
Do You Have to be Rich to be Green?

Making Sustainable Products Available on the Kenyan BOP Market.

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Abstract

This thesis investigates market realities at the Bottom of the Pyramid (BOP) market in Kenya for companies selling sustainable products. Sustainable products are an offshoot of the sustainable development paradigm. Sustainable development and the newly popularized BOP development paradigm share commonalities. Sustainable development gives room for business in the quest to spur development sustainably and the BOP theory holds that corporations can function as poverty alleviating entities. The BOP theory suggests that businesses can simultaneously do well and bring well-being to people living below 2 USD/day. Yet, whether business can operate profitably when introducing sustainable products has been left unexamined. This thesis analyses three businesses that sell sustainable products to the BOP customer segment in Kenya. Based on qualitative research methods, in particular the participant observation approach and interviews with key company personnel for triangulation and the purpose of drawing generalizations, this thesis illustrates that all businesses struggle to reach profitability. The implications of this study include the notion that the market fails when it comes to introducing sustainable products to the BOP in Kenya. If the international community wants to achieve the sustainable development of BOP markets, there is a need to investigate the potential for alternative financing means. These could take the form of public-private partnerships or corporate philanthropic engagement.

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Introduction

Two development paradigms have recently gained the attention of the international community, including the United Nations (UN), international organizations, politicians, scholars, and businesses: Sustainable development and the Bottom of the Pyramid (BOP) Theory. This thesis investigates if and how these two theories are compatible in practice.

Do You Have to be Rich to be Green?

In the 1990's, and after several decades of neoliberal policies dominating the development agenda, the international community realized that current lifestyles and consumption patterns of people (in mostly developed countries) are unsustainable. With the publication of the Brundtland report, the UN officially recognized that the economy would destroy the planet's ecosystem if left unchecked. Quickly, many leading scientists, scholars and politicians realized that uncontrolled economic growth is detrimental to the planet and people, and that alternative approaches towards development are urgently needed. As opposed to zero growth policies popularized in the 70's, the advancing sustainable development paradigm allows for growth, but in a different and sustainable manner.

Yet, the question remained as to how to implement sustainable development in practice. Sustainable development conceptualizes the world as an interconnected system of systems that cannot be separated in terms of time and space and takes into account the complex interplay between the environmental, social and economic factors. The complexity of sustainable development's reality makes this concept difficult to grasp and apply in practice.

In order to solidify the inconcrete, measures have been introduced that support the implementation of sustainable development. One of these is the Marrakesh Process, a global movement that sets a framework for the advancement of sustainable consumption and production (SCP). SCP recommends changes in consumer behavior and alterations of companies' production patterns, allowing for the production of sustainable products. The concept of sustainable products is an offshoot of the SCP movement and as such an inherent part of sustainable development. According to the UN, businesses can play a pivotal role in fostering sustainable development by making sustainable products available on the market. Doing more with less or changing consumption and production patterns towards more durable and eco-friendly products has suddenly become *en vogue*.

Not only sustainable development gives room to companies in the quest to make the world a better place. Scholars in the beginning of this millennium have extensively examined what role business can play in terms of development. Although sometimes criticized for being just another neo-liberal market approach, the Bottom of the Pyramid (BOP) theory signifies a change in the thought paradigm towards people living in underprivileged circumstances. It calls for looking at underdeveloped regions as fertile markets and at people living in these countries not as ‘losers,’ ‘victims’ or ‘incapable’ individuals, but rather as resilient and strong entrepreneurs. It challenges the predominant line of thought that doing business in developing countries is unprofitable and gives an optimistic account of the ability to eradicate poverty through business. According to BOP theory, economic activities targeting the poor bring wealth to businesses and well-being to people at the same time. It portrays an optimistic win-win scenario in which companies can do well financially by doing good for society.

Multiple examples exist today in which companies make a fortune by selling to the poor, while creating jobs and introducing services that lead to increased well-being for many. However, successful business cases mentioned in the BOP literature only constitute companies that sell consumer products with short life spans. Successful examples of businesses selling sustainable products are missing. Selling fast-moving consumer goods opposes the idea of businesses introducing sustainable and durable products, as recommended by the UN. It is therefore interesting to investigate whether or not it is possible to do business with the BOP segment profitably while introducing sustainable products.

Implementing the BOP and Sustainable Development Theory in Practice

Ruby Cup is a company that has tried to introduce a sustainable menstrual hygiene product to the BOP market in Kenya. Although the market potential seems enormous and the product would increase the well-being of millions of girls and women, the company did not manage to reach profitability. Ruby Cup had to change its business model towards targeting richer consumer segments. Reaching a financially stable situation has also been difficult for the company Sunny People, which provides a solar-powered mobile charger to entrepreneurs at the BOP in Kenya. LivelyHoods, which sells, among other products, fuel-efficient cooking stoves, solar lamps, and LED lamps, also struggles to reach profitability. The company initially had to shut down operations. Today, LivelyHoods does not operate based purely on market terms. These three cases indicate that the BOP theory may not be compatible with the sustainable development concept in practice. Other means are needed to make necessary and

durable products available to the BOP market in Kenya. Thus, in this thesis I investigate the following question:

Research Question

How can companies make sustainable products available to the BOP market in Kenya despite facing difficulties in reaching profitability?

Hypothesis

Various inter-dependent factors prevent businesses that introduce sustainable products to the BOP market in Kenya from becoming profitable. One reason is that sustainable products are more expensive in the short term, although constituting cost-savings over time. This decreases the chance that the average BOP consumer can afford them because cash for investments in BOP markets is short and innovative payment schemes often difficult to implement. The slow sales cycle poses an additional disadvantage for companies and a barrier to become profitable.

Relevance

The BOP theory popularized by Hart & Prahalad (2002) gained popularity at the beginning of this millennium. Central figures within the BOP field are, among others, London (2007), Simanis (2008; 2012), and Karnani (2005; 2009) who occasionally co-authored papers.

A great deal of BOP theory research focuses on BOP market potential (Hart & Prahalad, 2002; Karnani, 2009) and management strategies for companies operating in BOP markets (Hart & Simanis, 2008), or concentrates on the poverty alleviation implications of doing BOP business (London, 2007). The majority of this research takes a consumer-oriented perspective and focuses on consumer behavior (Banerjee & Duflo, 2011) and the subsequent branding and marketing initiatives necessary to create demand at the BOP (Prahalad, 2002; Rajagopal, 2009; Chikewche & Fletcher, 2010; SIDA, 2013). Other approaches investigate the ethics behind doing BOP business and the responsibilities companies should take on (Davidson, 2009; Karnani, 2004; 2009). Some research focuses on the company perspective and investigates efficient distribution models (USAID, 2010; Vachani & Smith, 2008) or profitability prospects for companies doing business in BOP markets in general (Simanis, 2012). Current BOP research predominantly focuses on social and economic aspects, with relatively little attention given to environmental aspects (Azmat, 2013). Furthermore, little research has tried to look at BOP market realities in relation to the nature of the products introduced.

Investigating BOP market potential in regard to sustainable products constitutes a gap in current BOP literature. This study intends to close this gap by examining market opportunities for companies offering sustainable products to the BOP market in Kenya. It yields new insights concerning the validity of the BOP theory in terms of profitability prospects for companies selling sustainable products. This paper demonstrates under which circumstances the BOP theory might hold true, and under which conditions the theory exhibits flaws. This thesis provides a more nuanced perspective on the idea that BOP market-based solutions can solve global poverty problems if the goal is to foster sustainable development.

Delimitations

BOP theory first investigates a company in terms of development. It focuses on large corporations and multinational corporations (MNCs) in particular. I apply the BOP theory to small companies that call themselves “social businesses,” and as such differ in size and mission. Yet, market realities, no matter how big or how small a company may be, remain the same. As such, company size should not affect the validity of this analysis.

My research focuses on companies led by foreign senior executives. This has the potential to impact business operations, as the leadership might not understand the Kenyan context, and particularly local consumers, fully. However, all companies employ local employees in senior positions and work closely with local advisors, which should compensate for this potential pitfall. Moreover, market realities in terms of, for example, affordability and costs, do not depend on local or foreign leadership and as such, results are unlikely to be skewed.

Finally, this thesis looks at the BOP theory from a consumer, and not a producer, perspective. Examining BOP theory in terms of job creation with sustainable products would be interesting to investigate but exceeds the scope of this thesis.

Thesis Structure

The first part of this thesis examines the theoretical foundation of the sustainable development paradigm and the BOP approach, respectively. Sustainable development is assessed with a particular focus on sustainable consumption and production, as well as on sustainable products. This is followed by an outline of the BOP theory, its development implications, and via which means businesses can reach BOP markets. This section also includes an assessment of successful BOP companies and the overlap between the sustainable development paradigm and the BOP theory.

The methodology section of this thesis outlines the way in which data has been collected and analyzed, and makes the methods leading to this thesis’ conclusions transparent.

The third section includes an empirical investigation of the Ruby Cup case, followed by an examination of two other cases (LivelyHoods and Sunny People). The cases have been analyzed in terms of the nature of the products sold, the way they were marketed to the BOP segment in Kenya, and why the companies struggle to reach profitability.

In the analysis section, all cases are cross-checked and common factors identified that prevent the companies from reaching profitability. The analysis section also includes an assessment of alternative financing means and approaches that could facilitate the introduction of durable products in a BOP context despite market deficiencies. From this, general conclusions are drawn concerning this thesis' research question.

The final section summarizes this thesis and recommends topics for further research.

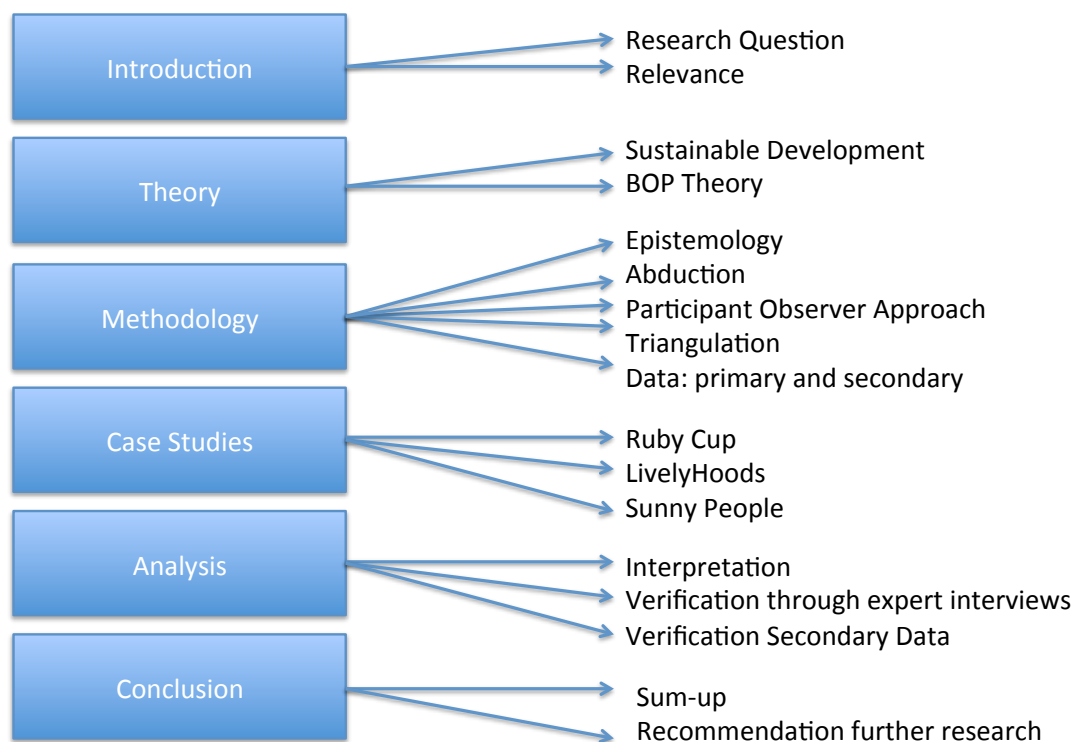


Figure 1: Thesis structure illustration (figure created by author).

Theory

This section introduces two different yet interrelated development philosophies. First, the idea of sustainable development is introduced with a particular focus on sustainable consumption, production and sustainable products. In this section, I assess how sustainable development can be induced through collaborative efforts between various actors, including the private sector. The second section introduces the market-based BOP framework to development and assesses how and with what products reaching the BOP is possible. Although BOP theory and sustainable development might seem independent from one another at first, they share some similarities. The BOP and paradigms overlap in that scholars of the former view sustainability as a necessary condition when doing business with the BOP without compromising the earth's bio capacity. Whether or not this is at all possible is the topic of this thesis. Moreover, both concepts are particularly interesting given that all business cases analyzed in this study are inspired by the BOP theory and the idea of sustainable development.

Sustainable Development

As with other subjects in the social sciences, how to create development has been widely discussed throughout history by researchers, practitioners, scholars and politicians across disciplines around the globe. Different ideas on how to move the world towards prosperity, especially among developing countries, led to different policies and activities at both the national level, and on the international development agenda.

Most recently, in the 1990s, the sustainable development approach gained popularity with the publishing of the Brundtland Report by the World Commission on Environment and Development, which was transmitted to the UN General Assembly in 1987. The report was a result of the notion that current consumption levels are unsustainable and will destroy the planet's ecosystem if people (particularly in developed countries) were to continue to live the lifestyle they live today. Increasingly, the international community, politicians and businesses supported the idea that economic activities should function within the barriers of the environment's physical barriers (Elliott, 2006). Yet, the concept remains vague. By 1992, around 70 different definitions had been recorded (Elliott, 2006) and various interpretations continue to be given room today (UN, 2010). The International Institute for Sustainable Development (IISD) defines sustainable development as "environmental, economic and social well-being for today and tomorrow" (IISD, 2013).

Despite the fluidity of the concept, a common understanding exists that sustainable development rests on the three pillars of environment, economy and social well-being, and conceptualizes the world in terms of space and time (IISID, 2013). It is based on the idea that the world is a system and that the environment, the economy and social life should be viewed as interconnected entities. For example, pollution caused in China might contribute to environmental degradation in another part of the world (space). Similarly, economic policies put into practice today can affect the next generation's economic realities (time). Moreover, healthy people contribute to a healthy economy, whereas a physically sick generation might have detrimental consequences in terms of economic realities. According to sustainable development theory, the social, environmental and economic spheres cannot be separated (IISID, 2013).

How to Reach Sustainable Development

How sustainable development can be achieved has been a subject of debate over the past 20 years (Elliott, 2006). According to the UN (2010), reaching sustainable development would require a change in consumer culture in both developed and developing countries, and businesses would need to support this via altering production patterns.

In 1994, the United Nations Environment Programme (UNEP, 2011) proposed a move towards sustainable consumption and production (SCP) in order to reduce the social, economic and environmental costs induced by current economic practices (UNEP, 2011). The Norwegian Ministry of Environment at the Oslo Symposium in 1994 defined SCP as “the production and use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardize the ability to meet the needs of future generations.” (UNSDKP, n.d.¹). The idea of SCP is to find ways of having economic growth without depleting environmental resources. In other words, “SCP aims at doing *more and better with less*, re-ducing environmental impacts while at the same time increasing quality of life for all” (UNEP, 2011: 2).

Whereas in affluent countries, SCP often means reducing consumption, in Africa the term means something different (UNECA, 2012). Although the trend in Africa also hints towards an increasing depletion of resources, the continent still lies below consuming what it could (UNECA, 2012). In the African context, SCP is not about consuming less but rather the opposite: In this region, the majority of the population needs to increase their consumption

¹ According to the Harvard Referencing System 'n.d.' means 'no date' and is used when the date of publication is unknown.

levels in order to fulfill their basic needs (UNECA, 2012). In this context, SCP means giving people access to resources, products and services that are more efficient and less resource intensive (UNECA, 2012).

Sustainable Products

“Sustainable development will only be possible if the throwaway culture is challenged and there is an overall increase in the life-span of consumer products” (Cooper & Christer, 2010: xxi).

According to the United Nations Economic Commission for Africa (UNECA), various stakeholder groups, such as governments, consumers, media, and businesses should jointly work towards achieving SCP in Africa. Businesses in particular play an important and considerable role. As producers of products, businesses have the responsibility to give households the possibility to consume sustainably by making sustainable products available on this particular market (UNECA, 2012). Accordingly, business can influence and shape consumer choice and should foster the production of sustainable products in order to “make it easier for households to make sustainable choices.” (UNECA, 2012: 101).

Defining sustainable products is not an easy task. As with sustainable development, the concept is vague and embraces various and interconnected aspects. The Lowell Center for Sustainable Production defines sustainable products as products that “minimize environmental and social costs throughout the product life-cycle and aim to maximize environmental and social benefits to communities, while remaining economically viable.” (Edwards, 2009). According to Edwards (2009), a sustainable product should signify a real need (think of, for example, perfumed socks versus water), yet what constitutes a real need is said to be a subjective matter. The author has defined various parameters that make products sustainable. These include health for consumers (avoiding hazardous chemicals and safe usage), safety for workers and fairness during production, benefits to local communities (fair wages, profits are funneled back to the local community, participation of workers and the community regarding company decisions), economic viability for companies (the product responds to the market, and pricing includes the internalization of costs), and environmental sustainability. The last of these parameters is especially interesting for this thesis and should be of focus. This includes the minimization of waste and durable (to the extent this is possible) packaging and products (Edwards, 2009).

Durable goods differ from fast-moving consumer goods (FMCG) in that they are expected to last for a long period of time. Whereas FMCG are based on low margins and high volumes and can be viewed as “relatively inexpensive, frequently purchased and rapidly consumed items on which buyers exert only minimal purchasing effort” (Dibb et al., 2006: 298 in Leohy, 2011: 2), durable goods have a slow sales cycle and are purchased less frequently. Investopedia candidly calls durables “stuff you buy to last” (Investopedia, n.d.). Thus, in order to reach SCP, businesses need to make sustainable products, which are defined here as durable consumer goods, available.

Conclusion

Widespread agreement exists that the world needs sustainable development in order to move forward in a way that does not threaten the earth’s bio capacity. Sustainable development implies changing consumers’ behavior and companies’ production patterns in order to foster the production of sustainable products. Sustainable products are those that aren’t resource intensive and are meant to last. Whether or not sustainable products are a viable business option on low-income markets will be assessed in the next section, which discusses the role of the company in relation to development.

BOP Theory

C.K. Prahalad (2009) has investigated what role business can play as a facilitator in terms of creating development, particularly in developing countries. According to his Bottom of the Pyramid approach, “Poverty alleviation will become a business development task” shared between private companies and local BOP entrepreneurs (Prahalad 2009: 5).

Background

It is necessary to examine what precisely the private sector has to do with development. Four aspects have been central in the development of this approach.

Aid Has Failed

According to London (2007), over the last 60 years and spending more than 2 billion dollars of traditional development aid, states, NGOs and international organizations have generated mediocre results at best. The pressure on the traditional aid industry on the one hand, and the desire for effective ways to help the world’s poor grow out of poverty on the other, gave rise to new voices suggesting the importance of markets and private sector involvement in development (London, 2007).

Market Size

At the same time, Prahalad and his colleagues were examining developing countries in terms of market potential. According to Prahalad (2009), this market counts all people living under less than 2 USD per day. He calls this section of the population the “Bottom of the Pyramid” segment of the global income pyramid. Accordingly, an individual BOP consumer doesn’t have much money. However, if one looks at the aggregate number of people, the BOP is a tremendous market that, accordingly, cannot be overlooked. In other words, “While individual incomes may be low, the aggregate buying power of poor communities is actually quite large.” (Hammond & Prahalad, 2002: 49).

The BOP market, according to Prahalad (2009), counts over 4 billion people and has an aggregate purchasing power of 13 trillion USD in term of purchasing power parity (Prahalad, 2009). Hammond estimates the market size at 14 trillion USD (Karnani, 2009). For comparison, this is more money than Germany, the UK, Italy, France and Japan have combined (Prahalad, 2009). The below picture depicts the BOP market size graphically.

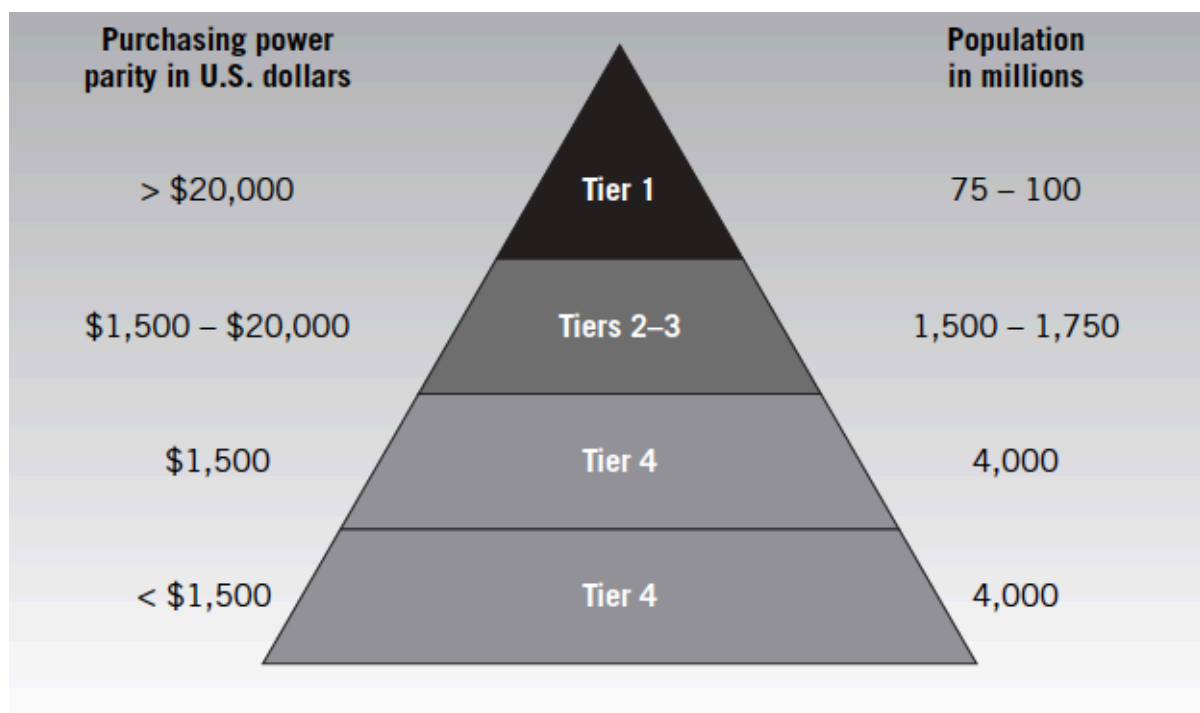


Figure 2: The economic pyramid. Source: Hart and Prahalad (2002).

The actual BOP market size is widely disputed. Karnani (2009) contends that Prahalad’s figure is an extreme exaggeration of reality. In his research based on World Bank data, he suggests that in reality, the BOP market only amounted to 300 billion USD in 2002 and 360 billion USD in 2007 (Karnani, 2009). Other researchers argue that the BOP market does not have roughly four billion, but rather 600 million people (Pitta, Guesalaga & Marshall, 2008).

This leaves room for concern and research should focus on investigating the plausible market size of the BOP. Whether the market counts 14 trillion or 6 million exceeds the scope of this thesis and is of less importance than the aspect that gave rise to the BOP theory, namely that regardless of size, there is a market at the BOP.

Negative Images about Poor People

According to Hammond and Prahalad (2002), the reason BOP market potential has been left untapped is due to the dominant logic and cognitive thought processes of politicians and managers who view the poor as a problem rather than a market full of capable entrepreneurs. The authors also blame “NGO-thinking,” which views profit per definition as something evil. According to the authors, it is a matter of perspective to induce change. Prahalad (2009) encourages an approach that is centered on the strengths and agency of people, and opposes viewing them as victims. He contents that, “If we stop thinking of the poor as victims or as a burden and start recognizing them as resilient and creative entrepreneurs and value-conscious consumers, a whole new world of opportunity will open up” (Prahalad, 2009: 1). The Western world only needs to distance itself from the TV image it is so familiar with, wake up, and look at the tremendous business opportunity this segment can offer (Prahalad, 2009). Subsequently, Prahalad (2009) calls for a change in thought paradigm that entails seeing the poor not as a problem but as a market, focusing not on market constraints but on opportunities, and departing from old business thinking to innovative business models tailored to the specific BOP context. The figure below describes what a shift in thought paradigm would entail.

<i>From</i>	<i>To</i>
Poor as a problem	Poor as an opportunity to innovate, a global market of 4.5 billion
Poor as wards of the state	Poor as an active market/consumers
Old technologies	Creative bundling of the most advanced technology with a local flavor
Follow the West	Selectively “leapfrog” and innovate
Focus on resources and constraints	Focus on creativity and entrepreneurship
Capital limitations	Limitations to information and access
Efficiency in a known model	Innovation of a new model

Figure 3: Paradigm shift necessary in order to see BOP market potential. Figure by Prahalad (2002).

From Profit to Purpose

According to Prahalad (2009), BOP profits would lift the poor automatically out of poverty and at the same time translate into purpose (development). The underlying logic of creating purpose from profit is that, firstly, seeing people as capable (as opposed to seeing them as poverty stricken victims) will give them dignity through choice. Accordingly, “when the poor are converted into consumers, they get more than access to products and services. They acquire the dignity of attention and choices from the private sector that were previously reserved for the middle-class and rich.” (Prahalad, 2009: 20). Secondly, if businesses provide products to the poor, increased competition will lower prices that are currently maintained at high levels by local monopolies. In connection to the latter, Prahalad mentions the “poverty penalty,” meaning that the poor generally pay a price that is 5-25 times higher than the price paid in richer neighborhoods. He contends that the private sector could ameliorate this price difference und “unlock this poverty penalty.” (Prahalad 2009: 11). Cheaper and fair prices for the poor would increase their disposable income, which could then be saved or spent on other goods while simultaneously increasing their standard of living.

The notion that profits automatically translate into purpose has been subject to debate. Karnani (2009) is concerned that companies lack ethical considerations when trying to sell products to the BOP. He contends that many corporations “exploit poor people’s vulnerabilities, such as their lack of education and their desire for cheap relief from chronic distress” Karnani (2009: 7). He criticizes the marketing of, for example, Samsu, which is a cheap liquor sold in Malaysia to low-income people. He writes that in Malaysia the Samsu manufacturer claims that Samsu is “good for health, cures rheumatism, body aches, low blood pressure, and indigestion.” (Karnani, 2009, p. 42). While in the EU similar advertisements would be illegal, marketing laws in many developing countries are less strict or less strictly enforced, and in some cases companies exploit these realities at the BOP (Karnani, 2009). This is especially dangerous because BOP consumers are often illiterate, more likely to behave against their own self-interest, and make irrational purchases. For example, Karnani writes about an individual named Hasan, who spends his money on cigarettes instead of buying eggs for his children. When questioned about his children’s food, Hasan responds, “Eggs? Where will the money come from to buy them?” (Karnani, 2009: 41). Karnani (2009) is cautious of regarding the poor as capable entrepreneurs, and instead acknowledges the vulnerability of this consumer group. Davidson (2009) airs similar concerns about some companies marketing inappropriate products, such as tobacco or skin bleach, and engaging in

unfair pricing, marketing and branding techniques. He contends that, “all products are not created equal in ethical terms” (Davidson, 2009: 24).

Although Prahalad speaks of the positive development impact that profits can yield, the above discussion indicates that the way marketing is conducted and the nature of the products sold to the BOP is an important aspect to be considered when doing BOP business. However, a discussion concerning ethical marketing or products is beyond the topic of this thesis. Yet, sustainable products as defined by Edwards (2009) might be a valuable indicator for the determination of which products are ethically correct to sell or yield real benefits to the BOP consumer. For example, the notions that products need to yield benefits to the local community and should not pollute the environment are important aspects of the concept of sustainable products. Furthermore, the idea of meeting people’s real needs is included in the definition of sustainable products. According to Edwards (2009), real needs should be assessed in collaboration with the community, which mirrors the notion that needs are a subjective matter and should be decided upon together with the various stakeholders involved. Future research should analyze sustainable products in regard to business ethics on BOP markets.

Conclusion

Several aspects gave rise to the development of BOP theory, including the notion that aid has failed, that poor people are capable of helping themselves out of poverty, that the aggregate number of people with low disposable income actually yields market potential and, finally, that profits can turn into purpose and development for the BOP consumer. Yet BOP theory is not undisputed. For example, market size is debatable, as is the ethical nature of some companies’ marketing procedures and/or products. Sustainable products might be a valuable indicator to help assess the ethics of doing BOP business.

How to Reach the BOP

Taking the BOP business opportunity as a given, many scholars remained puzzled by how to serve this market profitably and purposefully.

Partnerships

According to Prahalad (2009), doing successful BOP business requires collaboration between various actors, such as local governments, development agencies, poor consumer groups and, most importantly, the private sector. Together, the different entities involved should be able to

find a solution to the problem of poverty (Prahalad, 2009). What exactly these partnerships would look like, however, is not clearly defined. Yet, Prahalad and Hart (2002) mention the importance of knowledge transfer in order to develop sustainable products. According to the authors, “Indeed, it is possible through partnerships to leverage traditional knowledge bases to produce more sustainable, and in some cases, superior products (...).” (Prahalad & Hart, 2002: 10).

Low Margin-high Volume Products, Point and Time of Sale

Prahalad (2009) is concerned with consumer realities at the BOP. He mentions that in order to reach the BOP, products need to be made affordable, available, and accessible. Regarding the first, he recommends a strategy based on low margin (products) and high volume (sales) in order to gain profits. As an example, he frequently mentions the introduction of single serve packages. Since most BOP consumers have unstable incomes, ‘single-serve packages’ are a good way of maintaining cash flow. In his words, BOP customers “tend to make purchases only when they have cash and buy only what they need for that day. Single-serve packaging—be it shampoo, ketchup, tea and coffee, or aspirin—is well suited to this population.” (Prahalad 2009: 17). Should products be more costly, Prahalad (2009) suggests exploring innovative purchasing schemes that make it possible for customers with little disposable income to afford even the more pricy options. For example, he mentions installment payments or credit options. Secondly, access to products is crucial because BOP consumers do not have cars and cannot travel long hours to reach shopping centers. Thus, buying points must be located near to where BOP customers live. Lastly, availability is closely related to accessibility, but more related to time. Products must be available when BOP customers have money since cash flow is unstable and irregular.

Branding

Prahalad (2009) recommends branded products because the poor are very brand and value conscious. Brand consciousness among the poor should not be seen as a surprise. Rather, it can be viewed as an aspiration to a new and different quality of life that everyone dreams of, especially those at the BOP. Therefore, “aspirational brands are critical for BOP consumers” (Prahalad, 2009: 14). The Innovations Against Poverty (IAP) Knowledge Exchange Report by the Swedish Development Cooperation Agency (SIDA), which investigated various businesses attempting to do business in BOP markets across sectors and continents, also regards aspirational brand value as important when marketing to the BOP market. The report

states that, “BOP customers are driven by aspiration. (...) Like any consumer group, BOP customers want to be respected and admired by their peers. They want to have social status, own the latest or fashionable things, and be like their aspirational role models.” (SIDA, 2013: 21).

Uncomplicated Products with Short Sales Cycles

A recently released report by USAID (2013) yields interesting observations concerning the financial viability of businesses at the BOP in terms of various parameters. The report maps 440 different BOP businesses. Different factors were analyzed to be important when doing successful business at the BOP. In terms of products’ properties, the report states that BOP products need be easy to sell. This means that products need to be uncomplicated, well known, and have a short sales cycle (USAID, 2013). This would help to decrease the initial costs of marketing. In other words, rapid sales cycles would help cover the costs of initial “demand stimulation activities.” (USAID, 2013: 6).

The Management Method BOP 2.0

Partly in response to the previously mentioned criticism of BOP theory and its development implications, the newest BOP theory focuses not so much on the content (i.e. the margins, branding, products etc.), but on the particular management method of doing business. As with the definition of sustainable products by Edwards (2009), Hart & Simanis (2008) propose an approach to doing BOP business that focuses on including the consumer in business decisions. They acknowledge that companies, in their desire to yield profits at the BOP, sometimes forgot to include “the poor” during their quest to ‘rescue’ them. Accordingly, despite their good intentions, corporations engaged in the latest form of “corporate imperialism” (Hart & Simanis, 2008: 2) by merely turning the poor into consumers, while believing that this could solve the complex problem of poverty. The two authors state that these “first generation” BOP initiatives failed in terms of poverty alleviation because they were based on a top-down approach, i.e. decisions were made without regarding the needs and wants of the communities they were meant to serve (Hart & Simanis, 2008).

In response to this problem, the authors introduce the consumer-oriented “BOP 2.0” approach. They change the name “Bottom” to “Base” in order to depart from the patronizing associations of the former. In their paper, *The Base of the Pyramid Protocol: Toward Next Generation BOP Strategy*, the two argue that business can only be successful and create impact when using a consumer-centered approach. This means including the poor as an

important stakeholder group. Hart and Simanis (2008) suggest dialogue rather than a top-down business approach. Mutual value creation and co-development should serve as central aspects of such dialogue. This includes moving away from viewing the BOP as *consumers* and towards seeing the BOP as *business partners*, and focusing on co-creation of the business (Hart & Simanis, 2008). According to the authors, the BOP 2.0 approach leads to long-term growth for businesses and, more importantly, community-based development yielding real benefits for the BOP. By following the BOP 2.0 business guidelines outlined in their paper, companies are able to create “new, ‘locally-embedded’ businesses founded on trust and shared commitment between the corporation and the community” (Hart & Simanis, 2008: 41).

Conclusion

Various scholars have different suggestions concerning how BOP business should be carried out. Among the various ways to reach the BOP, partnerships, affordability, innovative purchasing schemes, branding, and rapid product sales cycles are mentioned. Furthermore, including the BOP when making business decisions is considered an important aspect when doing business with this population segment. The section below outlines successful BOP businesses that might shed light on the question of what makes a BOP business successful.

Successful BOP Cases

Prahalad (2009) cites various examples in order to back up his theory. One of the cases mentioned by Prahalad (2009) is the successful company Avon, which primarily sells beauty and personal care products, such as cosmetics. Via its “Avon sales ladies model” (Avon, n.d.), the company has been able to reach customers in the most far-away regions (Prahalad, 2009). Avon employs 6.5 million female sales agents in 100 different countries, including Brazil, Mexico, South Africa and Uganda (Avon, n.d.). According to a recent Oxford University study, the company provides substantial income to its sales agents. Avon sales agents are often women that have been outside the job market and were members of a group of formerly marginalized people (USAID, 2013). Avon includes these women in the market through employing them. For example, in South Africa, Avon representatives earn on average 157 USD/month (USAID, 2013). On its own website (Avon, n.d) the company states that, “Avon is committed to the mission to ‘do well by doing good,’ managing its business enterprise to the highest standards while leveraging its unique capacity to mobilize and engage people to be agents of change in their lives, communities and the world.” Evidently, Avon illustrates some positive correlation between being a successful business and creating positive impact for low-income or marginalized people.

Hammond & Prahalad (2002) also mention the most prominent BOP case, that of Hindustan Lever (Unilever's Indian subsidiary). Hindustan Lever has tried to sell candy containing real sugar and fruit priced at 7 pennies per serving to the BOP in India. According to the authors, this product line became Hindustan Lever's most important business unit within only six months. Hindustan Lever also successfully sells salt and detergent in single-serve packages to the BOP in India. As with Avon, Hindustan Lever reached its market through creating a network of women entrepreneurs who were trained and learned new skills, increased their income, and reached out to previously underserved markets (Davidson, 2009). Arguably, through job creation and the empowerment of the sales women, Hindustan Lever is able to earn money while creating benefits for the community they are serving.

Another success story is that of the airtime vendors that make money through selling airtime to local urban slum dwellers or rural BOP consumers in East Africa (USAID, 2013).

The Danish company Fanmilk (FanMilk, n.d.), a less prominent example, has been operating in Africa for over 50 years. Its mission is to "produce and distribute high quality branded products to consumers in West Africa." (FanMilk, n.d.). FanMilk sells frozen dairy and juice products through a direct sales system in seven West African countries. The company currently employs 1200 people and 25,000 sales agents (FanMilk, n.d.). As with the aforementioned cases, FanMilk manages to generate impact via employment generation.

The BOP proposition and cases mentioned by Prahalad have received considerable amounts of criticism in terms of real business potential. Crabtree (2007), for example, mentions that many of the business cases mentioned by Prahalad are actually partnerships between large NGOs and businesses in reality (and businesses only contributing marginally in financial terms) or trusts. Simanis (2012) also dampens the BOP hype. He mentions Procter & Gamble and Dupont as examples that failed when entering BOP markets. P&G's water purifier failed despite reaching a 5-10% market penetration rate. DuPont had to shut down its soy protein business line because low profit margins were not covering costs (Simanis, 2012). Karnani (2004) points towards the confusion of the BOP definition and states that the cases mentioned by Prahalad are not actually serving the BOP segment as defined by Prahalad himself (people living under 2 USD/day), but rather appealing to a population segment far above that poverty line. Although being perceived as poor in relation to Western standards, the segments served are middle class segments in relation to the local economy (Karnani, 2004). He states that Hindustan Lever's market share at the "real" BOP is minimal in reality, and that Coca Cola, for example, had to change its low-price strategy in 2004 towards serving wealthier segments

in India. As for the market size of the BOP, the BOP market potential is disputed and depends on which author is examined. An analysis of the real market potential cannot be incorporated, yet, the examples mentioned above are strong indicators that doing business in BOP markets yields profits and impacts the community at least in terms of income generation. What also becomes clear is that the business cases mentioned sell products that have rapid sales cycles, such as lipstick, candy, salt, milk, and airtime. It is thus interesting to investigate whether or not BOP business is possible with sustainable products, or those with a long sales cycle.



Photographs of products sold in local kiosks illustrating market potential for companies in BOP markets (Kiva Zip, n.d.).

Conclusion

This section illustrated that successful BOP cases exist, but that the BOP's real potential is debated in the literature. It is also apparent that the successful cases mentioned by BOP scholars or researched online are based on consumer goods with short sales cycles, such as cosmetics (Avon), salt or detergent (Hindustan Lever), airtime, or ice cream (FanMilk). Although these cases illustrate a positive impact in terms of employment generation, the environmental implications remain unclear. The following section illustrates how environmental sustainability is regarded as an important parameter when doing business with the BOP without sacrificing the earth's bio capacity.

BOP Theory and Sustainability

Although never examined in detail, in addition to business strategy and marketing approaches, many BOP theorists mention the importance of sustainability and sustainable products. Prahalad had mentioned the importance of doing BOP business in an environmentally sustainable manner by 2002. Accordingly, BOP business models must be environmentally sustainable and "curtail the use of water, energy, and materials. (...) Production methods as well as products must consume little of the limited resources without sacrificing functionality." (Prahalad, 2002: 3). Moreover, the recently founded BOP Hub, a global think tank, mentions sustainable products as a good solution for BOP customers. Accordingly,

“with affordable, long-lasting, and environmentally friendly, products and services, the BOP can find true solutions to their needs.”(Eco Business, n.d.)

Hart & Simanis (2008) view the compatibility between the environment and BOP business as the heart of the challenge. In their view, if the BOP consumer segment would consume at the level of affluent countries, it would need at least three times the earth’s bio capacity to supply the required resources and absorb the waste created (Hart & Simanis, 2008). In their words, “learning to close the environmental loop at the Base of the Pyramid is one of the fundamental strategic challenges — and opportunities — facing MNCs in the years ahead.” (Hart & Simanis, 2008: 5). According to the authors, if following the BOP 2.0 management strategy, businesses can ameliorate the gap between “meeting the needs of the Base Of The Pyramid and overwhelming the planet’s ecological systems.” (Hart & Simanis, 2008: 5). This thesis examines whether the BOP proposition in terms of sustainable products is at all feasible.

Conclusion

The discussion above illustrates that thinking about sustainability is present in the BOP approach. According to leading BOP scholars, it is a prerequisite to do business with the BOP in a way that does not harm the environment. Most recently, sustainable products have been mentioned as real solutions for BOP customers’ needs. Yet doing business with sustainable products in BOP markets has not been examined in detail, which is why this paper intends to shed light on precisely that subject.

Conclusion of the Theory Section

This section examined the concept of sustainable development with particular emphasis on sustainable production, consumption, and sustainable products. Despite the fluidity of these concepts, widespread agreement exists that sustainable development in Africa can be achieved through sustainable consumption patterns. This implies that businesses should introduce sustainable and durable products to these markets. Next, the role of business in relation to development is discussed. Central points in this section are discussions concerning the relationship between profit and purpose, how business can reach poor consumer groups, and what kind of products have been introduced successfully to this market. It is evident that the successful business cases mentioned in the literature and found online introduce Fast Moving Consumer Goods (FMCG) to this market, as opposed to sustainable or durable goods. Although this signifies considerable impact in terms of job creation, the environmental implications are left out. However, many BOP scholars consider environmental sustainability

to be a prerequisite for successfully engaging in BOP business and a necessary condition for preserving the earth's bio capacity. The following section describes the methodology applied to examine whether or not it is possible to do BOP business with sustainable and durable products.

Methodology

“The unity of all science consists alone in its method, not in its material.” (Parson, 1892: 16 in Keohane, King, & Verba, 1994:9)

In order to answer this thesis’ research question, I empirically examine three business cases. First, I extensively examine Ruby Cup, the business that I founded and work for. I triangulate my findings on this case with two similar cases that have been selected based on the “Most Similar Systems” method. Data has been collected through participant observation and informal and semi-structured interviews, and evaluated via qualitative content analysis. This multi-method data collection has contributed to attaining credible findings that scholars can utilize for future research.

Research Paradigm

This study is based on the belief that reality and knowledge are generated via the subjective interpretation of a given social phenomenon. According to Keohane, King, & Verba (1994: 7), the goal of research is inference, i.e. an explanation of something that happens in the world based on reasoning (Keohane, King, & Verba, 1994: 7). One of the implications of drawing inferences is the assertion that results by definition are uncertain and subject to interpretation. Through using an interpretative research philosophy, I distance myself from positivism and the idea of generating “law-like generalizations similar to those produced by the physical and natural scientists” (Saunders, 2009: 598), i.e. the ambition of delivering a “true” account of reality. In contrast, I view knowledge as a socially constructed and fluid concept. Consequentially, the perspective on a given phenomenon is flexible and can be altered, corrected and renewed. Yet, multiple perspectives in combination can form an appropriate and comprehensible account of reality (Mazzocchi, 2006).

Method of Reasoning

This thesis utilizes a combination of inductive and deductive research approaches, referred to by some as abduction (Reichert, 2004). The research question and hypothesis of this thesis have been derived inductively based on my field experience in Kenya. Induction is an approach that builds theory from observations (Saunders, Lewis, & Thornhill, 2009). During my time in Kenya and working in the field for Ruby Cup, I was able to observe how the company struggled with reaching profitability. I derived my hypothesis from this experience. Similarly, all cases analyzed in this thesis fit the BOP paradigm and have been inspired by the idea of creating development through business as suggested by Prahalad. By analyzing the

cases, I am using a deductive approach as I am going from theory to data, testing Prahalad's theory in terms of sustainable products. I have found this approach beneficial and very insightful in order to answer this thesis' research question. According to Saunders, "not only is it perfectly possible to combine deduction and induction within the same piece of research, but also in our experience it is often advantageous to do so." (Saunders, Lewis, & Thornhill, 2009:127)

The Different Research Steps

Three main steps are crucial to the way research was conducted.

Step 1

First, I analyze Ruby Cup's business operations in Kenya from June 2011 to December 2013. The Ruby Cup case has been assessed primarily through the participant observer data collection method and constitutes the major part of the empirical analysis. In order to prevent biased results, I have triangulated my own observations with other Ruby Cup staff by conducting semi-structured interviews with a Ruby Cup sales lady and the company CEO. Triangulation refers to using "two or more independent sources of data or data collection methods to corroborate research findings within a study" (Saunders 2009: 154). By cross-checking the data, I intend to achieve valid research results not affected by my own involvement in the Ruby Cup case. This reduces the likelihood of generating biased results.

Step 2

After drawing preliminary conclusions based on the Ruby Cup case, I analyze whether the Ruby Cup experience is similar to other businesses. In order to investigate this, I conducted semi-structured interviews with senior executives of other businesses selling sustainable products to the BOP market in Kenya. Whereas I triangulate findings within one case in the first section, in this section I triangulate data between the three cases used for this case study. This step facilitates generalizing results as I am coming to similar conclusions in all cases analyzed.

Step 3

In the analysis section, in which I identify various factors that make operating in the Kenyan BOP market with sustainable products difficult, I back my findings with secondary literature. I also draw upon the expert knowledge of the recently retired Regional Director for Africa of the Vestergaard-Frandsen company, which has been operating in BOP markets since the

1960s. The analysis section also includes an assessment of the implications of this study's findings. The figure below depicts the methodology used for this thesis.

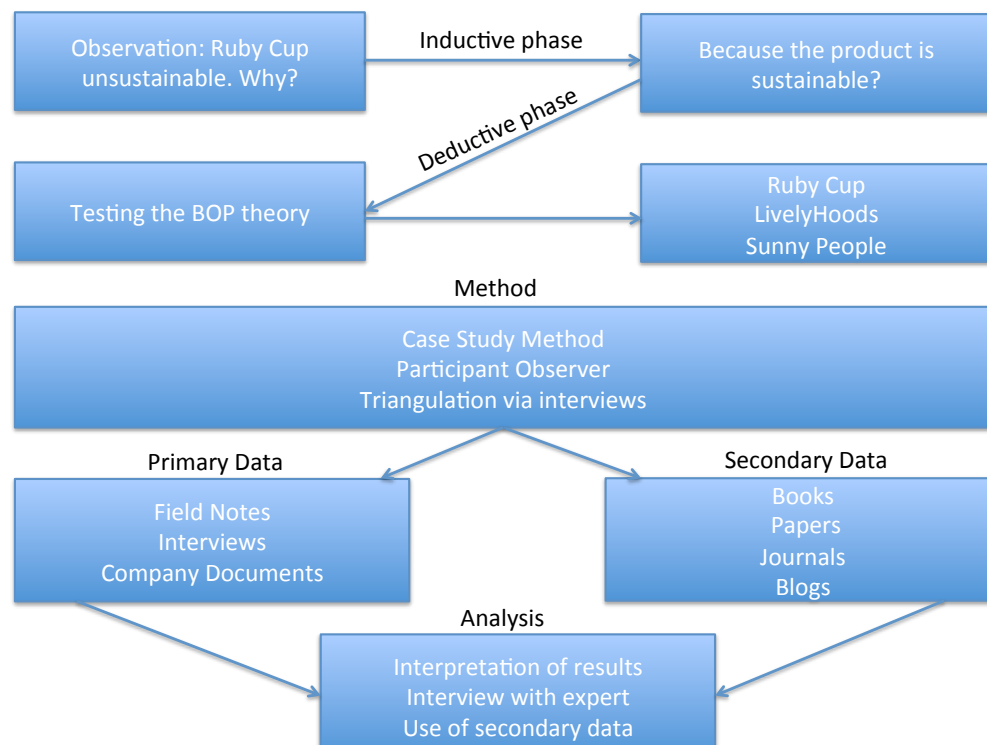


Figure 4: Depicting how research was carried out (figure created by author).

Case Study Research

According to Vennesson (2008), case studies have been increasingly popular since the 1920s and have aided the understanding of many of the social and political phenomena around us. Case comes from the Latin *casus*, i.e. an incident, or an occurrence from which we can learn. Case studies vary in shape, form, and context. Robson defines case study research as “a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence” (Robson, 2002:178 in Saunders, Lewis, & Thornhill, 2009: 145). Whether or not case study research can help generalize results has been discussed widely. Flyvbjerg (2006) accounts for several misunderstandings including the impossibility to generalize from a single case. He clarifies that whether or not findings can be extrapolated depends on the case in question.² Yet, as briefly mentioned earlier, in order to prevent criticism towards making generalizations, I triangulate results derived from the Ruby Cup case with two other cases that

² According to Flyvbjerg (2006), single case studies have generated ground-breaking changes and paradigm shifts at least since Galileo changed Aristotle's view on gravity based on one single case

have been carefully selected for this purpose. More on the case selection method follows below.

Data

All research is derived from data. “‘Data’ are systematically collected elements of information about the world” (Keohane, King & Verba, 1994: 23). Data can be qualitative and quantitative and primary and secondary. For the cases analyzed, this study mainly draws on primary data, that is, new and original data collected by the researcher via interviews, surveys or observation (Saunders, Lewis, & Thornhill, 2009). It also draws on secondary data, meaning data that was available beforehand, and that had been collected for another purpose (Saunders, Lewis, & Thornhill, 2009). Secondary data has been used extensively in the theory section of this paper in order to lay the theoretical foundations for this study. It is also used in the empirical section, where it serves to complement the analysis generated via primary data collection. Throughout, this study draws on mainly qualitative data, meaning it is non-numeric (Saunders, Lewis, & Thornhill, 2009). Below, I account for the primary data collected in more detail. A thorough description of the secondary data utilized follows thereafter.

Primary Data

Primary can be defined as “Data collected specifically for the research project being undertaken” (Saunders et al., 2009: 598). Primary data for this study was collected (a) through participatory observation and (b) informal and semi-structured interviews.

During my time in Kenya, I collected primary data mainly through observation. In essence, observation is about description and interpretation of people’s behavior and is “a somewhat neglected aspect of research,” although it adds tremendous insights to the phenomena studied (Saunders, Lewis, & Thornhill, 2009: 288). I participated and observed from the day Ruby Cup was founded. This included, among other things, participation in field workshops ranging from recruitment of sales ladies to sales trainings in Kenya, sales exercises in the field, and feedback sessions. I also organized local marketing events, participated at local events, and met with numerous women’s groups, community-based organizations (CBOs) and local non-governmental organizations (NGOs). According to Flick, Kardoff, & Steinke (2004), data should be recorded in some form in order to be examined properly. During or after those field meetings, events and conventions, videos were recorded or photos were taken. I also wrote down my impressions and experiences on paper, either in diary form or in the form of emails

to co-founders or other stakeholders.

I attended high-level meetings with UNICEF, the WHO, the Danish and German embassies, Care International, and UNHCR, to name but a few. Finally, I participated in numerous events, such as the regular dinners at the women's entrepreneurs club (YWSE) in Nairobi or in events hosted by the global impact venture fund The Acumen Fund, or the business accelerator African Growth Hub. During these conventions, I was able to engage in informal conversations and exchanges of knowledge with experienced business people or senior staff from development organizations located in Kenya. I sometimes met staff from the other cases analyzed in this study during the conventions. Although these conversations had no clear direction and lacked a predefined list of questions, I noticed that all interviewees told me about the difficult financial prospects of their businesses. Informally, we exchanged business experiences and shared knowledge concerning doing business with the BOP segment in Kenya. These conversations meant that my knowledge prior to the writing and research process was already substantial.

Later on, this knowledge was given more structure in the form of semi-structured interviews. Interviews are defined as "a purposeful discussion between two or more people" (Kahn and Cannell, 1957 in Saunders, Lewis, & Thornhill, 2009: 318). I specifically asked participants questions concerning the topic of this study, which yielded new and interesting insights. My interviews contained a combination of closed (yes/no) and open-ended questions, which I prepared based on the preliminary findings of the Ruby Cup case and electronically mailed to the study participants. The questions were similar for all respondents, yet slightly tailored to their individual business context. According to Saunders, Lewis, & Thornhill (2009), it makes sense to adjust qualitative research interviews depending on the context.

During the process, I specifically asked for obstacles that made becoming financially profitable difficult in order to investigate whether the same problems affecting Ruby Cup could be traced in other, similar cases. The last section gave room for commenting on the questions asked. These interviews were done remotely via emails. It is likely that personal conversations would have yielded more profound accounts of the situation. Yet, since the contact had been established prior to the collection of the interviews and the relation between myself and the other study subjects is very familiar, I was able to go back and forth with my interviews so that the information that I needed was provided gladly upon frequent follow-up requests. Interviews are found as appendices to this study.

Analysis of Primary Data

The analysis of the primary data was done based on the qualitative content analysis defined as the “systematic examination of communicative material” (Mayring in Flick, Kardoff, & Steinke, 2004: 265). Qualitative content analysis involves various methods for text analysis that can be applied independently or in combination. It includes summarizing and reducing the material, explicating, or structuring, and coding it based on specified rules. The latter categorizes the data in order to derive causal explanation between variables and as such, structuring tries to lean on quantitative data analysis (Kohlbacher, 2006). In this thesis I apply the explication method that involves “explaining, clarifying and annotating the material” (Kohlbacher, 2006: 16). Via paraphrasing and interpreting the material, I attach meaning to the text and inevitably, my own values and beliefs affected the research (Saunders, Lewis, & Thornhill, 2009). I am also categorizing the data based on similarities that are found to be negatively influencing businesses and constructing categories that assist in understanding the limitations the cases faced in the quest to become profitable. It is important to note that I am not deriving causal relationships between the variables and secondly, that the data analyzed is non-exhaustive because the success or failure of businesses can be caused by numerous variables. If at all possible, claiming that the variables analyzed in this thesis are inclusive would clash with this thesis’ research paradigm and my understanding of reality. Yet, through using multiple sources and mixed-methods data collection, the results of this thesis are comprehensive, valid, and yield a realistic account of reality.

Secondary Data

Secondary data can be defined as “data used for a research project that were originally collected for some other purpose” (Saunders, Lewis, & Thornhill, 2009: 600). Secondary data for this study consisted mostly of academic journals, papers and books, and constitutes the theoretical foundations of this study. I also used secondary data for complementing the primary data used for the analysis of the cases. For the BOP theory section, I primarily based my research on the ‘founding fathers’ of the theory, such as C.K Prahalad, Stuart Hart, Ted London, and Erik Simanis. Since the BOP field is fairly new, I also went through relevant websites, such as The Practitioner Hub website or the World Resource Institute website. For the section on the theory of sustainable development, I focused mainly on studies published by international organizations, such as various UN bodies, the World Bank or widely acknowledged research institutes.

Data Credibility

In assessing the quality of data collected, two important aspects need to be considered: reliability and validity. The former refers to consistency of findings (Saunders, Lewis, & Thornhill, 2009) and can be assessed by checking the following criteria. Data is reliable when (1) data collection is made public so that others can comprehend the way it was selected, (2) other observers reach similar conclusions of the same study, and (3) the same methods yield similar results in other contexts. Validity refers to “measuring what we think we are measuring” (Keohane, King & Verba, 1994: 25), and can be improved by cross-checking data (Saunders, Lewis, & Thornhill, 2009).

In order to ensure data credibility as described above, I followed the “guidelines for improving data quality” outlined by Keohane, King & Verba (1994: 23). As recommended, I recorded and put to protocol the process undertaken that led to the conclusions of this study. All interviews, field notes, and other data are found in appendices to this study and/or can be provided upon request. In this way, I have made the method transparent and comprehensive to the reader.

I collected as much data as possible using different businesses and perspectives in order to cross-check my observations, based on which conclusions are derived. This is why much of this thesis focuses on triangulating perspectives both within one case and between the cases.

Moreover, it is recommended that the same data collection procedures be used in order to reach reliable conclusions (Keohane, King & Verba, 1994). Saunders, Lewis, & Thornhill (2009) contend that using multi-methods is widely applied in scientific research and can yield useful results. Multi-method refers to “those combinations where more than one data collection technique is used with associated analysis techniques, but this is restricted within either a quantitative or qualitative world view” (Tashakkori & Teddlie (2003) in Saunders, Lewis, & Thornhill, 2009). For all cases, I applied a qualitative data collection technique. Furthermore, the interviews were structured in a similar way and all senior executives interviewed received the same questions (albeit slightly tailored) in order to cross-check opinions and experiences. For the Ruby Cup case, the main data collection method was observation. Thus, although I made use of different data collection techniques within the same study, I remained consistent in terms of qualitative research methods.

Finally, the production of a replicable analysis and data is recommended (Keohane, King & Verba, 1994) so that others can understand, evaluate and, if necessary, re-do the study. Although it is impossible to go back in time, I tried to make all data public and

comprehensible in case future scholars wish to use the data generated through this study for future research.

The Ruby Cup Case

“The value of scientific research can, in many circumstances, be enhanced *even further* if it is combined with real world involvement and action” (Jean Drèze (2002) in Alkire, 2008:18).

The method used to investigate the Ruby Cup case in Kenya is based on the participant observer approach. Participant observation refers to “observation, in which the researcher attempts to participate in the lives and activities of the research subjects and thus becomes a member of the subject’s group(s), organization(s), or community” (Saunders, Lewis, & Thornhill, 2009: 484). This method is used in order to better understand the perceptions, thoughts and rationale of the subject(s) of study (Saunders, Lewis, & Thornhill, 2009) and was applied over the course of two and a half years spent studying the development and changes of the Ruby Cup case. Due to my role as a participant in general, I was able to follow the complete business cycles of Ruby Cup, including its beginning, failures and new strategy. This would usually be impossible, and was only an option because I am an integral part of the company.

The participant observation method can be done explicitly or in a ‘hidden’ way, meaning the researcher either communicates his or her role or tries to hide it. In most cases, the researcher, however, shifts back and forth between *overt* and *covert* observation (Pearson Education, 1995-2005). Both approaches have advantages and disadvantages. Being a ‘hidden’ researcher has the advantage that participants act naturally instead of trying to be something they think the researcher would expect from them, as well as gaining contact to and insights about a particular group who would otherwise not have liked to be studied (Pearson Education, 1995-2005). The disadvantage of this approach is mainly of an ethical nature since the researcher has to deceive the study participants. Also, this approach can potentially make objective observations more difficult as the researcher fully digs into the context and group to study, forms friendships and “becomes native” (Pearson Education, 1995-2005). Being an explicit researcher has the advantage of lessening ethical dilemmas associated with the hidden research role. It also makes data collections, such as recordings, photos, videos etc. much easier. The chance of getting too close to the study subjects is smaller in some cases, and it can generate less hostility towards the researcher (Pearson Education, 1995-2005). Disadvantages might include the “observer effect, which means that participants might

behave differently than in their natural settings when the observer is present” (Pearson Education, 1995-2005). During the time of this research, I took upon both hidden and explicit roles, as further described below.

According to Saunders, Lewis, & Thornhill (2009), the role of the researcher can be categorized into four different roles as shown in the figure below: complete participant, complete observer, observer as participant, and participant as observer. In most cases, the researcher shifts back and forth among the various roles (Saunders, Lewis, & Thornhill, 2009). During my research, I took upon various roles at different times over the course of the study period. In particular, I was shifting between a “complete participant” and a “participant as observer.”

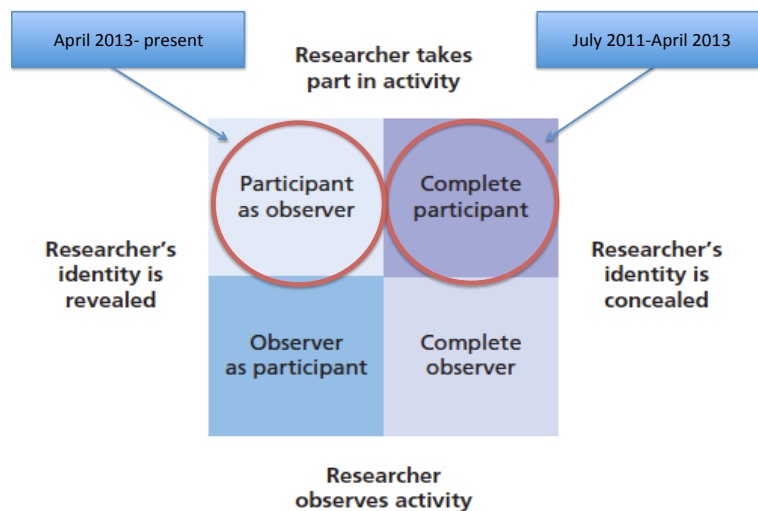


Figure 5: Taken from Saunders et al. (2009) and modified by author.

My Role as a Complete Participant

In the beginning, and during my time in Kenya, my role was close to the complete participant researcher role. According to Saunders, Lewis, & Thornhill (2009), “the complete participant role sees you as the researcher attempting to become a member of the group in which you are performing research.” During the first years in Kenya, the intent was not to write about the particular subject of introducing Ruby Cup to the BOP, but rather to focus on the process of introducing Ruby Cup in Kenya and making the business work. This had several implications on the research validity and implied that my identity as researcher was unknown to myself, as well as to the research participants. During market penetration and testing the first distribution model, the direct sales model, I was fully in charge of business operations in Kenya and had

the ambition to make this model work, fully understand what did not work and why, and to dig into the feelings, perceptions, and opinions of people while listening and fully participating. I became very close to both full-time employees and sales ladies as I was in the field on a regular basis trying to understand concerns and celebrate achievements during the sales process. During this stage, it was possibly a challenge to stay completely objective, since I was fully participating in all activities and becoming very close with the subjects of this study. At the same time, I observed that, among other things, affordability and distribution as well as education, marketing and retention of staff constituted a challenge to business operations. For the documentation of results, I wrote diary of my experiences, took field notes, and wrote down secondary observations, defined as “statements by observers of what happened or was said” (Saunders, Lewis, & Thornhill, 2009: 296).

After six months of trying the direct sales model, Ruby Cup changed its strategy as the company realized that the current business model would be unsustainable financially. Thus, the company began to target wealthier customer segments in Kenya and subsidized Ruby Cups to the BOP segment via its newly adopted “Buy One Give One” strategy. I was in control of this new strategy in Kenya for a period of three months. I noticed that this new strategy facilitated the distribution and outreach of Ruby Cup, yielding greater impact for the BOP community served. More people were able to afford and receive Ruby Cup than during the previous business strategy that included the direct sales model.

My Role as a Participant as Observer

At some point, my role as researcher shifted and I decided to write about my observations and experiences. The participant as observer role implies revealing the role as a researcher to the study participants, while remaining an active part of the organization (Saunders, Lewis, & Thornhill, 2009). At the same time, I shifted positions from country manager in Kenya to COO in charge of business operations in Europe and moved to Berlin. Moving implied a more distant view of operations in Kenya and possibly more objectivity, meaning the subjects’ feelings and perceptions would mean less and my emotional involvement decreased. I was thus able to endorse a more rational view on operations in Kenya while observing business operations in Kenya from April 2013 to December 2013 based out of Berlin. During these months, I noticed that Ruby Cup was being sold at cross-subsidized prices and distributed widely, reaching up to 2000 users at the end of 2013.

Triangulation of the Ruby Cup Case

During the participant observer phase, I started conducting interviews with Ruby Cup staff. I interviewed Zena Ali, a Ruby Cup sales lady via a semi-structured interview in order to bring in the local perspective. I also conducted a semi-structured interview with Ruby Cup Co-founder and CEO, Julie Weigaard Kjaer, who has similar degrees of experiences in Kenya³ and was in charge of operations in Kenya after I left for Europe. After my departure, she carried on the “Buy One Give One” distribution strategy and was continuously giving me updates on the course the business went. This way, I was able to triangulate my own perspective with other people who were involved with the Ruby Cup business after I had left Kenya. According to Saunders, Lewis, & Thornhill, (2009), triangulation does not only validate conclusions, but helps broaden and deepen one’s understanding. Through conducting the interviews, I was able to widen my perspective concerning the Ruby Cup business experience in Kenya from June 2011 to December 2013.

Researcher role	Complete Participant Based in Kenya				Participant as Observer Based in Berlin
Time line	2011 Jul-Aug	Sep 2011 – July 2012	Jul 2012 - Dec 2012	Jan 2013 – Apr 2013	May 2013 - Dec 2013
Business operations and activities	Market study	<ul style="list-style-type: none"> • Pilot Phase • Product Development • Site selection • Partnership formation 	Testing the direct sales and distribution model	<ul style="list-style-type: none"> • „Buy One Give One“cross subsidizing strategy • High- end sales strategy in Kenya 	<ul style="list-style-type: none"> • „Buy One Give One“ strategy ctd. • My shift in position from field manager to Global sales and online marketing

Table 1: Description of my role as a researcher shifting from a “Complete Participant” to a “Participant as Observer” throughout the study period (figure created by author).

Triangulation: Two More Cases

Knowing that Ruby Cup could be an example from which conclusions derived might give only limited information about reality, I tried to avoid attaining conclusions from weak data by counter-checking the results derived from the Ruby Cup case with other cases. For this purpose, I collected semi-structured interviews with senior executives of other businesses, specifically asking for the reasons behind struggling to reach profitability. I was able to find similarities that I chose to categorize and from which the results of this thesis are derived.

³ Julie Weigaard Kjaer still lives in Kenya and is in charge of Kenyan operations, especially the implementation and distribution of Ruby Cups via the “buy one give one: strategy launched in January 2013.

Case Selection

During my time in Kenya, I got to know many different businesses operating on the BOP market in East Africa. When trying to select cases relevant to this study, I selected the businesses based on two criteria. The first criteria were the country and segment of operations (BOP segment in Kenya) and the second was longevity of products sold (sustainable products). By so doing, I applied the “Most Similar Systems” Design as defined by Przeworski & Teune (1970) for the case selection method. Although the authors refer to political systems, the selection method remains the same. Methodologically speaking, the “Most Similar Systems” method is about selecting similar “systems” with similar features in order to study similarities or differences. In conducting this study, I looked at finding “inter-systemic similarities” (in this case, similarities between similar businesses) through selecting the cases with the highest number of commonalities and the smallest number of differences. The cases selected met the criteria in that the businesses were of similar age, had a similar target group, and were funded similarly. Other cases examined were of less relevance as the target group or the products differed. Further research should focus on selecting more businesses and conducting a larger case study in order to study causalities and/or more similar or differing variables.

Implications of the Method Applied

Longitudinal Study

One of the major benefits of using the participant observer approach during the Ruby Cup case study has been my ability to observe the process from the very beginning to the end, thus being able to conduct a longitudinal study. According to Saunders et al. (2009: 155), “the main strength of longitudinal research is the capacity that it has to study change and development.” Whereas most researchers investigate cases based on a snapshot or limited period of time (Saunders, Lewis, & Thornhill, 2009), I was able to get a holistic picture by taking “historically” relevant data, such as changes in company strategy, lessons learned, and results into account. Moreover, I was also able to study the entire organization (as compared to only a small unit), which makes the dimension of this research complete (Saunders, Lewis, & Thornhill, 2009). In my role as a “practitioner-researcher” (Saunders, Lewis, & Thornhill, 2009: 150), my understanding of the Ruby Cup business is unique and I am the best-qualified individual to understand its complexity and context. However, although the research was carried over the course of two and a half years beginning in June 2011, the time of research was not unrestricted due to my role as both company director and researcher. Filling both roles is time-consuming and demanding, and I chose to take days off dedicated to this

dissertation in order to prevent sacrificing the quality of data and research.

Conflict of Interest

All methods have their limitations (Keohane, King & Verba, 1994). Since I am both an integral part of the case and at the same time observer of it, an inherent conflict of interest might skew the objectivity of my analysis. I am only able to realistically judge to a certain degree how well we tried to introduce Ruby Cup to the BOP market in Kenya and if all means necessary to make Ruby Cup a financially sustainable business have been exhausted. My approach towards the product's quality and benefits might be skewed and could have impacted my judgments as to whether market entry was unsuccessful due to factors including product flaws. According to Saunders, Lewis, & Thornhill (2009) self-evaluation in the dual role of being a practitioner-researcher might be difficult and leaves room for criticism concerning objectivity of results. However, by strictly following the BOP 2.0 protocol, an essentially consumer-oriented approach, by continuously selecting feedback concerning the product, and receiving numerous requests for Ruby Cup by teachers, local NGOs and government officials (not to forget the obvious pride felt by Ruby Cup users), strong indicators exist that demand for Ruby Cup is ubiquitous and that market realities prohibit the product from becoming a feasible alternative for Kenyans living at the BOP.

Status as Employer

Since Ruby Cup creates employment in a country in which the unemployment rate lies at 40% (CIA World Factbook, n.d.), people might tend to answer questions in a way they believe to be in their favor. Arguably, people are less likely to criticize or tell the truth if they think their answers might jeopardize their jobs. It is the duty of the researcher to critically reflect on the answers provided, ask multiple people, and use various sources of information in order to reach reliable results (Keohane, King & Verba, 1994). My specific role as both employer and researcher is difficult to circumvent. This is why this research is carried out using multiple sources of information and multiple cases. Concerning the latter, I specifically investigated cases in which my role was independent from the study subjects and participants were not affected by my judgments.

Case Studies

This section analyzes three businesses that sell sustainable products to the BOP market in Kenya in terms of products sold, marketing measures, and profitability prospects. First, the context, i.e. Kenya as a country, and the Kenyan BOP market is described. Next, Ruby Cup is assessed. This section includes the company's value proposition, a description of how the company tried to reach the Kenyan BOP market, and what factors contributed to its failure. The Ruby Cup case is followed by two other case analyses that are used to triangulate the findings of the Ruby Cup case in order to facilitate drawing general conclusions. The analysis shows that despite having clear and attractive value propositions and following the marketing techniques introduced in the BOP theory, all businesses face difficulties in reaching financial profitability.

Context

Kenya is a fascinating country; it is ugly and beautiful at the same time and embraces tradition and modernity simultaneously. Some of the richest and poorest people can be neighbors as villas are located next to slums. The country boasts the most beautiful beaches, is famous for its breathtaking Safaris, and is known for its friendly and eloquent people. At the same time, crime rates in the capital Nairobi are skyrocketing, and the political elite are infamous for stealing from their own people (Goafrica, n.d.). As is the case in many developing countries, the highest levels of corruption are felt by even the poorest of the poor, as badly paid police and military forces are notorious for their bribing culture. Despite its low-income levels, Kenya is sometimes referred to as Silicon Savannah and counts innovation facilities and centers, such as the iHUB, the African Growth Hub, and other business incubators. It is East Africa's economic Hub (Goafrica, n.d.). It's been possible to save, invest and send money via mobile phone using MPESA for years, a technical innovation that has yet to reach Europe. Yet, at the same time, traditional norms and customs, such as female circumcision (FGM) and early childhood marriage, are still deeply rooted in tribal culture (Howden, 2014).

Kenya gained its independence from British colonization in 1963 and the official languages are English and Kiswahili (CIA World Factbook, 2013). The population is estimated to be roughly 44 million people and includes multiple ethnic groups (CIA World Factbook, 2013). Kenya's average age lies at roughly 19 Years and 42% of the population is below 14 years old (CIA World Factbook). This is partly due to the HIV/AIDS epidemic that swept through the

country in the 80s, but also due to malnutrition and low life expectancy levels (CIA World Factbook, 2013).

In recent years, Kenya has seen high economic growth rates, yet income inequality levels are among the world's highest (Unicef, n.d.). The top ten percent own about 44% of the national income, while the bottom 10% earns less than one percent (Unicef). In Kenya, 50% of the population lives below the poverty line and it is among the world's 30 poorest countries (Unicef, n.d.). The BOP market in Kenya counts over 22 million people.

The Ruby Cup Case

Ruby Cup is a for profit social business based in Denmark and Kenya. The business model is based on the BOP theory and the idea of sustainable development. Ruby Cup strives towards earning profits by selling affordable Ruby Cups to millions of girls and women in BOP markets that cannot afford pads, and at the same time spares the environment tons of waste produced by the use of disposable female hygiene products. Ruby Cup is funded by a combination of grants, competitions, loans and private equity.

The Problem

Women and girls in developing countries face challenges in dealing with their monthly cycle. They cannot afford menstrual hygiene products and have insufficient items or nothing to help them manage their menstruation. Disposable solutions are often exorbitantly expensive in relation to the local economy. In 2009, the news agency IPS wrote that, "despite tax waivers introduced to reduce the cost of sanitary pads, finding money to buy them each month is a challenge for many grown women, never mind pre-teen girls" (Kissling, 2009). Furthermore, disposable menstrual hygiene products cause environmental problems,⁴. This is especially severe in settings where there is inappropriate waste collection. Menstrual hygiene solutions frequently used often include unhygienic items, such as rags, cloth, socks, and even bark and dried mud (WEDC, 2012 and interviews with girls in Kenya).

In Kenya, menstruation is linked to school absenteeism because girls are embarrassed about the potential 'leaking' of blood when nonprotective materials are used (WEDC, 2012). Period pains and inadequate sanitation facilities in schools contribute to girls staying home from school when they have their periods (WEDC, 2012). Water Aid contends that, "up to 40 days may be missed for every African girl per school year due to menstruation." The impact of

⁴ "In 1999, about 2.5 million tampons, 1.4 million pads, and 700,000 pantliners were flushed away daily" and "the Ocean Conservancy collected and cataloged debris along U.S. coastlines between 2001 and 2006, finding that tampon applicators made up 2.2 percent of the total debris field, more than syringes, condoms and plastic six-pack rings combined." (Alternet, n.d.)

these missed days can be devastating. Some girls are unable to follow what is being taught in class and drop out altogether, thereby limiting their career options (WEDC, 2012). Yet, girls' education is linked to poverty alleviation (Rose, 2013) as educating girls results in the education of an entire generation (WEDC, 2012).

The Solution

Ruby Cup is a menstrual cup; a long-lasting menstrual hygiene solution made of 100% medical grade silicone that can be re-used for up to 10 years. The product is a healthy, cost-saving and environmentally friendly alternative to tampons and pads. Ruby Cup is not a new product; it just does not exist in developing countries. The menstrual cup is a proven success and growing trend in developed markets,⁵ where it is mainly sold via the Internet. Ruby Cup is the only brand that is sold to people living in low-income markets.

Usage⁶



Ruby Cup is worn inside the vagina during menstruation. Rather than absorbing the menstrual fluid like disposable products, Ruby Cup collects it during the period. When full, it is emptied, rinsed and applied again. In order to assure hygienic use, the cup is boiled for 5 minutes to disinfect it and stored in the Ruby cotton bag between periods.

Investigating Cultural Acceptability

A study conducted in 2008 by the African Population and Health Research Centre (APHRC) that tested the cultural acceptability of the menstrual cup (Moon Cup) in Kenya found 97% acceptability of the product (APHRC, 2008). Thus, the Ruby Cup team had valid indicators that Ruby Cup would be a good menstrual hygiene management (MHM⁷) solution for girls and women in Kenya for dealing with their menstruation. Due to this acceptability study by the APHRC (2008), the company decided to enter the Kenyan market first and then expand gradually to other BOP markets.

How the Company Tries to Reach the BOP Market

The market for Ruby Cup in Kenya is substantial. There are an estimated 11 million women between 15 and 64 years of age in the BOP segment. The customer segment of women aged 15-35 years comprises a market of roughly 5 million girls and women. Taking 50% cultural

⁵ Since 2004 the number of brands has increased exponentially, from 2 brands available in the UK and the US, to more than 30 in various Western countries. On Google trends, search interest in menstrual cups has more than tripled since 2005.

⁶ The product description and pictorials are taken from the Ruby Cup 2013 Business Plan and the Ruby Cup website.

⁷ Menstruation Hygiene Management (MHM) focuses on practical strategies for coping with monthly periods (WEDC, 2012).

and religious barriers into account, the market still equals 2.5 million customers, with girls being born every day.

Value Proposition

The business was founded on the principles of sustainable production and consumption, based on the sustainable development paradigm as described earlier. In its mission statement from November 2011, the company states that it seeks “to create an inclusive business model (...), while providing a sustainable solution to the problem of menstrual hygiene” (Ruby Cup Ruby Cup Business Plan, November 2011).

The sustainability aspect of Ruby Cup constitutes a clear value proposition for the customer. Due to the fact that Ruby Cup can be re-used, the product constitutes immense cost-savings over time. The initial investment is amortized quickly as Ruby Cup only costs the equivalent amount of five-seven months (depending on the period) of pads, but lasts for 10 years. It thus constitutes only 5% of the amount otherwise spent on conventional menstrual hygiene products or, in other words, cost savings of 95% over a period of 10 years.

Low Margins - High Volume Model

Ruby Cup imports its product from China. Local production was impossible because the product material and machinery were unavailable locally. Via a low margin, high volume model, as suggested by Prahalad (2004), Ruby Cup strived to become the preferred menstrual hygiene solution for girls and women world-wide, making a fortune while keeping girls in school and fostering education at the same time.

Direct Distribution

Ruby Cup was sold via local women in order to reach as many girls and women as possible. According to USAID (2013:1), “there is considerable excitement about the potential of direct sales agent models in health, as they offer the prospect of better coverage for the rural poor and hard-to-reach customers.” Other examples, such as Avon and Hindustan Lever exist, which proved this distribution model could be successful.

The BOP 2.0 Management Method

The philosophy behind the Ruby Cup business development approach was to depart from a top-down approach to development and an ethno-centric, imperialistic “I know what’s good for you” attitude towards poor communities. Rather, the business aimed for a co-creation

approach, where communities and businesses are seen as equal partners that engage in a “close, personal business partnership” (Stuart & Hart, 2008: 2). As briefly mentioned before, BOP 2.0 is an essentially consumer-centered approach and focuses on the co-development of a business strategy between the company and the community (Simanis and Hart, 2008). It’s exactly this approach that is mirrored in Ruby Cup’s vision “to address societal challenges through inclusive and sustainable business solutions” (Ruby Cup Business Plan, November 2011). Inclusive business solutions refer to the co-development approach outlined by Stuart & Hart (2008), and are manifested in the values of the Ruby Cup business. The company states that, “we believe in partnerships in order to achieve our mission, as the best innovation comes from an inclusive business approach, where our business is co-developed with multiple stakeholders” (Ruby Cup Business Plan, November 2011).

Following the BOP 2.0 Steps

For the market introduction of Ruby Cup in Kenya, the company used the BOP 2.0 protocol business development guide. Simanis & Hart (2008) developed the BOP 2.0 protocol based on three essential phases: pre-field and in-field processes and scaling out. Each process consists of different phases that are further described below. The in-field process is further divided into three phases, and then sub-divided into categories. Due to the scope of this paper, the various BOP 2.0 steps that Ruby Cup followed are only summarized in this thesis and graphically depicted in the figure below.

Time line	2010	Jan 2011- Jun 2011	Jun 2011	Sep 2011- Jul 2012	Jul 2012- Dec 2012	Jan 2013 – Dec 2013
BOP. 2.0 Guidelines	Pre-field phase			In-field phase		Scaling
Ruby Cup Activities	Ruby Cup business plan writing at Copenhagen Business School	Research phase	Field Study Veronica and Maxie in Kenya	<ul style="list-style-type: none"> Partnerships phase Funding phase Product development, Company registration Kenya Import of Ruby Cups to Kenya 	<ul style="list-style-type: none"> Market entry Direct sales business model 	<ul style="list-style-type: none"> Strategy shift to „Buy One Give One strategy“ Targeting affluent Kenyan consumers

Table 2: Overview of Ruby Cup timeline and business strategy development (figure created by author).

June 2011: Pre-field Processes

Simanis and Hart (2008) recommend four essential steps during the pre-field process phase:

- 1) the selection of appropriate BOP project site(s)
- 2) the formation and training of a multidisciplinary corporate ‘field’ team
- 3) the selection of local community partners
- 4) the creation of an enabling environment or ‘Research and Development White Space’

According to Hart and Simanis (2008), project selection site(s) (the first step) should be chosen in locations that are of strategic importance to the company and not far apart from each other (everything over a 3-hour bus ride is considered far away). Accordingly, the more sites, the more complex coordination and carrying out the business becomes. Upon arrival in Kenya, the Ruby Cup team established contact with The Village Trust Fund (TVT), a CBO from Meru (a 4-hour matatu⁸ drive from Nairobi), and was introduced to a CBO called Mchanganyiko. Mchanganyiko is located in one of the largest slums in Africa, Kibera,⁹ near Nairobi. Meru was deemed too far away from Nairobi and Mchanganyiko was thus chosen as a project site. Choosing local community partners can help organizations bridge cultural gaps and create trust among local community leaders (Simanis & Hart, 2008). Mchanganyiko seemed to be the perfect partner.

Creating so-called “Research and Development White Space” was made possible by a grant from SIDA that welcomed and gave room for experimenting and testing the business model. In fact, experimenting and co-creation of the business model was a goal the government agency sought (SIDA, 2013).

Lessons Learned from the Pre-field Phase

While the team was in Kenya to conduct the pre-field phase, the local government announced the allocation of a substantial budgetary amount of free sanitary pads to schoolgirls in Kenya in order to keep girls in school. As the Guardian wrote, “for the first time ever, the finance minister has allocated almost \$4m from the current national budget to provide free sanitary pads to schoolgirls” (Gathigah, 2011). The Ruby Cup team noted major need in terms of cost-efficient and healthy solutions. Almost everywhere they presented the concept of the menstrual cup, they were asked “where can we get the product and when can we get it?” by local women (Field notes Meru, 2011).

During this phase, Ruby Cup’s founders realized that introducing the product would require extensive education in terms of product usage and general questions regarding the female anatomy. When presenting Ruby Cup, most questions focused on the negative side effects of the product, such as cancer and other health aspects. “Can I get cancer from using this thing?,” many girls and women asked (Field notes Meru, 2011). Others were concerned with bowel movements and asked, for example, “can I go to the toilet when a Ruby Cup is inside me?” (Field notes Kibera, 2011).

⁸ Matatu are mini buses used for public transportation throughout Kenya.

⁹ Kibera is the biggest slum in Africa, and one of the largest in the world



Pictures from the field trip to Kenya, June 2011: Left: Maxie explains how the menstrual cup is used to women in Meru. Right: Veronica and Maxie after their introduction of the menstrual cup to women's groups in Meru, Kenya.

The pre-field phase helped the Ruby Cup team generate a thorough understanding of the widespread problem of menstrual hygiene in Kenya. The team learned that (1) huge demand for affordable and hygienic menstrual hygiene solutions existed and that (2) education would be necessary when introducing Ruby Cup in Kenya. The team also found a suitable partner organization that was eager to make Ruby Cup available to girls and women in Kenya. One month later, the three Ruby Cup founders moved to Kenya in order to develop and introduce the product in Kenya.



Pictures from June 2011: At Mchanganyiko, a CBO in Kibera. Left: Initial meeting with women's groups in Kibera. Right: Ruby Cup co-founder Veronica D'Souza talking about menstrual hygiene with women from Kibera.

September 2011- July 2012: In-field Process

During this stage, all the necessary bureaucratic measures were taken to establish the business in Kenya. The team received funding through competitions and grants, and registered the business in Nairobi. It also managed to develop the packaging and design in collaboration with local girls and women, and to recruit and train Ruby Cup sales ladies. During this phase, two more distribution organizations came on board and the company, in concert with the organizations, co-developed the business and sales model.

Hart and Simanis (2008) recommend three essential steps during the in-field process phase that are inter-linked and connected:

- 1) Opening Up
- 2) Building the Ecosystem
- 3) Enterprise creation

Step 1) Opening up and Building Deep Dialogue

This phase is based on building trust and finding a common language between the corporation and the community and partners. The Ruby Cup team held various informal meetings and, after only a few meetings, the relationship between Mchanganyiko and Ruby Cup was solidified and the team members were invited to local trade shows, events and weddings. This good relationship continues today.



Pictures from December 2011: Left: CBO leader Mama Hamza together with Ruby Cup co-founders Veronica D' Souza and Maxie Matthiessen. Right: Ruby Cup was invited to the local Tedx Event in Karanja, Kibera.

Product Development

The Ruby Cup product was developed in close cooperation with the local community in Kenya and with Coloplast, a Danish multinational company specialized in intimate health care products. Coloplast, as part of their CSR program and due to goodwill of the Global Director of R&D, provided their know-how and pro-bono time in the development of the product. Coloplast also established contacts to the supplier in China and continuously monitored the production process.

The first Ruby Cup was considered too soft and thus adjusted regarding shore levels (thickness of material). Thereafter, test users recommended enlarging the stem in order to make removal easier while enhancing the pop-up function of the product. This pop-up function was deemed uncomfortable by test users and removed while making the stem flexible and the material even more firm. The last test product received extremely positive

feedback and was chosen for large quantity production.¹⁰ Bilha, for example said, “what I love most about Ruby Cup is its comfort. It’s actually possible to forget that you have it on because nothing changes. I say, as a woman at that time of the month, you don’t know comfort until you’ve used the amazing Ruby Cup!” (Bilha Wakabari Njau from Nairobi, 2012).



Pictures of Ruby Cup taken by the Ruby Cup team and Coloplast illustrating the four different Ruby Cup test samples. (September 2011- May 2012).

The product, design and packaging was developed together with the local community and adjusted according to their feedback. The company tried several market slogans and ultimately chose the marketing message “You can Do Everything,” which was tested in different slum workshop sessions. The Ruby Cup packaging was color tested, with pink and cream chosen. This was because “pink is the color that all Kenyan girls like” and “white is out” (Kibera workshop).

At this stage, two other organizations were found to be perfect partners in terms of testing different sales business models. The first was the US and Kenyan-based organization, LivelyHoods (LivelyHoods, n.d), a direct sales network of locally-trained youth workers from the nearby slum of Kawangware (outside Nairobi) who were experienced sellers of products such as solar lamps and cooking stoves. The second partner was Miss Koch (Miss Koch, n.d.), an organization based in the slum of Korogocho, an area around Nairobi. The organizations would help the company test various direct sales strategies in different settings.

Project Team Development

According to the BOP 2.0 protocol, the recruitment process should be done in close collaboration with the local community. At Mchangayiko, Mama Hamza and Zena Ali were

¹⁰ The product feedback from Western consumers was equally positive. 94% stated they would recommend Ruby Cup to their friends and over 80% stated that they would choose Ruby Cup over other brands (Ruby Cup Survey).

recommending the right people for the initial recruitment phase. Miss Koch members also helped to pre-screen the right people to become Ruby Cup sales team members. For the second recruitment phase (in-depth interviews and sales training sessions), the Ruby Cup team was conscious of the need to strike a balance between motivating people during the different recruitment phases while dampening expectations for overnight success from rags to riches, as is so often hoped for by locals when working with international business and organizations (Hart & Simanis, 2008). As recommended in the BOP protocol 2.0, the Ruby Cup team also engaged in Participatory Rural Appraisal (PAR) techniques, meaning they select team members from various backgrounds in terms of tribe, income level, educational background, age and gender (!). The Ruby Cup team was prepared to test what would work best in terms of sales strategy (male versus female success) and sales person (whether age, tribe, income, education was a relevant factor).



Pictures from May 2012: recruitment of sales ladies in Kibera. Left: sales ladies reading through their contracts. Right: handing out Ruby Cups to selected sales ladies.



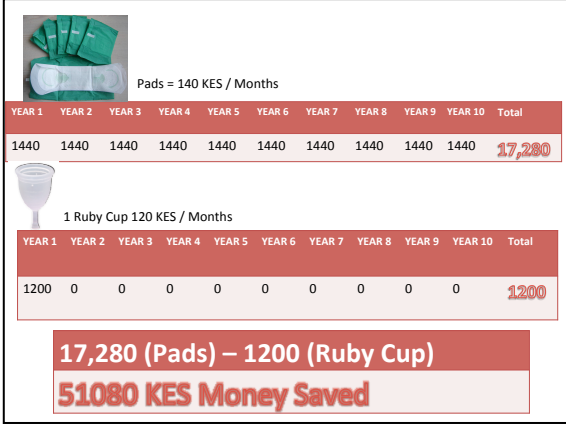
July 2012: Recruitment process with LivelyHoods in Kawangware. Upper left: COO of LivelyHoods, Tania Laden, begins by announcing the daily sales targets. Upper right: Ruby Cup employee Edna Ndichu together with Maxie Matthiessen explaining Ruby Cup to the LivelyHoods sales agents. Lower left: LivelyHoods sales agents training each other. Lower right: LivelyHoods iSmart sales agents fooling around and being proud Ruby Cup sales agents.

Business Concept Co-creation

During this stage, various ideas were aired and balanced against each other. For the Ruby Cup sales strategy in Kawangware, the LivelyHoods sales agents considered it important to give customers a guarantee that they would be able to return the product in case they did not like it. According to LivelyHoods co-founder and COO, Tania Laden, one has to take as much risk off the customer as possible when introducing a completely new product into a new market, especially when it requires an up-front investment (LivelyHoods workshop and informal discussions between COO Tania Laden and myself, Nairobi, July 2012). Ruby Cup agreed to test this sales strategy in Kawangware and introduced a 6 month money-back guarantee.

In Korogocho, the organization and sales ladies suggested local marketing efforts that would, accordingly, lead to Ruby Cup becoming widely known in the slum of Korogocho. Ruby Cup agreed and participated in the local radio show (Koch.fm) and local marketing efforts via a road show.

In Kibera, the sales ladies recommended using a cost-benefit flyer in order to show customers how much money they would save by buying a Ruby Cup instead of sanitary pads. All sales ladies were required to wear Ruby Cup T-shirts and sales IDs in order to be taken seriously by customers and to prevent other ladies from stating that they were Ruby Cup sales ladies without having undergone the sales training.



Pads = 140 KES / Months										
YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	Total
1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	17,280

1 Ruby Cup 120 KES / Months										
YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	Total
1200	0	0	0	0	0	0	0	0	0	1200

17,280 (Pads) – 1200 (Ruby Cup)
51080 KES Money Saved

Picture of the Ruby Cup sales flyer used in Kibera illustrating the cost savings of Ruby Cups versus pads.

The sale prices and commission were also discussed with all partner organizations and the following was decided upon:

Name	Mchanganyiko	Livelyhoods	Miss Koch
Locality	Kibera	Kawangware	Korogocho
Consignment	yes	yes	yes
Agent profile	Ladies, age 20-30	Females and males, age 15-20	Females age 30-40
Sales experience	No, but some have part-time jobs	Yes, have undergone extensive sales training	Yes, business ladies, like small kiosk owners, pharmacy owners, etc.
Customer incentives	Installment payments	Money-back guarantee of six months	Low and flexible price
Price schemes	500-1000KES	1200KES	300-500 KES was recommended but left open for the sales ladies to decide
Commission	150KES	100KES	50KES
Other sales ladies' incentives	Airtime and t-shirts when targets achieved	The organization has their own incentive schemes	Airtime and t-shirts when targets achieved

**100 KES are approximately 1 USD.*

Table 3: Different locations and sales strategies (Figure created by author).

Building the Ecosystem and Shared Commitment between Business and Community

This is the phase where the entire team, i.e. the community and the corporation, goes into the field and tests its business model. Role-playing is a recommended technique by Hart and Simanis (2008) in order to further foster relationships between team members. In the case of Ruby Cup, the Ruby Cup team facilitated a sales training role play. The Kibera sales ladies, equipped with sales materials such as T-shirts, cost-benefit leaflets, a Sales Lady ID, and Ruby Cups, practiced selling Ruby Cups to each other. During these sessions, both the Ruby Cup team and the sales ladies learned and gave each other sales tips.



Left: Sales lady Sarah equipped with a t-shirt, ID and the cost-benefit flyer and Ruby Cup usage pictorial.
Middle and Right: Ruby Cup ladies practicing sales with each other.

Ruby Cup on the Local Radio

In Korogocho, Ruby Cup engaged in local marketing efforts by participating in the local 2-hour radio show (Koch FM). Many local community members called and asked questions about Ruby Cup. One even complained that she had lost her Moon Cup when she moved and that she wanted a Ruby Cup in return. Apparently she had received a free Moon Cup for the study conducted by the APHRC in 2008. Both local sales women and a Ruby Cup team member were present and available during the show. The radio show was a success, but resulted in only very limited Ruby Cup sales in Korogocho.

Ruby Cup Road Show

Ruby Cup also engaged in local marketing during a one-day road show in Korogocho. Ruby Cup and Miss Koch members drove around Korogocho playing local hip-hop music and informing slum dwellers about Ruby Cup while offering it at a discount of 500 KES (5 USD). The event was a great success and during one day, Ruby Cup was able to reach 20,000 people living in Korogocho. The feedback during the road show received was that many slum dwellers considered 500 KES (5USD) pricy. For Ruby Cup, the event was costly since the one-day rental of a truck cost approximately 20,000 KES (200 USD). The team was fortunately able to share expenses with Miss Koch, which was providing sexual education together with Ruby Cup on the truck.



Road show in Kawangware. Upper left: Truck displaying a Ruby Cup poster. Upper right: Slum dwellers following the truck. Lower left and right: Miss Koch sales lady promoting Ruby Cup.

Ruby Cup at The International Trade Show

In order to create demand for Ruby Cup, the product was presented at the international trade show in Nairobi with a stall designed to provide information to middle class Kenyans about the product. The show went on for a week and Ruby Cup sold around 100 products at an ‘introductory price offer’ of 500 KES (5 USD). During the show, valuable contacts with teachers and students were established, and Ruby Cup was able to brand itself locally through distributing flyers and stickers. The cups sold at the fair did, however, not cover the costs of having a stall. Renting a tent for the week cost 10,000 (100 USD) KES and the space itself cost 20,000 (200 USD) KES. Transportation back and forth from the trade show site, as well as employee time were taken into account when calculating the final costs of the trade show. This represented a total cost of 45,000 KES (450 USD). Nevertheless, the team considered the show to be a valuable marketing opportunity.



Ruby Cup at the International Trade show in Nairobi. Left: Ruchita, a local Ruby Cup accountant, preparing the Ruby Cup stall in the morning. Right: Ruchita selling Ruby Cups to middle class Kenyans and trade show visitors

Pro Bono Products for Marketing Purposes

According to Hart and Simanis (2008), building the market base and building trust can be enhanced through providing *pro-bono* services to public institutions, such as schools or organizations (Hart & Simanis, 2008:37). In addition to direct sales, Ruby Cup engaged in partnerships with local organizations in Kibera, such as CFK (Caroline for Kibera) or St. Johns Primary school, to which Ruby Cup donated products (both free of charge and at subsidized prices of 100 KES (1USD)). The Ruby Cup team assumed that this would lead to word of mouth marketing, as well as branding Ruby Cup as a trustworthy company that is engaged and provides local support for the girl child. During these distribution days, Ruby Cup was able to “sell” more Ruby Cups than during sales at market rates.



Ruby Cup distribution programs for impoverished girls. Left: Ruby Cup trainers Edna Ndichu and Maximillah Imola provide education about the female reproductive system before the distribution of Ruby Cups for 100 KES (1USD). Right: Ruby Cup training at Saint Johns primary school in Kibera.

Why Ruby Cup Experiences Difficulties

According to Hart & Simanis (2008), the next steps of business model development would be to start preparing for scaling up the business model to more areas. However, Ruby Cup was unable to sell the product at market rates in the test sites despite following all the recommended steps outlined in the BOP 2.0 protocol. Despite incorporating local branding and marketing techniques, and co-developing the product, sales strategy and business model, it was impossible for Ruby Cup to sell enough products to cover the costs incurred during the sales and marketing process. All of the necessary incentives schemes designed to convince customers to buy Ruby Cup failed. The money-back guarantee, experimenting with different installment payment systems, and different price schemes were yielding very few sales. It seemed that all of the marketing, branding and sales efforts and training of sales ladies had been in vain.

Lessons Learned about Pricing

In Kawangware, Ruby Cup was sold for 1500 KES (15 USD), and for 1000 KES (10 USD) in other locations. This was equivalent to the amount spent on sanitary towels for a period of 1 year or 8 months, respectively. This indicated a savings of more than 1/10 of the price as compared to other menstrual hygiene products. Nevertheless, these price levels did not appear to be attractive enough for Kenyan girls and women at the BOP. At the trade show targeting middle class Kenyans, Ruby Cup was able to sell 100 products at 500 KES (5 USD) within a week's time, but that was not the segment initially targeted. Later on, when trying to further lower the price in Kibera, a sales lady named Moraa, who was exceptionally gifted and newly recruited, managed to sell more Ruby Cups at 300 KES (3 USD or an equivalent amount to spending money on pads for two months). She tried various price points in Kibera and realized that even selling Ruby Cup at 300 KES was much more difficult than at 100 KES (1

USD) (feedback from Moraa, December 2012). Most Ruby Cups were ‘sold’ for 100 KES during the quasi pro bono projects Ruby Cup engaged in. The table below shows the different price levels and numbers of cups sold/distributed.

Prices in KES	Date	Location/ Organization	Cups sold	Notes
1500	Jul 2012- Dec 2012	LivelyHoods	10	Upper BOP/expats
500-1000	Jul 2012- Dec 2012	Mchanganyiko	6	
300-500	Jul 2012- Dec 2012	Miss Koch	5	
500	Oct 2012	Trade show Nairobi	100	Sold to middle class Kenyans
300	Dec 2012	Kibera	26	
100	Jul 2012 Dec 2012	Kibera	277	
100 or below	Jan 2013 Dec 2013	Various locations in Kenya and East Africa	2000	

Figure 6: Prices and quantities of Ruby Cups sold in Kenya over time (figure created by author).

Unsustainable Pricing

The team realized that distributing Ruby Cups at symbolic prices equal to the price of one pack of sanitary towels or less led to wide distribution of cups, whereas trying to sell the cup at a market rate or even below cost (300 KES/ 3 USD) was difficult. The tipping point seemed to lie between 300 and 100 KES (3-1 USD), which was a financially unfeasible price for selling Ruby Cup at market rates.

Furthermore, the marketing initiatives taken at the road show and the international trade show were exceeding the company budget by far since cups sold did not cover the expenses incurred.

Triangulation of Findings

Education of Customers Difficult

When speaking with Zena Ali, a former Ruby Cup sales lady from Mchnaganyiko in Kibera, she noted that customer education was difficult. She tried to sell Ruby Cup for 500 KES and during her interview stated that it was difficult to sell Ruby Cup because “others don’t understand the concept and feel it is unhealthy to use” (Interview Ali, December 2013). She

also stated that some customers thought that, “it is a foreign thing, not African,” although she told customers that she is a happy user herself.

Low Retention of Customers Demotivating for Sales Personnel

Due to the fact that a Ruby Cup lasts for 10 years, sales ladies quickly lost interest since education about the products was extremely difficult. Once customers were convinced and the product had been sold, they had to start from scratch again and recruit new customers. During an informal conversation with Zena in November 2012, she stated that, “once I convince a customer to buy Ruby Cup, she buys but then she will never come again. All my efforts are in vain. And really convincing her was hard so I get tired” (Ali during a sales meeting, November 2012). She also stated that the company should have done more marketing and that Ruby Cup was priced too high. Ali indicates that customer education is difficult, especially because they are not recurring customers, and that Ruby Cup was sold at prices that were unaffordable to the target group. She argued that the company should have engaged in more marketing.

Customer Acquisition Costs High

Julie Weigaard-Kjær, co-founder and CEO of Ruby Cup, also argued that “customer acquisition costs are extremely high, so we will not break even. We use much too much money to sell one ruby cup to one woman, we need to find new distribution channels (maybe health workers and maybe through Living Goods) and cross-subsidize via “Buy One Give One” in Europe” (Interview Weigaard-Kjær, December 2013).

High Employee Turnover Rates

Julie also points out the high costs of engaging in B2C business in Kenya in general. She refers to the high employee turnover rate, which means that Ruby Cup staff continuously needs to educate sales personnel (SIDA progress report December, 2013). In the SIDA report, Julie writes that, “a valuable lesson from this is the high acquisition cost per customer (...) that might be too expensive in the long run compared to unit sales increase (...)” (SIDA progress report December, 2013). In the report, Weigaard-Kjær points out the high costs of doing business in Kenya in general, and not only with the BOP market segment.

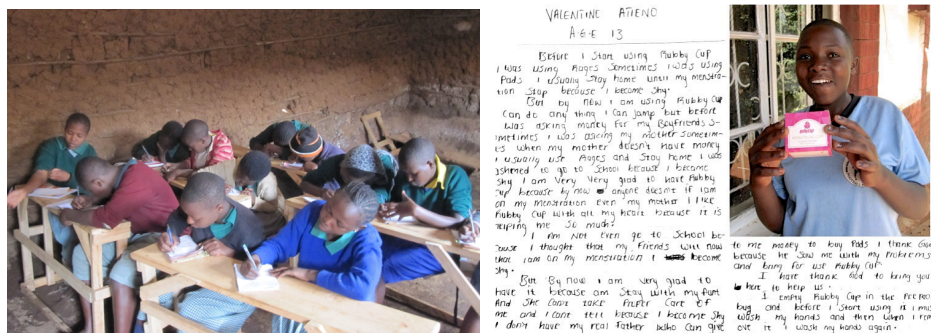
Conclusion of the Ruby Cup Case

Based on my own observations and the two interviews with sales lady Zena Ali and Ruby Cup CEO Julie Weigaard-Kjær, it becomes apparent that introducing Ruby Cup to the

Kenyan BOP market based on market principles failed. The reasons for this, as observed and collected during the interviews, were that Ruby Cup pricing was unsustainable since selling Ruby Cup at market rates was unaffordable for the BOP consumer due to comparably high costs of production and transportation. Only when offering the product below market rates, was the company reaching the segment it intended to target. Moreover, marketing costs were by no means covering costs, and more expensive than initially expected. This is related to the intensive customer education needed in order to explain the long-term cost savings and usage of the product to BOP customers. Overheads were thus unexpectedly high. Furthermore, the low retention rate of customers was demotivating the sales personnel and meant that although a customer bought Ruby Cup, she would not be returning since the product lasts for 10 years. This means that customer acquisition costs are difficult to be amortized via frequent purchases, as is the case with FMCG, for example. Lastly, the high employee turnover rates in Kenya additionally drive up staff training costs. As Weigaard-Kjær writes in the SIDA report, “current pricing models are not sustainable” (SIDA Progress Report, December 2013).

What Next?

Thus, the company was facing a dilemma. On the one hand, the company was creating substantial positive impact. Ruby Cup received several letters from girls stating how proud they were to be using Ruby Cup and how much it alleviates their daily worries when menstruating. As one of the Ruby Cup beneficiaries from Kibera writes, “before I start using ruby cup I was using rags. Sometimes I was using pads I usually stay home until my menstruation stop because I become shy. But by now I am using Ruby cup I can do anything I can jump but before I was asking money for my boyfriends sometimes I was asking my mother sometimes when my mother doesn’t have money I usually use rags (...) I like ruby cup with all my heart because it is helping me so much.” (Letter from Valentine Otiendo, 13 years-old, August 2012).



Left: Girls writing letters about Ruby Cup. Right: Valentine and her letter. Letters will be provided upon request and some can be read at: <http://www.ruby-cup.com/en/letters-from-girls>.

On the other hand, continuing with the current strategy would mean the financial death of the company. In order to be able to provide Ruby Cups despite disappointing market results, the company decided to make them available via cross-subsidizing mechanisms.¹¹ Ruby Cup started to sell the products online to affluent customers in Europe and launched a “Buy One Give One” strategy. This means that every purchase from a customer buying a Ruby Cup online cross-subsidizes one product to a girl in Kenya. In this way, Ruby Cup shifted its strategy from doing good via strategic business towards a CSR-motivated approach based on voluntary and philanthropic grants in terms of donating products to girls in need. The company may later test different distribution models via cross-sector partnerships, financed by international organizations, such as SIDA and The International Center for Research on Women (ICRW) based in Washington, in partnerships with organizations, like Penda Health. Due to the scope of this thesis, these partnerships and the new strategy will have to be assessed in another research paper.

The LivelyHoods Case

LivelyHoods is a social business founded in 2011 that employs unemployed young people in Kenyan slums and trains them to become vendors of products that enhance people’s life quality in slums.

The Problem

It is estimated that around 4 million people die annually due to household air pollution from cooking with charcoal and other solid fuels (GACC, n.d.). This pollution is linked to an increase in non-communicable diseases, such as lung cancer, and lower respiratory infections (GACC, n.d.). The WHO states that indoor smoke constitutes one of the top 10 risks that endanger human health (EPA, n.d.).

The Solution

LivelyHoods sells a variety of life-changing products, which include clean burning cooking stoves that save time, money and lives as they cook faster, need less charcoal, and emit less carbon monoxide otherwise produced by normal cooking stoves. LivelyHoods also sells solar lamps that accordingly improve education (students can study at night) and that are a cost-saving alternative to candles and kerosene. Lighting Africa, a joint project by the IFC and

¹¹ Cross-subsidization is the practice of charging higher prices to one group of consumers in order to *subsidize* lower prices for another group.

World Bank that strives to improve access to lighting in areas that are not connected to the grid contends that, solar lamps “will not only promote education but will also significantly reduce health risks presented by use of kerosene lamps” (Lighting Africa, n.d.). Another product in the LivelyHoods portfolio, LED lamps, light up homes during power shortages or at night and, according to the company, improve productivity. LivelyHoods also sells Ruby Cup and AfriPads (washable, re-usable pads) that, according to the company’s website, curb absenteeism.

The Value Proposition

Livelyhoods states that, “all [their] products save consumers money, and improve the health, education and environment of families in slum communities” (LivelyHoods, n.d.). All products sold by LivelyHoods are durable, long-lasting products that last for a minimum of one year.



LivelyHoods Products: From left to right: Cooking stove, re-usable pads, solar lamps. Pictures taken from LivelyHood (n.d.).

Impact

The impact LivelyHoods creates is substantial. Before joining LivelyHoods, one of the sales agents, Alex, used to be a street boy and collected trash while being exposed to the reprisals by the local trash collection mafia. At times, he used to steal and engage in other criminal activities (conversation with Alex, Nairobi January 2013). Now he states that, “before I joined iSmart, I didn’t have any skills in business. But through iSmart they gave me the skills of selling. Now I’m able to sell. Through how I sell products to the community, a lot of people in the community can’t imagine that I used to live in the street” (LivelyHoods, n.d.). In fact, Alex is one of the most successful sales agents that LivelyHoods employs (Conversation with COO Tania Laden, Nairobi, January 2013).



LivelyHoods sales Agent Alex. He used to live on the streets and collect trash. Now he is a proud sales iSmart agent. Pictures taken from LivelyHoods' website.

Through LivelyHoods, iSmart agents receive a job opportunity that brings so much more than just a job. LivelyHoods trains them in computer skills and offers their agents workshops on the meaning of life, saving money and accountancy (conversation Laden, August 2012). The company also requires agents to report every morning at 8.00 a.m., coming in clean and dressed in the iSmart outfit (conversation Laden, August 2012). This way, the youngsters learn discipline and receive life skills that go beyond mere income opportunities. Moreover, the products they sell improve their customers' lives.

How LivelyHoods Tries to Reach the BOP

LivelyHoods, like other retailers, earns money by buying products in bulk at wholesale prices and reselling them. LivelyHoods buys products locally and abroad. Sometimes products from abroad are delayed because they are stuck in customs or containers just don't arrive due to other reasons (Conversation Laden, August 2012). In the LivelyHoods business model, the sales agents receive a commission for each product that they sell, as well as a base salary. The commission is based on the product's wholesale and retail price.

Low Margins and Flexible Purchasing Schemes

The sales agents in turn have to market the LivelyHoods products, go door-to-door offering the products provided, and help customers choose various purchase payment terms as recommended in the BOP theory. Since product margins are kept small, the business is dependent on high volume sales (Interview Springer, December 2013).

Marketing and Branding

Prahalad (2009) argues that branding is important when targeting BOP markets. LivelyHoods has created a brand, iSmart, and the sales agents call themselves iSmart agents. iSmart is targeted at the slum residents and portrays aspiration. iSmart's slogan is "solutions for a smart life." According to the company, the word 'Smart' (in the British sense) entails attributes,

such as a good look, cool, and neat, and should inspire customers to “start living a smart life” (LivelyHoods, n. d.). The company found that urban slum residents aspire and demand the same quality, benefits and products that richer consumer segments demand. The company states that, “as such, our products, customer service, branding and marketing strategies are tailored to the prestige and luxury that urban slum residents aspire to attain” (LivelyHoods, n.d.).

Why LivelyHoods Experiences Difficulties

When talking to co-founder and CEO, Maria Springer, I learned that LivelyHoods is primarily funded by grants, competitions and low-interest loans (Interview Springer, December 2013). The company is trying to reach financial sustainability and break even by 2016 (Interview Springer, December 2013). When asked about the main barriers to reaching financial sustainability, Maria Springer named a combination of the following factors: high salaries, low product margins, education of customers, and unexpected costs due to corruption. As she explains, “compensation of staff is very high. The margins on our products are very low, and therefore, it is sometimes hard to justify the amount of talent we have onboard, although it is necessary” (Interview Springer, 2013). She states that it requires behavioral changes in order for people to want to buy iSmart products, which require up-front investments while providing cost-future savings, and that doing business in Kenya can be more costly due to unexpected costs. Such unexpected costs include, for example, the recently imposed fines by the City Council of Nairobi. LivelyHoods was fined for their marketing and promotion efforts. Unexpected fines meted out by corrupt local authorities are unfortunately part of doing business in Kenya. The level of corruption in the society is high (Transparency International ranks Kenya as 136 of 177 countries on its international corruption scale). As stated on the company blog, “we did not meet our monthly sales projections given that we have faced increased harassment by the infamous Nairobi City Council. Although we have all of the required sales permits, they forbade the use of our “pop-up sales tents” without purchasing additional, costly permits. Of course, the prices of said permits fluctuate depending on the city council representative” (LivelyHoods, n.d.).

Conclusion of the LivelyHoods Case

Through interviewing CEO Maria Springer in December 2013, and in informal conversations with Tania Laden, COO of LivelyHoods, it became clear that the company creates substantial impact in Kenya. However, the costs of doing so currently exceed profits made through product sales. Following the assessment of the LivelyHoods case, doing business in the BOP

market in Kenya is currently financially difficult due to factors including high staff compensation, education of customers, and unexpected costs due to corruption. At the same time, profit margins have to be kept low due to the comparably low purchasing power of the BOP customer. LivelyHoods is therefore still dependent on grants, donations or other sources of income.

What Next?

Despite this, Maria Springer is positive concerning business prospects. She believes that as the company grows, it will improve its margins and become profitable. She states that, “ultimately, it’s a business about volume” (Interview Springer, December 2013). Besides engaging in partnerships that help finance part of the company’s operations, LivelyHoods has recently integrated new alternative financing schemes. In December 2013, the company launched a fundraising campaign on Indiegogo (Indiegogo, n.d.) in order to support the opening of a new store in the slum of Kawangware. A few months ago, the company also introduced the ability to receive donations via their homepage (LivelyHoods, n.d.) and now money received via donations is part of sustaining the work of LivelyHoods in the slums.

The Sunny People Case

“A mobile phone is one core breakthrough technology; it won’t end malaria by itself, but it can make it possible for a mother whose child is dying of malaria to access a community health worker to ensure that her child gets the emergency treatment it needs to stay alive”

Jeffrey Sachs, special advisor to the United Nations Secretary-General (Sunny People, n.d.).

The Problem

“In Kenya, about 13 million mobile users lack electricity, with this figure likely to exceed 20 million by 2020” (The Practitioner Hub, n.d.). As stated on the Sunny People website, phones are usually charged via car batteries that in some cases are hazardous and difficult to access (Sunny People, n.d.). At the same time, it is environmentally damaging to charge mobile phones via lead-acid car batteries, and car batteries are often powered by a fossil fuel powered generator that contributes to substantial CO2 emissions.

The Solution

Sunny People was founded at approximately same time as Ruby Cup and was selected as part of the *Innovation Against Poverty* program of the Swedish Development Cooperation Agency (SIDA). It is financed via a combination of equity, grants and loans.

Sunny People provides people in rural areas with access to solar-powered mobile chargers. It is a business that offers, “an innovative, inclusive, and environmentally friendly solution for mobile charging access” (The Practitioner Hub, n.d.). The Sunny People solar charger can be used for a minimum period of two years. The goal of Sunny People is to “spread solar chargers across East Africa to increase access to electricity and (...) to provide 200,000 chargers by 2020”(The Practitioner Hub, n.d.).

Value Proposition

It was expected that Sunny People entrepreneurs would gain around 6000 KES per month when charging others for using their service (The Practitioner Hub, n.d.). The amount earned via the Sunny People gadget equals twice the average income earned for unskilled work in Kenya. At the same time, rural Kenyans would save travel time (currently they have to travel large distances) and costs to the nearest gas station or car, as well as get access to cheap and clean electricity for their phones (Sunny People, n.d.). In this way, they would be able to increase their mobile phone usage and the subsequent services of increased access to mobile banking or mobile health services, thus improving their living conditions.

How Sunny People Tries to Reach the BOP Market

Sunny People imports its solar-powered mobile chargers and works in close cooperation with local NGOs that help identify the right people who are suitable business partners. The Sunny People solar-powered mobile chargers are sold to rural entrepreneurs who can charge their fellow citizens for charging their phones. Sunny People, as recommended by Prahalad, experimented with different payment schemes in order to make its product affordable for BOP entrepreneurs. The company cooperated with an intermediary (a micro-finance institution) in order to test and offer various payment mechanisms (The Practitioner Hub, n.d.). The company also tested differences between sales in rural and urban areas.



Left: Sunny People's solar powered mobile charger. Right: J. Beckmann explains the usage of the charger to locals. Pictures taken from the Sunny People website.

Why Sunny People Experiences Difficulties

During an interview and several talks with the CEO and founder of the company, Johan Beckmann, it became clear that reaching financial sustainability was a major challenge for the company. In the beginning, and during informal conversations throughout the years 2012 and 2013, our talks had nothing to do with the topic in question of this thesis. Rather, emails between Ruby Cup and Sunny People were about learning from each other's experiences of doing business with the BOP in Kenya. Nevertheless, in one of the first emails I received, Johan Beckmann wrote that, "for us, sales are not picking up at all. It is so frustrating. We have started direct sales in Narok area where many are interested but few want to pay. We are trying selling through an MFI at the coast, but when we are not there pushing nothing is happening. We have now also started to sell to people in Nairobi and I think that could start to pick up" (Email from March 2013).

In a later email from August 2013, Beckmann wrote that, "business wise things are less good as sales are not picking up. As the IAP funding is coming to an end and the investors are not willing to put in more money, the business has to be self-sustainable to survive. At the moment we are far from reaching break even." 20 days later, he wrote that Sunny People had decided to no longer manufacture the product.

In the process of investigating the viability of introducing sustainable products to the BOP, I asked Johan Beckmann for an interview. In the interview, I specifically asked about the main reasons why he believes his venture failed. He responded that the main reason the business failed was that the company's products were too pricy for the BOP segment the company tried to target and specified that, "even with low cost products rural people need help with financing their purchase. We tried to partner with micro-finance organizations but they are risk avert and are not willing to try new products" (Interview Beckmann, November 2013).

He wrote that for the company, it is difficult to sell the product despite the obvious increase in income earned by local people. He notes that not everyone is an entrepreneur and is willing to become one. He writes that, "the faulty assumption is that anyone presented with the opportunity to earn money from phone charging would grab this opportunity and grow a profitable phone charging business. We have learned that most people are not entrepreneurs. Just because you sell something does not mean you are good in business. Most rural people in Kenya sell something from their farm or so, in order to make cash. But it does not mean that they are good business people or entrepreneurs" (Interview Beckmann, December 2013).

Overall, Beckmann indicated that it was difficult for the company to induce behavioral change at the BOP.

Conclusion of the Sunny People Case

In sum, due to high prices of the Sunny People solar-powered mobile charger, it has been difficult for the company to sell its product. This was made slightly more difficult because the partner organizations that could have assisted in facilitating the provision of favorable payment systems to customers were risk avert and reluctant to do so. Changing behavioral patterns was found to be difficult despite the fact that the potential income earned via Sunny People would have been an attractive amount to the Kenyan BOP customer. It was difficult to find people willing to start a business outside their 'normal' entrepreneurial occupation, such as selling crops. In combination, these factors made doing business in Kenya unprofitable for Sunny People.

What Next?

Nevertheless, Beckmann is optimistic that one day, selling solar powered solutions can succeed. He is convinced of this because competition in the solar industry drives prices down and also because new technology leads to new payment solutions. In his words, "some companies are now developing their own solutions to this with Pay-as-you-go like Mkopa: if the customer doesn't pay the daily Ksh 40 for the solar product the product is remotely switched off" (Interview Beckmann, November 2013).

Analysis

“Apart from some successes in industries such as telecommunications, fast-moving consumer goods, and pharmaceuticals, global corporations have been largely unable to reduce costs and prices enough to serve poor consumers.” (Karamchadani et al., 2011:1)

As Karamchadani et al. (2011) point out in the quote above, it is difficult to reap profit from a market with low disposable income. This is even more so the case for companies selling durable products. All of cases analyzed in this study are – or were – following a BOP theory inspired approach and intended to introduce durable products on the Kenyan BOP market. The previous section has illustrated that all companies analyzed face obstacles that limit the path towards reaching profitability. In this section, I first investigate the factors that have become apparent in limiting the financial prospects of the cases analyzed. These factors are inter-dependent and non-exhaustive, and further research is required in order to investigate their individual weights, causal relations among the factors, and if other factors should be included. Secondly, I discuss what options companies have in order to make sustainable products available on BOP markets despite market deficiencies. Thus, I briefly touch upon the concepts of public-private partnership and corporate philanthropy as potential means to transport sustainable products beyond the borders of affluent markets.

Limitations to Reaching Profitability on BOP Markets

Ruby Cup

Ruby Cup helps girls stay in school and provides a solution to basic menstrual hygiene needs in Kenya. Users that have tried Ruby Cup are very satisfied with the product and acceptance and demand of the product is high. Yet, the company struggles to provide Ruby Cup to girls and women in Kenya purely based on market principles.

The first reason observed and collected during the interviews for that is that pricing was unsustainable. Ruby Cup needs to be imported and was simply unaffordable for BOP consumers. Secondly, marketing costs were more expensive than initially expected, which is related to the intensive customer education needed for making people change habits, explaining the product, and explaining the long-term cost savings of the product. This results in the overall overhead cost being too high to cover income earned via sales. Additionally, high employee turnover rates in Kenya are driving costs up. The low retention rate of customers magnifies all the above, since it is demotivating for the sales personnel to start

from scratch with every customer. It is also difficult to amortize the costs of education via, for example, frequent purchases following the first sale.

LivelyHoods

LivelyHoods creates substantial impact for youth in Kenya. The company creates jobs to formerly unemployed slum street kids. It also provides a range of products that help customers to save money in the long-run and to live healthier and better-educated lives through, for example, durable clean cooking stoves and solar lamps. Yet, the company still survives thanks to grants and donations and is unable to provide their products to the Kenyan BOP customer on purely market terms.

Through interviews with the company CEO and COO of LivelyHoods, it became clear that doing business on the BOP market in Kenya is limited by various factors. First, the company sources products from abroad and this is sometimes a costly affair since products are stuck in customs or delayed due to other reasons. This drives costs up, but the company still has to keep profit margins low for the BOP customer to be able to afford its products. This makes it difficult for LivelyHoods to cover costs, as well as the costs incurred through the extensive education of customers and staff compensation. Unexpected costs, such as corruption on the part of the Nairobi City Council don't help shorten the path towards financial sustainability.

Sunny People

Sunny People would have created substantial impact for Kenyan BOP consumers through providing jobs to entrepreneurs at the BOP and providing people with access to safe and clean energy via its solar-powered mobile phone charger. However, the company was unable to sell its products at market rates.

Based on interviews with the company CEO, various reasons prohibited Sunny People from reaching financial sustainability. First, the company imported its product and the subsequent prices were too high for the BOP customer. Additionally, alternative payment systems proved impossible to implement due to the fact that partner organizations approached to facilitate this seemed risk averse. Finally, changing consumption patterns from, for example, selling crops to selling energy from the new mobile charger, was a cost factor and task that the company could not overcome.

The figure below summarizes the factors outlined above that made doing business on the Kenyan BOP market for all businesses assessed in this study a difficult mission.

	Ruby Cup	LivelyHoods	Sunny People
High production and transportation costs	x	(x)	x
Product unaffordable	x		x
Margins too low for covering costs	x	x	
Marketing/Education of customers expensive	x	x	x
Up-front costs, long-term savings	x	x	x
Low sales cycle (demotivating for sales staff)	x		
Cost of staff high: compensation/turnover rates	x	x	
Unexpected costs due to corruption		x	

Table 4: Different reasons to why reaching profitability is difficult (figure created by author).

Production and Transportation Costs

The businesses analyzed in this thesis sell imported products to the Kenyan BOP market. This includes significant transportation, duties and taxes, which drive product costs up. USAID (2013) recommends sourcing products locally in order to keep prices down. However, in the case of Ruby , this was impossible because machinery and production materials were unavailable locally. Sunny People also sources its product from abroad, and some of the products that LivelyHoods sources come from abroad as well. Greater transportation distances drive up costs and often make these products unaffordable for BOP customers.

Pricing and Margins

As Prahalad (2009) argues, margins need to be kept low for the customer to be able to afford a product. However, as illustrated in the above cases, when trying to keep margins low, companies struggle to cover costs. Simanis (2012), in his paper *Reality Check at the BOP*, writes skeptically about Prahalad's consumer-focused approach and the famous "low margins, high volume" formula that is needed to make products affordable. He examines BOP prospects from the company perspective and instead calls for higher margins while providing examples to failed companies that followed the low-margins, high-volume criteria. According

to Simanis, the reason why companies need to earn more profit per product are the higher transaction costs companies face on BOP markets. In his words, “operational costs, such as distribution, are frequently much higher than those that companies face in developed markets. In addition, customer acquisition costs and retention for new products often demand unusually intense – and costly-levels of high-touch engagement” (Simanis, 2012: 3). In particular, he focuses on high overhead (education) costs and operational (infrastructure) costs. Yet, when following Simanis’ recommendations concerning high margins, this thesis shows that customers are unable to afford products. Thus, when charging low margins it is good for the customer and bad for the company, or vice versa. This implies that regardless of low or high margins, sustainable products will remain a challenge for companies on the Kenyan BOP market.

Education and Up-front Costs

The same holds true for the level of education required to sell long-lasting products. Despite USAID’s (2013) recommendations, durable products are more complicated to sell because, in addition to a product’s features, the product’s cost-saving attributes also need to be explained. All businesses analyzed in this study sell products that require an up-front investment that constitutes cost-savings in the long run. Yet, as stated in the SIDA report, “for most people living on US\$2 a day, the idea of spending more now to save money in the future does not make economic sense” (SIDA, 2013: 22). Pode (2012) also recognizes the difficulty of paying up-front investments and mentions this factor as limiting the sales of LED versus kerosene fuel lights. Thomas Tolstrup-Hansen, the former Regional Director for East Africa of Vestergaard Frandsen, supports this view. According to him, “even when the consumers understand the product and that it will benefit them and save them a lot of money over a long period of time, for them to pay often the little extra is the major challenge” (Interview Tolstrup-Hansen, January 2014). He notes that the vast majority only thinks about today because, “most people are in debt and focus is on the food they can put on the table and at the same time recalculating the next school fees to be paid” (Interview Tolstrup-Hansen, January 2014). The idea of investing in a product that saves money over time is a concept that makes long-lasting products hard to sell on the Kenyan BOP market.

Slow Sales Cycle Products

All of the products analyzed in this study are durable products with slow sales cycles. USAID (2013) recommends fast cycle products because rapid sales cycles would help cover the costs

of initial “demand stimulation activities” (USAID, 2013:6). However, the latter is only possible when selling fast moving consumer goods and not feasible for the cases analyzed in this study. Tolstrup-Hansen points out that selling fast moving consumer goods make more profit than long-lasting products in Africa. Referring to his former employer, he points out that, “we could have sold our product for half the price and the product would have lasted just 1/3 of the time – we would in \$ terms have sold a lot more – there is no doubt in my mind” (Interview Tolstrup-Hansen, January 2014). The slow sales cycle means that long-lasting products are less profitable on the Kenyan BOP market even though they constitute more cost-savings for customers in the long run.

Staff Compensation and Corruption

LivelyHoods and Ruby Cup representatives noted that staff compensation was relatively high in Kenya. Furthermore, unexpected costs caused by a corrupt environment contributed to limiting the prospects of reaching financial sustainability. These factors apply to all companies doing business in Kenya and I treat their importance regarding this thesis’ research question with caution.

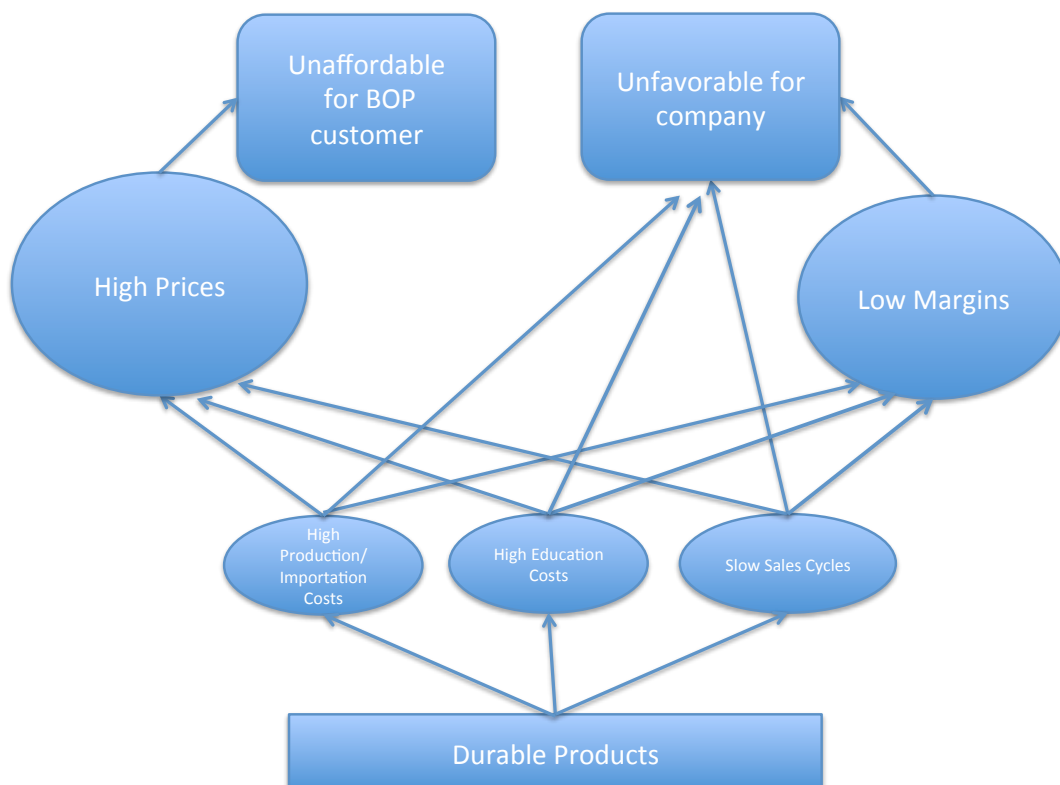


Figure 7: Various factors that are disadvantageous for companies selling durable products (figure created by author).

Conclusion

Various factors that are common for the cases in this thesis contribute to unfavorable market realities for the companies analyzed. Yet, it is important to note that the factors identified are non-exhaustive and further research is required to study other factors and more businesses operating in BOP markets with long-lasting products in more detail. This is especially so in regard to extrapolating this knowledge to other BOP markets.

Implications

Does this mean that one has to be rich to be green? Is sustainability a luxury? Although recommended by the UNECA (2012), making sustainable products available in the Kenyan BOP context on market premises is financially difficult. Yet, many of the companies that operate on these markets and the cases analyzed in this thesis provide highly necessary, if not life-saving, products to people. Despite market deficiencies, what are the alternative means through which these products can be made affordable and available? This section touches upon some alternative sustainable products and instruments available for businesses, such as public-private partnerships or corporate philanthropy. Other means should be considered in future research as this study, due to its scope, only touches upon some of them and by no means provides a comprehensive picture.

Biodegradable Products

A potential solution that could bridge the gap between profits and environmental destruction are biodegradable products, as suggested by Azmat (2013). The author sees the potential to overcome the clash between poverty reduction, environmental sustainability and profits in the role of social entrepreneurship. Social entrepreneurs, according to Azmat (2013), address challenges with innovative and creative solutions in order to get around the challenges present in BOP markets. He illustrates that environmental degradation is not caused by economic activity, and points to how cleaning up the environment actually can lead to profits. In his case study of the company “Waste Concern” based in Bangladesh, he illustrates how waste can turn into income as it is collected from the streets and sold as fertilizer after a thorough decomposing process (Waste Concern, n.d.). Looking at waste as a resource is an innovative concept also employed by Sanergy that claims to “turn shit into gold” as they build slum toilets, collect the waste from them, and create fertilizer out of it (Sanergy, n.d.).

Working with biodegradable products, such as waste used as a resource or pads made from biodegradable papyrus and paper waste, such as MakaPads, illustrate that making a profit does not necessarily mean environmental degradation and as such. Thus, biodegradable

products could pose a solution and be part of decoupling economic growth from the environment, as suggested by the UN. There is no waste problem with biodegradable products, they are cheaper to produce and to sell, and yield repeat income to companies.

However, even companies that sell bio-degradable products struggle to become profitable based on market terms. For example, WasteConcern partners with a variety of organizations, such as Ashoka, the Schwab Foundation, Bill and Melinda Gates Foundation, and the UN (Waste Concern, n.d.). It is highly unlikely that these organizations partner without providing financial support to WasteConcern. Sanergy is also funded by a variety of public and private funders, such as the Acumen Fund, the GIZ, and Segal Family Foundation, to name but a few (Sanergy, n.d.). Biodegradable pad initiatives, such as Banapads and Makapad,s are supported by UNEP and UNDP (Seed Initiative, n.a.). Despite what Azmat (2013) argues, this hints that companies selling biodegradable goods also struggle with reaching financial sustainability. This brings us to the following question: what opportunities or alternative approaches exist for companies that wish to follow the UN recommendations for making sustainable products, regardless of whether they are biodegradable or durable, available in a BOP context?

Public-Private Partnerships

Prahalad (2009) and Prahalad & Hart (2002) point towards the value of partnerships between various actors in terms of knowledge exchange when doing BOP business. Some authors acknowledge that partnerships are indispensable when doing business at the BOP.

Pitta, Guesalaga, & Marshall (2008), for example, state that partnerships are an unavoidable aspect when doing BOP business. This is because the single serve solution cannot be applied to all products equally. For example, life-saving necessities, such as surgeries or antibiotics, cannot be made affordable via single serve sachets as suggested by, for example, Prahalad (2009). The implications of reducing the quantity in order to make the product affordable in the case of medicine would mean smaller doses over a longer period of time, in the worst case causing multi-resistant patients or leading to their death (Pitta, Guesalaga, & Marshall 2008). According to the authors, companies must realize that when doing BOP business, collaborating with NGOs or governments cannot be circumvented.

Chaurey et al. (2012) proposes pro-poor partnerships or the “5 P” approach, which departs from traditional public private partnerships in that it specifically tries to make goods and services available for BOP customers. The UNDP, for example, states that the 5 P “increases access of the poor to basic services by promoting inclusive partnerships between local

government, business, community groups, NGOs, faith-based organizations and others” (UNDP in Chaurey et al., 2012: 50). According to Chaurey et al. (2012), these partnerships can foster technological innovations and state of the art products that are affordable for the BOP.

Some cases have proven that public-private partnerships (PPPs) can be successful. Broadly defined, one can view PPPs as “arrangements, typically medium to long term, between the public and private sectors whereby some of the services that fall under the responsibilities of the public sector are provided by the private sector, with clear agreement on shared objectives for delivery of public infrastructure and/ or public services” (World Bank, n.d.). In the case of the CleanCook stove in Nigeria, for example, the company works around the profitability challenge by working through a semi-public implementing partner (Cliford et al., 2013). In the paper *Corporate-Led Sustainable Development and Energy Poverty Alleviation at the Bottom of the Pyramid: The Case of the CleanCook in Nigeria*, Cliford et al. (2013) notes that the company faced difficulties in targeting the customer group it originally sought as customers and that purely for-profit driven business models were insufficient when targeting energy-poor BOP households. The author argues that it’s possible that, “in-between” social enterprises can help reach BOP customers on a for-profit basis but this would include close cooperation and financial support from nonmarket actors (Cliford et al., 2013).

Gujba et al. (2012) investigates public financing means for clean energy projects across Africa. A variety of public and private funds are made available in order to foster clean energy and low carbon off grid projects, such as the provision of solar and LED lamps in rural communities (Gujba et al., 2012). These include The GEF Trust Fund by the Global Environment Facility, UNEP Renewable Energy Enterprise, The International Climate Fund (ICF) by DFiD, DECC and DEFRA, and The Global Climate Change Alliance (GCCA) financed by the European Commission to name but a few. Although serious energy financing problems exist in Africa (Gujba et al., 2012), according to the authors, these funds are initiatives that help to finance, or at least cross-finance, the introduction of sustainable off grid energy products making otherwise unaffordable products affordable to BOP customers (Gujba et al., 2012).

Pode (2013) also analyzes institutions that facilitate bringing clean energy products to BOP markets. He mentions the Acumen Fund, a fund of philanthropic investments that helps bring life-saving services to people living with less than four dollars a day, such as water, health, housing and energy. Returns received are re-invested in the fund and have been invested,

among other things, in multiple renewable energy projects (Pode, 2013). Impact investment companies, such as Gray Ghost Ventures (GGV) function the same way. Some of these funds are co-financed by international institutions, such as UNEP, or other international institutions (Pode, 2013). Besides providing financial assistance, in some cases the latter also act as implementing partners (Pode, 2013). Global partnerships between various institutions and actors make the introduction of projects such as “energy through enterprise” possible. This project is supported by SIDA, UNEP, BMZ, private foundations and country programs, and aims at bringing clean energy to poor households (Pode, 2013).

Some authors are skeptical of PPPs and note the difficulties in collaboration due to the different agendas and goals of the different actors. Karamchandani et al. (2011), for example, points out that some company executives have abandoned the idea of creating PPPs due to a mismatch of priorities, and operational and other differences (Karamchandani et al., 2011). Instead, the authors suggest that in order to circumvent obstacles faced in BOP markets, companies need to think innovatively and come up with new business models (Karamchandani et al., 2011). Pode (2013) states that despite the fact that alternative financing means are necessary in some regions because “low-income households in developing countries are faced with serious questions of affordability,” research needs to investigate alternative financing schemes, such as fees for services or micro-credit models (Pode, 2013: 625).

The companies examined in this thesis all engage in some form of cross-sector partnerships. Without these partnerships, the companies would have had no chance to offer their products to BOP consumers in Kenya. Except for Sunny People, which decided to shut down operations, both Ruby Cup and LivelyHoods are still dependent on grants and donations coming from third parties. Partnerships with local as well as international partners have proven valuable in terms of lessons learned about introducing sustainable products to a BOP context.

Corporate Engagement

Some authors propose corporate philanthropy in the form of corporate community involvement (CCI) as a means to deliver valuable services to BOP customers (Idemudia, Moon & Muthuri, 2012). These actions by companies include donations, cause-related marketing, and philanthropy, and take the form of employee volunteerism, business–community partnerships, and community enterprise development (Muthuri, 2012: 363). Corporate philanthropy might be one way to help poor communities develop and would

include “(a) improved socioeconomic and cultural conditions of host communities, (b) capacity building and self-help in host communities, and (c) community empowerment” (Idemudia, Moon & Muthuri, 2012: 369).

For the cases analyzed in this thesis, philanthropic engagement has recently become part of their business operations. Ruby Cup, for example, donates a Ruby Cup to a Kenyan girl each time the company sells one Ruby Cup to a customer in an affluent country. LivelyHoods has recently introduced the option of giving donations on their website to help finance operations in Kenya. The company is now engaging in crowdfunding (crowd-donations), targeting the rich and those willing to give donations via Indiegogo, in order to finance the opening of a new shop. These actions help the company finance its work in Kenya through money funneled from elsewhere.

Moreover, Ruby Cup itself was a beneficiary of corporate social responsibility (CSR) services on a pro-bono basis from Coloplast, which assisted in terms of product development, supplier connections, and overseeing the production process. CSR can broadly be defined as “the responsibility of enterprises for their impacts on society” (EU Commission, n.d.). This type of CSR didn’t provide any financial benefits for Coloplast, yet it made it possible for Ruby Cup to provide a life-changing product to girls and women in Kenya. Further research should focus on the role of corporate philanthropy as an option that can help make unaffordable yet necessary products available to people in BOP markets.

What responsibilities companies have and how these responsibilities should be fulfilled is debated in the literature. Some authors suggest mandatory CSR initiatives as a possible means for creating development via business (Chaturvedi & Mukherjee, 2013). Chaturvedi & Mukherjee (2013) discuss the newly approved mandatory CSR bill in India. The bill makes it mandatory for companies to spend around 2% of their net profit on CSR activities if they earn above a certain amount (Nair & Srivastava, 2013). The authors argue that the bill improves living conditions for impoverished Indians, which is good for companies as well since it’s easier for companies to prosper in a prospering environment. A more developed and better-off society would, accordingly, be good for companies as they would be able to sell their products to more people. Thus, business and government have overlapping goals as “business cannot survive in a failing society” (Chaturvedi & Mukherjee, 2013:1) and government’s role is to improve society. In principle, the state and companies strive for the same goal. The authors argue that taxes would help redistribute wealth, but that mandatory CSR would

accelerate the speed at which India would develop because the monetary resources made available by such a bill would be “mind boggling” (Chaturvedi & Mukherjee, 2013:5).

Mandatory CSR opponents criticize community engagement, suggesting it increases the cost burden on companies, which in turn leads to less competitiveness and ultimately the laying-off of local workers. Mandatory CSR, it is argued, would shift responsibilities away from the state towards companies (Gayo, 2012). The Harvard Professor Michael Porter, at the second Porter Prize awards in October 2012, argued against mandatory CSR, stating that this would lead to misallocation of resources. Porter believes mandatory CSR isn’t the most efficient way to address social issues (Nair & Srivastava, 2013). In his view, businesses should address social issues through profitable business models and strategic thinking. In coining the term “Strategic CSR” (Nair & Srivastava, 2013), Porter proposes a BOP approach towards social problems. However, regardless of whether it is called BOP or strategic CSR, this thesis has illustrated that a purely market-based approach faces certain limitations when it comes to sustainable products.

Is profitability the right means?

The discussion above examines whether profits *can* be the means and the goal towards reaching sustainable development. The conclusion of this thesis is that this is not possible. The cases have shown that only via cross-sector partnerships and/or philanthropic CSR is it possible to make sustainable products available to the Kenyan BOP market. However, what is more important is the question of whether profitability *should* be the means to attaining sustainable development. Further research should focus on whether BOP business needs to happen on a 100% for-profit basis or if 50% profit and 50% state aid might be a valid option. It would also be worth examining whether companies should donate certain life-changing products to people on a purely non-for-profit basis. Looking into this question in more detail would exceed the scope of this thesis, but should be considered for future research.

Conclusion of Analysis

This analysis has investigated the various factors that make doing business in the Kenyan BOP market a difficult undertaking when sustainable products are involved. Companies selling long-lasting products need to keep margins low in order to make them available to customers. This, however, makes doing business impossible because the costs incurred do not cover costs. Charging high margins is not an option since that would make the products unaffordable and no sales would in turn mean no profits for companies. Moreover, the

concept of durable products – or spending more today in order to reap savings tomorrow – is a difficult concept for Kenyan BOP customers to grasp. This is both because the majority thinks in the short-term and simply that cash is often unavailable or calculated to be spent on, for example, school fees. Finally, the slow sales cycle inherent in durable products makes it difficult for companies to amortize the costs of marketing and education through repeat sales, as is the case with FMCG. This indicates that doing business in the Kenyan BOP market is unprofitable when trying to do so with sustainable products.

From this, the question follows as to how “being green” can be transported beyond affluent markets’ borders. The case study of WasteConcern in Bangladesh indicates that earning an income and being environmentally friendly at the same time is indeed possible. Yet, the company and others selling biodegradable products are financed by other means, which indicates that profitability is still out of reach. Other ways to support bringing necessary and sustainable products to the BOP are needed.

Some authors suggest PPPs. Although not suited for every company, PPPs might offer a way in which BOP customers could benefit from new technology and innovations without having the necessary purchasing power to afford these products and services. For this purpose, pro-poor partnerships or “5 Ps” should be studied in more detail, especially in relation to durable products. Cross-partnerships in one form or another have proven valuable to the companies analyzed in this thesis and made it possible to introduce their products to this segment despite facing market difficulties.

Corporate philanthropy, whether mandatory or voluntary, can help improve the lives of the poor. The two cases analyzed in this thesis that remain on the market today both use CSR in terms of donations in some form (in-kind, products, capital) in order to support their work in Kenya. Large MNCs can also help bring valuable products to the BOP via donations or pro-bono partnerships with smaller companies serving the BOP, as is the case with Ruby Cup. Strategic CSR, as suggested by some authors, might face the same limitations as BOP theory inspired businesses when it comes to the introduction of sustainable products on the market.

In summary, the section above analyzed whether it is possible to combine sustainable development and BOP business. This has proven difficult. Rather, PPPs or philanthropic corporate engagement offer options for bringing sustainable and necessary products to the BOP. Thus, one must question whether profit is the right means in the quest to reach sustainable development.

Conclusion

This paper has analyzed the relationship between the sustainable development paradigm and the Bottom of the Pyramid (BOP) theory. It has shown that the two concepts, although sharing some similarities, are incompatible in practice. However, cross-sector partnerships or philanthropic engagement by companies can facilitate making sustainable and highly necessary products available to BOP consumers.

First, the sustainable development concept was analyzed, in particular the concepts of sustainable production and consumption and sustainable products. Sustainable products can be defined as longer-lasting products that yield benefits to producers and consumers. The UN recommends that businesses focus on the production and introduction of sustainable products in order to achieve sustainable development in Africa.

How business can spur development has been thoroughly examined by leading scholars of the BOP theory. The theory holds that development can be achieved through the power of business. According to the theory, business can earn profits when doing business with people living below 2 USD/day (the BOP segment), while simultaneously offering these people dignity and well-being through increased product choices. BOP theorists mention powerful examples on how the latter theory holds true in practice. Yet, all examples mentioned include FMCG and the environmental implications of this have been left out.

Moreover, the literature available to date has not examined BOP business opportunities in regard to sustainable products. This thesis closes that gap and examines three business cases in the BOP market in Kenya that sell durable and life-changing products. Each of the businesses examined struggles to reach financial sustainability. The participant observation method and interviews with company executives, as well as experts working in the field, were utilized in order to examine why this is the case.

Various and interdependent factors make it difficult to reach profitability when selling long-lasting products. First, long-lasting products are more expensive to produce and/or need to be imported, substantially driving up costs. Subsequently, prices charged are higher compared to FMCG, which makes them unaffordable for the segment living below 2 USD/day. Innovative purchasing schemes that allow customers to pay for the product in installment payments are difficult to implement and further increase administration costs. Frequently, switching to sustainable products includes a departure from traditional ways of doing things, and inducing behavioral change has proven difficult. Thus, sustainable products often require more education in terms of usage and conveying the cost-benefit aspect of the product. Regarding the latter, long-lasting products often constitute a one-off investment while yielding cost-

savings in the long-run. Yet, the idea of spending more today in order to save money in the future is often impossible to convey to a customer segment that struggles to survive on a daily basis, often is indebted, and/or faces job insecurity. Moreover, the slow sales cycle makes it difficult for companies to amortize the relatively higher customer acquisition costs through repeat sales. Finally, when selling sustainable products based on the recommended low margins-high volume model, companies struggle even more to cover the above-mentioned costs. Charging higher margins, however, would make these products even less affordable to BOP customers. This thesis indicates that doing BOP business is only feasible with FMCGs, which often implies single-serve sachets, i.e. throw away solutions. Yet, as Cooper (2010) indicates, sustainable development cannot be reached if the throw-away culture is not challenged.

Since purely market-based solutions have shown to be insufficient in the quest to reach sustainable development, one needs to examine alternative means by which the introduction of sustainable products can be made available to BOP consumers. Cross-sector partnerships helped to support the introduction of products for the three cases analyzed in this study. Furthermore, the two companies that are still on the market to date finance their operations in the Kenyan BOP market via CSR or philanthropic donations in the form of in-kind, capital, or products. One company also engaged in a non-commercial partnership with a large MNC that assisted with product development and the production process via philanthropic CSR. Future research should focus on the interplay between the state, international organizations, NGOs and MNCs in fostering the introduction of sustainable products on BOP markets through, for example, cross-sector partnerships or corporate philanthropy. In connection to this, scholars should investigate if profitability is the right means for guiding partnerships in the quest to achieve sustainable development.

Further Research

It would be interesting to investigate if this thesis' conclusion holds true in other BOP markets and conduct a larger study with multiple cases across a number of countries. Future research should also investigate the causal relationships between the various factors identified in this thesis and weigh them according to importance. Extensive research will also be needed to investigate how to decrease the costs of customer education via technological means, such as the mobile services MPESA or MKOPA. Finally, in addition to profits, other means of corporate-led sustainable development should be examined in detail.

Annex

Terms and Concepts

The Bottom of The Pyramid (BOP): is a term coined by C.K. Prahalad (2004) and refers to the population that lives under 2 USD/day. BOP is used in connection to market, people, and segment. If in doubt of its meaning, it can be used interchangeably with the word “low-income.”

Sustainable Development (SD): refers to development that departs from viewing merely economic growth as development to acknowledging the needs of people and the planet. It is commonly defined as, “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 2010).

Sustainable Consumption and Production (SCP): can be defined as, “the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of further generations” (Oslo symposium, 1994. United Nations Sustainable Development Knowledge Platform).

Sustainable Products (SP): refers to durable and long-lasting products, i.e. products with a product life cycle over one year. The terms are used interchangeably and signify slow sales cycles for companies.

Fast Moving Consumer Goods (FMCG): refers to products that have a product life-span of less than one year and constitute fast and repeat sales of products. Examples are, ice cream, soft drinks, personal care items and toiletries.

Ruby Cup: is name of the product produced by the company Makit ApS based in Denmark and Kenya. For simplification purposes and because the company is known as Ruby Cup, in this thesis, I refer to both the company and the product as Ruby Cup.

Corporate Social Responsibility: “The responsibility of enterprises for their impacts on society” (European Commission, n.d.).

Public Private Partnership: “PPP refers to arrangements, typically medium to long term, between the public and private sectors whereby some of the services that fall under the responsibilities of the public sector are provided by the private sector, with clear agreement on shared objectives for delivery of public infrastructure and/ or public services” (World Bank, n.d.).

5 P: Can be defined as “pro-poor public-private partnership” model. “The 5 P approach explicitly targets the provision of services to poor communities, which are often ignored by traditional PPPs since supplying the poor can involve substantial business risk” (Chaurey, 2012).

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Interviews

Interview with Ruby Cup sales lady Zena Ali from Nairobi, Kenya, via Email on 30.12.2013

Interview with CEO, Julie Weigaard Kjær from Nairobi, Kenya, via Email on 13.12.2013.

Interview with Johann Beckmann, CEO of Sunny People from Sweden and Kenya via Email on 22.11.2013.

Interview with Maria Springer, CEO of LivelyHoods, from USA/Kenya via Email on 12.12.2013.

Informal conversations with Tania Laden COO of LivelyHoods in Nairobi, Kenya. August 2012 - December 2013.

Interview with Thomas Tolstrup-Hansen, Regional Director Vestergaard Frandsen (EA) Ltd., from Nairobi, Kenya via email on 09.01.2014.

Ruby Cup Data

(provided upon request)

- Field notes from Meru, 2011
- Field notes from Kibera, 2011
- Letters from Ruby Cup users
- SIDA progress report Ruby Cup December, 2013
- Ruby Cup Business Plan, November 2011 – January 2014.
- Strategy notes and advice by consultants
- Personal emails to Ruby Cup co-founders and partners

Appendix

Interviews

Interview with Maria Springer, CEO of LivelyHoods

December 12th, 2013.

How do you finance yourself?:

Private equity	
Grants	x
Competitions	x
Other (please define)	Low-interest loans

Have you reached financial sustainability?

Yes

No x

When do you expect to reach financial sustainability?

Year: 2016

What is your greatest barrier to becoming financially sustainable?:

Overhead costs too high: recruitment and education of personnel difficult	
Infrastructure costs too high (distribution difficult/transport pricy)	
Lacking marketing knowledge (not sure what makes BOP customers buy my product):	
Low retention of customers (my products are long-lasting/too durable)	
My products are too pricy for the BOP	
A combination of all (please specify)	I think that all of these barriers could be reduced with cash. For instance, our margins are low because we do not have volume to justify importing. If we imported, however, we could store products and charge our consumers less, ensuring us that we could get higher volumes more quickly. Additionally, compensation of staff is very high. The margins on our products are very low, and therefore, it is sometimes hard to justify the

	amount of talent we have onboard, although it is necessary. As we grow, we will improve our margins, and become profitable. Ultimately, it's a business about volume.
Other (please specify)	

I would highly appreciate any further comments concerning barriers to doing business with low-income people in Kenya:

- Behavior change
- Adaption to local market
- Local City Council imposes heavy fines against us for marketing and promotions

Interview with Johan Beckmann, CEO of Sunny People

Date: November 22nd, 2013

How do you finance yourself:

Private equity	X	
Grants	X	
Competitions		
Other (please define)	X	Loans

Have you reached financial sustainability?

Yes

No X

When do you expect to reach financial sustainability?

Year: 2014

What is your greatest barrier to becoming financially sustainable?:

Overhead costs too high: recruitment and education of personnel difficult	
Infrastructure costs too high (distribution difficult/transport pricy)	
Lacking marketing knowledge (not sure what makes BOP customers buy my product):	
Low retention of customers (my products are long-lasting/too durable)	

My products are too pricy for the BOP	X
A combination of all (please specify)	
Other (please specify)	

I would highly appreciate any further comments concerning barriers to doing business with low-income people in Kenya:

The main reasons for our business failure so far have been the following three things:

1. Entrepreneurship: the faulty assumption that anyone presented with the opportunity to earn money from phone charging would grab this opportunity and grow a profitable phone charging business. We have learned that most people are not entrepreneurs. Just because you sell something does not mean you are good at business. Most rural people in Kenya sell something from their farm or so, in order to make cash. But it does not mean that they are good business people or entrepreneurs.
2. Our product was too pricy: the competition in the solar industry has become much about price and if you don't have a good set-up with high quality and low-cost suppliers, you cannot compete.
3. Financing: even with a low-cost product, rural people need help with financing their purchase. We tried to partner with microfinance organizations, but they are risk avert and are not willing to try new products. Some companies are now developing their own solutions to this with Pay-as-you-go, like Mkopa. If the customer doesn't pay the daily Ksh 40 for the solar product, the product is remotely switched off.

Interview with Julie Weigaard Kjær, CEO of Ruby Cup¹²

Date: 13th December, 2013

Customer acquisition costs are extremely high, so we will not break even, not even via retail. Plus, the staff turnover rate is so high in retail outlets that we need own personnel to promote Ruby Cup.

We use much too much money to sell one ruby cup to one woman. We need to find new distribution channels (maybe health workers and maybe through living goods) and cross-subsidize via B1G1.

Interview with Zena Ali, Ruby Cup Sales Lady

Date: December 30th, 2013

How many Ruby Cups did Ruby Cup sell through the Mchanganyiko sales ladies? 6
At what price did you sell Ruby Cup ? 500

Why was it so difficult to sell Ruby Cup? Please mark one or more responses:

¹² Julie said this during a Skype meeting about the company's vision and future. Afterwards, Maxie asked Julie to use the data for her master thesis. Julie agreed

Education of customers difficult	✓
Too much work for too little money	✓
Ruby Cup did not do enough marketing to raise awareness	✓
The packaging was ugly	No, I think it was very good
I did not like the product and did not like to convince others to buy it.	I used the product
The prices of Ruby Cup were too high	✓
A combination of all (please specify)	
Other (please specify)	Others feel it is Unhealthy to use Others don't understand the concept Others feel it is a foreign thing, and not African Need for vigorous advertisement

I would highly appreciate any further comments concerning barriers to selling Ruby Cup in Kibera:

Interview T. Tolstrup-Hansen, Former Regional Director for East-Africa at Vestergaard-Frandsen

January 9th, 2014

How is VF funded?

Private equity	X
Grants	
Competitions	
Other (please define)	

On average, how long do your products last?

-2 years	x
2-3 years	
3-4 years	
4-5 years	

When trying to sell directly to consumers in Kenya (B2C) or other developing markets, what were your biggest barriers?

Please see my answers below concerning our product ZEROFLY Livestock

Overhead costs too high (recruitment and education of personnel and customers difficult)	Overhead costs were in order – the biggest challenge was to enroll new distributors. When you launch an entire new product to a traditional market where
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	<p>people have been used to doing the same things for years, changing habits and getting people to invest in changing habits is a challenge.</p> <p>Recruitment – like with your product we were lucky that there are more people available than demand. We were also lucky that our distributors did not only sell our product, but carried a product line making the cost per person lower.</p> <p>Cost of personnel was not an issue. From the VF side, we ran a skeleton staff to lower our costs, but they were key qualified people.</p> <p>Our focus was to assist the distributors in the different countries with different schemes to attract their sales people to sell more of our product, such as bonuses, trips they could win, and straight up cash upon reaching a target.</p>
Infrastructure costs too high (distribution difficult/transport pricy)	<p>Infrastructure for us was not a problem as our distributors' people carried other items with them on motorcycles and in their vans. They were already visiting the same customers and shops.</p> <p>Our immediate challenges in most places were getting duty exemption and controlling the profit margins, both at distributor level and also at shop level.</p> <p>Not to forget – being actually paid for your product if you offer credit terms – offering credit terms are often the entry barrier to take on a new distributor once you have sold the idea.</p>
Lacking marketing knowledge (not sure what makes low income customers buy my product):	<p>This is the most difficult question and probably what most people are suffering with in Africa.</p> <p>You need to look at the market practices – cash in hand and what people are used to. And you can't make a lot of sense of what is going on unless you simply relate it to cash in hand. This is why you can buy 200-gram packets of OMO and 1 cigarette over the counter.</p> <p>Even when the consumers understand the product will benefit them and save them a lot of money over a long period of time, often for them to pay the little extra is the major challenge.</p> <p>You will scratch your head time after time – you have workshops, they get samples, they like it, they're given special offers – but when it comes to buying it, it simply does not happen (With regards to our product, I learned that farmers in particular are very difficult when it comes to changing habits).</p> <p>Africans - not all but the vast majority - only think about today. Most people are in debt and the focus is on the food they can put on the table and at the same time recalculating the next school fees to be paid. This, on average, outside their job, takes up 90 % of</p>

	<p>their time.</p> <p>The majority simply don't have foresight.</p>
Low retention rate of customers (my products are long-lasting/too durable)	<p>This is another tricky one. Could we have sold our product for half the price? The product would have lasted just 1/3 of the time and, in \$ terms, we would have sold a lot more. There is no doubt in my mind.</p> <p>However, with professional and well-educated people, selling a longer-lasting product is a no brainer – as they might have the funds available and can do the math at the same time.</p>
My products are too pricy for low income people	<p>Whatever you sell in Africa is deemed too pricey. So, what should be investigated in here is the clientele that you are going for what are they willing to pay. Now this is another tricky one, as when you send the people out with the questionnaire what they answer compared to what they do in real life is very different. I have learned over the years that it is unpredictable.</p>
A combination of all (please specify)	<p>The best thing, based on our lessons learned, is to get (demo people) people that use your product, people that are respected in the community, health clinics etc., to recommend the product. The problem you will likely have is that those people do not need your product as they can afford other solutions.</p> <p>For your segment, I would work with female school/PE teachers and get them on board. They are low income people in touch with all the children on a daily basis and are likely to be able to influence the children to ask their parents to buy them this product.</p> <p>In the African society you often have women's groups – it is tiresome and costly, but to meet with those could be a good entry point.</p> <p>To do all this you can not do it yourself as a start up company as the costs will simply be too high. So, you need to find either 1 or several specified distributors that are already in contact with these groups of people.</p>
Other (please specify)	<p>Just an idea – at all boarding schools in Kenya it is required that people use a mosquito net. You should, if you have not already, work with Ministry of Education to ensure that a policy on products in your range will be positioned the same way, i.e. Ruby Cup should be part of the standard school kit.</p>

Other Information

Other information, such as personal emails between myself and the study subjects, the SIDA report, and the Ruby Cup business plan will be provided upon request if confidentiality is assured.