%20Base%20of%20Pyramid%20distribution%20Challenge-IFMR.pdf

Simanis, E. (2009, October 26). At the Base of the Pyramid: When selling to poor consumers, companies need to begin by doing something basic: They need to create the market. *Wall Street Journal*. Retrieved March 30, 2015, from http://www.wsj.com/articles/SB10001424052970203946904574301802684947732

Simanis, E. (2012, June). Reality Check at the Bottom of the Pyramid. *Harvard Business Review*. Retrieved June 30, 2015, from https://hbr.org/2012/06/reality-check-at-the-bottom-of-the-pyramid

Singh, N., Aström, K., Hydén, H., & Wickenberg, P. (2008, December). Gender and water from a human rights perspective: The role of context in translating international norms into local actions. *Rural Society, 18*(3), pp. 185-193. Retrieved July 10, 2015, from http://www.tandfonline.com/doi/pdf/10.5172/rsj.351.18.3.185

Smith, T. (N.D.). You Can't Improve What you Don't Measure. *Little Things Matter*. Retrieved July 25, 2015, from http://www.littlethingsmatter.com/blog/2010/08/23/you-cant-improve-what-you-dont-measure/

Sobsey, M. (2002). *Managing Water in the Home: Accelerated Health Gains from Improved Water Supply.* Geneva: World Health Organization. Retrieved Octobre 4, 2015, from http://apps.who.int/iris/bitstream/10665/67319/1/WHO_SDE_WSH_02.07.pdf

Tanner, J. F., & Raymond, M. A. (2010). *Principles of Marketing.* Arlington: The Saylor Foundation. Retrieved April 8, 2015, from http://www.saylor.org/site/textbooks/Principles%20of%20Marketing.pdf

Terpstra, V., & Yu, C.-M. (1988). *Piggybacking - A quick Road to Internalization* (Faculty working paper No. 1494 ed.). Illinois: University of Illinios. Retrieved June 20, 2015, from http://www.archive.org/details/piggybackingquic1494terp

UN Committee on Economic, Social and Cultural Rights. (2002, November). General Comment No. 15 on the right to water. *General Comment No. 15 on the right to water*. Retrieved June 10, 2015 from http://www.un.org/waterforlifedecade/human_right_to_water.shtml

United Nations. (2014, May 29). *International Decade for Action 'WATER FOR LIFE' 2005-2015*. Retrieved Octobre 15, 2015, from http://www.un.org/waterforlifedecade/human_right_to_water.shtml

United Nations Secretary-General's Advisory Board on Water and Sanitation. (2013, January). Water and Sanitation for All: Securing our Future, Preserving our Planet - UNSGAB's call for a Post-2015 Global Goal on Water. Retrieved June 3, 2015, from https://sustainabledevelopment.un.org/content/documents/1817UNSGAB_post2015_brief.pdf

Unitus Seed Fund. (2014a, October 3). *Quenching the Thirst of India's Masses*. Retrieved June 20, 2015, from http://usf.vc/updates/quenching-the-thirst-of-indias-masses/

Unitus Seed Fund. (2014b, October 25). *Creative business solutions to India's drinking water problems*. Retrieved June 20, 2015, from http://usf.vc/investor-info/creative-business-solutions-to-indias-drinking-water-problems/

Unitus Seed Fund. (N.D). *Defining "Base of the Economic Pyramid" in India*. Retrieved August 10, 2015, from Resources for Start-ups in India: http://usf.vc/resources/defining-base-of-the-economic-pyramid-in-india/

water.org. (2015). *India*. Retrieved June 19, 2015, from water.org: http://water.org/country/india/

WHO. (2004). *Water, sanitation and hygiene links to health - Facts and figures updated November 2004*. Retrieved July 13, 2015, from Water, Sanitation and Health (WHS): http://www.who.int/water_sanitation_health/facts2004/en/

WHO & UNICEF. (2014). *Progress on Drinking Water and Sanitation – 2014 update.* Geneva: WHO Press. Retrieved September 20, 2015, from http://apps.who.int/iris/bitstream/10665/112727/1/9789241507240_eng.pdf?ua=1

WHO. (2004). *Water Sanitation Health*. Retrieved October 10, 2015, from Costs and benefits of water and sanitation improvements at the global level: http://www.who.int/water_sanitation_health/wsh0404summary/en/

WHO. (2013, April). *Diarrhoeal disease*. Retrieved October 10, 2015, from Fact sheet N°330: http://www.who.int/mediacentre/factsheets/fs330/en/

WHO. (2015). *Water-related diseases*. Retrieved September 30, 2015, from http://www.who.int/water_sanitation_health/diseases/diarrhoea/en/

WHO. (2015a). Burden of disease and cost-effectiveness estimates. Retrieved June 3, 2015, from http://www.who.int/water_sanitation_health/diseases/burden/en/

WHO. (2015b). *Metrics: Disability-Adjusted Life Year (DALY)*. Retrieved April 2, 2015, from Health statistics and information systems: http://www.who.int/healthinfo/global_burden_disease/metrics_daly/en/

WSP. (2011). *Economic Impacts of Inadequate Sanitation in India - Flagship report.* Retrieved from http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/04/19/000356161_20120419021156/Rendered/PDF/681590WSP0Box30UBLIC00WSP0esi0india.pdf

H Appendix

Appendix I: Minutes meeting Sanjay Singh Mewar

Meeting Sanjay Singh Mewar

Chief General Manager, TARAlife Summary - 19/03/2015

TARAlife focuses on four product categories, namely Aqua+ (main product), Water testing Kit & Water testing vials, Air testing Kit, and Soil testing Kit. It is mainly operating in rural areas of India.

TARAlife faced three main challenges when it started its operations:

1) Low density of households in rural India, thus "last-mile" distributors are crucial
2) Product and concept of Aqua+ is new to rural India. Therefore TARAlife has to educate users and create awareness with the goal to create demand (social marketing).
3) TARAlife has a restricted amount of resources

Giving these challenges, the best way for TARAlife to move into the market is through channel partners. In general, the channel partners should be interested in doing business, target the same consumers than TARAlife and be ready to invest some money and resources in the project, as the channel partners have to buy Aqua+ up front from TARAlife (currently a package of 2'000 bottles, in the past 5'000 bottles, but this was too over helming for the partner and they refused to do something).

Finding the right channel partners is therefore crucial. As an initial approach, TARAlife seek to build partnerships with commercial channel partners, but evidences from the field showed that these commercial channel partners were not willing to take Aqua+, as they only buy a product up-front, when they can also sell it. In other words, they are only willing to take a product, when there is also demand for that product. As a result, TARAlife changed its strategy and focused on NGOs, as they are already settled in the villages. Here was the challenge to find a good partner who has the same goals than TARAlife.

Today, TARAlife works with 10 direct channel partners and 4 indirect channel partners (sub dealers). However, the biggest challenge regarding sales is still that the mass of people is not aware about the importance of safe drinking water. Especially the BoP of northern India has a low education level, are less aware than people from south India and do generally not bother about the topic. Consequently, enough awareness must be created to be able to sell Aqua+. Channel partners put effort in trying to sell the product, but do not convert into sales as there is a lack of awareness among consumers and there is a low density of households. In cities where there is a good amount of awareness, there are more sales. There is a high level of awareness in cities which get over flooded every year. There the government launched education programs. TARAlife will soon launch a social marketing campaign for six months to foster growth. In addition, there are usually only 250-1000 household per villages. Since one bottle of Aqua+ is enough for a household of five people for a month, sales persons need to cover a lot of households to make enough profit. Thus one proposal is to cluster villages, so that one sales person can cover that and not for every single city a single sales person. The channel partners start the sales, but when there is no adequate response in the field, than they stop it. They usually have other projects too and Aqua+ is only an add-on and just an additional income. Trust and willingness are building up, when sales take up, otherwise channel partners are not interested in Aqua+.

When it comes to selecting channel partners TARAlife has developed a selection process. During this process potential channel partners first fill out a questionnaire. In a second step, TARAlife decides according to different criteria if it wants to engage with this channel partner or not. However, at the moment, not potential channel partners are coming to TARAlife, but rather TARAlife is screening and looking for partners. The reason for this is again, that Aqua+ is a new product and thus no one is ready to make investments up-front.

When TARAlife found a suitable channel partner, it offers a training for the sales persons. Also here challenges arise. The channel partners have no time for that, as they usually run other projects at the same time. Furthermore, it is very difficult to train all the sales persons at once as they usually come from different cities. The training lasts for 2-6 days, as it depends on the wishes of the channel partner.

Currently, there is no system in place for monitoring the distribution partners and sales. The reason is that at the moment TARAlife is not only not in the position to select channel partners, but also not to enforce tasks from them, as they are partners. Consequently, TARAlife is asking for regular reports, but cannot force channel partners to submit one. Thus, sometimes channel partners provide a report and sometimes not. TARAlife is also careful to not disturb channel partners with addition work because of the fear that channel partners will drop out. If sales would go up and channels partners become more interested in selling Aqua+, this situation could change. Moreover, the reports TARAlife receives usually contain incorrect figures and numbers. This is not because channel partners consciously provide incorrect data, but rather because they do not know exactly how to gather and present it. However, as soon as they get support from TARAlife, the quality of the figures enhances. In some areas there are monitoring mechanisms executed by last mile distributors. He/she writes down the name, address and phone number of customers.

The channel partners need to develop sales strategies suitable for them. As a result, channel partners adopted different distribution models. They differ among others in number of sub dealers, amount of commission per bottle, inclusion of special groups like of youth or women. TARAlife provides no rules or guidance for this matter. TARAlife wants to keep the possibility to have flexible models for every distribution partner. In addition, the whole effort must be profitable for channel partners as well as the “last-mile” distributor. So far, there is no comprehensive data about how much a distribution partner or last mile sales persons seeks to earn so that he/she stays interested in the partnership. Another point to take into consideration is, that sales of Aqua+ are seasonal. During winter there is almost no demand for Aqua+, thus in December and January no sales can be achieved and during November and February the volume of sales is very low. When it comes to availability of Aqua+, TARAlife has to go to the channel partners and convince them to buy another stock of bottles (push-strategy). The vision is that when sales get better than the channel partners will come and ask for it (pull).

The vision of Sanjay for a monitoring system is that one can monitor the daily sales for every channel partner and also see the level of consumer satisfaction. Additional he wishes for reliable figures, so he suggest a system that is process driven and not person driven (as the current system in place). And today there are only periodic surveys. He also suggests to use modern technologies to build this system. According to him the partners have sell phones and at the offices there is internet.

Appendix II: Minutes meeting Rachit Agarwal

Summary Meeting Rachit Agarwal

Deputy Manager - Marketing & Sale, TARAlife 01/05/2015

TARAlife supports channel partners and last-mile distributors in various ways regarding communication and marketing of Aqua+. First of all, TARAlife provides stickers, calendars and flyers to the channel partners. In addition, there are at least two visits of a new channel partner by TARAlife. During the first meeting, trainings for last-mile distributors regarding sales activities and product features are held. Special emphasise is put on hands-on training, like door-to-door pitching or how to organise and conduct a community meeting. Furthermore, trainings for local shop owners are offered. Besides these various trainings, another goal is to find out which would be the best communication strategy in this specific target area and which other communication channels already exists (for example television or radio) that TARAlife could use.

During the second visit, which is usually a month later, the goal is to keep the last-mile distributors and channel partners motivated and to discuss challenges they experience. In addition, TARAlife wants to find out in which villages sales are high respectively low and why, as there are always some last-mile distributors who cannot perform in their villages. After this initial support, TARAlife calls the channel partners regularly to find out if the channel partner experiences any difficulties and which additional support TARAlife can provide.

In general, channel partners give positive feedback regarding the communication material and the trainings. They also ask for additional trainings for newly employed last-mile distributors. However, NGOs handle Aqua+ as a 'normal' project and thus want everything regarding marketing and communication delivered by TARAlife. Indeed, channel partners think that TARAlife should develop the product, conduct marketing as well as create awareness and that the only task of the channel partner is to deliver the product and thus to fulfil the existing demand. Consequently, TARAlife provides every communication tool that a channel partner is asking for, as they know best what they need in their target villages. However, experiences show that channel partners sometimes change their focus away from Aqua+ to other projects and as a result the sales of Aqua+ decrease. The channel partner does not communicate this change to TARAlife and usually state low demand as the reason for the reduction in sales.

TARAlife positions Aqua+ mainly as a health product, which can enhance the living conditions of a household. The main advantage is that other products or processes to purify water are more expensive. Households who uses Aqua+ are encouraged to be proud of using it and to tell their neighbours or visitors that this household offers safe drinking water. Last, households are told that they can save money on medical expenses. Indeed, lots of households report an improvement in health as well as less stomach related illnesses. Both can usually be experienced after using Aqua+ regularly for 10 days. Moreover, households also state a decrease of their medical expenses. Last-mile distributors are told to not sell the bottles on credit, as then the value of the product decreases: When a household tries it out once and is not happy with the product, then it just give the bottle back.

In rural villages, people are usually not aware about the importance of safe drinking water. According to Rachit the basic challenge to change this lies in communication. In some cases the last-mile distributor is not motivated or does not know how to communicate and pitch to the villagers. In some villages, there are also no other activities for this matter. However, one always needs extra activities to achieve sales.

One option for an extra activity to enhance sales is to hold community meetings about the importance of safe drinking water, which is usually done by TARAlife. During a community meeting it is important to show a strong brand, as people and especially RMPs ask for the company behind the product, as when they trust a company, they also trust a (new) product from it. For example, everyone buys TATA salt (although it's more expensive than another ones), but people know and trust the company. As people usually do not know the company name 'TARA', TARAlife tries to create a picture of the company during the meeting by presenting and explaining what TARA does for rural advancement and what it has achieved so far. In addition, TARAlife uses banners and posters to create a brand image. Furthermore, the channel partners usually have a strong presence in their target villages and thus people know and trust them. Consequently, TARA can also profit from this already existing trust. Moreover, Rachit sees it as important that Aqua+ get official certificates, which will enhance the level of trust in the product.

In order to enhance the awareness about the importance of safe drinking water during a community meeting the TARAlife water testing kit is used and people can bring along water samples from their sources to get them tested. If the water is not safe to drink, then it will turn black due to chemical reactions. Black is a suitable colour from a psychological perspective, as it indicates danger. However, the main issue with this method is, that the result becomes only visible after two days and thus no immediate result can be communicated during the community meeting. The problem is that at the moment TARAlife does not have the technology of a rapid testing system. In addition, people forget about the proofed effect as well as to use Aqua+ every day. Consequently, TARAlife recommends that last-mile distributors should visit consumers once a week for at least two months to remind people to use the product and thus to create a long-term impact and behaviour change. The benefit for the last-mile distributor is that when a household forgets about the product or loses interest, then the last-mile distributor also loses sales opportunities.

Another point to have in mind is that people from different villages have different mentalities. In some villages, the society is male dominated and thus male persons make all the decisions for the household. In others villages, female persons can also make a decision on their own. The broader context shows, that sales are higher in villages where female persons have the possibility to make a decision. The reason is that when the last-mile distributor visits a household at a time when the male person (usually husband) is not around (usually away for work), he/she pitches the product to the female person. However, as she cannot make the decision to buy Aqua+ on her own, she has to ask the male person in the evening and explain the product to him. In this setting, households usually do not buy Aqua+ as the decision maker (male person) did not hear the pitch directly. However, in villages where the last-mile distributor presents the product to the person who will actually make the decision about buying the product, sales are higher.

According to Rachit households usually dropped-out, because there was no regular visit of a sales person, as recommended by TARAlife. However, if a sales person has to visit a household regularly the question about the economic viability of Aqua+ sales for the last-mile distributor arises, as there has to be a balance in margin and effort. The issue here is that when last-mile distributors only sell a single product, sales can hardly be economically viable. If a last-mile distributor can offer several products, the chance that he/she can sell one or more is higher. In the former scenario the channel partner should provide a basic salary to the last-mile distributors as they also do other work for the channel partner and Aqua+ is only an add-on. For example, the Shakti Foundation pays its social workers a salary to look after the villages. In order to achieve this the social workers take over several responsibilities and Aqua+ should be seen as one of them.

Another issue is the change in taste that occurs when adding Aqua+ to the water due to the use of chlorine. As people in the villages have always drunk their water directly from the tap or dwell, they are used to this taste. Moreover, when a person puts two drops of Aqua+ in the water, he/she is very conscious about this unusual and new adding. Due to this consciousness, the person always recognises a change in taste. Mostly, the children do not like the taste and refuse to drink the water. However, Rachit believes that people should get educated about the new taste of water as something ‘normal’.

TARAlife faces the issue of limited resources to carry out the work for awareness creation and community meetings. The main limitation does not regard finance, but rather workforce, as the team of TARAlife consists only of three people, who do all the marketing and communication activities in the villages. Thus, TARAlife is very limited in its ability to create demand. Consequently, it needs a team for marketing and communication which goes to the villages.

Beneath this marketing and sales activities to promote demand, it is also important to track and monitor the resulting sales. From a TARAlife perspective, this system should be able to provide information about sales trends and the possibility to forecast sales volumes, as TARAlife has to report these figures. Furthermore, TARAlife is interested in knowing how many regular consumers are in a village and how many new consumers were acquired per month, as with these numbers it is possible to calculate how many bottles of Aqua+ a channel partner needs per month and thus TARAlife has to deliver. In addition, TARAlife gets an overview when a channel partner will be out of stock and therefore will be able to provide new bottles on time. It happened before that a channel partner was out of stock as it can take up to 15 days until the new bottles reach. The problem is that in times of no stock, last-mile distributors get demotivated and consumers drop-out. Therefore this is a situation which should be avoided. So far there was no problem to track the flow of finance, as the bottles are bought upfront and not sold on credit.

On a more concrete level a monitoring system should provide answers to the following questions: How many bottles did a last-mile distributor sell in a certain village? Who is the best performing sales person? In which village is the sales volume the highest? Beneath this information regarding sales, Rachit is also interested in general information about the villages and how they change. In addition, he would like to track first movers in every villages, as in community meetings he invites these people to share their experiences regarding Aqua+ with the community. Thus, other people from the village can build up trust in the product and get convinced to use it too.

Appendix III: Minutes meeting Arjun Dhawan

Meeting Arjun Dhawan

Deputy Manager, Energy Services 26/05/2015

Discussion of planned monitoring system

The basic structure and idea of the new monitoring system was discussed and feedback collected. The main conclusion is that the basic structure with a central system is suitable for the current setting. However, the system should be designed as simple as possible.

In addition, the system should be designed in a way that last-mile distributors need to submit the collected data only once a week and not every day, as Arjun believes that it will not be possible to motivate them for the former one. In general, effective incentives for last-mile persons are crucial, as they are the key persons, not only for the monitoring system but for the whole distribution channel. One suggestion is that last-mile distributors should get a fixed amount of money (INR 10?) from TARAlife for every set of data uploaded. However, it is important to offer high enough incentives, as otherwise the last-mile distributor does not think that he/she needs the money and thus does not do the required actions. In other words, if the monetary incentive is too low it actually has an opposite effect. Besides that, simply paying money is not a sustainable solution and consequently, a system should be found where the last-mile distributor is motivated intrinsic and not exclusively by monetary incentives.

Similarly, the motivation of the channel partner is important. Here a suggestion for an incentive to enhance sales is to give a certain discount on the next order of Aqua+ bottles for every new customer registered. This would at the same time also motivate him to push last-mile distributors and continue to sell Aqua+ (long-term partnership).

Finally, the system should have several checkpoints to ensure the validity of data and to prevent the entrance of wrong data, for example the server should check automatically if the phone number is registered, if the person is allowed to do this action, and if it is a valid customer, among others.

Discussion of possible technologies to use

Arjun then shares his experiences and knowledge of different technology models, mainly for data transmission. Currently, two main issues need to be considered: 1) in rural areas internet connectivity is poor and mostly unreliable, and 2) last-mile distributors in rural area usually only possess a normal sell phone and not a smart phone. This means that a smart phone based solution would have high costs for TARAlife as they would need to buy/ provide a smart phone for every last-mile person. The first two models presented below are suitable for the last-mile person and the last one for channel partners, as they may have a smart phone.

Missed call system

In this system the last-mile collects the data first in his/her book, which is designed and provided by TARAlife (as also suggested in the planned system). But instead of transmitting it per local computer (as in the planned system), he/she gives a missed call to the central system (specific number). The central system automatically calls this number back and asks the questions. The last-mile person can response by pressing/ typing in the right number on his phone (for example: to select answer possibility C, he /she presses button 3 on the phone). This system is very quick, but only works if the questions have already given answer possibilities and when there are not too many questions. He suggests a maximum of five. The central system will automatically convert the transmitted information in the form needed.

Text-message based system

Also here the last-mile person first collects the data in his/her book. Then he/ she submits the data by typing a text message and sending it to the central system, which then converts the transmitted data in the form needed.

Example:

Question A: xyz

Answer possibilities: 1, 2, 3, 4, 5, 6 -> select answer possibility 2

Question B: abc

Answer possibilities: 1, 2, 3, 4, 5, 6 -> select answer possibility 6

Question B: mnq

Answer possibilities: 1, 2, 3, 4, 5, 6 -> select answer possibility 4

- ➔ The resulting text message would be A02B06C04.

The problem with this solution is, that the possibility to type in something wrong is high and the system works best if there are answers to choose from, like in the system above. In addition, it would require a paper, where the last-mile person can look up the corresponding numbers to the selected questions and the format on how to submit the data (could be included in the book). Furthermore, TARAlife would have to pay for the SMS packages upfront.

As the possibility to make mistakes is high, it would be better to use the TARAurja App to type in the answers.

TARAurja App (currently in use)

This App is already developed, currently in use and can be downloaded from the Google play store on an Android smartphone. The benefit of this App is, that the user interface works/ looks like a questionnaire and it is very easy to select the desired answer possibility (drop down menus). Thus, there is less probability that wrong data is submitted as in the system above. Another plus is that the App then converts the entered data in a text message format and also submits it as a text message. Consequently, the problem of poor internet connectivity is solved. The central system then converts the data into the format needed. The issue with this method is that it requires an Android smart phone and consequently it would be a solution for the channel partners, but not for the last-mile distributors.

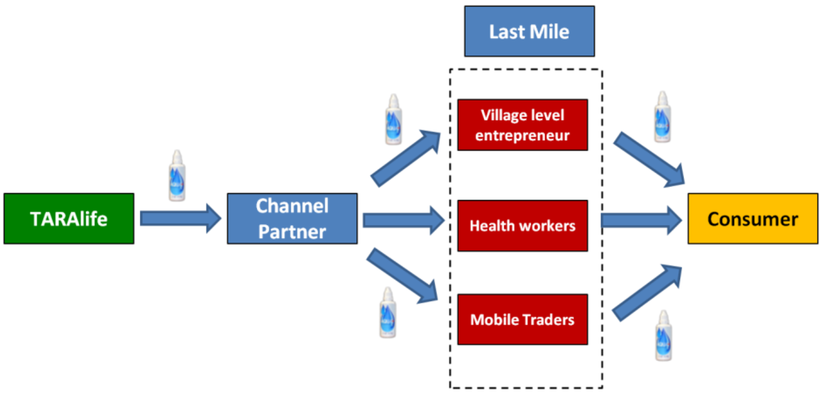
Appendix IV: Project Summary

Project summary – Market penetration of safe water at the BoP in India

1. Background

"It is estimated that around 37.7 million Indians are affected by water borne diseases annually. A good part of this population constitutes the productive workforce. About 73 million working days are lost due to water borne diseases each year and 1.5 million children are estimated to die of diarrhea alone" (Gomez, Chaturvedi, & Bountra, 2014, p. 1).

In view of the severe drinking water situation in India, in 2010 TARA partnered with Antenna Technologies, Switzerland, with the goal to supply safe drinking water through an enterprise model. The partnership began shortly after a joint workshop by Antenna Technologies providing TARA with the WATA Technology used to produce liquid chlorine. TARA carried out a market study to get an understanding of the consumer needs for safe drinking water, their behaviours and willingness to pay for this good, as well as their spending related to health. Using the insights of the study as a base, TARA developed a prototype product - a 50 ml bottle of Sodium Hypochlorite Solution (Liquid Chlorine), two drops of which could purify one litre of water, and named it Aqua+. (Gomez, Chaturvedi, & Bountra, 2014, p. 2) A pilot was carried out to test the product and possible distribution channels on the ground. As a consequence of the successful pilot, TARA established the for-profit company TARA*life* Sustainability Solutions Pvt. Ltd [TARA*life*]. Since its inception in 2014, TARA*life* is responsible for putting in place a distribution network required to take Aqua+ to scale in rural areas. (Gomez, Chaturvedi, & Bountra, 2014, p. 23). The distribution network is as shown in the figure below:



2. Problem Statement

A review of the first year of operations has shown that TARA*life* has not been able to achieve the target sales volumes for Aqua+. An interview with the key people in the organization has revealed that a lot of effort has gone into delivering the product to the end consumer. This includes:

- Building up partnerships with channel partners
- Keeping the channel partners engaged to increase sales,
- Social marketing to increase the awareness level of channel partners,
- Monitoring and tracking of sales

However, there are several challenges that exist in the current distribution system that are posing as an impediment to achieving adequate sales figures (or) impacting sales of the product on ground. These include, among others:

- Low engagement levels of partners including lack of interest of channel partners in sales training (resulting in delays in the initiation of sales),
- Non-existence of a comprehensive sales strategy,
- Lack of a comprehensive tracking system to track consumers on ground,
- Irregular reporting by channel partners,
- Low status of Aqua+ (both among consumers and the last mile distributors)

To address this challenge, the need of the hour is to convert the existing distribution system into one that delivers volumes as well as suggest new ones that can cater to this need. In order to do this it is important to take into account both the knowledge, attitude and practices of the consumers and the specific needs, preferences and motivations of the channel partners and the last mile. This system should put in place the necessary hooks to keep the various stakeholders in the value chain engaged over the long term resulting in achievement of sales volumes. In this context, it is important to note that a customer's experience to a large extent depends in the value/esteem the last-mile distributor holds for the product which translates into his/her abilities to convince a customer to buy it as well as his/her regularity of household visits to make the product available to the customer.

3. About the Project – 'Market penetration of safe water at the BoP'

The project '*Market penetration of safe water at the BoP' has been taken up as a topic by Ms. Viola Zoller of University of St. Gallen, Switzerland towards completion of her Master thesis in the area of International Affairs and Governance.*

The project apart from aiding Ms. Zoller in her Masters thesis aims to support TARA in designing a distribution system described in the conclusion of Section 2. In doing so, the project will help TARA recommend strategies to increase the reach and effectiveness of the existing Aqua+ distribution system and bring about improvements in product sales.

4. Research objectives

The research objectives can be divided in demand side objectives (consumer perspective) as well as supply side objectives (last-mile distributor and channel partner perspective):

Demand side objectives	**Supply side objectives**
To understand the general buying and spending behaviour	To understand the general selling behaviour of last-mile distributors and channel partners
To understand who the people in the villages trust	To understand aspirations
To identify perceived benefits and drawbacks of Aqua+ in the minds of consumers	To identify perceived motivations and barriers associated with selling Aqua+
To find out how the sales experience for the consumer can be enhanced	To find out how the support system for last-mile distributors and channel partners can be improved

5. Key Deliverables

In line with the objectives described above, they study aims to give:

- Recommendations for ways to improve the distribution system so that it meets the consumers and channel members needs
- Recommendations on how to retain customers and enhance sales (on the basis of consumer behaviour and how they make choices)
- Recommendations for ways to enhance the attractiveness of Aqua+ for the consumers and channel members (by gaining an understanding on the support they need to sell the product as well as the value they associate to the product)
- Recommendations for a new systems to encourage repeat sales and integrate feedback into the system

6. Approach

The project will follow a bottom up approach wherein the recommendations for the distribution system will be largely driven by consumer needs followed by distribution channel (channel partner and last mile) aspirations. To understand the needs and the situation of the consumers the focus lies on trust & consumer buying behaviour. For evaluating the existing distribution system research will be done in the following four areas selling behaviour, support, aspiration and trust, and health.

7. Research Methodology

The research methodology for the project is as given below:

a) **Tools & Techniques-Sampling & Data Collection:** For the study, purposive sampling will be done wherein the demand as well as the supply side will be divided into subgroups. For the former the subgroups include consumers, and non-consumers & drop-outs and for the latter they include channel partners and last-mile distributors. For each of these five groups, respondents will be selected and a questionnaire will be administered to each.
b) **Data Collection:** For this study, data will be gathered through in-depth interviews. The goal is to interview a total of 70 consumers/ non-consumers/ drop-outs, 20 last-mile distributors and 2 channel partners. TARA*life* will provide support for choosing channel partners and last-mile distributors. As mentioned before, random sampling will be used to select households in the target area.
c) **Analysis & Reporting:** The analysis of the collected data will be done separately for the demand and supply side. Data will be collated using excel and the findings for both will be combined to get a comprehensive view which will help in meeting the objectives of the project. A final project report and presentation will be delivered to TARA in the month of June 2015.

Appendix V: Used questionnaires

Consumer - Questionnaire

Personal information

Name: ______________________________ Village: __________________________________

Sex: □ M □ F Age: _______ No. of people per household: ___ No. of Children: ____

Monthly family income (in INR): _______ No. of bottles bought: ___ □ User □ Non-user □ Drop-out

---

Consumer Buying Behaviour

1) Who normally does shopping for the family? _________________
2) Who decides what to buy? _______________ Why? _________________________
3) Which products do you buy of cost up to
   -.....50 INR? _____________________________________
   -.....100 INR? ____________________________________
   -.....200 INR? ____________________________________
   -……500 INR? _____________________________________
   -….1'000 INR? ______________________________________
4) What do you need, so that you start buying a new product? *[can select several options]*

   □ someone has to explain it to me □ a sales person has to visit me

   □ the product has to be affordable □ other people from my community should buy it

   □ someone who I trust has to recommend it to me □ when I can try it out □ Other:_________
5) Which basic health & hygiene products, such as soap or shampoo do you buy every month? And why do you buy this brand (expl. health, beauty)?
   A) Product____________________ Brand name ______________________ Why? ___________
   B) Product____________________ Brand name ______________________ Why? ___________
   C) Product____________________ Brand name ______________________ Why? ___________
6) How do you usually buy your basic health & hygiene products?

   □ from a local shop If yes, which one? _______________

   □ home delivered If yes, at which time do you prefer to get the products delivered? ___

   □ Other: _______________

   Do you consider it a convenient way to buy these products?

□ Yes □ No Why? ____

7) How much money do you spend every month for medical expenses for your family (in INR)? ____

8) What are the most common health problems in your family? ______________________________

Trust

9) Who do you trust the most in your community?

□ RMP □ Sales person □ Youth □ NGO □ Other: ___________

Why? ____

10) Who do you trust to give you opinions/ suggestions related to health? ______________________

Why? ____

Aqua+

11) Are you happy with Aqua+?

□ Yes □ No Why? ____

12) Which were your motivations to start buying Aqua+? ____________________________________

____

13) Do you buy Aqua+ regularly (every month a new bottle)?

□ Yes □ No If no, why? ____

How can we make it easier for you to buy it every month? *[Is an open question, only if the person does not know an answer, provide answers to select from; can select several options]*

□ ensure regular visit of a sales person □ provide possibility to buy at a local shop

□ give me a reminder to buy it □ I need a regular income

□ Other: __________________

14) Would you like to have the possibility to order a new bottle…

….by text message? □ Yes □No

…..by phone call? □ Yes □No

Questionnaire - Non-consumers & drop-outs

Personal information

Name: _________________________________ Village: _____________________________________

Sex: □ M □ F Age: _______ No. of people per household: ___ No. of children: ____

Monthly income (in INR): __________ No. of bottles bought: _______ No. of times used: _______

□ User □ Non-user □ Drop-out

Consumer Buying Behaviour

1) Who normally does shopping for the family? _________________
2) Who decides what to buy? _______________ Why? ___________________________
3) Which products do you buy of cost up to
   -.....50 INR? ______________________________________
   -.....100 INR? _____________________________________
   -.....200 INR? _____________________________________
   -……500 INR? ______________________________________
   -….1’000 INR? ______________________________________
4) What do you need, so that you start buying a new product? *[can select several options]*

   □ someone has to explain it to me □ a sales person has to visit me

   □ the product has to be affordable □ other people from my community should buy it

   □ someone who I trust has to recommend it to me □ when I can try it out □ Other:_________
5) Which basic health & hygiene products, such as soap or shampoo do you buy every month? And why do you buy this brand (expl health, beauty)?
   D) Product____________________ Brand name ______________________ Why? __________
   E) Product____________________ Brand name ______________________ Why? __________
   F) Product____________________ Brand name ______________________ Why? __________
6) How do you usually buy your basic health & hygiene products?

   □ from a local shop If yes, which one? _______________

   □ home delivered If yes, at which time do you prefer to get the products delivered? ___

   □ Other: _______________

   Do you consider it a convenient way to buy these products?

   □ Yes □ No Why? ____

7) How much money do you spend every month for medical expenses for your family (in INR)? ____
8) What are the most common health problems in your family? ______________________________

Trust

9) Who do you trust the most in your community?

□ RMP □ Sales person □ Youth □ NGO □ Other: ___________

Why? ____

10) Who do you trust to give you opinions/ suggestions related to health? ______________________
Why? ____

Drinking water

11) Do you think that you have to treat your water before you drink it?

□ Yes □ No Why? ____

12) Have you ever heard of Aqua+ before?

□ Yes □ No If yes, how? ____

If yes, why do you not buy Aqua+/ not buy it anymore? *[can select several options]*

□ Sales person did not visit me (again) □ It is too expensive

□ It consumes too much time □ I don't know why I should buy it

□ I don't trust the product □ I don't trust the sales person

□ I don't need it □ I don't understand how to use it

□ I don't know where to buy it from □ Other: __________

If no, explain what Aqua+ is. *[Show bottle of Aqua + and give a brochure. Explain that it is used to produce safe drinking water. Explain how it works: 2 drops in a litter of water & wait for half an hour, then water is safe to drink. One bottle last for one month for the whole family and costs 42 INR]*

13) What can we do so that you would buy the product (again)? *[can select several options]*

□ ensure regular visit of a sales person □ provide possibility to buy it in the local shop

□ change the taste □ explain me why I should use it

□ give me a sample to try it out □ Other: ________________

Channel partner - Questionnaire

Personal information & current situation

Company: ____

Name: ____

Position:____

Partner since:____________

Bottles purchased: ___________ Date of first purchase:___________________

Bottles sold: _________________ Date of last sale:________________________

Nr. of last-mile sales persons employed: ______________

Nr. of villages in target area_______________ Avr. households in target area__________

Selling behaviour

1) In general, are you satisfied with the response you get from your last-mile sales persons for Aqua+?

□ Yes □ No If no, why? ____

____

2) What do you need to enhance sales? ____

____

3) What do you sell besides Aqua+/ what do you do besides selling Aqua+? ____________________

____

Support

4) Have you attended a sales training for Aqua+?

□ Yes □ No If no, why? ____

5) Do you offer a sales training for your last-mile sales persons?

□ Yes □ No

6) How do you inform your last-mile sales persons about the product? ________________________

____

7) Do you get sales support, like information material, etc from TARAlife?

□ Yes □ No If yes, what?/ If not, why? ___________________________________

If yes, are you satisfied with that support?

□ Yes □ No Why? ____

____

8) What kind of support do you need to multiply current sales? *[can select several options]*

□ more information materials □ possibility to do promotions

□ access to modern technology □ Other: _______________________

Tracking

9) Do you track your customers and last-mile sales persons?

□ Yes □ No If not, why? ____

10) If yes, what do you track and how? *[Ask the person to show records & take pictures of it - if the person has it not with him/her ask how he/she does it and which information he/she collects]*

____

Is there any difficulty in this?

□ Yes □ No If yes, what? ____

A) How could it be made easier? *[can select several options]*

□ get a template to fill out □ offer a training

□ access to modern technology □ Other: _______________________

Aspiration & Trust

11) How much income do you need to achieve with the sales of Aqua+ per month, so that you stay motivated (in INR)? ______________________

12) Besides profit, what are your other ambitions for being in the business of selling Aqua+? *[Is an open question, only if the person does not know an answer, provide answers to select from; can select several options]*

□ increased reputation □ increased skills and knowledge

□ support and serve community □ improved quality of life □ enhanced product portfolio

13) How can we help you to achieve that? ____

____

14) On a scale from 1 to 5, how motivated are you to sell Aqua+? ___________________

Health & Hygiene

15) Can you explain the benefits of Aqua+ and how to use it? *[Let the person explain it and take notes from his answer]*

____

____

16) Do you think that the households in your target area are aware of the importance of safe drinking water?

□ Yes □ No

Interviewer's Observations

17) Does he/she like the product? □ Yes □ No
18) How extensive seems his/her knowledge in the following fields to be?
    - Safe drinking water: □ limited □ good □ advanced
    - Benefits of Aqua+: □ limited □ good □ advanced
    - Track of customers: □ limited □ good □ advanced
19) What is the push needed for him to step up sales? ______________________________________

    ____
20) What are the key challenges faced by the partner? _____________________________________

    ____
21) What does he need to stay engaged? ____

    ____

Last-mile distributor - Questionnaire

Personal information & basic details

Village: ____

Name: ____ Employed by: __________________

Sex: □ M □ F Age: _____________ Education: ____________________

Distributor since: ________ Bottles sold: _______ Margin per bottle sold: ____

Hours working for Aqua+ per week: _______ Sales tours for Aqua+ per week (No of days): ______

No. of households in target area: _________ No. of households visited per week: _____________

Selling behaviour

22) Do you usually sell several products at the same time?

□ Yes □ No If yes, which ones? _______________________________________

23) Do you cover a fixed number of households during your sales tours?

□ Yes □ No If yes, how many? _______________________________________

24) To whom do you usually sell the products? ____

25) In general, are you satisfied with the responses you get from the consumers for Aqua+?

□ Yes □ No If no, why? ____

26) What do you do besides selling Aqua+? ____

Support

27) Have you attended a sales training for Aqua+?

□ Yes □ No If no, why? ____

28) Do you get sales support, like information material etc. for Aqua+?

□ Yes □ No

If yes, are you satisfied with that support?

□ Yes □ No Why? ____

29) How can the support be enhanced? ____

____

Tracking

30) Do you track your customers?

□ Yes □ No If not, why? ____

31) If yes, what do you track and how? *[Ask the person to show his records & take pictures of it - if the person has it not with him/her ask how he/she does it and which information he/she collects]*

____Is there any difficulty in this?

□ Yes □ No Why? ____

____

How could it be made easier? *[can select several options]*

□ get a template to fill out □ offer a training

□ get access to modern technology □ Other: ________________________

32) Have you got a mobile device?

□ mobile phone □ smart phone □ tablet □ None

Brand and Type:____

If yes, for what do you use it the most?

□ Call □ Text message □ Internet

Aspiration & Trust

33) How much income do you need to achieve with the sales of Aqua+ per month, so that you stay motivated (in INR)? _______________________

34) Besides profit, what are your other ambitions for being in the business of selling Aqua+? *[Is an open question, only if the person does not know an answer, provide answers to select from; can select several options]*

□ increased reputation □ increased skills and knowledge □ support community

□ improve quality of life □ Expand business to have more such products

35) How can we help you to achieve that? ____

____

36) Which non-financial incentive as a reward for best performance would you like to get? ________

____

37) On a scale from 1 to 5, how motivated are you to sell Aqua+? ____________________

Health & Aqua+

38) Can you explain the benefits of Aqua+ and how to use it? *[Let the person explain it and take notes from his answer]* ____

39) When you sell a product, are people aware of the importance of safe drinking water?

□ Yes □ No

If No, do you explain it to them?

□ Yes □ No

40) Have you got any difficulties in communication and explaining the product?

□ Yes □ No If yes, which ones? ____

41) Which kind of training would you like to have for that? And why?

42) Do you follow-up with customers who have dropped out?

□ Yes □ No □ Occasionally: ____

If Yes, How? ____

43) What do you think needs to be done to convert a ….

…non-user into a user? ____

… drop-out into a user? ____

Interviewer's Observations

a) Does he/she like the product? □ Yes □ No

b) How extensive seems his/her knowledge in the following fields to be?

- Safe drinking water: □ limited □ good □ advanced
- Benefits of Aqua+: □ limited □ good □ advanced
- Track of customers: □ limited □ good □ advanced

c) What is the push needed for him to step up sales? _____________________________________

____

d) What are the key challenges faced by the last-mile distributor? ___________________________

____

e) What does he need to stay engaged? ____

Appendix VI: Report Field Visit Shikohabad

Report: Field Visit Shikohabad - April, 14 & 15, 2015

Introduction: Background & Research process

The aim of this report is to give an overview about the field study done in the district Firozabad, Uttar Pradesh, India in April 2015. The next few pages will cover the following topics: First, the research objectives as well as the used methodology are presented. After that the distribution model of the channel partner Shakti Foundation is pictured and the main findings from the supply as well as the demand side are discussed. The report concludes with a summary of the main challenges and suggested recommendation.

The research objectives can be divided in demand side objectives (consumer perspective) as well as supply side objectives (last-mile distributor and channel partner perspective):

Demand side objectives	Supply side objective
To understand the general buying and spending behavior	To understand the general selling behavior of last-mile distributors and channel partners
To understand who the consumers trust	To understand aspirations
To identify perceived benefits and drawbacks of Aqua+ in the minds of consumers	To identify perceived motivations and barriers associated with selling Aqua+
To find out how the sales experience for the consumer can be enhanced	To find out how the support system for last-mile distributors and channel partners can be improved

Besides these overarching objectives, another aim is to find out, if a coupon system would support a regular use of Aqua+. In this system, the consumer would buy coupons for 3, 6 or 12 months upfront with a discount of 3%, 5% or 10% respectively. Last-mile distributors then deliver every month a bottle in exchange of one of these coupons. In the study, the consumers will be asked if they would prefer such a system over the current one, in which they buy the bottles separately every month. The channel partners as well as the last-mile distributors will be asked, if they would be able to deliver the required amount of bottles.

Methodology

The following research methodology was used during this field study:

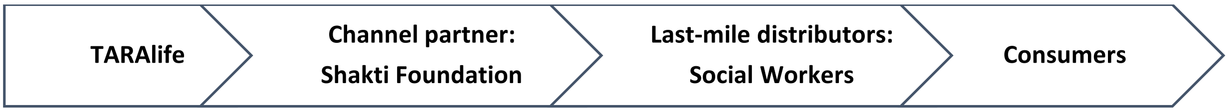
d) **Tools & Techniques-Sampling:** During the field visit, purposive sampling was done wherein the demand as well as the supply side were divided into subgroups. For the former the subgroups include consumers, and non-consumers & drop-outs and for the latter they include channel partners and last-mile distributors. For each of these five groups, questionnaires were prepared in English with instructions for the persons who will carry out the interviews in Hindi.

e) **Data Collection:** During the field visit, data was gathered through in-depth interviews. On the first day the channel partner and 10 last-mile distributors were interviewed. On the second day 9 consumers, 15 non-consumers and 11 drops-outs were visited in three different villages in the district of Firozabad, namely Pratap Nagar, Narayen Nagar & Mohinpur. TARAlife provided support for choosing the channel partner Shakti Foundation, which has then selected the last-mile distributors as well as consumers and non-consumers in the target villages. The interviews were designed as face-to face meetings for each person separately to prevent influence in answers. After the separate interviews with the last-mile distributors a group discussion followed, in which experiences regarding Aqua+ sales were shared.

f) Analysis & Reporting: The analysis of the collected data will be done separately for the demand and supply side. Data will be collected using excel and the findings for both will be combined to get a comprehensive view which will help in meeting the objectives of the project.

Distribution Model

The following graph shows the current distribution model for Aqua+ in the district of Firozabad:



The Shakti foundation is a channel partner of TARAlife for almost a year. In November 2014 the channel partner bought 2000 bottles of Aqua+ and sold 1000 bottles till date. Currently, around 20 social workers are employed by the Shakti Foundation and thus serve around 20 villages, wherase, in average a village consists of 100 households.

TARAlife provides Aqua+ to the channel partner Shakti Foundation with a price of INR 23 per bottle and the last-mile distributors get a comission of INR 9.50 per bottle sold to consumers. The Shakti Foundation keeps INR 7 per bottle for other expenses, like travelling. Thus, one bottle of Aqua+ costs INR 40 for the consumer.

Main findings of the study

The following chapter will discuss the main findings of the field visits separately for the channel partner, last-mile distributors and consumers, non-consumers & drop-outs.

Channel partner – Shakti Foundation

The Shakti Foundation was founded in 1992 by Mr Dilip and his wife with the aim to prevent child labour as well as foster child education and women empowerment. As the Shakti Foundation is an NGO, it does not sell anything else besides Aqua+. The interview of the channel partner was made with Mr. Dilip, the founder of the organisation.

In general, Mr. Dilip is not happy with the responses he gets from the last-mile distributors, as they face difficulties in selling Aqua+. To solve this challenge, Mr. Dilip suggested to use more social marketing tools to enhance the sales of Aqua+, like promotion through a vehicle or TV commercials. Besides that, he pointed out, that it is important to motivate the last-mile distributors, for example the person who sells the most will get a woollen dress for winters, an appreciation certificate, a trip to Delhi or medical coverage. He wishes more support from TARAlife regarding the creation of awareness of the importance of safe drinking water and mobilization.

When asked about the coupon system he stated that he would be able to serve 2000 households, as he has 20 last-mile persons and all of them can do 100 households. He would ensure the delivery through his social workers and monthly visits.

Last-mile distributors – Social workers

Selling behaviour & Aspiration: As the last-mile distributors in this setting are social workers, their main tasks include teaching, educating and organising SHG meeting, thus Aqua+ is the only product they sell. Consequently, they sell it in their free time or when they visit the households for their usual work. Their aspirations for selling Aqua+ are mainly to support the community (5), gain skills and knowledge (4), and enhance the quality of life (4) of the people in the villages as well as their own, by earning some extra money and doing something meaningful. In average, the 10 interviewed last-mile distributors are selling Aqua+ for 6 months and sold 54 bottles, but high differences exist, as the range goes from 9 to 130 bottles sold. They stated that they usually sell the product to the female person of the household.

According to the last-mile distributors, besides getting some good responses from customers, who said that they are less ill, most of the people are not aware of the importance of safe drinking water and thus do not want to buy the product. In general, people in the villages believe that problems related to the stomach are rather caused by eating something wrong than by the water they drink.

Support: Most of last-mile distributors attended a sales training (7) and the others had a meeting in the beginning, in which they were informed about the product. All of them receive sales support, like information material and are happy with it. However, new social marketing materials were suggested, like wall painting, short film clip on safe water or community meetings as well as improvements of the existing material, as it should be made more attractive and informative. Precisely, the sticker is seen as being too small and the calendar should be valid for a year and not only three months.

Coupon system: In regard to the suggested coupon system, 8 out of 10 people stated, that this would make their life easier, as less convincing is required. At the same time, there are doubts that the system would work, as the demand for the product is low. In addition, there are concerns that the consumer will not be able to make such an upfront investment. Furthermore, most do not accept a cut in margin per bottle sold (5), or they agree to a margin of INR 7 (3), respectively INR 5 (2).

Motivation: Although all interviewed persons like the product, the motivation to sell it lies by 3 points out of a maximum of 5. The reason for this result is, that they experience a low demand and thus low earnings as a consequence of the lack of awareness of safe drinking water. In addition, their free time is limited and thus there is lack of time to sell Aqua+. They ask for training, higher margins, free samples for customers to try it out, as well as tools and means to be able to proof the effect of Aqua+, like microscopes to observe bacteria in the water.

Consumers & Non-consumers

When interviewing consumers and non-consumers, the questionnaire first covered the general buying behaviour as well as trust. Consequently, the questions were the same for both groups. In the second section, specific questions about the use of Aqua+, respectively the reasons of not using Aqua+ were included.

The study showed, that an average household in the target area consists of 7 members (4 children) and has a monthly family income of INR 6000. However, a huge disparity in income exists as it ranges from INR 1250 to INR 15000

Buying behaviour: In general, it was observed that the person, who buys the product, also makes the decision what to buy. This applies for male and female persons of a household as the distribution is equal between the two groups. Especially, women stated that their husband decides what to buy, as they believe that they do not know enough to make the right buying decisions. 29 out of 35 interviewed persons buy their products in a local shop, the others go to a market (6). None of the households get their products home delivered. They all consider their way of shopping as convenient, as the shop is nearby, the quality of the products is good, they know the owner, and they have the possibility to shop on credit.

People were asked to state which products they buy costs up to a certain amount. Here it is important to note that in the categories up to INR 200 people mentioned a lot of different products and one person stated that nowadays everything costs up to INR 50. However, for INR 500 and INR 1000 several households claimed that they do not know of a product in this categories. Following, the results are summarized:

- INR 50: vegetables for one meal , soap, toothpaste, slippers, hand food for children, sweets
- INR 100: Oil (1 l), wheat (5 kg), shampoo (bottle), artificial jewellery
- INR 200: sugar, rice, wheat (10 kg), cloths, water connection
- INR 500: Saree, cloth for parents, shoes
- INR 1000: gas connection

The questions also covered the basic health & hygiene products usually bought by the households in the target villages. Products in four main categories were mentioned, namely soap, shampoo, toothpaste & cream. In regard to the brands Soap No. 1 (19), Vatika (13), Colgate (6), and fair & lovely (4) were the common names. Here it is important to notice, that the interviewed people do not say ‘toothpaste’, but ‘Colgate’. Thus this product has a very strong brand recognition.

Asked about what they need to buy a new product, the interviewed persons answered that they like to have the possibility to try it out (12), they want someone who explain it (12), that other people in the community also buy it (9) or wish that a sales person visits them (6).

Trust: Interviewed people trust the most either persons from their community, like neighbours and elderly people or family members, such as parents or husband. In regard to health advices they usually ask family members or neighbours first or go to a doctor, who someone from the community recommended to them. In general, people do not trust persons from outside and when it comes to products, people first want to test it before they trust it. One main finding was that in the village Naraya Nagar, the community worker Sita was seen as the most trustable person, as in this village all the interviewed people stated that she is their trusted source and that they follow her advices.

Coupon system: Only the current user showed some interest in the coupon system. They prefer a 3 month package as they are not sure if they have enough disposable income for a higher upfront investment. However, most of the interviewed persons were not interested, as they are not interested in the product. In short, people who do not know or do not trust the product want to try it out first, before they buy a whole package.

After this general findings, main points regarding the subgroups of the demand side follow:

Consumers: 8 out 9 consumer are happy with the product. When asked about what they need for a regular purchase they said a regular visit of a sales person (5), regular income (2) and the possibility to order it by phone call (2).

Non-consumers: Only 3 out of 15 non-consumers believe that they have to treat their water before they drink it. The reason is that the water from the pipeline is fresh and looks clean. The analogy is that fresh water does not contain bacteria and is thus safe to drink. Consequently, although all of them have heard of Aqua+ before through a sales person, they do not think that they need the product.

Drop-outs: All the people who drop-out stated that they do not like the taste of the water and that especially their children refused to drink the water treated with Aqua+.

Monitoring & Tracking

Special emphasize was put in this study on the monitoring and tracking system currently in place. The channel partner does not track the last-mile distributors, due to of lack of time and resources. He would do it, if he gets a resource for tracking from TARAlife. However, all the last-mile persons track their customers and write name, village and phone number in a book. They would like to get a template to fill out and access to modern technology, to make the tracking easier. Consequently, the main question here is, how this gathered data will reach TARAlife in an efficient and up-to-date way.

Conclusion & Recommendations

Having all the data discussed above in mind, the following challenges can be stated:

- Lack of awareness about the importance of safe drinking water among the people of the target villages, consequently there is no need and no demand for Aqua+
- Lack of visibility, as people cannot see what Aqua+ does to the water
- Lack of motivation among last-mile distributors
- People drop-out, because they disliked the taste of Aqua+

According to the interviews, the following recommendations can be given as solutions:

- Need to create awareness about the importance of safe drinking water (1. Step: show problem)
- Need to launch a social marketing campaign for Aqua+ (2. Step: show solution)
- Need to show people that the water is contaminated with bacteria (show this in a hands-on event and use for example microscope or other means)
- Strengthen last-mile person, so that they have a status in the village like Sita
- Approach also male person in selling process, as they have the same influence as the female person

- Give people the possibility to try out Aqua+

As stated above one aim was to get insights about a possible coupon system. As a conclusion it can be said that from the supply side the implementation of this system would be possible as the channel partner can deliver up to 2000 bottles per month and the last-mile persons would be in favour of this new system. However, in regard to the demand side it can be concluded that at the moment there is not enough demand for such a system. Only, customers, who bought more than two bottles and know the benefits of Aqua+, would be interested in a 3 month package, as they cannot make a higher upfront investment. Moreover, non-users want to try it out first, before they buy a whole package.

Further considerations

In short, it can be said that most of the stated targets from above could be met. However, on the demand side two objective could not be met, namely to identify the perceived benefits of Aqua+ and how the experience for the consumers can be enhanced. This two points should be evaluated further in a next study.

In addition, three findings from the study should get further attention:

- The average size of the households were 7 people. However, Aqua+ is considered for only 5 people for a month.
- In the distribution model, the focus should not only be on the goal to sell the product, but to ensure that people actually use it, as it was observed that some people buy the product but never used it.
- If there would be a demand, than it is maybe possible to skip the last-mile distributor as people find it convenient to buy their products in a shop. However, this model is only possible if consumers have a need for Aqua+.

Appendix VII: Report Field visit Lucknow

Report: Field Visit Lucknow - May, 27th-29th, 2015

Introduction: Background & Research process

The aim of this report is to give an overview about the field study done in the city Lucknow and the region Sitapur, Uttar Pradesh, India in May 2015. As this is the second field visit, the findings will be compared to the insights gained during the last visit in Shikohabad (Uttar Pradesh, India, April 2015). Therefore, the next few pages will cover the following topics: First, the research objectives as well as the used methodology of this field study are presented and the differences to the last one highlighted. After that the distribution model of the channel partner Kansal Traders is pictured and the main findings from the supply as well as the demand side are discussed. The report concludes with a summary of the main challenges and suggested recommendations.

Beneath the general research objectives of the study, this field visit had the aim to find out how the distribution model of a commercial partner differs from the one of an NGO-partner (like the Shakti foundation in Shikohabad) and how this influences the distribution and promotion of Aqua+.

The following research methodology was used during this field study:

a) **Tools & Techniques-Sampling:** During the field visit, again purposive sampling was done wherein the demand as well as the supply side were divided into the same subgroups than for the first field visit, namely consumers, non-consumers & drop-outs as well as channel partners and last-mile distributors. For each of these five groups the questionnaires were slightly adjusted according to the results and experiences from the last field visit. They were again prepared in English with instructions for the persons who will carry out the interviews in Hindi.
b) **Data Collection:** During the field visit, data was gathered again through in-depth interviews. On the first day 4 last-mile distributors (3 shop owners and one door-to-door seller) and 4 consumers in the region of Sitapur were interviewed. In this area the last-mile distributors are shop owners and not health workers as in Shikohabad. Consequently, the shops are in different areas, which required long distances of traveling between the interviews. Furthermore, the shops were not in the same village as the consumers and the shop owners usually did not know exactly to whom they sell Aqua+. However, some were able to call consumers who then came to the shop for the interview. On the second day, 16 consumers (13 were interviewed with the questionnaire and 3 were engaged in an open group discussion) and 4 last-mile distributors were visited in Lucknow at the LDA market, where Kansal Traders has its main shop. On the last day, 8 drop-outs were interviewed in a qualitative method and not with the questionnaire as the main goal was to find out, why they do not use the product anymore and what should be changed so that they use it again. Thus in total, 8 last-mile distributors, 20 consumers and 8 drop-outs participated in this study. TARAlife provided support for choosing the channel partner Kansal Trader, which has then selected the last-mile distributors as well as consumers. The interviews were designed as face-to face meetings for each person separately to prevent influence in answers. During this field visit, none non-consumers were interviewed as the team did not visit villages, like in Shikohabad, but rather shops. As the channel partner travelled with the team the whole three days there was a lot of time to exchange experiences and concerns. Moreover on both days we visited a doctor to talk about Aqua+ and the promotion of it.
c) **Analysis & Reporting:** The analysis of the collected data will be done separately for the demand and the supply side. Data will be collected using excel and the findings for both will be combined to get a comprehensive view which will help in meeting the objectives of the project. In addition, the findings will be compared with the insights from the other field visits.

Distribution Model

The following graph shows the current distribution model for Aqua+ for the channel partner Kansal Traders in Lucknow:

Kansal Traders is a channel partner of TARAlife since December 2015 (5 months). He purchased 4500 bottles in January and sold 2350 bottles until now. Kansal Traders is an Amul franchise in Lucknow and also sells other products in the main shop in Lucknow and through the network of small shops in different villages, to which he also delivers other products. Beneath that, BSNL packages are sold in rural areas through door-to-door sellers, who also sell Aqua+. This strategy is foremost for rural areas, where people are not literate and less educated. Currently, Kansal Traders delivers Aqua+ to 25 last-mile ditributors (mainly shop owners).

Main findings of the study

The following chapter will discuss the main findings of the field visits separately for the channel partner, last-mile distributors and consumers & drop-outs.

Channel partner – Kansal Traders

The interview was conducted with Mohan Narain Agrawal, head of Kansal Traders.

He gets a range of information material from TARAlife, namely flyers, posters, stickers and canopies. He did not attend a sales training for Aqua+, but would like to, as to learn more about the product and to be able to inform his network better. This is important, as so far he pushed the product through local shop owners to which he has a good relationship and thus were willing to start selling the product. However, he is not satisfied with the responses he gets from his last-mile distributors regarding sales of Aqua+, as especially the sales volume is low. However, he sees a potential in the product and thinks that the sales volume can be immense.

To enhance sales he needs more awareness and marketing for the product as well as last-mile distributors, who are dedicated to Aqua+. As for him everything is about reaching high volume of sales, it is important for him to keep the last-mile distributors engaged. In this context, he believes that the last-mile should get at least INR 10 as a commission per bottle sold. He is willing to transfer some of his commission to the last-mile persons to enhance their motivation to sell the product. For example, the door-to-door sellers get INR 60 commission for a BSNL packaged sold compared to only INR 9 for Aqua+. In short, the channel partner itself is not so interested in the high of margin per bottle sold, as when he can sell a high volume the earnings will be fine. Furthermore, he thinks that it is important to have clear sales targets for the last-mile distributors and rewards when the targets get reached. As non-financial incentives he suggests pocket diaries or little gifts. However, besides the lack of incentives, he believes that at the moment the last-mile distributors do not have the capacity to sell the product effectively as they are not enough trained for it. Until now, he informed the last-mile about the product and most of them are using it for themselves, so that they can experience the benefits. Mohan does not offer sales trainings to his last-mile distributors.

Thus, Mohan plans a new distribution strategy, in which he looks for local people in different villages in his target area, who will only sell Aqua+. This has the benefits that Kansal Traders can cut costs, as less travelling is required (people can go by bike to save full costs). Currently, advertisements are placed in newspapers to find adequate and dedicated people. In this context, he asks for other goods, which the door-to-door distributor could sell together with Aqua+. He suggests other basic good products, like cooking stove, light bulbs or solar lamps, to push this products along with Aqua+. He believes that people can afford Aqua+, but they need to get convinced that the product is useful for them.

He is motivated to push the sales of Aqua+ further, but also requires more support from TARAlife for example for planning, marketing and awareness, as he has not the capacity to do everything on his own. He believes that TARAlife should develop strategies and that he is only responsible for implementing them. He also requests support staff from TARAlife, as it is in his opinion not only the task of TARAlife to find channel partners, but also to support them in their daily business. Finally, he suggests, that TARAlife should sponsor a person, who calls people in the villages to both inform them about Aqua+ and takes feedback from them (as other companies do it as well).

He tracks his last-mile distributors by calling them every third day. Here, he wishes access to modern technology and staff for his local office, who conduct the calls and/or a salary to cover his expenses and working time.

A coupon system works well for food (especially for wheat, which is already in place), but at the moment not for Aqua+, as there are not enough regular consumers yet. In short, a coupon system works well in urban areas and for established products, which is not given in the case of Aqua+.

In general, the channel partner prefers packaged and branded products, as he trusts the brands and thus the product. Furthermore, he suggests that the price should be rounded (INR 40 or 45, instead of INR 42), as the INR 2 are usually given off.

His motivation lies by 4.5 out of 5 points and he speaks enthusiastically about the product, has a lot of ideas how to promote it and pushes initiatives to enhance sales. Beneath financial incentives, his aspirations are to serve the community and to improve the quality of life of rural people.

Last-mile distributors – Shop owners

Selling behaviour & Aspiration: As the last-mile distributors in this setting are mostly local shop owners, Aqua+ is just one product that they sell beneath others (visited 2 grocery stores, 1 beauty store, 2 medical stores, 1 electronic shop & 1 chemist). They started selling the product, because they either trust Mohan or because there is some pressure from Mohan to offer the product in their shop. Mohan distributed around 16 bottles per shop, whereas high differences exists as the range goes from 6 to 40. In average, the shop owners offer Aqua+ since two months and sold 7 bottles. 50% of the shop owners are satisfied with the answers they get from the consumers, as they state that they feel better or they use it as they cannot afford an Aqua-guard. Others are not happy with responses as people claim that they do not feel any effect of the product and will thus not buy it again. Most of the shop owners use the product on their own as well.

Motivation: Around 50% of the interviewed people like the product. However, the motivation to sell it is very low (in average around 2 out of 5).

Support: None of the last-mile distributors attended a training for selling Aqua+. 50% of them would like to attend a training regarding sales process and the benefits of Aqua+. This lack of training can also be seen in the ability of the last-mile to explain the product: 1 has no idea for what the product is for, 3 of them have a very limited knowledge, as they only know that it purifies water, but do not know how to use it, and 4 people have a better understanding of the product and can broadly explain it. However, none of them could fully inform a potential user about the product and convince to buy it. 50% of the last-mile state that they get sales support, like flyers or posters, which they hang up in their shops. The ones who get support are also happy with it, because people see the poster when they step in the shop. The other shop owners wish to get information material as well.

Suggestions to enhance the support are that TARAlife should offer trainings, demonstrate the benefits of the product and take action to enhance the awareness of both the importance of safe drinking water as well as the product.

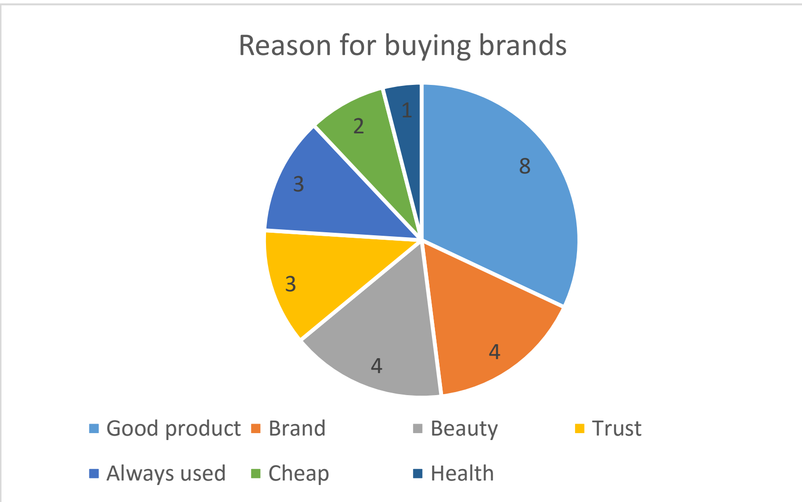
Consumers & Drop-outs

When interviewing the consumers, the questionnaire first covered the general buying behaviour as well as trust and in the second section, specific questions about the use of Aqua+, respectively the reasons of not using Aqua+ anymore were included.

The study showed, that an average household in the target area consists of 4 members and has a monthly family income of INR 20’000. The households have purchased between 1 to 3 bottles so far.

Buying behaviour: When it comes to buying a new product 4 people state that someone has to explain it to them and 3 wants to try it out and thus test it. Other reasons were that the brand must be known and trusted, that they follow advertisements, that the product has to look nice or that they just buy what they need.

When it comes to basic health & hygiene products soap, shampoo and toothpaste are the most common products. Beneath that, other products, like food supplementary or disinfectant were also mentioned. There exists a wide diversity of brands that people buy. Asked about why they buy this product the following answers were given:



Consumers: Most of the consumers were interviewed in Lucknow around the LAD market. Thus, 13 out of 17 people started to use the product, because Mohan recommended it to them; 3 people, because they were expecting improvements in health and 1 wanted to change the taste of the water. The status of Mohan is also reflected in the result that 8 people state that Mohan is the person, who they trust the most in the community, followed by doctors, who are seen as persons with good education and experience. Regarding health advices people trust doctors the most.

12 people consider themselves as regular buyers and the others state that they do not need a new bottle every month. To buy it regularly they need to see Mohan regularly, the product should be available at Mohan's shop and/or they wish to get a reminder.

Three users, who are sales persons at Mohan's main shop in Lucknow, were engaged in an open group discussion. All three of them are currently using the product, are happy with it and are convinced that it purifies water. They consumed 3 respectively 4 bottles so far. All of them are buying it at Mohan's local shop and started to buy it because of Mohan.

Drop-outs: 8 drop-outs were interviewed around the LAD market in Lucknow. Mohan supported the team in finding these persons. 6 persons stated that they droped-out, as they could not feel any changes in their health, thus they do not see a need for the product and do not buy it anymore. All of them would like to see a proof that Aqua+ really purifies water. Moreover, 2 of these 6 people do not trust the product. The other 2 drop-outs have installed a filter system at their home and thus, do not need Aqua+ anymore. During travelling the interviewed persons prefer bottled water over using Aqua+. All of them were happy with the price and they all started to buy the product because of Mohan.

Monitoring & Tracking

The shop owners do not track the consumers who buy Aqua+ at their shop. Some of them ask their customers, if they liked the product and what their experiences are. Mohan tracks the shop owners, as he knows how many bottles he delivered to each shop. He also calls them on a regular basis.

Conclusion & Recommendations

Having all the data discussed above in mind, the following challenges can be stated:

- Last-mile distributors do not have enough knowledge to promote Aqua+ and to explain the product to potential users
- People dropped-out, because they could not feel any benefits of the product and wishes for a proof of the effect

To solve this challenges two main actions should be taken:

- Train last-mile so that they gain knowledge about Aqua+ and its benefits
- Make sure that Mohan stays engaged and motivated to sell Aqua+ and thus, TARAlife should provide him the demanded support

In general, the main finding is that consumers as well as last-mile distributors started to use/sell the product because of Mohan, as he is a trusted and powerful person in the community. However, when they do not see a change or improvement of health, they dropped-out again. This is similar to the findings in Shikohabad, where Sita, a social worker of Shakti Foundation, has the same status. Consequently, in her target area, people also started to buy the product, due to her recommendation.

Beneath this common findings, some differences between the two channel networks can be highlighted. Unlike in Lucknow, in Shikohabad all the last-mile distributors attended a sales training and thus their knowledge about the product is much higher.

Appendix VIII: Part 'Monitoring system' - Final report TARA

Having an implemented built-in feedback mechanisms that secures front-line data fast and accurately, and thereby empowers prompt reaction to changes is crucial (Geldard, 2014, p. 6), as a company can only improve its service, when it has a clear understanding about how the service is currently delivered (Smith, N.D.). This can be summarised by a quote of Dr. H. James Harrington "Measurement is the first step that leads to control and eventually to improvement. If you can't measure something, you can't understand it. If you can't understand it, you can't control it. If you can't control it, you can't improve it" (Smith, N.D.). Indeed, to achieve and maintain a suitable distribution channel, knowledge, which is latent in the system, needs to be captured, analysed and leveraged. Every key aspect of sales activity has to be measured and its impact clearly understood. This can include monitoring of specific campaigns and/or performance measurement. (Geldard, 2014, p. 11)

In addition, Mulky (2013, p. 180) claims that a major challenge is to keep channel members motivated, especially when markets are tough and channel partner's profitability low. Indeed, channel partner's profitability is a major influence factor in regard to satisfaction and motivation. Consequently, efforts should be put in the measurement and monitoring of profitability, and if possible, ensuring a strong return on investment. (Mulky, 2013, p. 180)

This broader review of the literature supports the claim, that to bring an overall improvement of the distribution system it is crucial that TARA introduces a comprehensive distribution management with constant feedback loops and therefore controls every step of the bottle until it reaches the consumer. But what does that concretely mean for TARA?

According to Ross (2015) closing the distance gap between demand and supply side requires a company to perform two crucial tasks, namely logistics management and supply chain management (Ross, 2015, p. 4):

Logistic management: Logistic is the process of actually moving products from the manufacturer down the chain to the consumers. Consequently, the role of the logistics management is to ensure efficiently and cost-effectively inventory, warehousing, and transportation with the goal to satisfy the day-to-day product and service requirements of the distribution chain (Ross, 2015, p. 4). Here, a competitive advantage can be secured by minimizing logistics operations costs, maximizing productivity as well as capacity and resource utilization. (Ross, 2015, p. 5). Another major task of logistic management is to conduct performance measurement: Because of the amount of capital invested in warehousing and transportation, managers should track the performance of these functions to provide full visibility to gain a clear overview of the logistics costs (Ross, 2015, p. 7).

Supply chain management: The second function is the supply chain management [SCM], which emerges from the foundations of logistics management (Ross, 2015, p. 40). According to Ross (2015, p. 4) "the role of the SCM is to generate unique sources of customer value through the creation of partnerships that leverage the resources, capabilities, and competencies of channel members to increase the competitive advantage of the entire channel system" (Ross, 2015, p. 5). SCM has the goal to enable a distribution system that puts the consumers in the centre and delivers goods and services to the market at the lowest possible cost while at the highest possible consumer satisfaction (Ross, 2015, p. 38). In addition, to spot market changes and react in time, companies should implement adaptive and demand-driven distribution networks: "Adaptive channel networks counter market uncertainty by being able to rapidly restructure processes and even entire supply chains to meet changes in customer requirements without compromising on operational efficiencies. Being demand-driven means that companies move beyond operational optimization and restructure their supply chains to sense and proactively respond to actual demand signals arising from customers rather than just reactively countering emerging disruptions in the supply network." (Ross, 2015, p. 41).

Having all the theory and challenges from above in mind, it is clear that TARA needs to implement a new management system, which poses the following characteristics. It should…

… be a process-driven system and not a person-driven anymore

… deliver constant feedback, and not only periodic surveys

… allow to track every single bottle and its shelf-life through the whole distribution channel

… allow to track the activities of the CP and the LM and give an overview about the HHs visited

… allow to introduce sales targets and thus to reward outstanding performance as well as sanction not met sales targets

In addition, TARA has no clear monitoring of its resources invested in the distribution channel, as Ross recommended above. Thus, beneath the aim to ensure a smooth delivery and control of the logistics, TARAlife should also collect data to track the impact of investments on both Aqua+ and the awareness creation. To measure the impact of Aqua+ on the wellbeing of the consumers as well as the quality of life, two variables should be used: Medical expenses (should decrease as people should be less sick, when they drink safe water) and number of stomach related diseases (should also decrease). To measure the impact of the awareness campaign the number of people, who receive awareness is one indicator and the number of bottles sold in a region a second (should go up after awareness creation campaign in this region).

These new indicators will also support the awareness creation and social marketing campaign, as they support the tracking of the progress and allow to detect in which regions additional effort and support is needed. For example, if in one region the amount of people receiving awareness is low, then TARAlife knows where to start a campaign. Moreover, TARA will be able to track in which villages sales are going good and which specific regions need additional support. This also helps to keep channel members engaged as they experience support when they face difficulties. Last, it will enable to get an overview about the best performing LMs and first movers in a village.

Detailed view on the improved distribution management

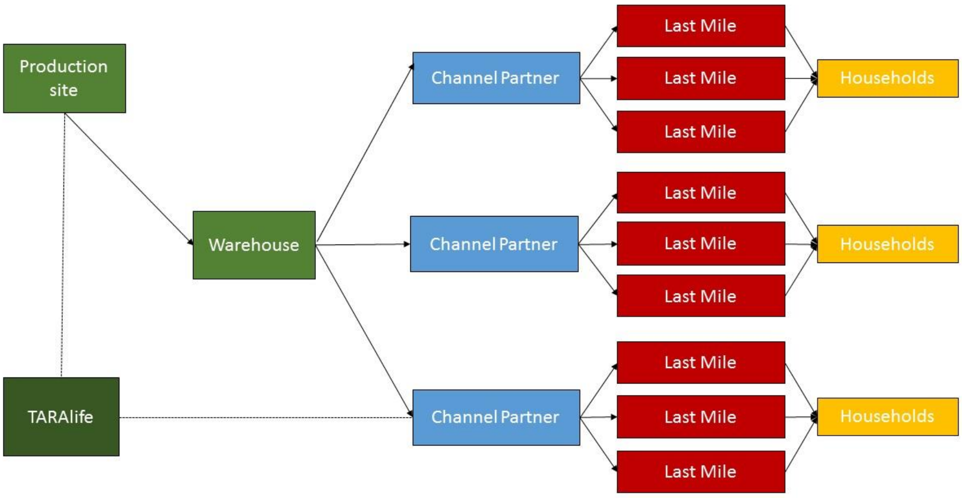
The new management system will be based on simple logistic management and accounting tools: Every actor will track the number of bottles received as well as when and how many bottles are delivered or sold to the following channel member. So every actor has an overview about the stock in hand and can react on time (example: place order or produce new bottles). The aim is to decrease or minimize the sales lost as well as the inventory costs and to increase or maximize the profit. The system will also include a tracking of the shelf-life of the bottles so that the stakeholders can react when the bottles are near to expiry.

So far, TARAlife was happy when bottles were sold, but there was no pressure on the actors to actually deliver a certain amount of bottles to the consumers or visit them on a regular basis. Indeed, the study as well as the review of literature showed clearly that sales targets are crucial, as otherwise there is no pressure on or reward for the involved parties.

The next chapter will discuss in deep a proposal for such an improved distribution management system.

New conceptual view on distribution channel

In order to be able to introduce the new system, first the current conceptual perspective of the distribution system (see Figure 1) has to be changed and new stakeholders have to be introduced, namely ‘production site’ and ‘warehouse (inventory storage)’. Here it is to notice that in the current distribution system of Aqua+ these two actors are the same (TARAgram Orchha), however in the aspired model of micro-franchising this will change. Thus this conceptual view will treat them as two different units. Last, the field ‘consumer’ was renamed to ‘households’ as the LMs do not only approach consumers, but also non-consumers & drop-outs. The following graph shows the new conceptual view:



Additional explanations:

- Channel Partner: Can be an NGO or commercial partner (franchising model: stockist)
- Last-Mile: this can be a social worker, who visits people at home or a door-to-door seller (franchising model: agent). The system is not fully explicable for shop owners.

Additional elements

New elements have to be introduced in the existing system for an effective distribution channel management. This new elements follow the insights from chapter 6.

- *IT-based system:*

Central data host: In order to have a permanent flow of data and thus up-to-date information, the system has to be IT-based and the data centrally hosted. TARA will hosting that system to have all the necessary information at one glance. This central system will be an online platform, where the different stakeholders can log-in with a personalised username and password, to see the relevant data for them. In other words, TARAlife has access to all information, whereas a channel partner for example only gets an overview what is happening in his territory and not about other channel partner's performance. It will be possible to enter the system with a computer or a mobile version, like tablet or smartphone.

Batch number: To be able to track the bottles along the distribution channel, every bottle gets an identification number so that the system can track its position, movements and shelf-life (to prevent expiry). This number will be attached to the bottle in form of a bar code, which can be scanned. In addition this bar code will be accompanied by digits so that it can also be tracked offline. The batch number will be attached to the bottle during the production process. The identification number consist of 12 digits, which mean 'Date of manufacturing' (6 numbers), 'Number of that day' (4 numbers) and 'Production site' (2 numbers). The following pictures shows an example of such a barcode:

Book for Last-mile: As the LM works offline (without IT), because it would be too expensive to provide a smartphone for all LMs, every LM will get a printed book where he/she will enter the data in a table. Every week the LM will give the book to the CP, who is responsible for entering the data into the system. This will use quite a lot of time at the moment: For example, from the field visit of Shakti Foundation it can be concluded that the social workers visit about 40 HHs per week. As currently 20 LMs are working for Shakti Foundation this means that the CP has to enter the data of 800 HH per week (Imagine that a person needs 2 minutes to enter the data, this would mean that it takes 26 hours per week the enter all the new data!). This number will be even higher for CPs whose LM are not social workers, but rather do that for a living. Consequently, the CP would need additional human resources to manage this task. The future vision is that the LM can use an App to submit the data. Consequently, then the CP will use less time and expenses.

- *Support for execution*

System of reminders: To actually ensure a smooth delivery, enough stock in hand and to prevent the expiry of bottles, a system of reminders will support the logistic management. Examples of reminders are that CP and TARAlife get a notification when the stock of a CP is at only 10% or if a CP has bottles at stock, which will expire in 2 month. These reminders will be automatically generated by the system.

Set of sales targets: As seen above it is crucial to have sales targets for the LM. On the basis of the data entered from the book (Colum: 'Date of next visit'), the CP will print a sheet every week with the HH the LM has to cover. As the LM has to cover a certain amount of HH, he/she also needs a corresponding amount of bottles. This puts additional pressure on the CP to order bottles on time as otherwise the LM cannot carry out their work.

Incentive system: To execute this new system a strong and effective incentive system is needed. In addition, this will also support the need to motivate LM and CP. The incentive system is based on the territory and the number of HHs a person has to cover and includes rewards for outstanding performance, but also deduction when a LM does not reach the set targets. It will include financial as well as non-financial benefits.

The incentive system should be kept simple so that every LM has an overview what he/she can get for which performance, as when the system is too complicated and one does not understand it or think that he/she gets something, but in the end not, the incentive system will have a negative effect. Moreover, for the CPs, who have the responsibility to execute it, it will be easier to handle and TARA can calculate the upcoming costs better. It should also be the same for all CPs, as otherwise it would be difficult for TARA to have an overview of all the different systems. Having this in mind, the following system for the LM is proposed:

The system is based on two different measures: 1) the fixed amount of HHs a LM has to cover (the sheet as seen above), which ensures a regular visit of the HH and 2) additional rewards for expanding the target area, as at the moment the goal of Aqua+ is to reach more HHs/ consumers. However, if this goal changes to another primary aim than also this reward system can change:

- Aim: Converging a fixed number of HH and thus ensure regular visits

This reward system is based on points. If the LM just covers the HHs fixed on the sheet nothing happens. However, for every HH he/she visits in addition (which is not registered yet), he/she earns a point and for every HH not visited from the sheet two points will be taken away. This system leads to financial rewards: Every point is worth INR 1. At the end of every month, the CP will check the status of the points and pay the LM the reward. If a LM has minus points he/ she has to pay this punishment (or get less salary or less commission the next month).

- Expanding the target area and thus gain new consumers

This reward system is based on stars. For every new consumer acquired (new HH or conversion of drop-out), the LM will earn two stars. For every drop-out of the system he/she will face a reduction of one star. These collected stars can be exchanged for either money or non-financial goodies, which will be in line with the social marketing campaign.

Financial: 1 star = INR 5 or Non-financial: 5 stars = one Aqua+ T-shirt/ Aqua+ Cap/ Water bottle (or other gadgets used for the social marketing campaign)

Please note, that the LM will only get the points when the data is entered in the system. The IT system will automatically count the points and stars.

In summary, the compensation that the LM gets for his/her work is based on a salary or commission per bottles sold (this depends on the CPs system) increased by the offered incentives, like points and stars as well as a decreased by the possible punishments, which then will end in the final payment:

Basic Salary or cumulated commission	**Plus Incentives** • Extra HHs covered (point) • New consumer acquired (star)	**Minus disincentives** • HH not covered (point) • Drop-out (stars)	**= final payment**

However, as can be concluded from various meetings with key persons the incentive system has to be orientated on the needs and wishes of the LM and should not only get designed without their insights: If the incentive system is not meeting their needs, it will have no or, even worse, the opposite effect. Thus, the author strongly recommends to test this system in the field and adjust it to the needs of the LMs and CPs.

The incentive system will also be presented in detail during the training modules and briefly described in the book as a reminder for the LM and to give them an extra push.

Training: The LM will receive a training from TARAlife about the general sales process as well as about how to use this new system.

The detailed description of the IT system are outline in Appendix II. The aim is to give e detailed overview of the functional specifications as well as the specifications for the design, so that developers can program the IT system behind the new management.

Budget

For the budget of the project two different cost structures have to be taken into account, namely the set up costs and the running costs:

Set-up costs & Implementation includes the cost for the IT system (Discussion & finalisation, Choose of technology and design). Then there re cost for implementing the system at the existing CPs (introduction, explanation, support). For a good implementation trainings of the LM and CP is crucial.

Then material is needed: TARAlife has to print the books as well as the new patch for the bottles.

Running costs (per month) include the training of new LM and CP, printing new *books,* Support for technical or processual issues, as well as costs for the incentive system.

In addition, TARA needs to provide resources or compensation to the CPs for their used time to enter the data in the system.

Outlook & next step

The following table provides an overview about the required tasks and steps to bring this project forward:

Task	**Outcome**	**Responsible actor**
Present system to CP to get feedback	When CP can get feedback, then the actual introduction will be more accepted as this new system needs effort from CP	Initiation: TARAlife Execution: TARAlife & CPs
Develop system for CP to reduce needed effort	Improve system and make it easier to implement	Initiation: TARAlife Execution: TARAlife & CPs
Find IT specialist for implementation of IT system	IT partner	TARAlife
Discuss IT specification with IT partner to get feedback	IT templates, which then can be programmed	Initiation: TARAlife Execution: TARAlife & IT partner
Support CP in identifying the territory for LM	Assigned territories for each LM to cover	Initiation: TARAlife Execution: TARAlife & CPs

Declaration of Authorship

Declaration of authorship

You have to append the following declaration to your thesis and put your signature to it:

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V. Zoller

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