



LUND UNIVERSITY

School of Economics and Management

Master's Programme in Innovation and Global Sustainable Development

# Sustainable Development at the Bottom of the Pyramid

Norwegian Initiatives in India

by

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**Abstract:** The inclusion of the poor in the economy is of key importance to the global sustainable development agenda. However, the integration of low-income communities in the economy requires new approaches to innovation, management and sustainability. This thesis aims to investigate how Norwegian initiatives contribute to sustainable and inclusive development in India by analysing the experiences and outcomes of Norwegian case studies that target low-income markets. The research employs a qualitative multiple-case study approach. Six case studies were identified during an observation period with Innovation Norway in New Delhi, India. Additional data was collected through interviews with stakeholders whose expertise is unique for the Indo-Norwegian context. The results indicate that Norwegian Bottom of the Pyramid initiatives in India are in the preliminary stages of market entry and experience barriers and opportunities in the institutional, political and legal Indo-Norwegian landscape. The findings suggest that Norwegian initiatives contribute to sustainable development at the Bottom of the Pyramid by facilitating knowledge-exchanges through the implementation of commercial models. This is mobilised through inclusive innovation, institutional support, understanding cultural barriers, technology penetration among low-income communities and the vision of environmental and social sustainability. The viability of Norwegian initiatives in India can be improved by supportive policies and the utilisation of cross-sector partnerships to enable sustainable development through the innovation ecosystem for the Bottom of the Pyramid.

**Keywords:** Inclusive Growth, Frugal Innovation, Bottom of the Pyramid, India, Norway

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# Table of Contents

<b>1</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Background and Research Problem.....	1
1.2	Purpose of Study and Research Questions.....	2
1.3	Scope and Significance of Study .....	3
1.4	Outline of the Thesis .....	3
<b>2</b>	<b>Previous Research.....</b>	<b>4</b>
2.1	The Evolution of BOP Theory.....	4
2.1.1	Definition of BOP Markets.....	6
2.1.2	The Initiators of BOP Initiatives.....	7
2.1.3	Business Models and Entry Strategy .....	8
2.1.4	Outcomes of BOP Initiatives .....	9
2.2	BOP 3.0 – A Call for Future Directions?.....	10
2.3	MNCs: Norwegian Stakeholders in India .....	11
2.4	Bottom of the Pyramid in India .....	12
<b>3</b>	<b>Theoretical Approach.....</b>	<b>15</b>
3.1	Analytical Framework for Strategy at the BOP.....	15
<b>4</b>	<b>Methods.....</b>	<b>17</b>
4.1	Research Approach .....	17
4.2	Research Strategy.....	17
<b>5</b>	<b>Data .....</b>	<b>19</b>
5.1	Research Setting.....	19
5.2	Data Collection .....	19
5.2.1	Observation Period.....	20
5.2.2	Interviews.....	21
5.3	Case Studies and Selection Criteria .....	22
5.4	Interview Strategy.....	24
5.5	Analytical Method .....	25
5.6	Limitations and Considerations .....	26
5.6.1	Ethics, Trust and Authenticity .....	26
<b>6</b>	<b>Empirical Findings .....</b>	<b>28</b>
6.1	The Legal, Institutional and Political Landscape.....	28
6.1.1	NITI Aayog.....	28
6.1.2	CSR rules in The Company Act of 2013 .....	28
6.1.2	The Foreign Contribution (Regulation) Act 2010 (FCRA) .....	28
6.1.3	National Policy on Safety, Health and Environment Workplace 2009 .....	29
6.1.4	Norwegian Government Funding Grants.....	29
6.1.5	Inclusiveness in the Indian ICT Revolution.....	30
6.1.6	Make in India Initiative.....	30
<b>7</b>	<b>Results and Analysis .....</b>	<b>32</b>
7.1	Companies and BOP Initiatives.....	32
7.1.1	Entrepreneurial Mindset.....	32

7.2	Initial Needs of the BOP Population.....	33
7.2.1	Planning and Research.....	33
7.3	Motivation.....	35
7.4	External Analysis.....	37
7.4.1	Funding Mechanisms for Inclusive Innovation.....	37
7.4.2	Competition.....	38
7.5	Legal and Political Conditions.....	39
7.5.1	Legal Barriers for Commercial Activity.....	40
7.5.2	Political Conditions for Sustainable Development in India.....	41
7.6	Stakeholders Involved.....	43
7.6.1	Local Partner.....	43
7.6.2	Cross-Sector Support and Partnerships.....	44
7.7	Products and Services.....	45
7.7.1	Frugal Innovation.....	45
7.7.2	Scalability.....	46
7.7.3	Affordability and Cost Models.....	48
7.8	Strategies.....	49
7.8.1	Marketing Strategies.....	50
7.8.2	Global Growth Strategies.....	50
7.9	Organisational Implementation.....	51
7.9.1	Distribution and Efficiency.....	51
7.9.2	Corruption.....	52
7.9.3	Market Empowerment.....	52
7.10	The Supply Chain.....	54
7.10.1	Production and Manufacturing.....	54
7.10.2	Quality.....	55
7.10.3	Health and Safety Culture.....	55
7.11	Sustainable Development Outcomes.....	56
7.11.1	Environmental Sustainability.....	57
7.11.2	Social Sustainability.....	57
<b>8</b>	<b>Conclusion.....</b>	<b>59</b>
8.1	Research Aim and Questions.....	59
8.2	Contributions and Implications.....	62
8.3	Limitations and Future Research.....	62
	<b>References.....</b>	<b>64</b>
	<b>Appendix A.....</b>	<b>72</b>
	<b>Appendix B.....</b>	<b>74</b>
	<b>Appendix C.....</b>	<b>80</b>

# List of Tables

Table 3.1 Analytical Framework for Business Strategy for the BOP Market (Schrader, Freimann and Seuring, 2012).....	16
Table 5.2 Internal Interview Participants – Case Studies .....	21
Table 5.3 External Interview Participants – Advisors and Partners .....	22
Table 5.4 Case Studies.....	23
Table 5.5 Summary Interviewee Groups .....	24
Table A. 1 The case for MNC’s at the BOP (Prahalad & Hart, 2002, pp. 21).....	72
Table A. 2 Success Stories from the Bottom of the Pyramid Literature.....	73
Table B. 1 Interview Schedule for Advisors.....	74
Table B. 2 Interview Schedule for Case Study .....	75
Table B. 3 Interview Schedule for Partner Organisation.....	76
Table B. 4 Invitation to interview .....	77
Table B. 5 Interview Consent Form.....	78
Table B. 6 Observation Period Consent Form.....	79
Table C. 1 Results Matrix.....	80

# List of Figures

Figure 2.1 The Global Economic Pyramid (Adapted from Prahalad & Hart, 2002).....	4
Figure 2.2 The Evolution of BOP Theory (Based on Prahalad & Hart, 2002; Simanis, Hart & Duke, 2008; Cañeque & Hart, 2015) .....	10
Figure 2.3 Progress of Annual Household Income in India (Adapted from WEF, 2019) .....	13
Figure 2.4 Working Poor in India (Adapted from UNDP Data Base, 2020).....	13
Figure A. 1 Comparing the Definitions of Poor Populations in India .....	72

# 1 Introduction

## 1.1 Background and Research Problem

*“To make development sustainable – is to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs”* (World Commission, 1987, p. 44)

The Brundtland Report *Our Common Future* (1987) emphasise the term sustainable development as the intergenerational responsibilities the world has for both current and future populations whilst highlighting the duty wealthy countries carry to facilitate universal solidarity in the creation of social justice. Subsequently, sustainability science presents the concept of planetary boundaries and views it as a framework for humanity to work within (Rockström et al., 2009). The framework focuses on the biophysical processes of our Earth system and how this determines the self-regulating abilities of the planet, hence maintaining the “planetary playing field” is of key importance to life as we know it. One may find complementary boundaries to the environmental sphere in terms of acceptable human and social outcomes “that aim to avoid human biological thresholds” (Leach et al., 2016, p. 85). Characteristics of poverty such as malnutrition, dehydration and death are examples of social boundaries that complement the concept of planetary boundaries. Leach and colleagues (2016, p. 86) present the social and planetary boundaries framework as an analytical tool to leverage safe and just pathways which “could deliver inclusive and sustainable development” for all of humanity. Such pathways require diligent forces to create dynamics in which interdisciplinary approaches are capitalised on to create sustainable solutions.

Today, almost one-fifth of the world’s population live in India (World Bank, 2019). In such a big country, the poverty-environment-development nexus causes strain on local resources and India’s future growth trajectories will have global ramifications (Nadkarni, 2000). Hence, when one considers the size of the Indian population with almost 1.4 billion people, it is vital for all of humanity to include India in the global sustainable development agenda.

In this context, the Bottom of the Pyramid (BOP) theory may be seen as one pathway of sustained economic development working within the social and planetary boundaries’ framework. The theory capitalises on the purchasing powers available at low-income markets with the aim of enabling poor communities’ entry to the local and national economy in an attempt to create sustainable development. The BOP theory aims to do this by creating the “triple leap” (Hiramoto & Watanabe, 2015), which means not only raising the income levels of the poor but also prevent income decrease caused by climate change, and pause the

development of climate change through the employment of clean technology. Hence, by the mobilisation of innovation that addresses poverty alleviation and climate change, the responsibility of global poverty is transferred from traditional development practice to pioneering, for-profit initiatives.

These initiatives range from social enterprises to private-public development schemes and public capital investment programmes. The theory brings forward the need and responsibility for the transfer of resources, knowledge and innovation from developed to less developed economies. However, this process has been highlighted as particularly complex (Simanis et al., 2008) and requires a deep understanding of BOP markets and dynamics. Norway's action plan for sustainable development (2004) has a key focus on knowledge-transfers whilst recent developments have seen a shift towards private sector development initiatives (Norwegian Government, 2015). However, Norwegian initiatives on BOP markets in India following the increased attention to Norway's role in the global sustainable development arena are yet to be explored. Ultimately, the paper argues that Norwegian innovation and knowledge-transfers can facilitate financially viable initiatives that produce inclusive economic growth in India, maximise local and global stakeholder interests and reduce poverty whilst working within the planetary boundaries.

## 1.2 Purpose of Study and Research Questions

The purpose of this study is to investigate how Norwegian initiatives contribute to sustainable and inclusive development in India. It does so by analysing the experiences and outcomes of Norwegian case studies that target low-income markets. The thesis is anchored in the Bottom of the Pyramid theory by Prahalad and Hart (2002) whilst the theoretical framework by Schrader, Freimann and Seuring (2012) provides the analytical leverage necessary to answer the research questions. The role of Norwegian initiatives on the Indian BOP market has received limited to no scholarly attention.

The research of this study is twofold;

1. What are the experiences and outcomes of Norwegian initiatives that target low-income markets in India?
2. How and to what extent can Norwegian initiatives contribute to sustainable and inclusive development in India?



## 1.3 Scope and Significance of Study

The scope of this research will be limited to Norwegian initiatives that aim to target low-income markets in India in an attempt to achieve a better understanding of how this specific context affects the process of sustainable development. Particular emphasis will be on the role of private, public and social agents and what role they play in the change-making process. India has been selected as the host-country of research due to the large poor population (Anand et al., 2014), the origins of the BOP theory (Prahalad & Hart, 2002) and the emerging Norwegian interest in India (Norwegian Ministry of Foreign Affairs, 2018).

Additionally, the study will add to the existing Bottom of the Pyramid literature as it aims to improve the understanding of BOP initiatives among the low-income population in India and attempt to identify the evolutionary aspects of the theory.

## 1.4 Outline of the Thesis

This thesis is organised as follows: Chapter 1 introduces the background for this thesis and presents the research questions, scope and significance of the study. In Chapter 2, previous research and the evolution of the Bottom of the Pyramid theory is evaluated and connected to Norwegian initiatives in the emerging Indian economy. Chapter 3 presents the theoretical framework which will be applied throughout the thesis. Chapter 4 introduces the methodology and research design of this study, and Chapter 5 provides a detailed description and reasoning for the data selection and analytical method. Chapter 6 introduces emphasised factors in the legal, institutional and political landscape in India as a measure to enable the reader a greater understanding of the results. Chapter 7 presents the results and analysis of the conducted data using the literature in Chapter 2 as a frame of reference. Chapter 8 provides a conclusion, contribution, limitations and direction for future research.

## 2 Previous Research

*The Bottom of the Pyramid theory has been recognised for its revolutionary character and has since its introduction evolved from BOP 1.0 to a 2.0 version (Simanis & Hart 2008, 2009). Scholars are calling for an additional evolution, a BOP 3.0 (Cañeque & Hart 2015), which includes a greater focus on environmental sustainability and a move away from a focus on poverty alleviation towards the concept of sustainable development. This chapter will review previous research related to BOP theory and narrow the debate of sustainable development to the role of Norwegian stakeholders in India.*

### 2.1 The Evolution of BOP Theory

At the core of the Bottom of the Pyramid theory, Prahalad and Hart (2002) emphasise the economic potential among the poor population and argue how this segment has historically been neglected by multinational corporations (MNCs). As can be seen from figure 2.1, Prahalad (2005) suggests that the fortune at the bottom of the pyramid comes from the 4 billion poor people in the world with a per capita income below US \$2 a day (1990 purchasing power parity rates), thus there is a potential US \$13 trillion market value at the global BOP.

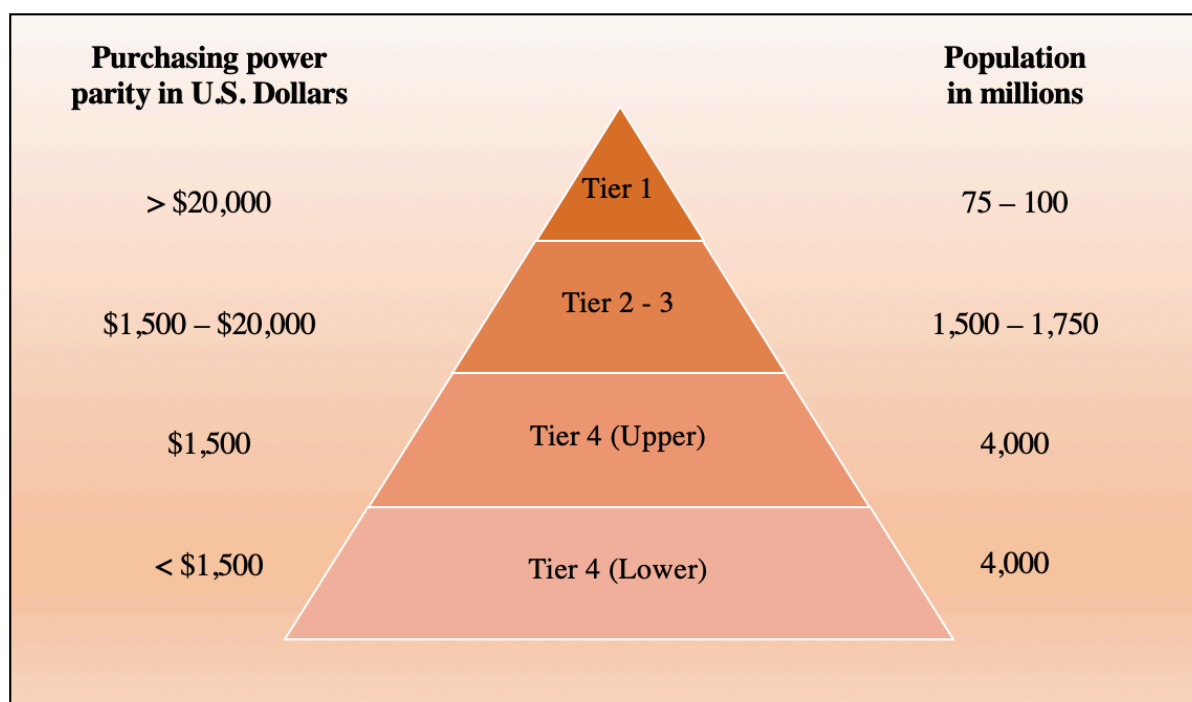


Figure 2. 1 The Global Economic Pyramid (Adapted from Prahalad & Hart, 2002)

However, the BOP is not a market that accepts the traditional business model; it requires very low margins and its value lies in the capture of volume and capital efficiency to meet the price sensitivity of its customers. Hence, unit costs tend to be low while sales are tremendously high. The BOP population lives in rural villages and urban slums with low to non-existent levels of education and the theory identifies the difficulty for market distribution, the chaotic and unorganised structure of the market and the limited availability of quality-based products and services.

Prahalad (2005) argues that the role of MNCs have historically been limited to that of a vehicle for foreign direct investment (FDI). Social organisations and the development sector have remained conditioned by their environment, hence defined roles within the BOP community have been conditioned by the assumed capabilities and motivations within each sector. Therefore, the business system or model where all these stakeholders operate becomes the core of the ecosystem for wealth creation at the BOP. As such, Prahalad wishes to change the narrative from clearly defined roles (for example that MNCs are limited to that of FDI) to a market-oriented system in which multiple forms of enterprise coexist in a symbiotic relationship in the pursuit of poverty alleviation.

Narrowly defined roles mean that windows of opportunity for private sector revenue and community development are forgone. Prahalad and Hart (2002) bring forward six assumptions that are often made by MNC's in relation to poverty: (1) MNCs are not able to target poor consumers due to their current cost structure, (2) the poor population lack resources and will not be able to afford the products and services sold in the developed markets, (3) technology is only appreciated by developed markets, hence the poor will not pay for new technology, (4) the BOP is not essential for the survival of the MNC and private enterprise can do little for poverty reduction, (5) private enterprises are not excited about challenges that have a humanitarian dimension and (6) intellectual excitement only exists in the developed markets, hence it would be challenging to train, motivate and recruit human capital at the BOP (Prahalad 2005, p. 78). As a result, the worldviews of MNCs, their business models and strategies remain conditioned by their proximity to their belonging to the Top and Middle segments of the Pyramid (TOP/MOP).

The theory further identifies mechanisms that will enable pioneering innovation by MNCs to serve the bottom of the pyramid. *First*, poor consumers have greater access to information than ever before, hence it is evident that the global poor are increasingly aware of their predicament and there is a desire to increase consumption and improve their standard of living. *Second*, political and regulatory interference is in decline all around the world as many governments have taken a step back and allowed for market forces to thrive. *Third*, the world is experiencing over-capacity in its industries and the global competition is increasingly intensified, hence the BOP is an unoccupied space with growth potential that is not available elsewhere. *Fourth*, the inevitability of creating sustainable development cannot become a reality without the inclusion of the BOP. Hence, the demands of the poor must be met where they reside, and the empowerment of rural village life must be attained as a measure to avoid a vicious cycle of

population growth, environmental degradation, poverty, urbanisation and migration. Therefore, a new path of economic development must follow a new logic.

In table A.1 in Appendix A, one may see the arguments Prahalad and Hart (2002) make for MNCs' entry to the BOP where an increasingly globalised economy is at the core. Accordingly, MNCs will have a greater chance of success compared to local businesses due to their ability to leverage larger resources to enable the bridging of infrastructures that will facilitate the transfer of innovations. As such, a large component of the entry strategy for MNCs should be the introduction of a commercial infrastructure whereby the creation of a consumer market is at the core compared to serving an already existing market.

Upon publication several significant developments have been made of the initial BOP theory, allowing the theory to evolve towards a BOP 2.0 (Simanis & Hart 2008) and BOP 3.0 (Cañeque & Hart, 2015). The BOP theory has also gained momentum in professional practice with the establishment of renowned initiatives, such as the "Next Billion: Development Through Enterprise" launched by World Resources Institute in 2005. The theory has also received substantial criticism which has contributed towards its development. For instance, Karnani (2007, p. 91) claims that "the BOP proposition is indeed too good to be true. It is seductively appealing, but it is riddled with fallacies. There is little glory or fortune at the bottom of the pyramid—unfortunately, it is (almost) all a mirage". A richer review of the theory is thus required, particularly its definition of poverty, the initiators of BOP initiatives, the employed BOP business models and strategies, and the outcomes of BOP initiatives.

### 2.1.1 Definition of BOP Markets

In the BOP literature, one may find a variety of measurements and definitions of poverty. Prahalad and Hart (2002) argue that the BOP population has a purchasing power of US \$13 trillion, whilst others estimate the BOP potential to be closer to US \$5 trillion (Hammond et al., 2007). A key opposing view to these assessments is made by Karnani (2007) who estimate the global BOP market to be valued at less than \$0.3 trillion. The contrasting views on the BOP market value depend heavily on how the literature defines poverty. Dembek and colleagues (2019) found that more than a quarter of published research on the BOP concept does not provide a definition whilst the majority of literature that uses an explicit definition define poverty in terms of income per day. As such, scholars refer to the BOP market as those who have per capita income level below US \$1,500 – US \$2,000 per annum (Simanis et al., 2009; Mathur et al., 2016; Kolk et al., 2014). Whilst others refer to those who live below poverty lines of US \$1 or US \$2 a day (Hahn, 2008; Banarjee & Duflo, 2007). However, the BOP market is often referred to in more imprecise terms such as 'the poor' (Heeks, 2008), 'rural women' (Schwittay, 2011), 'slum dwellers' (Whitney & Kelkar, 2004) and those who live in rural areas (Zala & Patel, 2009) or half to two-thirds of the world's population (Nakata & Weidner 2012).

The economic characterisation among BOP definitions has received criticism and scholars call for the use of a multidimensional definition of poverty (Kolk et al., 2014). Thus, Ansari, Munir and Gregg (2012) drew upon the wide literature in development and sociology, in an attempt to distinguish initiatives that genuinely help a community from those which do not. They applied the capabilities framework by Sen (1985) and the concept of social capital by Putnam (1995) to develop a community perspective on BOP outcomes as opposed to a corporate view. Such a redefining of poverty whereby not only the lack of income but also the lack of capabilities and social capital, enables a more holistic approach to the estimation and measurements of BOP markets. Nonetheless, the failure to converge the definition of poverty is prevalent across economic development literature (Chen & Ravallion, 2008) and scholars call for future BOP research to have greater clarity in their assessment and methodology of the BOP population (Kolk et al., 2014).

### 2.1.2 The Initiators of BOP Initiatives

The last two decades revealed the limitations of Prahalad and Hart's (2002) main argument whereby MNCs are recognised as best equipped to address BOP markets. Kolk and colleagues (2014) found that successful MNCs such as Hindustan Unilever Ltd in India, Avon in South Africa, Cemex in Mexico and Hewlett-Packard in Sub-Saharan Africa, are a minority of the wider net of stakeholders operating on BOP markets. They argue that most of the BOP initiatives in the last two decades have been initiated by small and local firms as opposed to large MNCs. Additionally, the original BOP theory suggests keeping NGOs at an arm's length as partnerships between private sectors and NGOs were considered unhelpful to access the 'true needs' of BOP consumers (Prahalad & Hart, 2002). However, Altman and colleagues (2009) demonstrate that the Grameen phone (Table A. 2 in Appendix A) in Bangladesh, is a joint enterprise by non-profit organisation Grameen Telecom Corporation and the Norwegian for-profit Telenor. As such, cross-sector collaborations like the GrameenPhone as a BOP initiative uncover the shortcomings of BOP 1.0 and is just one of many examples of successful cross-sector partnerships operating on the BOP market. The complexities between profitability and poverty alleviation require stakeholders and strategies with characteristics beyond that of MNCs (Kolk et al., 2014).

Therefore, extended versions of the BOP theory and the emergence of an augmented BOP 2.0 approach has become increasingly relevant (Simanis et al., 2008; Hart, 2007; Scradler et al., 2012). It includes greater clarification on the role of the poor in the market (Paton & Halme, 2007), particularly on marketing strategies targeting the poor (Ireland, 2008) and their role as consumers (Subrahmanyam & Gomez-Arias, 2008). This literature was inspired by widely cited success stories. Cases such as Hindustan Lever, the GrameenPhone and Aravind Eye Care (See table A. 2 in Appendix A) in India enabled the BOP theory to propel and demonstrated how self-development, finance and job-creation may work more effectively in creating sustainable development than philanthropy projects (Albert et al., 2014). The traditional BOP theory by Prahalad and Hart (2002) enabled the structural innovation seen by these companies, but the

BOP 2.0 enabled a wider value proposition by engaging the whole BOP community in the supply chain.

### 2.1.3 Business Models and Entry Strategy

Several scholars have raised the need for more effective business models and strategies to be applied to the BOP in addition to greater literature on the dynamics between MNCs and BOP investments (Gordon, 2008; Rangan et al., 2007; Viswanathan et al., 2009; Chikweche & Fletcher, 2012). Wanasika (2013) argues that the Indian BOP market has unique characteristics with a highly competitive nature and a rapid speed of interchanging dynamics whilst at the same time being highly dependent on the sociocultural context. Hence, the strategies implemented by successful BOP initiatives include new approaches to production, frugal innovation and financial micro-schemes (Wanasika, 2013; Simanis & Hart, 2009; London & Hart, 2004; Ricart et al., 2004). Nonetheless, the mobilisation BOP initiatives require strategic formulations which differ from the business frameworks often found in western markets. Hence, Simanis and colleagues (2008) developed the *base of the pyramid protocol* that emphasise the necessary changes in mindsets to ‘locally embed’ new business among BOP communities. The protocol highlights the complexity of foreign actors to gain momentum among impoverished populations. This is consistent with recent research on MNCs BOP strategies in India where researchers have found a lack of trust towards foreigners (Webb et al., 2010), the necessity of equal value creation for both the MNCs and the BOP population (Rangan et al, 2007; London, 2009) and the importance of responsible marketing (Wood et al., 2008).

Moreover, the BOP 2.0 moves away from viewing the poor only as consumers (BOP 1.0) and opens up for recruiting the poor as direct business partners (Brinkerhoff, 2008) and employees (Whitney and Kelkar, 2004). Scholars argue that the role of the poor in the value chain should be seen as entrepreneurs as well as consumers (Karnani, 2009b; Dolan and Scott, 2009) and simultaneously engage the poor beneficiaries as co-inventors with shared ownership of the business (Simanis & Hart, 2009; Dolan & Scott, 2009; Johnson, 2007; Jose, 2008; Sarabhai, 2008). However, Banarjee and Duflo (2007) argue that entrepreneurial ventures in poor communities are usually characterised by low barriers to market entry, low degree of specialised skills and with limited access to scalability. By contrast, BOP entrepreneurship remains at large ventures that are being introduced by BOP initiatives themselves and the recruited ‘entrepreneurs’ mainly conduct product distribution activities with little or no ownership of the actual BOP premise (Dolan & Scott, 2009; Johnson, 2007). A similar critique stems from Karnani (2008b) who argues that this flawed view of entrepreneurship among BOP initiatives, albeit being entrepreneurs in a practical term, is an imperfect substitute for formal and salaried employment.

Additionally, scholars emphasise the moral implications of “selling to the poor” and highlights how the BOP 1.0 merely exacerbate capitalist exploitation and inequality (Bardy et al., 2012; Schwittay, 2011; Dolan, 2012). Hence, Hahn (2009) applies Rawl’s principles of justice as a

measure for ethic in corporate strategies targeting the BOP whilst Calton and colleagues (2013) argues for a humanistic and equal stakeholder approach in the development of new mental models for poverty alleviation. These insights create additional layers to the economic arguments provided by Prahalad and Hart (2002) and enable ethical foundations rooted in justice and stakeholder rights in the mobilisation of BOP strategy. Albeit not fully manifested in the origins of BOP theory, Dembek and colleagues (2019, pp. 4) argue that future BOP models should include actions based on “an enlightened self-interest without explicating the ethical foundations of their prescription”.

#### 2.1.4 Outcomes of BOP Initiatives

The literature divides outcomes of BOP initiatives into three categories; social outcomes that enable the alleviation of poverty, environmental effects and the economic outcomes of the BOP initiative. Kolk and colleagues (2014) report that the social impact of BOP initiatives is considered in the majority of BOP literature, however only a minority of studies have measured results. Among these, the majority report positive outcomes on education, healthcare, employment, water purity, income generation and reduced exploitation (Humberg & Braun, 2014). Moreover, scholars argue how income generation may cause social unrest in low-income communities (Ansari et al., 2012). However, the majority of studies that found a negative social impact on the BOP population, often refer to the same MNCs (Karnani, 2007a, 2007b 2007c, 2009). Nonetheless, studies which aim to investigate the direct impact of the BOP approach on poverty alleviation (Humberg and Braun, 2014; Calton et al., 2013) remains vague in their findings.

The linkages between BOP theory, sustainable development and earth science has received some scholarly attention (Hahn 2008, 2009; Hart 2007). However, environmental outcomes are seldom highlighted in the literature with only a minority of studies focused on waste generation, albeit the majority report positive outcomes (Kolk et al., 2014). A key theme discussed surrounds the notion of behavioural change among the poor population with concerns for the increase in consumerism (Hart & Christensen, 2002).

From a corporate viewpoint, the majority of journal articles measuring the economic outcomes of BOP models have reported positive outcomes. For example, Lakshman (2009) found a 30% increase in market capitalisation for the Indian based consumer goods company ITC Ltd after they initiated the BOP market. However, Dembek and colleagues (2019) argue that the BOP literature suffers from a limited measure of value creation by only viewing the economic success of the initiative. BOP scholars should have a broader focus on value appropriation, retention and destruction as a measure to include a more comprehensive picture of the BOP landscape (Dembek & Sivasubramaniam, 2018). Moreover, London and Hart (2004) analysed 24 BOP cases, whereby 13 were identified as unsuccessful due to the lack of understanding of the complexities of the BOP market. Such studies are highly valuable in the BOP discourse as it is often only the successful initiatives that are being studied and brought forward. Hence, the literature calls for studies that include failed BOP initiatives in an attempt to understand why

(London, 2009; Simanis and Hart, 2009, Kolk et al., 2014; Dembek et al., 2019). Overall, the literature calls for more systematic measurements of BOP impact on poverty transitions and social benefits (Smith & Pezeshkan, 2013; London, 2009; Kolk et al., 2014; Dembek et al., 2019).

## 2.2 BOP 3.0 – A Call for Future Directions?

The most recent contribution to the evolution of the BOP theory came after Cañeque and Hart (2015) published the book *Base of the Pyramid: 3.0*. They refer to the BOP as the 4.5 billion people who live on less than US \$8 a day and combine the dimension of poverty with the environmental dimension of sustainability. As condoned by London (2011, 2015), the integration of environmental sustainability is of great importance to the global economic sphere and should be an essential factor in any poverty alleviation effort. Drawing upon previous research, the BOP 3.0 theory calls for future BOP scholars to incorporate a multidimensional definition of poverty, include a greater understanding of the environmental, social and cultural impacts of BOP initiatives and view BOP innovations as part of a larger innovation ecosystem in which sustainable development is the aim (Cañeque & Hart, 2015). The emerging literature on government-led BOP initiatives is also to be noted (Gardetti, 2006; Halme et al., 2016) with nearly one in three published articles in the last decade mentioning the role of government in their BOP research (Dembek et al., 2019).

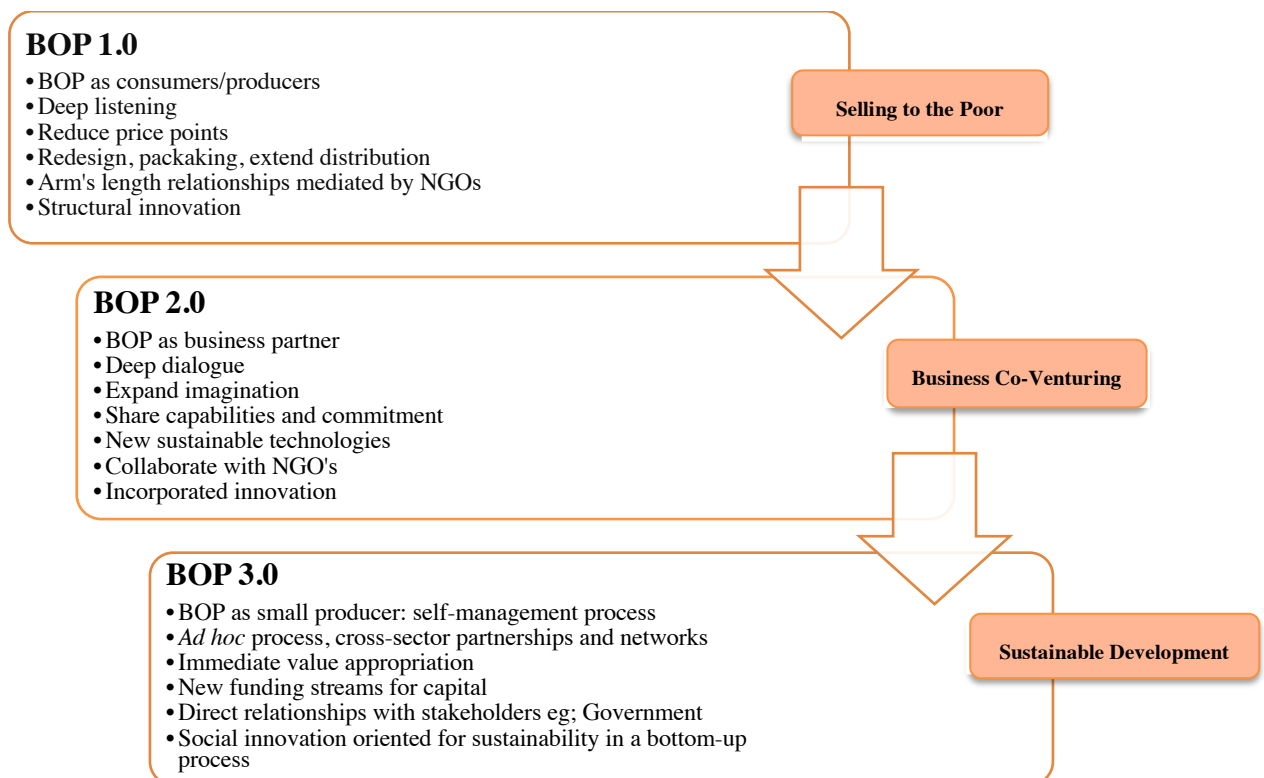


Figure 2.2 The Evolution of BOP Theory (Based on Prahalad & Hart, 2002; Simanis, Hart & Duke, 2008; Cañeque & Hart, 2015)



Following the mobilisation of cross-sector partnerships as suitable BOP initiators, the BOP 3.0 literature highlights the emerging challenge of the Pioneering Gap (Chevrollier & Danse, 2015) during the initial investment landscape among BOP initiatives. The Pioneering Gap refers to the gap of time and money between the formation of the for-profit organisation/BOP initiative and the generation of positive cash flow. This pre-seed phase of innovation is often served by existing financial institutions and informal/formal investors. It is also a growing trend among many development institutions to provide grants and capital for BOP initiatives. Other funding streams may come from research grants, angel investors, crowdfunding, donations (charity), venture capital, private equity or mergers and acquisitions (Chevrollier & Danse, 2015). These new funding streams demonstrates the bridging between commercial enterprise and International development aid whilst the introduction of cross-sector partnerships is a measure to reduce the risk for the commercial enterprise and maximise the sustainable development impact (Cañeque & Hart, 2015).

The last two years of BOP literature has a renewed focus on innovation, co-creation/venturing and that low-income markets have become a “research and development whitespace” for many MNC’s. However, the literature emphasises the need for a stronger focus on mutual value creation for all stakeholders operating on the BOP in addition to the scholarly acknowledgement of unsuccessful BOP initiatives. As such, BOP scholars remain hopeful for the mobilisation of BOP 3.0 and the integration of sustainable development in BOP theory. As such, the BOP 3.0 is considered an appropriate next step in the evolutionary aspects of the theory, yet its connection with the practicalities of current BOP initiatives remain unexplored.

## 2.3 MNCs: Norwegian Stakeholders in India

The Indo-Norwegian Project was Norway’s first foreign aid development project in 1953 and intended to modernise fisheries in Kerala, India. Since then, Norway has had considerable interest in India, both through the ongoing negotiations to establish a free trade agreement with the European Free Trade Association and as an independent partner in development cooperation efforts. The Norwegian Agency for Development Cooperation (Norad) has contributed with 789.9 million NOK in bilateral assistance funds from 2014 to 2019, the majority of funds going to economic development and trade (Norad, 2019). For example, the Indo-Norwegian Business Matchmaking Programme was started in 2010 with funds from Norad. The programme aims to facilitate the development of commercial relationships between Norwegian and Indian enterprises with support from Norwegian institutions in India such as The Royal Norwegian Embassy and the national development bank Innovation Norway.

The launch of the Norway-India 2030 Strategy during Prime Minister Erna Solberg’s visit to India in January 2018, emphasised a strong political will for greater Indo-Norwegian cooperation. The agenda has a key focus on sustainable development, the shared ocean economy and a revitalised focus on opportunities for Norwegian private sector development in India; “Norway will focus on innovation and the commercialization of Norwegian technology

with a view to gaining a foothold in an increasingly digitalized Indian market.” (Norwegian Ministry of Foreign Affairs, 2018, p. 14).

There are currently 140 Norwegian MNCs in India operating mainly in maritime, information and communications technology (ICT) and the oil, energy and environment sector. Other minor sectors include health, education, banking and food. Major corporations include Orkla, Statkraft and Jotun. Norway’s FDI portfolio in India was valued at US \$182 million from 2000 to 2015. It represents 0.07% of the total cumulative equity inflows in India (Indian Council on Global Relations, 2016). Additionally, the Norwegian Government Pension Fund has a significantly growing investment interest in India with an increase from \$2.85 billion in 2009 to \$11.35 billion in 2015 (Indian Council on Global Relations, 2016). Norwegian BOP initiatives in India are yet to be explored, however, the political and commercially supportive landscape is a good indicator of the potential and opportunities that exist for Norwegian initiatives on Indian low-income markets.

## 2.4 Bottom of the Pyramid in India

As India is well into its eight decade of independence, it faces unprecedented economic transformations that grow in parallel with the nation’s improvements in the Human Development Index (HDI). As the world’s largest democracy with almost 1.4 billion people and annual GDP growth of nearly 7.5 per cent<sup>1</sup>, India is third behind China and the United States in terms of purchasing power parity and remains a potential growth engine in the global economic sphere. The economic liberalisation of India in 1991 allowed for a more open economy which created a competitive arena for global business. Policy initiatives aimed to nurture a growing services sector, deregulate various industries whilst also reduce barriers to trade through lower taxation and tariffs. Lately, the combination of low-interest rates and declining inflation have triggered a rise in consumption growth (PwC, 2014).

FDI in India reached new levels with a total US \$60 billion worth in 2017, thus making India the 10<sup>th</sup> largest recipient of FDI in the world (WEF, 2019). The healthy and strong investment landscape includes a strong export of services and technology which in many ways is a reflection of the slow-motion reform process in the last 30 years. The incremental introduction of policy by national institutions has been crucial for the strengthening of structural economic conditions. Economic projections suggest that annual GDP growth of 7-9 per cent would enable India to become a US \$10tr economy within the next two decades (PwC, 2014; WEF, 2019). Such growth would lead to a rise in consumer spending, from the current US \$1.5tr to US \$6tr in 2030 and consequently transform parts of the current Indian BOP economy to a middle-class economic hierarchy (figure 2.3).

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<sup>1</sup> World Economic Forum, 2019

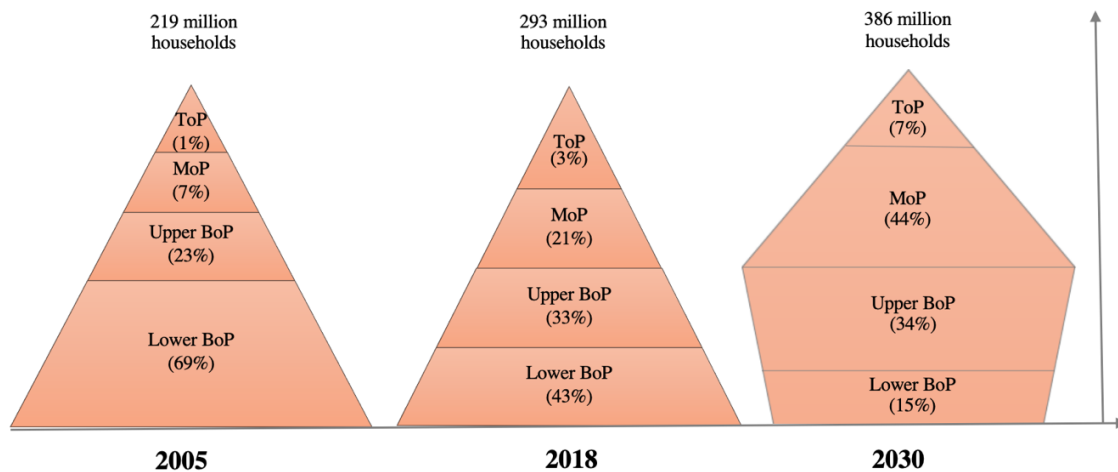


Figure 2.3 Progress of Annual Household Income in India (Adapted from World Economic Forum, 2019). Note: ToP: >\$40,000; MoP: \$8,500-40,000; Upper BoP: \$4,000-\$8,500; Lower BoP: <\$4000 basis income per household in real terms; Projections with annual GDP growth assumed at 7.5%.

Moving forward, it is challenging to estimate the BOP market in India due to the variety of data available on poor populations. Estimations of the BOP population ranges from 290 million up to more than 1 billion people as the definition of poverty is interpreted differently. However, Tasavori and colleagues (2016) refer to the BOP in India as the 469 million (below \$1.25 a day) and 850 million (below \$2 a day), whilst recent macro-economic reports suggest those who live on less than \$5 a day is 930 million (PwC, 2014) and 849 million people (WEF, 2019). The multidimensional poverty index for India suggests that 46.7 percent of the Indian population is considered 'working poor' and live on less than PPP\$3.10 a day (figure 2.4), whilst the average daily income for Indians in 2012 was 247 INR a day (ILO, 2018). For a greater overview of the various definitions of poverty in India, see figure A. 1 in the appendix.

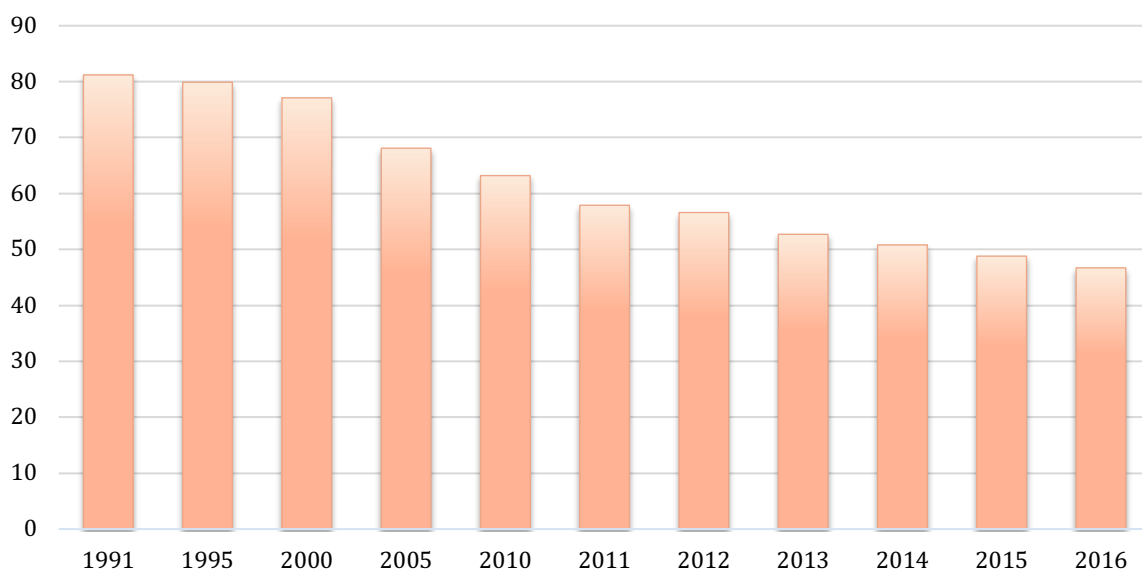


Figure 2.4 Working Poor in India at PPP US \$3.20 a day, % of total employment (Adapted from UNDP Data Base, 2020)

Concludingly, following the BOP 3.0 approach Cañeque and Hart (2015, p. 5) propose a multidimensional definition of poverty and states that the BOP population are those who live on less than US \$8 a day as “these low-income communities endure heavy burdens to gain access to basic services and often lack the opportunities required to facilitate their empowerment and self-sufficiency”. Based on this it can be assumed that a substantial portion of the Indian population to be included in the BOP. Nonetheless, Figure 2.4 exhibit a continuous reduction of poverty since the introduction of economic liberalisation reforms in 1991. Hence, appropriate labour policies, continued structural reforms and expansion of education have enabled the inclusive growth necessary to help lift more than 271 million people out of poverty between 2006 and 2016 (Anand et al., 2014). Nevertheless, India has the largest number of poor people in the world today (Anand et al., 2014; WEF, 2019) and it remains crucial to include this human capital in the global transition towards a green economy (PwC, 2014; McKinsey, 2008).

# 3 Theoretical Approach

## 3.1 Analytical Framework for Strategy at the BOP

The literature that aims to assess case studies that operate on BOP markets, showcase the variety of absorbed BOP characteristics, business models and strategies. Hence, there is to some extent a discrepancy in the theoretical understanding of how BOP initiatives operate and the actual operationalisation in practice, especially following the emerging literature on BOP 3.0. As such, questions arise as to motivational and mobilising factors behind BOP strategies and the interplay between private profit orientation, social responsibility and the institutional setting. Many issues remain unaddressed and scholars have called for greater bridging between theory and practice (Karnani 2007; Rivera-Santos & Rufin 2010; Pitta et al., 2008; Nghia 2010).

The original theory where MNCs are seen as the sole stakeholder to address the BOP does not hold. The important role of cross-sector collaborations is evident across many successful initiatives and there is a need for a greater understanding of the role of local grassroots organisations, movements, international development assistance and the state or government in the BOP landscape. Additionally, future research should evaluate to what extent human empowerment is incorporated in BOP business models as a measure to create a sectoral ecosystem where development is at the core. Furthermore, the assumptions that MNCs may have about poverty (see section 2.1) have evolved as private corporations became increasingly aware of low-income markets in the last two decades. Consequently, the role of FDI in BOP markets is interesting and should receive greater attention. As the theory embrace the concept of sustainable development, one may argue that poverty alleviation is a component of such development, hence BOP initiatives should be measured and viewed in light of this.

Schrader, Freimann and Seuring (2012) bring forward one of the earliest attempts to provide an analytical tool in the assessment of strategic management practices for companies who want to enter or already operate on the BOP (table 3.1). The framework aims to transfer traditional strategic management thought to BOP approaches in an attempt to better equip stakeholders who aim to enable sustainable development. The framework consists of 11 BOP criteria and builds upon the sustainable development concept. The framework values the advancement of the standard of living among the BOP population whilst simultaneously working within the planetary boundaries. The framework is in line with this study's objectives and enables the necessary analytical leverage for the assessment of safe and just pathways for sustainable development among the BOP population.

*Table 3.1 Analytical Framework for Business Strategy for the BOP Market (Schrader, Freimann and Seuring, 2012)*

<b>Criteria</b>		<b>Issue covered</b>
1	Company description	Refers to the line of business, number of employees and customers and the various sites the company have operations in
2	Initial needs of the BOP population	Refers to the problems of the BOP customers, the consumer needs and a general description of the social needs of the market
3	Motivation	Refers to the reason why the company will enter this BOP. It covers both external and internal driven motivations such as economic aims, the opening of a new market, CSR, how the company is perceived, employee welfare and humanitarian ambition
4	External analysis	A wider analysis of the external conditions for the success of the BOP initiative. The living conditions of potential customers, earning capacities, competitors, political and legal conditions
5	Stakeholders involved	Political stakeholders, civil society, suppliers, business partners, NGOs in the home country and host country
6	Product/Service	Product features, fit to BOP needs, design of surrounding conditions
7	Strategies	Specific business line, fit to general strategy, competition strategy
8	Organisational implementation	Relation to the core business, organisational anchoring, relation to other business areas
9	Supply chain	Development of potential business partners, the building of cooperative structures up- and downstream in the value chain
10	Economic outcomes	Sales, market share, profit and image
11	Sustainable Development Outcomes	Social and environmental outcomes such as reducing poverty, improvement of living conditions, reducing climate effects, effects on natural resources. Achievements of the BOP initiative so far

## 4 Methods

### 4.1 Research Approach

In pursuance of investigative answers to this thesis, a grounded theory approach is applied (Strauss 1987; Strauss and Corbin 1990). This allows for a general and abstract theorization of a process, action or interaction based on the views presented by participants in the study (Creswell, 2014). A grounded theory approach enables the assumption of BOP theory application without limiting its evolutionary prospects as the study transcends over time (Flick, 2009).

Moreover, grounded theory extracts its theoretical underpinnings from symbolic interactionism (Hughes, 1971) and pragmatism (Mead, 1934). Thus, the embedded condition of *change* is built into the methodology as sustainable development is not a static concept, but rather continually changing in response to evolving conditions (Corbin and Strauss, 1990). Secondly, *determinism* is identified as a principle that both symbolic interaction and pragmatism share, thus grounded theory aims to determine how stakeholders respond to changing conditions and assess the consequences of the processes that have been implemented (Corbin and Strauss, 1990).

### 4.2 Research Strategy

Bryman (2012) defines a research strategy as a general orientation to the conduct of social research. A qualitative method has been chosen for this thesis as it is more concerned with the generation rather than testing of theories. The thesis aims to investigate *how* Norwegian initiatives contribute to sustainable and inclusive development in India by analysing the experiences and outcomes of case studies that target low-income markets. The analysis is anchored in the Bottom of the Pyramid theory by Prahalad and Hart (2002) whilst the theoretical framework by Schrader, Freimann and Seuring (2012) provides the analytical leverage necessary to answer the research questions.

The adoption of an exploratory multiple case-study approach has been identified as relevant in the pursuit of understanding a phenomenon in depth (Kvale and Brinkmann, 2014). Six case studies have been identified as the literature argues multiple case-studies to be more robust as opposed to a single case-study approach (Herriot and Firestone, 1983). The exploratory nature

of the research approach is appropriate in the thesis' pursuit of *how* (Yin, 1994) sustainable development can be achieved in the Indo-Norwegian development context.

Thematic document analysis is considered a low-cost method to obtain empirical data in a non-intrusive manner (Bowen, 2009). Hence, by the agency of thematic document analysis, emerging themes were identified with support from a continuous review of collected data and literature. This method emerged as a continuous process throughout the research period and enabled the categorization of themes and topics relevant to answer the research questions, thus adhering to the principles of the grounded theory methodology (Strauss & Corbin, 1998).



# 5 Data

## 5.1 Research Setting

Most of the data gathering took place in New Delhi, India whilst some data collection occurred in Oslo/Drammen, Norway. India is considered the original location for BOP innovation due to the country's wide recognition of the BOP theory's preliminary stages as well as the many successful ventures that have emerged from this market (see Appendix A. 2 for success stories from the BOP literature).

Following the great need for BOP activity, the researcher intended to pursue investigative research in India and became aware of the Indo-Norwegian dynamic during a traineeship with the Royal Norwegian Embassy in New Delhi. The role, networks and insights available for the researcher, enabled a favourable environment to conduct the study of how sustainable development cooperation manifests itself in this dynamic. The initial research and observation period were monitored and supported by Mr Avanish Verma, Senior Advisor for Business Development and Energy for Innovation Norway. His guidance and mentoring helped in the preliminary research, data collection and observation period in New Delhi, India. The remaining data collection was conducted in Oslo and Drammen, Norway, albeit introduction and affiliations were made as the researcher resided in India.

## 5.2 Data Collection

Creswell (2014) argues that the use of a multimethod approach in qualitative research allows for a more holistic view of the phenomenon studied. Therefore, a combination of primary and secondary data collection has been conducted which enables triangulation of information on drivers, processes and impacts with the aim to provide a stronger results base (Flick, 2014). Additionally, Bryman (2012) argues how participant observation and semi-structured interviews allow the researcher to keep an open mind about the layers of her field of research, hence concepts and theories can emerge and develop out of the data which is also in parallel to the principles of grounded theory (Strauss & Corbin, 1998). The primary data has been collected through interviews and observations whilst secondary data has been collected by the use of networks, the internet and other relevant material to frame the thematic categorisation and develop fruitful conclusions. The majority of case study documents have been sourced as a recommendation for further investigation during interviews, the observation period, or other documentation that has been forwarded through email correspondence with interviewees after

or before the formal interview. The documents include annual reports, minutes of meetings, newsletters, newspaper articles, social media posts, legal publications, leaflets, marketing brochures, photos and other similar documentation.

The analysis of collected data takes form by using a tactic of case selection to uncover commonalities and differences among the experiences of Indo-Norwegian collaborative relationships in the pursuit of sustainable development in India. The thematic document analysis portrays descriptive information including policy recommendations identified during the observation period and interviews. As such it was considered appropriate to collect, present and validate information on relevant policies, movements and conditions for stakeholders in the Indo-Norwegian context.

### 5.2.1 Observation Period

Bryman (2012) argues that participant observation is a useful research method in the analysis of the production of social reality from an external perspective. By using this method, the researcher will dive headlong into the field with the opportunity to influence what is being observed, hence through communication, this approach is identified as the best fit for the study of subcultures (Flick, 2014). Evidently, to understand *how* Norwegian stakeholders mobilise social enterprise on Indian low-income markets, an observation period was considered relevant for a deeper data collection.

The observation period took place from 01 May 2019 to 14 June 2019 (six weeks) and was located in Innovation Norway's offices in New Delhi, India. As one of two "hubs" for Norwegian enterprise in India and strategically located in the capital, the observation location was well-suited to gain essential networks and access to information which would not be available from a distance. The proximity to the Royal Norwegian Embassy enabled the opportunity to approach expertise knowledge and policymakers with unique experiences from working in the Indo-Norwegian context. Additionally, Flick (2014) highlights how the participant observation method allows for the identification of research subjects and how this field strategy may include document analysis and the interview of respondents and informants. Evidently, the observation period allowed for access to Indian located individuals and relevant interviews were conducted during this period.

Moreover, extensive reports, notes and photographs were produced during the observation period. Under the supervision of the Senior Advisor for Business Development and Energy, Mr Avnish Verma, the researcher was able to observe daily meetings and conversations with Norwegian and Indian employees, companies, Norwegian stakeholders in India, Indian partners and Embassy employees during her time in New Delhi. Additionally, the researcher was invited to Varanasi to observe the mobilisation of a Norwegian development project in social entrepreneurship. These observations and the introduction to the Indo-Norwegian collaboration effort have been important for the understanding of how Norwegian stakeholders can contribute to sustainable development in India.

## 5.2.2 Interviews

As the most widely used method in qualitative research, this thesis employs interviews as its primary data collection. Flick (2014) argues how the use of semi-structured interviews provides insights to how the participant views the world and phenomena studied. Whilst Bryman (2012) emphasise the general frame of reference to be an important factor in the understanding of context. Hence, through open-ended, formal interviews with relevant stakeholders as identified during the observation period, the researcher was able to capture the experiences of the Indo-Norwegian collaboration population. Interviews were conducted in New Delhi (India), Drammen and Oslo (Norway) and in Lund (Sweden).

The interviews focused on three main populations:

1. Representatives from the Norwegian case study
2. Indian partner organisation and supply chain
3. Political/business advisors

The three categories have been identified as the most relevant stakeholders involved in the mobilisation of Norwegian BOP initiatives in India. The interviewees represent the collaboration efforts between Norway and India on both individual and structural levels. Public servants, policy and business advisors, local partners in the host country in addition to the representative from the case study have been approached to partake in the study.

The observation period created the landscape whereby these stakeholders were identified, thus this study employs purposive sampling as its approach to data collection (Bryman, 2012). The first interviews were conducted with policy and business advisors who were deemed relevant to BOP markets and Indo-Norwegian collaboration. In this process case studies were identified and actors involved were invited to partake in the study. Upon agreement and contact with case organisations, their respective partners and supply chain were identified and invited to interviews.

*Table 5.2 Internal Interview Participants – Case Studies*

<b>Interviewees</b>	<b>Title</b>	<b>BOP Initiative</b>	<b>Pseudonym</b>	<b>Interview Type</b>	<b>Date</b>
Helge Nupen	Project Director	STREEC	STREEC	Face to Face	07.06.19
Anders Eikenes	Founder and Director	Oivi	Oivi	Face to Face	14.01.20
Trond Egil Thorrud	Founder and Director	Bija Organization	Bija Organization	Face to Face	15.01.20
Cecilie Lindseth	Vice Director	Leap Learning	Leap Learning	Phone	31.01.20
Prof. Josef Noll	Founder and Director	Basic Internet Foundation	Basic Internet Foundation	Phone	31.01.20
James Craske	Growth and Commercialization Director	YARA	YARA	Phone	04.03.20

*Table 5.3 External Interview Participants – Advisors and Partners*

<b>Interviewees</b>	<b>Title</b>	<b>Representing Organisation</b>	<b>Pseudonym</b>	<b>Interview Type</b>	<b>Date</b>
Avanish Verma	Business Advisor Renewable Energy Sector	Innovation Norway	Business Advisor 1	Face to Face	18.06.19
Ambika Oberoi	Business Advisor Education and Health Sector	Innovation Norway	Business Advisor 2	Face to Face	18.06.19
Helge Tryti	Commercial Counsellor and Director of Innovation Norway	Innovation Norway	Business Advisor 3	Face to face	25.06.19
Bredo Erichsen	Country Director	Statkraft	Business Advisor 4	Face to face	18.06.19
Jasmeet Singh	Managing Director India	Tinymesh	Business Advisor 5	Phone	21.06.19
Suresh Mathevan	Senior Policy Advisor Environment, Energy & Climate	Norwegian Embassy	Policy Advisor 1	Face to Face	12.06.19
Dr Vivek Kumar	Senior Policy Advisor Strategic Partnerships & Environment	Norwegian Embassy	Policy Advisor 2	Face to face	21.06.19
Anonymous 1	Local Manager	Indian partner organisation	Partner 1	Face to Face	06.06.19
Raghu Gullapalli	Executive Director	L.V. Prasad Eye Institute	Partner 2	Phone	21.06.19

### 5.3 Case Studies and Selection Criteria

As a measure to maintain a continuous focus on the research questions, the use of purposive sampling has been employed in the selection process of case studies (Bryman, 2012). As a measure to understand how and to what degree private Norwegian initiatives can contribute to sustainable and inclusive development in India, a selection of case studies based on the BOP theory was engaged. The case study requirements were as follows:

1. A Norwegian for-profit organisation or non-profit who aims to be financially sustainable
2. Targets low-income markets in India
3. Maintains key focus on sustainable development and social impact

The study aims to explore the overall landscape for Norwegian initiatives on low-income markets in India, hence the specified sector, size or financial success of the initiative has not been considered. By contrast, the variety of sectors, age, stakeholders and experiences has been identified as a strength of the study and enabled a more dynamic and true representation of the sample population.

In total six case studies have been identified and can be found in table 5.4 below.

*Table 5.4 Case Studies*

<b>Yara</b>	<p>Yara was founded in Norway in 1905 and is today one of the world’s leading fertilizer suppliers. Yara Digital established operations in India in 2011 and provide digital farming tools for precision farming. They offer fertiliser products with optimized nutrients, digital services and fertilizer management tools. Their vision is to responsibly feed the world and protect the environment by providing crop nutrition solutions, delivering scale and empower farmers globally with knowledge about sustainable farming</p> <p>Read more: <a href="https://www.yara.in/">https://www.yara.in/</a></p>
<b>Oivi</b>	<p>Opto-Intelligent Vision (Oivi) aims to create an analysis platform for patients diagnosed with Diabetic Retinopathy (DR), a leading cause of blindness in the world. The Oslo-based start-up is developing an easy and affordable Artificial Intelligence (AI) camera and platform that will identify, track and manage diabetic eye disease.</p> <p>Read more: <a href="https://www.oivi.co/">https://www.oivi.co/</a></p>
<b>Leap Learning</b>	<p>Leap Learning is a Norwegian MNC who has developed a pioneering educational method where the use of technology enables children anywhere to learn skills in logic, reading and writing, entrepreneurship and mathematics. The Leap Learning Labs and Leap Learning Hotspots are located in more than 300 schools in over 20 countries.</p> <p>Read more: <a href="https://leaplearning.no/home">https://leaplearning.no/home</a></p>
<b>Basic Internet Foundation</b>	<p>Basic Internet Foundation (BIF) is a Norwegian non-profit organisation who aims to provide all of humanity with free access to the internet and enable full digital inclusion in the global knowledge economy. They help schools in remote areas with free access to digital public goods and educational packages through village information spots.</p> <p>Read more: <a href="https://basicinternet.org/">https://basicinternet.org/</a></p>
<b>STREEC</b>	<p>STREEC is a social enterprise initiated by DFEF (Den Frie Evangeliske Forsamling), a Norwegian missionary foundation who has vast experience with development projects. The project aims to recruit, train and employ marginalised women in Varanasi to produce and sell renewable energy products as part of an entrepreneurship programme.</p> <p>Read more: <a href="https://digni.no/en/projects/">https://digni.no/en/projects/</a></p>
<b>Bija Organization</b>	<p>Bija Organization is a Norwegian NGO who provides a solution called aquaponics as a measure to cultivate plants and fish in closed environments. Each system can produce more than 200 kg of vegetables and 50 kg of fish and can therefore</p>

	<p>support a family of four for a whole year. Bija has installed more than 30 aquaponic systems for underprivileged families in Kerala and Tamil Nadu as a measure to alleviate poverty and aid families in becoming self-sufficient with organic food produced in environmentally friendly ways.</p> <p>Read more: <a href="https://www.bijaorganization.org/">https://www.bijaorganization.org/</a></p>
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## 5.4 Interview Strategy

Case studies and interview participants were identified during the observation period and invited to join the study through a formalised invitation letter, which can be found in Appendix B. 5. The interviewees were grouped in accordance with their relevant input to the case studies, as viewed from an internal or external perspective. As such, Group 1 (internal) refers to representatives from the Norwegian BOP initiative. Group 2 (external) refers to the partner organisation, supply chain member or political and business advisors. In total 15 interviews have been conducted.

*Table 5.5 Summary Interviewee Groups*

<b>Group</b>	<b>Description</b>	<b>Number of interviewees</b>	<b>Type of interview</b>	<b>Length of interview</b>
1	Representatives from the Norwegian BOP initiative	6	Face to face, by telephone	1h – 1 h 30 min
2	Partner organisation, supply chain or advisor	9	Face to face, by telephone	1h – 1 h 30 min

The researcher aimed for interviews to last approximately one hour, however, many interviews exceeded the time limit with up to 30 minutes. This can be attributed to the open-structured approach where the interview often feels more like a conversation than an interview (Creswell, 2014). The majority of interviews were conducted face-to-face, however, due to geographical distance some interviews were conducted over the phone. This worked well in all instances and oral consent to join the study was conducted. Occasionally, face-to-face interviews allowed for greater exposure to the case environment. As such, the researcher was often introduced to teams, colleagues and given company tours allowing for a greater connection to the material and case studies.

The interview schedule and questions were based on the analytical framework by Schrader, Freimann and Seuring (2012). The criteria brought forward from the theoretical framework helped guide the interview process and narrow the identification of challenges, opportunities

and experiences of the research population. Following the semi-structured interview process, the questions were developed to be broad and general for the researcher to listen and adapt according to the interviewee's response (Creswell, 2014). Three different research schedules were developed, albeit based on the same theoretical framework to validate that the interviewees were asked questions with the same purpose (Creswell, 2014). All interview schedules can be found in Appendix B. 1 – 3 for further credibility.

## 5.5 Analytical Method

The analysis of secondary data, such as annual reports, newspaper articles and policy documents, followed the process of condensation through the summary of meanings from the observation period and interviews (Creswell, 2014). The principles of grounded theory coding were followed in an attempt to stop and ask analytical questions of the initial data gathered (Charmaz, 2006). Secondly, the primary data such as interviews and observations were transcribed in the early days following the research activity and later coded into categories based on the theoretical framework and thematic document analysis from the secondary data. The observation notes followed a chronological order and allowed to return to original ideas, concepts and understandings. Hence the researcher was able to reflect over initial understandings which may have evolved during the research period (Charmaz, 2006). The reliability and validity of all collected material were ensured by comparing the recorded and transcribed interviews with notes and journals written during the interviews and observation period. In some cases, the transcription notes were sent to the interviewee after the interview as an additional measure for validity. The triangulation of both qualitative analytical processes enabled a thorough and critical interpretation of the emerging data at hand (Saunders, 2011).

The qualitative software programme NVivo was selected to code and categorize the collected data. Transcriptions of interviews and notes from the observation period were applied to the features of NVivo to search, sort and assess the written information. The theoretical framework was applied to frame and categorise the coding process, albeit the semi-structured approach allowed the interviewees to expand on each topic, which allowed for new themes to emerge (Yin, 1994). The criteria within the theoretical framework were used as codes to find common themes related to the case studies' operationalisation of sustainable development in India. All interviews with the case organisations were coded accordingly, followed by the interviews with the partners and at last by the advisors. Then, each quote by each interviewee was reviewed and coded into sub-codes. For example, criteria 11; Sustainable Development Outcomes were coded into social and environmental outcomes, and the respective quote was located within the appropriate sub-code. By organising the data in this manner, the researcher could draw upon the theoretical framework whilst maintaining an open mind and identify additional themes and categories in relation to the research question, thus adhering to the methods of coding in grounded theory (Charmaz, 2006).

## 5.6 Limitations and Considerations

This study has employed a multiple-case study approach with semi-structured interviews and a prolonged observation period. Albeit, this method being appropriate for this study's nature of query, there are several limitations. For instance, the interpretation of expert knowledge and the facilitation of structure in open-ended interviews may cause difficulties in the comparison between cases. As such, open-ended questions will differ between interviews as the interviewees are allowed to speak freely based on their experience and worldviews (Bryman, 2012). Nevertheless, the aim of this research is not to compare case studies, but rather to achieve a greater understanding of the investigated stakeholders' experiences in the pursuit of sustainable development in India. Additional limitations in the research method derive from the observation period as the researcher was yet to understand the complexity of her field and as such did not know what to look for (Bryman, 2012).

Further limitation of the research design is the use of multiple case studies as it may lead to lack of depth to the understanding of cases and does not cover the full extent of the unique and conditioned character of each organisation (Flick, 2014). Also, the breadth of selection criteria for the case studies may be seen as a limitation as the case studies vary in size, age, status, networks, financial orientation and other resourceful assets. However, the aim to pursue economic development sustainably remains the purpose amongst them all, hence they meet the requirements of the BOP 3.0 theory.

Moreover, the wide range of literature available on BOP theory requires a selective approach, whilst the limited information about Norwegian BOP initiatives in India meant that the researcher was particularly receptive to the emerging information in this field. As a Norwegian National, the researcher remained qualified to interpret socially and culturally conditioned networks, situations and events that added to her understanding of the Norwegian experience in India. However, linguistic limitations occurred during interviews in English and Hindi, albeit the researcher's English competence. The researcher spent 7 months in India and gained some understanding of the variety of languages, cultures and scale. However, the intricacies and complexities of the pan-Indian culture remained a limitation throughout the interviews and the observation period.

### 5.6.1 Ethics, Trust and Authenticity

There is a strong emphasis on ethics in this study, in particular trustworthiness and authenticity are emphasised areas which are of great importance to the author. Diener and Crandall (1978) refer to the main ethical principles in qualitative study and a continuous assessment of any; *harm to participants*, *lack of informed consent*, *invasion of privacy* and *deception*, has been profoundly addressed and considered in the research. The study has therefore maintained a key emphasis on the importance of bringing awareness of the researcher's role in the observation environment and making the interviewees comfortable to ask or bring forward any query or



worry they might have. Following rich discussions with participants during interviews in addition to the relationships and networks that evolved during the observation period, the trust gained between the researcher and the research environment is essential to the study. It is therefore important for the researcher to remain objective to the best of her ability, without compromising any ethical principles.

However, limitations concern the right to privacy and confidentiality of participants and observation procedures. Formally, these concerns have been addressed through consent forms whereby the participants have been asked to read and sign a confidentiality agreement, between the researcher and themselves. If a participant has opted for an anonymous status in the study, they are referred to as Anonymous 1, Anonymous 2, etc. and the researcher has to the best of her ability, presented the data in a manner that cannot be traced back to the participant. To enable the validity of the research method, the interview schedule, invitation to interview and consent forms have been included in Appendix B.1 - 3 & B. 5 - 6. Likewise, for the validity of the observation period, a consent form was issued and signed by Mr Verma from Innovation Norway in India and can be found in Appendix B.7.

## 6 Empirical Findings

*This section will provide relevant background information for the reader to better understand the results and analysis. This will include brief descriptive data about factors in the political, institutional and legal landscape that has been emphasised as supportive or challenging for Norwegian initiatives in India.*

### 6.1 The Legal, Institutional and Political Landscape

#### 6.1.1 NITI Aayog

NITI Aayog, also referred to as The National Institution for Transforming India, is a policy think tank initiated by the Government of India in 2015. The aim of NITI Aayog is to facilitate sustainable development by fostering cooperative federalism with State Governments across India using a bottom-up approach.

#### 6.1.2 CSR rules in The Company Act of 2013

The Company Act 2013 aims to introduce the culture of Corporate Social Responsibility (CSR) in India. Any company with a net worth more than 500 crore INR, a turnover of 1000 crore INR or a net profit of more than five crore INR, shall comply with the Act and constitute a CSR committee of the board. These companies are mandated to spend at least 2 percent of the average net profits of the immediately preceding three years on CSR activities.

#### 6.1.2 The Foreign Contribution (Regulation) Act 2010 (FCRA)

The FCRA aims to regulate the acceptance and utilization of foreign contributions or hospitality by individuals, associations or companies. The Act 2010 prohibits the acceptance of foreign contributions for any activities which are deemed detrimental to national interest. As such, permission and certification are needed for local stakeholders to receive funding from any foreign actor (The Foreign Contribution Act, 2010).

### 6.1.3 National Policy on Safety, Health and Environment Workplace 2009 (NPSHEW)

The NPSHEW 2009 aims to establish a preventive health and safety culture in India. The legislation recognises the need to eliminate incidents at work related to injuries, diseases, fatalities, disasters and to enhance the welfare of employees in all sectors of the economy (Government of India and ILO, 2009).

More than a decade after its implementation, only the manufacturing, mining, ports and construction sectors are covered by health and safety regulations whilst environmental concerns have received limited attention with no enforcement in practice. Recent studies found that more than 48.000 people die every year in the Indian construction sector alone (Patel and Jha, 2016).

### 6.1.4 Norwegian Government Funding Grants

The Norwegian Government launched a white paper in 2015 called Working Together: Private Sector Development in Norwegian Development Cooperation. The paper brings forward an agenda using “effective aid as a catalyst” for sustainable economic development. The Cooperation Development efforts of the Norwegian government recognise the shift in the global development agenda and sets out to have a key focus on private sector development and job creation. Specific grants schemes have been emphasised as supportive by the interviewees and can be found below.

#### *Vision 2030*

Vision 2030 is a grant scheme implemented by Norad, the Research Council of Norway and Innovation Norway. The grant is given to Norwegian companies with innovative solutions to issues in the health and education sector, priority is given to companies who offer digital solutions.

#### *Building Skills for Jobs*

The grant for building skills for jobs was implemented as a measure to increase relevant professional skills among marginalised groups in developing countries. Grants were given to proposals who mobilised partnerships between the business sector and educational institutions. Nine global projects received funding under this scheme.

#### *Cooperation on Framework Conditions/Strategic Partnerships*

In April 2020, Norad launched a grant scheme specifically for private enterprises and non-commercial organisations who aims to pursue strategic partnerships. The grant aims to build and strengthen institutions and private sector stakeholders in developing countries where Norwegian actors may contribute with technical advice or capacity building.

Additional grants from Innovation Norway have been emphasised as supportive for companies who are in the start-up phase:

*Commercialisation Grants* and *Establishment Grants* are grants given to companies younger than five years with an innovative business model and a significant growth potential. Stipends up to 750.000 NOK are given to successful applicants.

### 6.1.5 Inclusiveness in the Indian ICT Revolution

At the core of India's ICT revolution is the philosophy "sabka saath sabka vikas" which means development for all with the involvement of all (Vijaybaskar and Gayathri, 2003). This is evident in the large-scale implementation of digital platforms such as "ICT for All", the "Digital India Program" and the digital National ID card known as Aadhaar card. Aadhaar card has previously been referred to as "the most sophisticated ID program in the world" with an estimated enrolment of 90% of the Indian population (Bloomberg, 2017).

Telecommunication density across India is at 92% and approximately 1169 million Indians had access to wireless data subscription in 2017 (Government of India, 2018). Jio, a pioneering telecompany for digital inclusion has been able to provide their customers with 1 GB of mobile data for the cost of US \$0.09, compared to the global average of US \$8.53 (Cable, 2020).

### 6.1.6 Make in India Initiative

The Make in India initiative was launched by Prime Minister Narendra Modi in 2014. The initiative aims to transform India into a manufacturing hub by encouraging MNCs and domestic companies to set up production facilities in India. The aim is to create 100 million new manufacturing jobs and raise the value-added in the manufacturing sector from its current 14.8 %, up to 25 % of the GDP by 2022 (World Bank, 2020). The initiative has four main pillars:

1. *New Processes*: Several reforms have been implemented to attract Foreign Direct Investment (FDI) and remove outdated policies and regulations that hinder the "Ease of Doing Business" parameters set out by the World Bank.
2. *New Infrastructure*: Several initiatives have been implemented to build smart cities and invest more heavily in high-speed communication infrastructures as a measure to enable commercial growth.
3. *New Sectors*: The initiative has identified 25 sectors in India that are being promoted for FDI through interactive technology. Focus sectors are, but not limited to, transport, communication, mining, pharmaceuticals, logistics, tourism, automobiles, petroleum, textiles, wind and solar energy.

4. *New Mindset*: The initiative has declared a need for a shift in how the Government interacts with industries and the private sector. The government bodies of India should be seen as a facilitator, not a regulator and this should be communicated to the International arena.

## 7 Results and Analysis

*This section will present the results and analysis. The analytical framework as presented by Schrader, Freimann and Seuring (2012) has been used to categorise the data and find important factors for Norwegian initiatives that aims to enable sustainable development on low-income markets in India. Each criterion has been built upon and includes sub-categories relevant to the findings in the Indo-Norwegian context. Economic Outcomes will not be considered in this analysis due to the limited data available from the case studies.*

### 7.1 Companies and BOP Initiatives

The case studies in this research belong to a variety of industries: the technological medical industry (henceforth MedTech), agricultural, international development, education and the ICT sector. They encompass a diverse range of characteristics, yet they all fulfil the requirements set out for study participation and share a common goal of enabling “inclusive capitalism” (Prahalad, 2005). Beyond the shared ambition to promote economic development through social enterprise, the case studies remain distinctive in nature. However, common entrepreneurial traits have been identified among all case studies.

For a full comparative analysis of all the case study characteristics and findings, please see the Results Matrix in Appendix C. 1.

#### 7.1.1 Entrepreneurial Mindset

Hart (2005) argues how BOP innovators are able to create ecosystems that deliver value beyond that of a single product or service, hence the ability to ‘think like a mountain’ (Cañeque & Hart, 2015) by offering wide value propositions is a key entrepreneurial trait necessary for success at the BOP. The majority of the internal interviewees were founders or directors of the BOP initiative and exhibited enthusiasm and ability to manage risk and complex environments without losing vision and missing out on windows of opportunities. The founder of Bija Organization, an NGO who provides an aquaponic (food production) system to rural families, explained his introduction to working in India:

“When I first started working with poverty, I went to India with no experience, network or money. I travelled around India for three months looking for a partner, so when an opportunity came, I went for it, but I knew it was a risk”.

The results suggest that the entrepreneurial mindsets found among the case studies reflects an ambition to achieve results beyond social, economic and environmental outcomes. Hence, the shared entrepreneurial mindsets among the case studies may reflect the pioneering character of BOP initiators Even Yara, a global MNC with 16.000 employees in more than 60 countries, has a vision and enthusiasm that reflects the upbeat attitudes found among entrepreneurs:

“It becomes exciting. We're hopefully kind of pioneering our industry and reaching out to markets that have not been included in the economy before”.

## 7.2 Initial Needs of the BOP Population

The Indian BOP has previously been characterised as those who live in rural areas without access to education (Prahalad, 2005) and with limited infrastructure such as transportation, clean water and electricity (Hammond et al., 2007). Tasavori and colleagues (2016) estimate this market to consist of 850 million people who despite such disadvantaged conditions, are aspiring consumers with needs which can be met with solutions provided by foreign social enterprises. Built upon this, the findings from the case studies in this research include experiences in the approaches adopted and advised by the interviewees in relation to how they identify and characterise the needs of their market.

### 7.2.1 Planning and Research

The importance of planning and doing preliminary research has been emphasised by several interviewees. The need to be on the ground and getting to know the BOP population has been highlighted as one of the most important factors when aiming to contribute to sustainable development processes in India. Hence, Business Advisor 3, who is the Director of Innovation Norway in India and has extensive experience with Indian market entry for Norwegian companies, elaborated: “you need to know India. Lack of knowledge becomes a barrier in itself. Even if you think you have an overview, you probably don't”. Likewise, Business Advisor 3 who help Norwegian companies enter the renewable energy market in India, emphasised how some Norwegian companies do not always have realistic expectations and do not do enough research before coming to India:

“Some companies are so disconnected from India. Maybe they have done a bit of research, but ground realities can only be worked out when you're actually implementing things”.

Being on the ground during the initial planning phase enabled Basic Internet Foundation (BIF) to change their ambition about reaching out to the BOP in India with their basic internet solution:

“We realized that our business model does not work in India because of the incredible efforts of companies like Jio. They even reach the BOP because of the collaboration with social gathering places such as train stations. It’s simply incredible”.

Nonetheless, further investigation revealed that the lower BOP population would normally not purchase data packages and that there was an issue with access to smartphones among the BOP. They also found that “boys have the toys” and elaborated further that “in areas where 30 percent have smartphones, only 1 percent of the girls have a data package. This technology development might actually create additional barriers for women’s development and facilitate a digital gender gap”. Hence, the vision, implementation and role of BIF in India changed significantly following the initial research of their BOP segment’s needs:

“We still see an immense need for hotspots in rural India, especially among schools and clinics. But we also see how great the Indian government is doing in meeting these needs. Our role is therefore more of an advisory one and helping out with the logistics of it all”.

Fertiliser company Yara and MedTech organisation Oivi have engaged in strategic measures to fully understand their consumer needs and have conducted several surveys, meetings and field trips to engage with the BOP consumer. Oivi emphasised: “We figured out that diabetic retinopathy is something which is not very known to people, but it is a threat and there are not options available to diagnose that and treat it”. Consequently, Oivi found that there are only 11 eye specialists per 1 million people and with more than 80 million people formally diagnosed with diabetes there is:

“(…) a huge market for low-cost healthcare in India because a lot of people are staying in the rural part and they are not able to reach the high-end healthcare system. The need is why we started targeting Indian markets” (Partner 2).

### **Section summary**

The findings highlight the importance of doing background research on the ground as a measure to fully understand the need of low-income consumer groups in India, which is consistent with previous literature (Simanis et al., 2008). However, the findings also underline how some Norwegian initiatives have not engaged enough with their market segment before seeking market-entry support from relevant advisors. Additionally, the results indicate a change in the institutional environment whereby some of the basic needs of the BOP is being met by existing stakeholders, as seen by the wide access to the internet among the BOP population. Thus, the needs of the BOP may expand beyond what is originally evaluated in the initial research phase and issues like the digital gender gap may arise as a consequence of inclusive growth in low-income economies.



## 7.3 Motivation

“We are a for-profit organization, we want to make profit because in order to develop this innovation, we have to make money otherwise we cannot sustain ourselves” (Partner 2).

The moral implications of “selling to the poor” have received attention in the BOP literature and scholars emphasise the issue of capitalist exploitation of a vulnerable BOP population (Bardy et al., 2012; Schwittay, 2011; Dolan, 2012). Hence, the literature calls for greater clarification on the motivation for BOP initiators to target poor markets (Schrader et al., 2012; Dembek et al., 2016). Consequently, this research has a key focus on what motivates Norwegian initiatives to operate among BOP markets. For example, Oivi set out to build a business around a social need without specifically targeting India:

“Our starting point was, let's see if we can build a technology and business model to cater for an emerging market economy, markets where there's not much health insurance. We want to offer an affordable and important product to a segment that doesn't have this already”.

Similarly, Leap Learning emphasised that the ability to stay financially sustainable by revenue creation, is ultimately what enables the company to deliver learning labs to poor communities:

“We have to think sustainably and need revenues to help our development, but we have an approach where we genuinely want to make a difference. That's our values and attitude and has been our founding block since we started. All of our employees are driven by this ideology and there's a genuine passion among us all to help. It's what connects us as a company”.

Yara also expressed similar motivations whereby the farmer is at the centre of everything they do: “We are looking at the ecosystem of the farmer. The reason we work with retailers is to support the farmer better. And the reason we work with food companies is to support the farmer better”. Nonetheless, Business Advisor 3 highlighted the economic motivations of commercial actors on the Indian market and emphasised the fortunes available in India:

“There are probably a lot of different reasons why companies want to come to India, but the main reason, when you are a commercial actor, is that you want to make money. You see a huge market in India and get excited”.

Leap Learning also highlighted the favourable conditions set out by the Company Act 2013, whereby 2 percent of company revenues must be used for CSR activity to benefit local communities in India. Hence, by offering the mobilisation of CSR projects through the Leap Learning Labs to large corporations, they are able to leverage the legal landscape in India to remain financially sustainable whilst simultaneously offer quality education to marginalised children.

“The CSR law where 2 percent of companies’ revenue has to go towards CSR projects, is what makes India so attractive for us and this why our business model work really great in India” (Leap Learning).

Moreover, Policy Advisor 2 represents the Norwegian Embassy in New Delhi and work to promote institutional cooperation between Norway and India. He highlighted a third motivation for Norwegian initiatives in India and emphasised the interest in knowledge exchange:

“Norwegian interest in India is twofold. One is promoting its business in India and number two is to introduce good practices and concepts that Norway already use”.

Therefore, Prahalad and Hart’s (2002) argument that foreign MNCs have the best ability to leverage resources and bridge the transfer of technology and human capital from the TOP to the BOP, remains relevant when trying to understand why Norwegian initiatives may have an extended interest in India. Specifying the desire for further knowledge-exchanges between Indian and Norwegian commercial partnerships, Business Advisor 1 explained:

“We as an Indian Nation have a lot to learn from Norwegian stakeholders. Technology, work ethics, production and so on. It's always good to learn from people and take up the good practices, and maybe we'll teach them our good practices”.

A fourth motivation has also been identified where the humanitarian notion is at the core of the business model. For example, STREEC, a social enterprise initiated by a Norwegian development agency prioritises the social agenda until they become a financially sustainable enterprise: “we want to have strategic partnerships between us, local partners and the private sector, but the main focus is the development and the creation of social welfare in the BOP community”. By similar accounts, Bija Organization remains focused on their vision until they manage to empower their beneficiaries and establish a social entrepreneurial system:

“Our vision is to fight poverty and climate change at the same time by using sustainable methods. For us, it is so important to keep the environment intact whilst solving social issues and eventually become financially sustainable”.

## **Section Summary**

The findings suggest that the case studies have varying degrees of economic and humanitarian motivations. The results also suggest that the Company Act 2013 may facilitate additional motivational scope for Norwegian business in India. Whilst the practice of knowledge-sharing remains important for the institutional environment. One may argue how the priority of financial sustainability and humanitarian ambition differs between the case studies and is largely dependent on the available sources for capital. Nonetheless, the findings indicate that there is a shared vision of a profit-generating development model as the most sustainable strategy for initiatives to create lasting sustainable development in India.

## 7.4 External Analysis

### 7.4.1 Funding Mechanisms for Inclusive Innovation

The issue of financial sustainability among BOP initiatives has been raised in the literature (Chevrollier and Danse, 2015) and as such funding mechanisms for inclusive innovation requires a change of narrative from traditional bank loans to other capital streams. In line with the literature, the researcher was exposed to the variety of funding streams available for BOP initiatives and observed the lack of understanding among capital investors concerning the potential return of investment available on BOP markets. This is further emphasised by many interviewees who rather than sourcing traditional loans and investment from banks, rely on public grant schemes such as those from Norad and the Norwegian Research Council:

“We get support from the research council and from companies who would like to donate equipment for our information hotspots” (BIF).

Likewise, STREEC has a five-year contract with Norad where 90 percent is funded by development aid through earmarked capital. The remaining 10 percent are private capital which comes from donations from the various churches and communities who take an interest in the Missionary’s development work.

“Our funding is meant to finance projects which facilitates innovation and strategic partnerships. We applied for funds for three years as a pilot project and got that approved last year (beginning of 2019). We have about 2 mill NOK per year, including our 10 percent self-funding capital” (STREEC).

By similar accounts, Bija Organization which is yet to become financially sustainable relies on sponsorships and donations from the public: “I have sponsors and donors right now who are Norwegian companies. They get their logo on it (the aquaponic system) and can use their sponsorship for marketing purposes”. However, Bija Organization aims to be a financially sustainable enterprise and embraces the concept of BOP theory in their vision:

“It is very important to me that the project is financially sustainable. It is not the plan to be reliant on funding from charity or donors in the future. It’s too unstable and risky. I want them (the beneficiaries) to be independent and able to economically prosper alone”.

However, Bija Organization raised some concerns about the application process for grants and expressed: “I haven’t looked into any available grants because the project isn’t ready yet. I also don’t know how to write these development grant proposals and I don’t have resources to spend on consultancy work, so I rely on people helping me out for free. All donor money goes directly towards the beneficiaries”.

Oivi also depends on a variety of funding streams for the development of their AI camera and have sourced capital from public institutions in addition to capital from angel investors. They explain the process of raising private capital: “We raised about five and a half million NOK from private people, mentors and angel investors in the first round when we just came back from India”. In the second round of capital sourcing, Oivi received additional venture capital from Indian and Chinese investors. They find this favourable as these investors can contribute with knowledge and networks in the medical technology industry in emerging markets: “that was very good for us and they even know the markets for cameras, so I feel like they can contribute with more than just money”.

### **Section Summary**

The results highlight the importance of institutional support to bridge “the pioneering gap” (Chevrollier and Danse, 2015) for Norwegian BOP initiatives in India. Traditional capital sources often remain unavailable to BOP initiatives and are conditioned by assumptions and expectations that do not necessarily align well with enterprise on low-income markets. Evidently, the grants provided by the Norwegian government that aims to provide a “risk buffer” for small-scale and young companies with a social mission, have a significant impact on their initial development and survival. Nonetheless, the findings suggest that these grants are more “visible” to established development actors and companies with the resources and experience in writing application proposals. As such, small development projects who envision financial sustainability might be excluded from the opportunity of state-funded capital. However, these findings are preliminary, and the results provide a limited ability to generalise for other BOP initiatives with different characteristics and prospects.

#### **7.4.2 Competition**

Success at the BOP requires a new understanding of market competition and it is important for companies who target low-income communities to grasp the importance of community bonds and the need for empowerment at the local level (London, 2009). With extensive experience advising Norwegian companies on the health and education sectors in India, Business Advisor 2 emphasised how the fast-changing dynamics in India may be a challenge for small-scale projects:

“With the Indian market, you have to be extremely quick. You cannot just keep sitting and waiting for months because then that's an opportunity lost”.

This is the main reason BIF decided not to pursue further activity on the Indian BOP market with their basic internet solution:

“The reason we are not on the market is the fast-moving competition. When we first came to India a few years ago, we had a very good meeting with the mobile phone operator Jio for a potential collaboration. After we explained our idea, they said that this is not necessary. We were shocked. They informed us that due to regulations, all

data they have on their Jio cloud can be mirrored from their cloud to users for free, anything from Bollywood videos to newspapers. So we asked how they manage to reach the BOP, and they replied that they work with railway stations and others to provide free access. We told them about our idea for hotspots at certain locations and six months after our meeting, Jio introduced a Wi-Fi dongle for 495 rupees, where you can have up to 10 users with 1 GB data per 24 hours for three months. That's incredible!"

By contrast, Yara is able to use the digitalisation of India to their advantage by targeting small-holder farmers with farm management technology: "I would say everybody's competition. Everybody doing anything in digital is kind of competing for the attention of the farmer. But in terms of agriculture and farm management technology, I would say that no one's nailed it yet". Likewise, Oivi views their competitive advantage in their technological development and the user-friendly adaptation of the camera: "it will be very, very much easier to use the camera system compared to the ones out there".

Nonetheless, Bija Organization remains focused on the social aspects of the project and emphasise how working directly with BOP stakeholders with a specific aim to co-venture limits the threat of competition. Rather, due to the enormity of the market and the lack of fresh produce available to poor communities, he emphasised that there is room for more BOP initiatives. This is concurred by Policy Advisor 1 from the Norwegian Embassy who emphasised the growing aspirations among poor communities in India:

"There is a large appetite for growth among the low-income class, definitely yes, that's what we see. That's why companies always target the lower middle class or the lower-income classes because they have a higher appetite than the upper class and now look for success in their own system".

## **Section Summary**

The results indicate that competition is particularly industry-specific among BOP markets in India. Some industries endure a fast-paced environment, which is beyond what Norwegian BOP initiatives are able to keep up with, as seen with the case of BIF. These preliminary findings suggest that the importance of competitive analysis differs from commercially viable BOP initiatives and aid-driven initiatives. Hence, the findings suggest that first-mover advantage and the value of innovation remains of crucial importance for successful entry to BOP markets in India, which is consistent with previous research (London et al., 2010; James, 2003).

## **7.5 Legal and Political Conditions**

The ability to navigate the legal and political landscape in India has been emphasised as important by all the interviewees in this study and will therefore be covered in an additional

section. The role of the advisors is to help Norwegian stakeholders understand and cope with the necessary actions to be able to contribute towards sustainable development in India. This section will highlight the experiences of the interviewees' understanding and involvement with laws and policies emphasised as supportive or hampering by the case studies.

For a detailed overview of the specific laws and policies, please see section 6.1.

### 7.5.1 Legal Barriers for Commercial Activity

The Make in India initiative has been emphasised as important for Norwegian business in India, and especially for lowering barriers to trade and increasing the acceptance for foreign stakeholders on Indian markets. Business Advisor 1 states that in his area of expertise in the energy and renewable energy sector: "it is definitely easier for Norwegian businesses to enter India now as opposed to 20 years ago". Similarly, Business Advisor 3 believes that apart from bureaucracy; "it is not extremely difficult to establish yourself, it just takes some time". By contrast, Policy Advisor 1 believes that one of the biggest barriers for Norwegian initiatives in India is to navigate the legal landscape:

"There are very complex and sometimes contradicting policies and legislations in India. It's hard to navigate the legal landscape, so spending time and finding a good Indian partner becomes important".

Business Advisor 3 emphasised the issues with Indian border control: "The biggest challenge in India for foreign companies, is definitely export and border control". This is concurred by Leap Learning who found it difficult to understand how to navigate the import and export regulations and also how to receive and send money internationally. Facing similar issues, Oivi's partner in India decided to outsource the whole legal process to a consultancy firm:

"It was such a headache, but we hired a consultant who did everything. He did the GST (goods and services tax) registration and all the cooperation stuff for India. He did the export licence. He did everything. It reduced a lot of stress and we know it all was done properly" (Partner 2).

Another legal aspect raised by several case studies was the issue of the FCRA approval. Business Advisor 2 is particularly familiar with this process and explains that the approval is necessary for NGOs to receive donations from foreign sources after a lot of controversial international transactions in the volunteering sector; "according to the government, NGOs have been getting funds from dubious sources. So that's what the government wants to get under control and make sure these funds are transparent". This is concurred by Policy Advisor 2 who believes the tightening grip around the operations of NGOs are positive and necessary for India:

"Indian NGOs in the last 20 years have increased like mushrooms and the government for some time was not very strict with respect to their legitimacy. There has been a process for stopping their activities and creating transparency".

However, several case studies have raised issues with the FCRA approval process for their collaboration with NGOs in India: “The FCRA approval process is very strict in terms of what you are allowed to do and it’s a lengthy process” (STREEC). Bija Organization expresses similar frustrations: “I am trying to get us registered in India as an NGO and this is such a process”. Consequently, Business Advisor 2 emphasised how they often advise Norwegian BOP initiatives to source a partner who already has an FCRA approval.

Additional issues have been raised by the interviewees in terms of the intellectual property rights in India. The transfer of R&D facilities and the application of patents are considered a time-consuming process and the compensation process has been emphasised as not worth pursuing in the legal system. Business Advisor 3 confirms the worry of the case studies:

“IPR in India is something to be very careful about. If your patent is important to your business, I would be sceptical to release your technology in India. And the court system takes a very long time, so your window of opportunity is lost before any legal action can even be taken”.

Likewise, Policy Advisor 1 advises Norwegian companies to do their R&D in Norway and then move production to India: “I think it would be advisable for Norwegian companies to do their own in-house R&D in Norway and then produce here in India. There is a big issue with patenting in India, as this is very rarely enforced and other companies will copy what you are doing without any repercussion”. By similar accounts, Business Advisor 1 wants Norwegian companies to have realistic expectations about copyrights in India:

“We will help them tone down their expectations. Tell them that their product will be copied. Because I know it will. If it's a good product selling well, it will be copied”.

These findings suggest that albeit the difficulties navigating the Indian regulatory landscape, the interviewees remain adamant that India is worth pursuing. There are measures in place that will enable the ease of doing business in India and the majority of the case studies are able to find solutions to the issues they experience.

“The hunger for growth in India and the eagerness of the government to create growth and the actions of the states to attract investment makes India an excellent place to establish your business” (Policy Advisor 1).

## 7.5.2 Political Conditions for Sustainable Development in India

Considering the improved conditions for economic development following the Make in India initiative, concerns have been raised by several advisors who believe the environmental agenda has become a second priority after economic growth and development. Policy Advisor 1 is an advisor for the Norwegian Embassy in New Delhi and works to empower local stakeholders to enable greater environmental footprints in India:

“The government says let’s grow the economy first and clean the environment after. And this is not right. No one will clean up later”.

This is concurred by his colleague, Policy Advisor 2 who highlights the difficulty of striking a balance between economic growth and environmental sustainability in India:

“India has been a little slow to understand how rapid economic development affects the environment. There is a problem with deforestation, air pollution, waste, traffic and all these things. The issue of sustainable development is more crucial than ever before”.

The interviewees highlight how the Indian government remains committed to International environmental agreements such as the Paris Agreement, UN convention on Climate Change and Diversity, the Montreal Protocol and the Stockholm convention:

“The Paris Agreement is very important to India and they want to follow it. They are very conscious to adhere to international legislation and have set targets on producing renewable energy for example, which is excellent” (Policy Advisor 1).

Policy Advisor 2 believes that partnerships with countries like Norway is important and mentions one project whereby the expertise of Norwegian waste management is transferred to India to help fill a knowledge gap: “I can cite one project that's called co-processing technology. It is a knowledge-exchange project between a Norwegian Research Institute and Indian cement companies. Knowledge about the management of hazardous waste and the replacement of fossil fuels where previously they would have been burned is transferred from Norway to India”.

However, issues are being raised concerning the implementation of policies and newly gained knowledge: “India is very good at formulating policies for sustainable development, the problem is that many of these programs lack on the implementation part” (Policy Advisor 2). However, the environmental policy advisors also raise the issue concerning poor populations;

“There is an issue to create more jobs, more employment and more investment. For rural people, they will not clap when the Prime Minister says he will ban plastic, they will only say what, where is my job?” (Policy Advisor 1).

Hence, an emerging topic among the interviewees is the role of innovation in creating profitable solutions without harming the environment. Policy Advisor 1 emphasised the role of the Norwegian Embassy in this regard and believes the embassy can take on the risk by facilitating knowledge-exchanging partnerships for the benefit of the Indian market.

“We need innovation that can combine the environment and provide jobs for people, especially the growing low-income consumer class. We try to influence the market with science and R&D so this new consumer behaviour does not harm the environment. This is the Norwegian contribution in Indian space” (Policy Advisor 1).



## Section Summary

The findings suggest that the legal landscape in India is changing with an increased emphasis on creating an economy which is more open for foreign business and investment, as seen by the responses to the Make in India initiative. The findings suggest that the introduction of the FCRA approval is a necessary legal framework for the transparency of the development sector. However, for the companies who are dependent on partnerships with local NGOs, the shared experiences reflect a difficult and time-consuming process for financial transactions between Norway and India. The results also emphasise the difficulties for the Indian Government to strike a balance between environmental damage and economic development, hence the interviewees call for more innovative solutions to allow economic prosperity among low-income groups without damaging the environment.

## 7.6 Stakeholders Involved

The importance of cross-sector partnerships has been highlighted in the BOP theory, particularly the role of government (Dembek et al., 2019), NGOs and other local partners (Siamanis et al., 2008). To have a local partner has been emphasised by both the external and internal interviewees as important for entering the Indian BOP market, however sourcing a reliable and trustworthy partnership has been highlighted by the majority of the case studies as “difficult”, “time-consuming” and “testing”.

### 7.6.1 Local Partner

“To find a partner is a really big job. It is easy to be fooled and it’s hard to gain trust. You need to do a very thorough job, not just on the practical things, but also for the ethical and moral issues” (Business Advisor 3).

The case studies have enabled partnerships based on a variety of different interests. STREEC emphasised the need for a partner who shares similar religious values whilst Leap Learning relies on a partner who is self-driven and can help mobilise the work on-the-ground in India. Business Advisor 5 who is the Managing Director of the Indian entity of Norwegian company Tinymesh, emphasised the need for mutual gain for the success of the company:

“Success is a matter of the great level of coordination between the teams and the deep level of understanding of cultures. The quality and the ethics part come from the Norwegian parent company. And we support the way we understand and relate to the Indian market in a local way. This is a winning combination for us”.

Similarly, Oivi has a subsidiary in India which is owned by the Norwegian parent company and the Indian team emphasised the need for local empowerment in the decision-making process:

“If you have local decision making, if you have local establishment in India, then the Indians, the customers, and the market can relate to you as an Indian” (Partner 2).

## 7.6.2 Cross-Sector Support and Partnerships

Yara emphasised the need for government support in the agricultural sector as the business heavily relies on subsidised fertilisers for their customer base: “we met with some Niti Aayog statesmen at the Embassy and they made some really progressive comments about the way the Indian government subsidise 80 percent of urea fertiliser. We can’t do anything without a subsidy for our fertiliser and they seemed to take this on board... I got the impression that the landscape in the government is changing and modernising”.

BIF also emphasised that due to the strong digital inclusiveness in India which has been facilitated by the government together with Indian telecommunications companies, they now collaborate with research institutes to strengthen the knowledge gap on governance and the digital gender gap: “we have very good collaborations with the research institutes such as IIT Indore and IIT Bombay and want to continue with our vision through this”.

In terms of collaborating with NGOs in India, Policy Advisor 2 emphasised how Norwegian companies should be wary of who they choose: “it is very important for Norwegian companies to be aware of the history and reputation of the NGO they would like to collaborate with”. Nonetheless, STREEC underlines the strengths of cross-sector partnerships with NGOs and how they can provide the necessary connections to the BOP consumers:

“Having an NGO to work with you, doing workshops and awareness-raising and connecting with the local community is key in creating interest for your product if you want to have any hope of implementing it”.

Several of the interviewees also emphasised the need for a more practical understanding of cross-sector partnerships. The for-profit initiatives often lacked knowledge about the social development of the BOP market whilst the aid-funded initiatives called for a greater commercial understanding. Some emphasised the assigned sectoral roles are still evident and may become a barrier for cross-sector partnerships:

“I think there is a common understanding within the development sector that it is not ok for someone to enter a project with the mindset of earning money and profits through a development project. Because development funds should be unconditional and there shouldn’t be any strings attached to it. Our project is trying to turn this mindset and say this is ok if it allows the project to become financially sustainable. I think the way of doing development traditionally is very outdated” (STREEC).

Policy Advisor 1 also emphasised the change towards more BOP initiatives in India, but that the practicalities may not always transpire to cross-sectoral partnerships:

“To help the poor and do good is a very old-fashioned mentality that existed before but not anymore. There is a change to make profit as a strategy for development, this is an increasing mentality in India. However, companies who want to do good can have conflicts of interests with development aid agencies. But this is why they should work together and collaborate”.

## **Section Summary**

The findings highlight the variety of stakeholders involved in the BOP market process in India. The case studies engage with government entities, local partners, company subsidiaries, NGOs and research institutions to reach and produce for the Indian BOP market. The results indicate that cross-sector partnerships are important for the BOP product to reach the consumer, however, the findings also emphasise that such collaborations are not easily obtained and mobilised. The findings reveal a conflicting interpretation and gap in the overlap of role assignments between development and private sectors whereby the utilisation of each other’s strengths have yet to capitalise. The interviewees call for new mental models which converge the private and public sectors to a greater extent than before. The results indicate that there is a shift in the way traditional international aid is perceived and an emerging acceptance for commercialised development models.

## **7.7 Products and Services**

### **7.7.1 Frugal Innovation**

The importance of Jugaad (frugal) innovation (Radiou, Prabhu and Ahuja, 2012) has been raised by all of the interviewees as important for sustainable development in India. Frugal innovation refers to the systematic attempt to ‘de-feature’ and remove unnecessary qualities of products and services originally developed for the TOP (Chataway et al., 2014).

For example, at the core of the Basic Internet foundation lies the concept of frugal innovation: “the main idea is a frugal version of the internet, our access means there is only a display of text and photos, anything else will be charged”. Hence, the removal of features such as videos and sound effects enables the product to be more easily conveyed to the needs of the BOP markets. The TOP version of the Internet includes many luxuries and offers services beyond what is needed to alleviate poverty for the average consumer on the BOP. Establishing the importance of frugal innovation, Policy Advisor 1 from the Norwegian Embassy highlights the need for frugal innovation to make affordable products in India:

“Norwegians need to make more affordable priced products in India. With fewer features. Challenge is to produce a product that can be used by many instead of few. Indians don’t want large size and big price; they want small size and small price. Frugal innovation is important for Norwegians if they want to implement their product in India”.

The idea of “reversed innovation” has been important for the inclusion of the poor in the market-driven economy and has become a strategy for innovating-up from low income to high-income markets (Chataway et al., 2014). Consequently, when asked if frugal innovation was important for entry to Indian markets, Business Advisor 1 responded:

“I would say yes, many Norwegian companies they may have developed 20 features, but only five features are actually required by the Indian consumer”.

Hence, Bija Organization emphasises the importance of frugality when adapting to the needs of the Indian BOP: “in Norway, they don’t eat the fish (in the aquaponic system), but in India we do. In India, this works so well with a few changes”. This is consistent with the researcher’s observation journal during her time in India and the importance of familiarisation with the needs of the BOP to strengthen the frugal innovation process. These observations go well in line with scholars who argue that the actual majority of innovation is as an incremental process of modifications and adjustment to existing technology (Katz & Shapiro, 1987).

This is consistent with the experiences of Norwegian company TinyMesh who produce smart grid technology for the whole Indian market and have extensive experience with frugal innovation efforts in India. Business Advisor 5 from TinyMesh highlighted how frugal innovation is the outcome of strategic decisions and being on the ground in India:

“It is a continuous process. It is not just a one-time activity. If something is working in Norway, it is not going to automatically work in India. You need to customize it, and we need to continuously work on it. That is why we have our R&D team here. The R&D person has to sit next to the customer to understand what the customer wants”.

### 7.7.2 Scalability

“Don’t think incrementally - think vision, that’s the way to go” (Yara).

Another issue that was raised among all case studies and emphasised by the external interviewees was the ability of Norwegian initiatives to meet the scale of the Indian market. For the most part, the case studies remained confident in their ability to meet the scale of the Indian market, however, some external interviewees highlighted previous experiences of MNCs’ inability to do so, for example, Business Advisor 1 explained from his experience working in the energy sector:

“Some companies are able to deliver a hundred orders of their product. But then when they get an order of a million, they realize it's beyond their competencies and they have to back out of India”.

This was further concurred by Business Advisor 3 who believes that “scalability is the most important factor for the Indian market, and this is one thing that Norwegians are not very good at”. On the contrary, Policy Advisor 1 remained positive to the Norwegian MNCs’ ability to meet the scale of India but emphasised the need to move production to India:

“You would have to produce it in India. If you produce in Norway, you probably won't be able to meet the scale of India”.

STREEC expressed a worrisome, but encouraging stance in terms of scaling up their social enterprise and meeting the needs of the Indian BOP:

“It’s so strange, in India you feel like a drop in the ocean and keep questioning yourself, how can we do anything here? How do our little efforts help at all? So, in terms of scalability, we would want to think big straight away, but we were advised to prioritise Varanasi first. Then have a model that works, before we can replicate the model to other areas of India and scale-up”.

Likewise, many of the case studies have a strong focus on scalability and emphasise how this remains a core priority in the development of their resilience: “There is no issue of scalability for us. This is what we are working on now, to build the company up ready for scalability” (Leap Learning). Hence, many case studies emphasised the role of technology in their ability to scale up and meet the demand in India. Yara offers fertilisers and agricultural management solutions which require direct contact with the BOP market:

“Yara probably got about 300,000 face to face interactions with farmers a year which sounds like a lot but when there are 140 million farmers in India, you see the challenge. And that's basically where digital comes in. Because whether it's dealing with 300,000 retailers or 140 million farmers. We can't scale up face to face. We need digital to scale it up”.

For start-up company Oivi, technology plays a major role in the ability for their AI camera to meet the demand of the Indian population: “What matters is how much time does it take to scan a patient? Would we be able to scan 200 patients per day with a camera? We need to have an image quality which is good enough. We need to make it fast. And anybody should be able to use it. That's so much more important than the production cost of it.”

Hence, the role of technology plays a vital role in Norwegian MNCs’ ability to scale up. This then creates the foundations on which BOP theory is built upon; affordability - a concept where business and poverty merges (Prahalad, 2005).

### 7.7.3 Affordability and Cost Models

The affordable products that most often are available to the poor have a low acquisition cost, but a high maintenance cost with little embodiment of ethical standards and ability to recycle whilst also being marketed for “poverty” as opposed to exclusivity (Chataway et al., 2014). Hence, the supply push as opposed to demand-pulled drivers of innovation in developing economies excludes the consumer behaviour in the innovation process and as such MNCs may experience difficulties in creating affordable products for the BOP market. Hence, the study explored the interviewees' relationship and understanding of affordability and its role in the innovation process. Business Advisor 1 confirmed how low acquisition costs are important, not only for poor consumers but across all income groups in India:

“We basically look for a low capital cost. We are not sure if we can pay a high upfront price for a product. So the product has to be designed in such a way that may be on a monthly basis, we can pay some rental or something like that. But the upfront price has to be low”.

Additionally, Policy Advisor 1 highlighted his own experience of the differences between Norwegian and Indian price perceptions:

“A few rupees difference, which is only a few Norwegian øre, makes all the difference in the Indian low-income market. Norwegians need to do a shift of mindset when coming to India”.

Evidently, Oivi has a cost model where the eye clinic, hospital or doctor borrows the camera free of charge and only charges the patients per scan. The profits will then be shared equally between Oivi and the clinic: “we think that one camera if we charge \$2 per scan and have 50 patients per day, can bring revenues about \$100 per day. And that sometimes feels a little bit too good to be true”.

“If we target the population at the bottom level of the pyramid, and provide a camera that they can afford, then we can actually detect the disease at a much earlier stage. I mean, with 200 patients per day, you could really charge very, very minimum amount and help a lot of people” (Partner 2).

The Farm Weather App by Yara is free of charge for any farmer and they view this approach as value generational activities in an attempt to create a market to drive towards their core business:

“We don't charge for Farm Weather app at this stage. It is more an exercise in reaching out and achieving scale towards the farmers. Once we start to build more depth and users are receptive to the app saying, ‘it's going to rain in two days, you should do this action’, then we'll start to look at monetizing our commercial models. We see it as rather than making money, it is value generation”.

When asked about the ability of small-holder farmers to use technology in their agricultural work, Yara highlighted the difference of technology penetration between other developing markets in countries like Kenya and Uganda:

“You can see how easy it is for farmers and data access because when you stand with the farmers and you say try this out, they just get the phone out and download it. There's no question about how much data it's going to use. In India, most farmers have a smartphone or access to a smartphone, whereas in Kenya it was 30% and here it is more like 90%”.

### **Section Summary**

These findings indicate that the case studies have incorporated an understanding of the importance of frugal (Radiou, Prabhu & Ahuja, 2012) and incremental innovation (Katz & Shapiro, 1987) in the development of solutions to meet the need of the BOP population. However, the findings also indicate how there is to some extent a discrepancy in the perceptions between the internal and external interviewees about the ability of scalability among Norwegian BOP initiatives. Several advisors also highlighted the importance of Norwegian companies to have a greater understanding of affordable pricing in India.

Nonetheless, the importance of working with the BOP consumers is highlighted among several case studies and exhibits an ability to incorporate user behaviour data in the frugal innovation process to better develop a product to suit the needs of the BOP. Hence, the concept of inclusive innovation is evident across the product development stages and the emphasised role of technology remains a key finding that accentuates the Indo-Norwegian exchange of competencies. The findings also indicate how the Indian embrace of technology is important for the Norwegian companies' ability to scale and reach the bottom of the pyramid in India. In many ways, the high technology penetration among Indian BOP consumers is a reflection of the inclusiveness of the Indian ICT revolution and can be viewed as a facilitating condition for market success for future MNCs who aim to enter low-income markets in India.

## **7.8 Strategies**

The findings in this section remain limited to that of marketing and global growth strategies. In accordance with previous literature, marketing strategies for the BOP differs from traditional approaches as poor consumers are often illiterate, widely dispersed in rural areas and politically risky (Ireland, 2008).

### 7.8.1 Marketing Strategies

The findings in this study indicate that the majority of case studies remain focused on the establishment of a wider industrial network in an attempt to create an infrastructure among the BOP population in which the product and the company promote itself. For example, Oivi aims to promote themselves with a bottom-up approach to build trust and bridge the medical technology industry with the BOP population:

“Our strategy is to start on the ground. Door to door, we have one doctor, regularly visiting different clinics. By building a direct relationship with our customer, we not only market our camera, but we also really learn about the user experience from the patients, doctors and the families of the patients”.

However, Partner 2 emphasised the enormous effort it takes to mobilise a bottom-up approach for the BOP and underlines the issues of being a small-scale start-up on the Indian BOP market: “there are other huge pharma companies who have 40.000 medical representatives doing door to door sales for their own products and we are just a start-up, we don't have the capacity to compete with them. This is another big hurdle that we have to overcome”. Oivi therefore plans to build strategic partnerships with resellers and distributors who already sell medical equipment in an attempt to “piggyback” on their scope of marketing in India.

However, Yara was able to reach the BOP market through a very strong digital marketing campaign which ended with 900.000 new users of the Farm Weather App in less than six months. They credit this to the technology penetration on the Indian market and how “everybody's on WhatsApp every minute of every day” and that “there's a real engagement from the farmers. They're really asking questions and want to know what our challenges are so they can help us improve. The level of enthusiasm is great and helps us reach so many people through word of mouth”.

### 7.8.2 Global Growth Strategies

Furthermore, the majority of case studies view the Indian market as part of a larger global growth strategy. Yara, Leap Learning, BIF and STREEC already operate on African BOP markets and the majority of case studies aims to target other developing and emerging markets in addition to India. There is a shared vision that “if you can make it India, you can make it anywhere” (Yara) and Oivi in particular views the Indian market as a steppingstone for other emerging markets:

“China will also be a huge market for us, but we have to be ready. In India we are experimenting, and when we feel ready, we will enter the Chinese market. There the volume and the demand signals are just huge. In India too, but in China you have to be ready to go and we shouldn't be blinded by those opportunities”.



This strategy is supported by the external interviewees and Business Advisor 1 believes that successful market entry in India, prepares you for business across South East Asia:

“If you can be successful in India, you can also learn to be successful in any other developing countries. It makes much more sense to be in India than probably to be in 10 smaller countries and make duplicate efforts 10 times rather than just focusing on one huge market trajectory”.

## **Section Summary**

The results indicate that the marketing strategies proposed in the literature are absorbed by the Norwegian case studies in India. Hence, the creation of a wider infrastructure whereby the establishment of trust and distributing channels are considered the most efficient marketing strategies for the promotion of BOP products. There is an eagerness among the BOP community to be included in the value-chain and viewed as human capital as opposed to beneficiaries, as seen by the small-holder farmers Yara engages with. Additionally, the results indicate that the technology penetration among Indian low-income groups is of great benefit for digital marketing campaigns for companies who wish to reach the BOP of India. Further findings suggest that Norwegian BOP initiatives also aim to contribute towards sustainable development in other developing and emerging markets. Hence, the complexity of India is viewed as a strength and an exercise to create the resilience necessary for market entry in more sophisticated countries like China.

## **7.9 Organisational Implementation**

In terms of organisational implementation, the interviewees were asked how they mobilise their project on the Indian BOP and to what extent this is different from other markets they operate in.

### **7.9.1 Distribution and Efficiency**

Lack of accessibility due to infrastructure has been emphasised in the literature as one of the largest barriers for BOP initiatives to reach villages and rural people (Siamanis et al., 2008). By contrast, the case studies highlight how the Indian BOP is rather easily accessible, both through technology and in person. This is underlined by the external environment that believes accessibility to rural communities in India is no longer the issue it used to be:

“There is already a system in India to take the product to all the corners of the country. It is already happening. There are great distribution channels in India, and you can reach any remote village nowadays” (Policy Advisor 1).

Policy Advisor 2 supported that India has great distribution channels and accentuates the Indian railway system: “it is not as sophisticated as in Norway or Europe, it is old and have a low speed, but it can reach everywhere in the country”. Hence, the issue of efficiency has been emphasised by all interviewees as challenging and Business Advisor 3 elaborated on the differences between Norwegian and Indian interpretations:

“Automation, the idea of efficiency, it's kind of within our soul in Norway. And if you get it, you're a hero. In India, it is the opposite and if you manage to hire one more and create more employment, then you're a hero”.

The external interviewees acknowledge how this process is frustrating for many Norwegian companies coming to India, but emphasised the need to not pressure partners and their supply chain to be more efficient as this could put them in a situation where it might be easier for their partner to submit to corruption:

“You need to be patient and flexible and tell your partners, supply chain and any other stakeholder that in this company and in this project, values come first, and time and money comes second. As long as you are strong on this, people will understand it and not bother you anymore”.

### 7.9.2 Corruption

When asked to elaborate on corruption in India, the external environment agreed that this has been and still is a problem in India. All agreed that it is more common when working with the government and the public sector as opposed to the private sector. Business Advisor 5 underlined that “people do expect something, especially favours when it comes to government projects”. There is a shared consensus among the case studies to promote a zero-tolerance for corruptive behaviour. However, the interviewees emphasised that the environment is changing and that the current government is much better than previous ones to strike down hard on corrupted behaviour.

“You will face corruption, no doubt about it. So there must be a zero-tolerance implemented from the start. If you just say no, then people will not pursue it” (Business Advisor 1).

### 7.9.3 Market Empowerment

The creation of purchasing powers on the BOP is emphasised in the literature (Prahalad and Hart, 2002) as important. This is consistent with the experience of the majority of the case studies. YARA emphasised the need for knowledge building among the BOP population as a measure to expand the poor communities' understanding of their own needs and create environment-friendly agricultural practices: “people don't understand that with a bag of the Yara Mila (fertiliser), which is ten times the price of a bag of urea (traditional fertiliser), that

the nutrition balance will let you gain so much more from your crops using our products and that this is so much better for the environment”. Likewise, STREEC has a particular focus on the empowerment of human capital and said:

“It is so important when providing the BOP markets with a social product, to also provide awareness raising and have the local community with you in the movement of the product”.

Similarly, Bija Organization emphasised the importance of empowering the BOP through knowledge increasing activities and how this creates a market for their products:

“By learning what happens if you allow companies to burn down the forests around you, what effect this has on the environment, might create courage to stand up against violations in their own communities whilst opening up for enterprise like us who are trying to do good”.

To create such an eco-system, the literature highlights the importance of co-venturing whereby the inclusion of the BOP in the ownership of the business, product and mobilisation efforts are central elements for success. However, this study finds that only two case studies clearly emphasise the role of co-venturing in the future of their social enterprise. STREEC underlined the importance for the social enterprise to be entirely self-sustainable and that they at some stage can pull out of the project and leave it to the community: “I see the women as the key drivers of this project who will eventually own it”. Whilst, Bija Organization has an ambition to eventually transfer ownership to their co-venturing partners:

“The vision and goal for me are to be completely out and have nothing to do with Bija at all by the end of it. Total local empowerment and transfer of ownership. For me, that’s when it is a sustainable project and I have done my job” (Bija Organization).

## **Section Summary**

The findings in this study indicate that the organisational implementation for Norwegian BOP initiatives in India is a complex yet rewarding process. Traditional issues such as accessing BOP consumers in rural areas have not been emphasised as difficult in India due to an increasingly functional infrastructure and high digital inclusiveness. However, issues such as efficiency and corruption have been raised, however, they are not considered barriers for organisational implementation. The results further emphasise the importance of market empowerment to create an eco-system in which the BOP population is empowered to use their purchasing powers for economic inclusion. Nonetheless, the findings suggest that the BOP population is mainly considered to be consumers as opposed to co-partners and the ambition to transfer ownership, remains limited to the BOP initiatives who depend on charity or development aid as capital. However, the limited scope of these preliminary findings cannot justify the generalisation of such views.

## 7.10 The Supply Chain

Following the Make in India initiative and the need for BOP companies to create supply chains and sectoral eco-systems within the low-income market, the interviewees were asked how they build a cooperative supply chain in India and what their production cycle looks like.

### 7.10.1 Production and Manufacturing

Following previous findings in this study, the need for local production has been emphasised from the external interview group as necessary for companies' ability to scale up to the demands of India whilst some case studies have emphasised the need for local product development to support the frugal innovation process. However, it is evident from the analysis in this study that none of the case studies has decided to pursue manufacturing or production of their products in India. However, the findings suggest that elements within the production cycle are sourced from India. For example, Leap Learning have their entire software development team in India who create their Leap Learning Apps:

“All of our IT assistance and app development is located in India and this has worked perfectly. They have worked for us for many years and we have used them even before we entered the Indian market with our products”.

Leap Learning also emphasised how they favour this partnership due to the company's focus on women: “This company only hires women and trains them in software development. And they are really good! So, we are very happy with this arrangement and this communication works very well”. Moreover, Oivi emphasised how the complicated features and parts of their AI camera mean they require a specific set of competence which is not always available in India:

“We have looked into doing production in India, it's possible, but for the optics-side it would be in Japan, Germany or Switzerland. That's where the competence is. We have a close relationship with our partner in Japan, so that's about personal relations. But we also need to work with a contract manufacturer who does the electronics and all the final testing, and there are companies in India doing it but they're not so mature as European companies”.

Partner 2 confirmed this, but also emphasised how the Scandinavian design is appreciated by doctors in India: “We always get positive feedback on our Scandinavian design touch. So, when the camera is in front of a doctor, he will feel proud if it looks good, right? Whereas, if this device would have been designed in India, it could have been a different product altogether”.

By contrast, Yara acquired the Tata Chemical's urea business and the Babrala plant in Uttar Pradesh in 2018 which reflects the first FDI in the Indian fertiliser (urea) sector (Yara, 2019). Their main supply factories are located in the Netherlands and Norway, but the acquisition of the plant in India will have a significant impact on their position in North India. However, Yara emphasised how the cost of shipping and production is so low nowadays and that they are "confident that our own production and with potential third-party sourcing we will be able to supply the growth and market in India with all of our products".

When asked about the possibilities for production in India, Policy Advisor 1 remained positive as to the opportunities that exist in the various states:

"There's intense competition among states, so they want to attract FDI and help set up production facilities. So if you find difficulty in one state like for example Maharashtra, you keep on looking. It can be moved to another state easily. But in some cases, you can also split your manufacturing or production facility among different states rather than focusing on only one state. That's what some companies do. It reduces the risk".

### 7.10.2 Quality

An emerging theme in relation to production among all the interviews was the differences in perceptions of quality between Norwegian and Indian manufacturing. However, the interviewees highlighted how an increased international presence in India has changed some mindsets towards a desire for higher quality products and Policy Advisor 2 emphasised: "we have to on one hand see that these products are good quality, but on the other hand it should not become very costly or then the people will not be able to afford it".

Oivi believes European production and certification will be part of their sales and marketing strategy: "when comparing Indian product and the European product, the market believes that European product is better. It may not be applicable to everyone, but in general, there is a perception and we are banking on that for our sales" (Partner 2).

### 7.10.3 Health and Safety Culture

Another emphasised theme among the external interviewees was the differences in health and safety regulations among production facilities in India. Business Advisor 4 is the director of Statkraft in India, a Norwegian company who is the largest generator of renewable energy in Europe. He offers valuable insights and emphasised the differences in the willingness to pay for safer working environments: "The regulatory structure in India is such that they try to minimize the cost. And of course, when you talk about enhanced safety, this would come with a cost as well. From Norway we bring with us a zero-accident culture for whatever-the-cost mentality, this can cause tension sometimes". This was concurred by Policy Advisor 1 who

often visits production facilities when working on various projects. He believes the strong health and safety culture of Norway is beneficial for India:

“Norwegian standards are so high, and they already have a culture of following regulations and adhering to safeguarding, they bring this with them when coming here. This is good for India I think, we're trying to learn from them”.

The external environment understands why Norwegian companies are reluctant to move their production to India. However, they emphasised how the strong ethics of Norwegian companies could create important spillover effects in India: “the Norwegians have been pioneers on cross-cutting issues such as gender, corruption and human rights. These are all emerging areas in India and Norway can be a role model of this by being very bold. This could create great spillover effects for Indian industrial development” (Policy Advisor 2).

### **Section Summary**

The results suggest that Norwegian BOP initiatives remain reluctant to move and establish production facilities in India, despite the increased focus following the launch of the Make in India initiative by the Modi Government. The reasons for this are linked to sector-specific requirements whereby the necessary competence and certifications are better sourced elsewhere and the increasingly low shipping and distributions costs. However, the majority of the case studies are in the start-up phase with specific technologies at the core of their business, thus their future production trajectories are yet to materialise. It is important to note that BOP initiatives like STREEC and Bija Organization have a vision of establishing local production facilities and supply chains. The results also indicate the strong need and desire for Norwegian companies to bring with them culturally favourable traits, especially in relation to health and safety and human empowerment. Nonetheless, the findings in this study are limited to a few companies that specifically target low-income communities and should not be generalised for the entirety of FDI in India nor viewed as an indication of Indian production capabilities.

## **7.11 Sustainable Development Outcomes**

In accordance with previous research, this study has analysed the case studies' outcomes and visions concerning environmental and social sustainability (Kolk et al., 2014). The findings indicate that the interpretation of sustainability differs, particularly between the external and internal interview groups. The findings suggest that there are gaps between the vision and implementation of sustainable development. The findings remain limited due to the immaturity of the case studies on Indian BOP markets, thus the magnitude of vision is yet to correspond with the sustainable development outcomes.

### 7.11.1 Environmental Sustainability

STREEC, Bija Organization and Yara have a particular focus on environmental sustainability. It is incorporated in their strategic vision and is of key importance to their BOP business model. Bija Organization reported that the use of aquaponic systems reduces water use by 90% among the families in their project: “this is because you don’t water your vegetables as the roots are already in water. You don’t use soil and you grow the vegetables in water”. According to a recent report from the Indian Energy and Resource Institute, the lack of sustainable land management in India means that one-third of Indian land is under threat from soil degradation. The driving forces behind this are mainly due to water erosion, industrial pollutants and agricultural activities, hence there is a continuous need for “public policies for sustainable use of resources, infrastructure creation, knowledge accretion and transmission, and development of entrepreneurship” (Teri, 2019, pp 8).

Yara share similar concerns in regard to soil degradation and continues to work towards more environment-friendly fertilisers through their R&D on soil health management (Yara, 2019). Also, Yara sees themselves as working with sustainability by optimising farmer productivity and produce more food using less land: “We do our best to not damage the soil and the environment, and it is important for us to have a strong focus on the consequences of the overuse the agricultural land and resources”.

### 7.11.2 Social Sustainability

In terms of social sustainable outcomes, often referred to as the increase in income generational activities or the reduction of poverty in the BOP literature, there are not many reported outcomes from the case studies yet. However, Bija Organization experience fewer lifestyle illnesses among the families who produce their own food:

“I can’t prove it, but there is increased happiness among the families in Tamil Nadu. They eat more healthily and have control over their own production, so it seems like they are doing better than before”.

BIF also report that although they decided to not pursue the Indian BOP with their basic internet solution, they have published several papers together with Indian research institutions: “we have already published many papers on this, our collaborative effort has already had some impact on bridging the technology gap and enlightened the issue of how to digitally include those without data subscription”.

Moreover, the external interview environment often referred to the need for structural changes for creating sustainable development, such as a national waste management system or the empowerment of human capital in the understanding of environmental degrading behaviour. The researcher experienced how sustainability is mostly associated with the environment

whilst the concept of social and financial sustainability seems lacking in the institutional context.

### **Section Summary**

The results indicate that the interpretation of sustainability varies. Some relate it solely to the environment whilst others view it as a holistic concept that includes financial, social and environmental factors. Politically and in the development context, sustainability is often a required dimension for funding, suggesting that sustainability has to some extent become a buzzword. By contrast, sustainability is more broadly identified and used among the case studies' interviewees and there is often a clear vision and strategic targets on how to achieve economic, social and environmental sustainability. But more importantly, there is a plan on how to mobilise it. This usually includes cost structures where the inclusion of environmental sustainability has a price, even so, it seems to be a priority among the case studies. Financial sustainability is also a priority and in some cases like Leap Learning and Oivi this comes first, whilst with others such as STREEC and Bija, the environment comes first. This can be attributed to the organisational status, whereby the initial funding streams and motivations for organisational operationalisation is the differentiating factor.



# 8 Conclusion

## 8.1 Research Aim and Questions

This thesis aimed to investigate how Norwegian initiatives contribute to sustainable and inclusive development in India by analysing the experiences and outcomes of Norwegian initiatives that target low-income markets. The analysis is anchored in the Bottom of the Pyramid theory by Prahalad and Hart (2002) whilst the theoretical framework by Schrader, Freimann and Seuring (2012) provided the analytical leverage necessary to answer the research questions.

The research of this study was twofold. The first question aimed to analyse the experiences and outcomes of six case studies who operate on low-income communities in India. The study asked: *What are the experiences and outcomes of Norwegian initiatives that target low-income markets in India?*

The theoretical framework enabled an analytical identification of the various experiences within different criteria for successful market entry by the case studies. This study indicates that Norwegian initiatives that target low-income markets in India are in the preliminary stages of market entry and have varied sectoral backgrounds. Commonalities remain limited to that of entrepreneurial traits, a vision for sustainable development and the introduction of innovative solutions to meet the needs of low-income communities. The results reflect positive experiences in terms of Norwegian institutional support and frugal innovation processes whilst cultural conditions remain a large barrier for entry.

The results from the case studies emphasise the challenge of interpretation and navigating the bureaucratic-heavy legal landscape in India, in particular regulatory certificates such as the FCRA approval process, import/export requirements and international border control. Some case studies outsourced the entire legal process to local consultancy firms as a measure to avoid confusion and delay. The results also indicate that case studies that depend on technology in their business model remain wary of the lack of enforcement of IPR in India. Nonetheless, the CSR law in the Company Act 2013 was highlighted as an opportunity for BOP initiatives in India. Moreover, the majority of case studies reported challenges with sourcing trustworthy partnerships and gaining a foothold in the local BOP community. Hence, only a minority have established successful local partnerships and the case studies highlighted the importance of on-the-ground presence by the Norwegian initiative.

The analysis indicates that well-established MNCs such as Yara and Leap Learning have similar experiences as small start-up initiatives in terms of navigating Indian low-income communities. All case studies emphasised the importance of market creation by raising awareness of the need for the product among low-income consumers, thus highlighting the need for social development to be incorporated in the marketing and growth strategies of BOP initiatives. This differentiates BOP markets from traditional markets found elsewhere in the economic pyramid, which is consistent with previous research (Prahalad & Hart, 2002; Simanis et al., 2008). Furthermore, the results indicate a reluctance among Norwegian companies to establish production facilities in India due to a contrasting culture in terms of the appropriate investments for health and safety measures. As such, the ambition to attract FDI to India under the Modi Government's Make in India initiative should enforce the NPSHEW 2009 and provide financial measures for increased employee safety. Norwegian stakeholders should be aware of the conflicting cultures of safety and prepare to take the lead, both financially and culturally, in promoting a zero-tolerance policy for deaths and accidents. Nonetheless, the case studies highlighted positive experiences with software development and the outsourcing of IT development in India.

For a detailed overview of the findings in relation to research question 1, please see the results matrix in Appendix C. 1.

The study also investigates to what extent Norwegian initiatives can support the sustainable development of Indian low-income communities and asked: *How and to what extent can Norwegian initiatives contribute to sustainable and inclusive development in India?*

The study finds that Norwegian initiatives contribute to sustainable development at the bottom of the pyramid in India by facilitating knowledge-exchanges through the implementation of commercial models. This is mobilised through inclusive innovation, institutional support, understanding cultural barriers, technology penetration among low-income communities and the vision of environmental and social sustainability. The findings suggest that the characteristics of BOP initiatives have evolved drastically from those identified by Prahalad and Hart (2002), particularly in terms of cross-sector partnerships, the role of government and the assemblage of for-profit and non-profit organisations operating in the BOP landscape. Nonetheless, as identified in the literature review (section 2.1), the driving mechanisms that enable pioneering innovation to reach the BOP remain relevant.

First, poor consumers in India have greater access to information today than ever before due to the high levels of technology penetration and the successful inclusive growth of the ICT sector. The results indicate that Norwegian BOP initiatives capitalise on the technological human capital in the value chain, which ultimately enables the principles of scalability and affordability. This, combined with a deep understanding of the BOP needs through extensive background research on-the-ground, facilitates frugal innovation which is essential to bolster sustainable development at the bottom of the pyramid in India.

Second, the results indicate that both the Indian and Norwegian regulatory, political and institutional landscape are implementing measures to enable market forces to thrive among the

BOP community. The study finds elements in government support that direct activities towards the inclusion of low-income communities in the global sustainable development agenda. From the Indian legal landscape, this study identifies the attributes of the Make in India initiative, the CSR rule in the Company Act 2013 and the FCRA approval as measures to direct BOP initiatives towards particular areas of development. Nonetheless, the results indicate issues with understanding the implementation and navigation of these legal entities, thus Indian authorities should remain aware of the hampering effect such policies may create among foreign interpretative bodies. In the context of Norwegian institutional support, the results emphasise the importance of grants schemes such as the Vision 2030, Buildings Skills for Jobs and the government's shift towards strategic partnerships and social enterprise. The findings indicate that this has a significant impact on BOP initiatives' ability to escape the "pioneering gap" and attain the ambition of financial sustainability without relying on traditional funding streams. However, the results also imply that these grants are more "visible" to traditional development actors and initiatives with greater commercial experience. Therefore, it would be advisory for the Norwegian institutional bodies to create a broader exposure of such grants while simultaneously offer support for the application process.

Third, the findings in the study indicate that competition in the Indian BOP market is highly sector specific. The results suggest that Norwegian BOP initiatives that target the ICT industry remain unsuccessful in their endeavour while agricultural, renewable energy and the education industries have scope for growth among Norwegian stakeholders. The fortune is no longer at the bottom of the pyramid, rather, fortunes may be found in specific industries across the pyramid and by capitalising on inclusive innovation one will be able to cater for a wider socio-economic market. The experiences of the case studies reflect a vision whereby the BOP is part of a global growth strategy. Hence, the purchasing powers of poor communities are capitalised on and viewed as an R&D whitespace to improve sustainable development processes. Thus, the complexities of the Indian low-income market will create resilience in a wider innovative eco-system which can be replicated and transferred to the global BOP arena, specifically the Chinese and African markets as indicated by the case studies. These results seem to support the vision set out by Cañeque and Hart (2002) and as such, Norwegian BOP initiatives have to some extent incorporated BOP 3.0 characteristics in an attempt to create inclusive innovation and sustainable development on low-income markets in India.

However, the results also indicate limitations of Norwegian BOP initiatives' ability and priority to engage in co-venturing and transfer ownership to the BOP community. As such, one may question the social outcomes and motivations of the initiatives. The findings suggest that the prioritisation of humanitarian and economic motivation is conditioned by the initial funding streams amongst the case studies. The results indicate that the case studies that rely on charity or development grants prioritise social ambition over commercial viability whilst the for-profit initiatives depend on financial sustainability to sustain their innovation. Such findings indicate a need for greater bridging between development aid initiatives and commercial enterprise, yet this remains limited by the assigned roles given by the respective industries. Evidently, there is not only a need for innovative products to enter the ecosystem for BOP innovation but also a change in narrative and new innovative mindsets in an attempt to bridge this cross-sectoral

gap. The findings suggest that the entrepreneurial efforts of BOP initiators and the emerging funding schemes introduced by the Norwegian government are at the forefront in which such bridging may occur. Evidently, the creation of new innovative mindsets reflects the wider BOP innovation system and should be accentuated by both Indian and Norwegian stakeholders who aim to contribute towards sustainable development.

Fourth, the results from this study finds that the aspiring poor are a conscious, engaged and committed population who are able and willing to contribute towards new sustainable development practices. Whether it is small-holder farmers in Uttar Pradesh or rural families in Tamil Nadu, the results indicate that the aspiring poor are a population open to pioneering innovation and that they are able to absorb highly advanced technology to better their lives. The human capital that exists within this market should not be neglected and the economic inclusion of this group is vital to the transition towards a green economy.

## 8.2 Contributions and Implications

The contribution of this research lies in its rudimentary stages whereby the empirical study of Norwegian BOP initiatives in India is mainly neglected in the existing literature. The study adds to the literature with country-specific case studies anchored in the latest evolution of the Bottom of the Pyramid theory (BOP 3.0). The findings enable a greater understanding of *how* and to what extent Norwegian private initiatives can contribute to sustainable development in India. Moreover, the study emphasises the complexities of market entry for Norwegian initiatives in India, whilst simultaneously highlighting the opportunities available among low-income communities. Additionally, the study contributes to closing the research gap on unsuccessful BOP initiatives, which has been sought after in the BOP literature.

The implications of this study refer to the role of institutional support measures, the emerging BOP innovation system and the importance of frugal innovation for sustainable development at the bottom of the pyramid in India. The results emphasise the need for new innovative mindsets to complement the BOP innovation system and opens up for greater immersion by both private and public stakeholders. The study aims to strengthen the navigation for future initiatives that are interested in creating sustainable development on Indian low-income markets. The results will empower policymakers, development agencies and institutional bodies who are interested in sustainable development initiatives in India.

## 8.3 Limitations and Future Research

The results from this study provide a limited ability to generalise and replicate the findings to other BOP markets, regions and countries. The findings remain unique to the Indo-Norwegian context, albeit similarities may be assumed between Norway and other European countries that

aim to enter low-income markets in India. Particular limitations can be found in relation to competition-strategies and the ambition of co-venturing among Norwegian BOP initiatives. Further research should include a wider scope of Norwegian FDI in India and investigate to what extent knowledge-exchanges have an effect on social development aspects in the supply chain. In addition, following the Norwegian Government's increased interest in private sector development schemes, it could be rewarding to pursue further research on how such development aid transcend and to what extent BOP theory can be anchored in this agenda.

Further limitations lie in the scope and maturity of the case studies. They primarily belong to the ICT, MedTech, Education, Development, Renewable Energy and Agricultural sector and are characterised as immature in relation to BOP market entry. Hence, the economic and sustainable development outcomes are to some extent limited and the study remains unable to determine the success of the initiatives. Future research should enable a wider scope of case studies who have longer experience operating on low-income markets in India. It would also be beneficial to evaluate the outcomes of the case studies in this research following greater market penetration in the future.

Additionally, there are limitations in the method, as mentioned in section 5.6. The multiple case study approach enables an overview of Norwegian initiatives, thus limits the depth of analysis. Hence, the reliability of the findings may be influenced due to the lack of deep investigation. Future research would gain from the employment of a single-case study approach as a measure to gain a deeper investigation. The analysis is further limited to that of the theoretical framework, thus additional criteria and factors may determine situational contingencies which have not been addressed in this research. Therefore, the field of Bottom of the Pyramid Theory would benefit from an enlarged scope of study beyond that of innovation and sustainability.

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# Appendix A

Table A. 1 The case for MNCs at the BOP (Prahalad & Hart, 2002, pp. 21)

Why MNC's?			
Resources	Leverage	Bridging	Transfer
<p>MNC's have the resources to develop complex commercial infrastructures that are required in the creation of sustainable products and services for the BOP.</p> <p><i>"Few local entrepreneurs have managerial or technological resources to create this infrastructure"</i></p>	<p>With their international presence, MNC's can transfer knowledge generated from one market to others.</p> <p><i>"MNCs have an advantage in bringing together a global knowledge base that is unique and not easily accessible to local entrepreneur."</i></p>	<p>Viewing MNC's as catalysts for development will allow for a greater pool of networks and resources to build the commercial infrastructure required.</p> <p><i>"MNCs are best positioned to bring together the range of actors required to develop the Tier 4 market"</i></p>	<p>MNC's are best positioned to leverage the transfer of innovation from TOP to the other markets and vice versa.</p> <p><i>"There is every reason to believe that many of the innovations from the bottom can be adapted for use in the resource- and energy-intensive markets of the developed world"</i></p>

Figure A. 1 Comparing the Definitions of Poor Populations in India (Individual Income/Consumption)

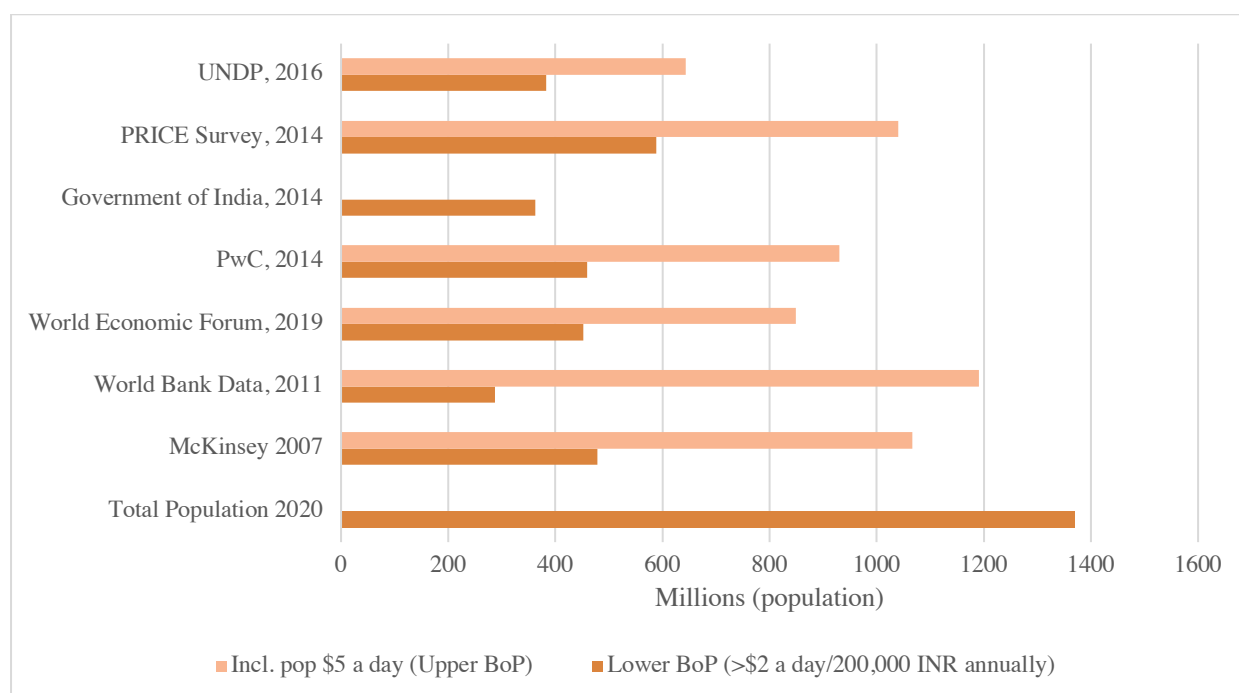


Table A. 2 Success Stories from the Bottom of the Pyramid Literature

### **Aravind Eye Care Hospital**

Aravind Eye Care aims to eradicate blindness in India and is today one of the largest eye surgery providers in the world. It was established in 1976 by Dr Venkataswamy and is often referred to as the MacDonaldisation of Eye-Care. So far, more than 56 million patients have been treated by Aravind Eye Care.

Aravind Eye Care consists of 10 hospitals and more than 40 visitor centres in India. The Aravind network offers free diagnosis, transportation, surgery and accommodation for up to 65% of their patients. The income of Aravind Hospitals does not depend on government subsidies or international aid. Only 10% of their income comes from local charity. Their two sources of revenue come from affluent patients, who pay for surgery and additional services. The second revenue comes from the sales of ophthalmic products which are produced by Aurolab, a non-profit founded by Aravind. Aurolab manufacture intraocular lenses in a cost-effective way and 7% of sale revenue is re-invested in Aravind Eye Care systems. Aravind Eye Care is today considered one of the most successful business models in the BOP literature.

To read more: <https://aravind.org/>

### **Hindustan Unilever Ltd**

Hindustan Unilever Ltd (HUL) is a subsidiary of the Anglo-Dutch multinational company Unilever. Since 2010, HUL has been one of India's largest exporters, the market leader in home and personal products and they have reached more than 600,000 remote villages with their products.

HUL leverage their business on the efficiency of their distribution networks. Their supply chain manages to reach market segments which have no access to basic necessities such as soap, nutritional supplements and detergents. By partnering up with local stockists in the BOP segment, the redistribution of products in the "star sellers" scheme allows HUL to reach small villages with less than 2000 people.

HUL scaled their business through microfinance schemes and is a key stakeholder in the rural development of India. Since 2010 they have reached more than 68 million people with handwashing awareness programmes, provided more than 89 million litres of safe drinking water and educated over 520,000 people through their education programme.

To read more visit: <https://www.hul.co.in/>

### **The GrameenPhone**

GrameenPhone is the leading telecommunications service in Bangladesh today. As of 2019, the company serves more than 74 million subscribers with affordable 3G and 4G services and is one of the largest taxpayers in the country. The GrameenPhone is a joint initiative between the majority-owner and Norwegian telecommunication company Telenor, and the non-profit Grameen Telecom, the sister organisation of Grameen Bank which is a micro-credit NGO founded by Nobel Laureate Muhammad Yunus.

The initiative started out as a CSR project in an attempt to combine skills and know-how of Telenor with the development needs of Bangladesh as identified by the Grameen Organisation. GrameenPhone introduced an ownership model, where rural women were recruited as village phone operators and could secure a micro-credit loan from the Grameen Bank to support the purchase of their first mobile phone with credit. These women provide local villages and remote populations with telecommunication services and collect call charges in accordance with rates from GrameenPhone.

To read more visit: <https://www.grameenphone.com/>

# Appendix B

Table B. 1 Interview Schedule for Advisors

<b>Initial needs of BOP population</b>
What is the initial need of your project's market segment? How have you created an understanding of these needs?
<b>Motivation</b>
In what way do you think Norwegian businesses/presence can make a difference in India? Why do you think Norwegian companies want to invest in India?
<b>External analysis</b>
Tell me about the legislation and policies in India that in some way affect Norwegian business. How is the political landscape benefitting or not to Norwegian business in India? What challenges have you experienced for Norwegian businesses in India? What were the solutions to proceed with the business in India?
<b>Stakeholders involved: Partnerships/Policy</b>
Have you seen a political influence in your work? Has this changed over the years? Do you believe that you can change the institutional environment in your favour? What changes would you like to see? How have you advised your Norwegian partner in terms of navigating the Indian political/legal/cultural landscape?
<b>Product/Service</b>
In what way do you think Norwegians need to adjust their products to meet the Indian market? Are Norwegian products <b>affordable</b> for the Indian market? In terms of <b>scalability</b> of the Indian market, is the Norwegian company able to do so? In terms of <b>accessibility</b> , do you believe the Norwegian company can meet the demands of the Indian low-income market?
<b>Strategic choice</b>
In your experience, what are the current strategies for BOP market entry? What do you advise Norwegian companies in terms of strategic planning in India?
<b>Organizational implementation</b>
How would you evaluate the process in the mobilization of a project among low-income communities in India? Especially those who focus on sustainable development?
<b>Supply chain</b>
How do the Norwegian companies do in terms of building cooperative structures in India?
<b>Sustainable development outcomes</b>
How are the Norwegian projects you are working on having a social impact in India? In what way has your work directly influenced Indian communities? Do you think the presence of Norwegian companies in India creates spillover effects on other areas?
<b>Economic outcomes</b>
How are you a financially sustainable enterprise? How do you plan to become one? What is your current market share and potential market share?
<b>Additional</b>
What kind of support would you need moving forward to continue your progress in India? In your experience, what has been the three largest barriers to creating sustainable development in India? Anything you would like to add?



Table B. 2 Interview Schedule for Case Study

<b>Initial needs of BOP population</b>
What is the initial need of your project’s market segment? How have you created an understanding of these needs?
<b>Motivation</b>
Why do you want to enter the Indian market? In what way do you think your business can make a difference in India?
<b>External analysis</b>
Tell me about the legislation and policies in India that in some way affect your project. How is the political landscape benefitting or not to Norwegian business in India? What challenges have you experiences for Norwegian businesses in India?
<b>Stakeholders involved: Partnerships/Policy</b>
Have you seen a political influence in your work? Has this changed over the years? Do you have any <b>local partners</b> ? Private and public partners? What are the various roles and responsibilities in this partnership? How does this partnership benefit your vision? Has this partnership helped you navigate the political/legal/cultural aspects of entering India? How are you handling the <b>challenges/barriers</b> associated with partnerships?
<b>Product/Service</b>
Do you need to <b>adjust your product</b> to meet the Indian market need? Are your products <b>affordable</b> for the Indian market? In terms of <b>scalability</b> and meeting the needs of the Indian market, is the Norwegian company able to do so? Have there been any challenges? How did you advise your Norwegian partner in this? In terms of <b>accessibility</b> , do you believe the Norwegians can meet the demands of the Indian low-income market?
<b>Strategy</b>
What are your current strategies for BOP market entry? Marketing + Business Model Did you rely on experiences from entry to other countries (if you have entered other countries?)
<b>Organizational implementation</b>
How would you evaluate the process in the mobilization your project? How is the structure of your company? Are you a branch separate from head office? Do you already operate with your <b>business model</b> for India in other markets? What is different for India?
<b>Supply chain</b>
How do the Norwegian companies do in terms of building cooperative structures in India? In what way have you had to adjust to enable an adequate supply chain in India? What does your production cycle look like? Locally produced, imported etc.
<b>Economic outcomes</b>
What is your current market share? How many sales have your company had since coming to India?
<b>Sustainable development outcomes</b>
How are the Norwegian projects you are working on having a social impact in India? Which of the UN SDGs are relevant for your work? In what way has your work directly influenced Indian communities? Do you think the presence of Norwegian companies in India creates spillover effects on other areas?
<b>Additional</b>
What kind of support would you need moving forward to continue your progress in India? In your experience, what has been the three largest barriers to creating sustainable development in India? Anything you would like to add?

Table B. 3 Interview Schedule for Partner Organisation

<b>Initial needs of BOP population</b>
What is the initial need of your project's market segment? How have you created an understanding of these needs?
<b>Motivation</b>
Why do you want to enter a partnership with a Norwegian initiative? In what way do you think this business can make a difference in India?
<b>External analysis</b>
Tell me about the legislation and policies in India that in some way affect your project. How does the political landscape affect your partnership? What challenges have experienced so far? What were the solutions to proceed?
<b>Stakeholders involved: Partnerships/Policy</b>
What are the various roles and responsibilities in this partnership? How does this partnership benefit your vision? How are you handling the <b>challenges/barriers</b> associated with partnerships?
<b>Product/Service</b>
Have your input affected the product or service that you offer? Are your products <b>affordable</b> for the Indian market? In terms of <b>scalability</b> and meet the need of the Indian market, is the Norwegian company able to do so? Has there any challenges? How did you advise your Norwegian partner in this? In terms of <b>accessibility</b> , do you believe you can reach Indian low-income market?
<b>Strategy</b>
What are your current strategies for BOP market entry? Marketing + Business Model What do you advise Norwegian companies in terms of strategic planning in India?
<b>Organizational implementation</b>
How would you evaluate the process in the mobilization your project?
<b>Supply chain</b>
How do the Norwegian companies do in terms of building cooperative structures in India? What has been your role to enable an adequate supply chain in India?
<b>Economic outcomes</b>
How are you a financially sustainable enterprise? How do you plan to become one? What is your current market share and potential market share?
<b>Sustainable development outcomes</b>
How are the Norwegian projects you are working on having a social impact in India? Which of the UN SDGs are relevant for your work? In what way has your work directly influenced Indian communities? Do you think the presence of Norwegian companies in India create spill over effects to other areas?
<b>Additional</b>
What kind of support would you need moving forward to continue your progress in India? In your experience, what has been the three largest barriers for creating sustainable development in India? Anything you would like to add?

Table B. 4 Invitation to interview

**Invitation to Interview for Master Thesis Data Collection**

Dear Sir/Madam,

I would hereby like to invite you to take part in the master thesis project “*Alleviating Poverty through Business Strategy in India*” due to your significant contribution and expert knowledge on the relevant topic.

The thesis project is part of my ongoing study of a Master of Science in Innovation and Global Sustainable Development at the School of Economics and Management at Lund University in Sweden.

The thesis aims to research the business strategies of Norwegian companies, who aim to target low-income markets in India and what role local partnerships play in this strategy.

The interview will consist of 15-20 questions and will take between 30 – 60 minutes to complete.

Upon publication (June 2020), all participants in this research project will have access to the conclusions and recommendations presented in the thesis.

Your contribution would be greatly appreciated, and I look forward to hearing from you.

Kind regards,

Amalie Østhassel

Email: [amalieosthassel@gmail.com](mailto:amalieosthassel@gmail.com)

Indian PH: +91 977 366 0692

Table B. 5 Interview Consent Form

<b>Interview Consent Form</b>		
<p>I have been given information about the thesis project “<i>Alleviating Poverty through Business Strategy in India</i>” and discussed the research project with Amalie Østhassel who is conducting this research as a part of a Master of Science in Innovation and Global Sustainable Development at the School of Economics and Management at Lund University in Sweden.</p>		
<p>I, the undersigned, confirm that (please tick the appropriate box):</p>		
1.	I understand the information about the project.	<input type="checkbox"/>
2.	I have been given the opportunity to ask questions about the project and my participation.	<input type="checkbox"/>
3.	I voluntarily agree to participate in the project.	<input type="checkbox"/>
4.	I understand I can withdraw at any time without giving reasons and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn.	<input type="checkbox"/>
5.	The procedures regarding confidentiality have been clearly explained (e.g. use of names, pseudonyms, anonymisation of data, etc.) to me.	<input type="checkbox"/>
6.	I give consent for recording of this interview by either audio, video or other forms of data collection.	<input type="checkbox"/>
7.	I understand that other researchers will have access to this data only if they agree to preserve the confidentiality of the data and if they agree to the terms I have specified in this form.	<input type="checkbox"/>
8.	Select only <b>one</b> of the following:	
	<ul style="list-style-type: none"> <li>• I agree that my name, title and organisation can be mentioned in the study so that anything I have contributed to this project can be recognised.</li> <li>• I do not want my name used in this project (anonymous only)</li> </ul>	<input type="checkbox"/>  <input type="checkbox"/>
<p><b>Participant:</b></p> <p>_____</p> <p>Name of Participant                      Signature                      Date</p>		
<p><b>Researcher:</b></p> <p><u>Amalie Østhassel</u></p> <p>_____</p> <p>Name of Researcher                      Signature                      Date</p>		

Table B. 6 Observation Period Consent Form

**Observation period Consent Form**

I have been given information about the thesis project “*Alleviating Poverty through Business Strategy in India*” and discussed the research project with Amalie Østhassel who is conducting this research as a part of a Master of Science in Innovation and Global Sustainable Development at the School of Economics and Management at Lund University in Sweden.

Amalie will be working with Innovation Norway in India at their offices in New Delhi for a six weeks period from 01.05.19 to 14.06.19. She will be allowed to make observations as part of her data collection for her master thesis.

I, the undersigned, confirm that (please tick the appropriate box):

1.	I understand the information about the project	<input type="checkbox"/>
2.	I have been given the opportunity to ask questions about the project	<input type="checkbox"/>
3.	I voluntarily agree to participate in the project.	<input type="checkbox"/>
7.	I understand that other researchers will have access to this data only if they agree to preserve the confidentiality of the data and if they agree to the terms I have specified in this form.	<input type="checkbox"/>
8.	Select only <b>one</b> of the following:	
	<ul style="list-style-type: none"> <li>• I agree that my name, title and organisation can be mentioned in the study so that anything I have contributed to this project can be recognised.</li> <li>• I do not want my name used in this project (anonymous only)</li> </ul>	<input type="checkbox"/>  <input type="checkbox"/>

**Mentor:**

Avanish Verma

Name of mentor

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Researcher:**

Amalie Østhassel

Name of Researcher

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

# Appendix C

Table C. 1 Results Matrix

Source: Authors own table based on findings from the data analysis using Nvivo.

Case Studies: Norwegian BOP Initiatives in India							
		Oivi	YARA	STREEC	Leap Learning	Basic Internet Foundation	Bija Organization
<b>Criterion</b>	<b>Company description</b>  Findings: -Entrepreneurial mindset	For-profit start-up Started in 2018. Total of 22 employees in India and Norway.  <u>Aims to:</u> Revolutionise screening of diabetic patients. Eradicate blindness as a consequence of diabetes.  Technological Medical Industry.	MNC Funded 1905 as Norwegian Hydro. Yara in India since 2010. 16.000 employees globally with operations in more than 60 countries.  <u>Aims to:</u> Optimise the Indian agricultural industry. Help facilitate nutritious crops supply in a sustainable way.  Agricultural Sector.	Social Enterprise Mobilised by DFEF in 2019, Norwegian missionary organisation.  <u>Aims to:</u> Empower marginalised women and create income generating opportunities for them.  Renewable Energy/ Development Aid.	MNC Operates in 300 schools in more than 20 countries.  <u>Aims to:</u> Ensure that all children have the opportunity to learn critical skills in numeracy, logic, literacy and entrepreneurship.  Education sector.	NGO/Foundation Total of 9 employees/members with 15 projects operating in 8 countries. 20 rural villages around the world have access to free internet because of BIF.  <u>Aims to:</u> Provide basic internet access to the poor populations of the world.  ICT Sector.	NGO → Social Enterprise In India since 2015. Small NGO with three stakeholders in Norway and one consultant in India.  <u>Aims to:</u> To reduce poverty by organic food production in an environmentally sustainable way.  Agricultural/ Development sector.
	<b>Initial needs of the BOP population</b>  Findings: -Planning and research -Digital Gender Gap	Diabetes patients are vulnerable to blindness and need yearly eye-checks. India has 11 eye-specialist per 1 million people. Poor populations are vulnerable. Efficiency in eye-checks necessary.	Optimise crops production for smallholder-farmers without having negative consequences for the environment.  6 months with initial research in India.	Women without education have very low chance of income. There is a need to build skills for employment among these groups without harming the environment.  Preliminary field research.	Quality education in rural areas are lacking. Need for skills which enable critical thinking.	There are very low barriers to internet access in India. Indian BOP requires access to smartphones as opposed to data and internet access.  Digital Gender Gap.	Rural Indian populations do not have access to nutritious food and have many health problems as a consequence.  Preliminary field research.

	Market survey for interested entities: Visits to Aravind Eye Care Hospital, Narayana Hospital etc.						
<b>Motivation</b>  Findings: -Various prioritisations of economic and social	To provide a financially viable solution to alleviate blindness among diabetics. A solution that is accessible, affordable and high quality for all of humanity.	Economic: Aims to be the leading agricultural player in the country.  Social: Increase food production and create income generation for smallholder-farmers.	Development funds to support innovation and social entrepreneurship. Create human capital by the use of aid.	Social: Every child has the right to receive quality education.  CSR rule in The Company Act 2013	Internet is a human right, and everyone should have equal access to basic information online.	Passion for India and the climate. Have one solution to both the alleviation of poverty and to environmental problems. Aims to be financially sustainable, but main motivation is to alleviate poverty.	
<b>External analysis</b>  Findings: -Various funding mechanisms for inclusive innovation -Norwegian Grants important for BOP initiatives -Competition is very industry-specific on Indian BOP -Political and Legal conditions	Funding: VC's, Various Government Grants, private capital, sponsorships, crowdfunding → "The Pioneering Gap"  No competition for AI camera, wide competition in MedTech industry.	Self-funded.  No major competition in digital solutions. Traditional urea industry main competitor in fertiliser.  Depend on subsidised fertilisers from Government.	Funding for 3 years from 2019 → "The Pioneering Gap"  No direct competition, but many similar projects.  Difficult to navigate Indian legal and cultural landscape (partner, beneficiaries etc).  Issues with FCRA approval.	Self-funded.  No major competition.  Difficult to navigate Indian legal (import/export) and cultural landscape (partner, beneficiaries etc).	Funding: Donors → "The Pioneering Gap"  Major competition and barriers for entry. Facebook: FreeBasic.org  Success relies on first mover advantage in the ICT sector and government support. Public institutions, Govt. of India and private companies already cater for internet access among the BOP population.	Funding: Sponsors → "The Pioneering Gap"  No competition. Living standard, earning capacity and access to human development in the market is very low.  Issues with FCRA approval.  Difficult to navigate BOP population (partner, beneficiaries etc.)	
<b>Stakeholders involved</b>  Findings: -Local Partner -Assigned roles limit - Cross-sector partnerships -New Mental Models	Subsidiary in India, L.V. Prasad Eye Institute with 10 employees in Bangalore.	IBM partnership from April 2019	Local partner, (NGO).  Difficulties to navigate BOP/Development Landscape in India.	Local partner.	Collaborates and support research institutions; IIT Bangalore and IIT Bombay. Support the Government of India.	Difficulties finding a partner. Consultant in India.	
<b>Product/service</b>  Findings: -Frugal innovation -Digital scaling	Hand-held AI camera to capture images of the retina (eye) and diagnose diabetic retinopathy	Farm Weather App Fertiliser Solutions	Solar products, entrepreneurial centre and programme.	Leap Learning Apps Leap Learning Labs Leap Learning Hotspots	BasicInternet.org. Free internet access with just text and picture. Add on	Aquaponic systems (system for producing vegetables and fish)	

-Affordability and Cost models -Technology penetration	(a condition that cause blindness among diabetics).  Cost model: Scale and technology. High quantity = Low sales cost.	Sells fertiliser supplies and digital management systems for optimal agricultural production.  Cost model: Scale and technology	Aims to train marginalised women to produce solar products through an entrepreneurship programme.  Cost model: Sell renewable products	Aims to close the knowledge gap and increase critical thinking through technology.  Cost model: CSR outsourcing	services for additional video etc.	adapted to Indian conditions.  Aims to implement a social entrepreneurial system where families can grow and sell vegetables in their local community.  Cost model: Sell vegetables
<b>Strategies</b>  Findings: -Marketing strategies - Trust, distribution channels -Global Growth Strategies	Indian BOP as a “trial” market before entering other emerging market economies; China, Brazil etc.  R&D Whitespace Quality and network at the centre of marketing strategy.	Global company with market leadership in many developing economies.  Marketing strategy relies on technology and digitalisation.	Project to facilitate financially sustainable development. “Help people help themselves”.	Established actor in 20 countries, specifically Ghana and Tanzania.  Explores India as a second priority after Africa.	Will not enter India with their current business model and philosophy. “The BOP is already catered for by the incredible achievements by the political and private stakeholder landscape”.  Will continue to work in India, but on a political and research level.	Aim is to go from an NGO to a social enterprise. Be self-reliable and financially independent.  Word of mouth marketing.  Plans to only operate in India.
<b>Organisational implementation</b>  Findings: -Distribution and efficiency -Corruption -Market creation	Distribution no problem.  BOP as consumer	Core business is in fertiliser supply. Digital farming is a complement.  Create an eco-system for the farmer (Create market, semi-venturing)	One of many development projects.  Co-venture	Core business remains located in Africa. India has a lot of potential.  BOP as consumer	Core business remains located in Africa and other developing markets.	India is the only market.  Total handover of initiative to BOP population.  Co-venture
<b>Supply chain</b>  Findings: -Production -Quality -Health and Safety cultures	Production of lenses in Japan, medical certifications from Germany, administration and logistics in Norway, implementation, R&D in India, software development in Finland.	Acquired production plants in U.P in 2018 with the aim to cater for the North-Indian BOP.  Production remains in Norway and the	No supply chain yet.  Local supply chain is key for empowerment.	IT software development and assistance in India.	No supply chain. The foundation consists of research professionals and digital competence.	Works directly with the BOP population.  Local supply chain is key for empowerment.



			Netherlands. Supply globally, distribution not a problem.				
<b>Economic outcomes</b>	80 million diabetics in India in need of eye-screenings. Huge potential and interest from hospitals and rural care centres for an affordable camera.	140 million farmers in India. 2.5% market share in India would sell more than Yara's global outreach. Target a 10% market share in India.	Project in start-up phase. Need to mobilise business proposals and economic analysis. Lack knowledge and expertise in this area.	140 Norwegian companies potentially in need of CSR outsourcing.	No economic potential in India.	Scheme for families to produce and sell produce to generate an income. Bija to build a commercial infrastructure to help with this for local families.	
<b>Sustainable Development Outcomes</b>  Findings: -Sustainability interpretations differs between the case studies and the external interviewees.	Product not yet on the market. Ready for mass production soon. Established relationships with Eye clinics across India. Inclusive development at the core.	900.000 smallholder farmers have downloaded the Weather App by Yara.	Not yet mobilised project. Have property in Varanasi and is in the process of hiring a Project Director.	3 labs in India, 1 underway. Plans to implement Leap Learning Hotspots.	Published several papers on digital inclusion of the poor and had some progress on the technology gap and enlightened the issue of internet access for those without a data subscription in India.	Provided 30 families in Kerala and Tamil Nadu with one aquaponic system each. Reduce water consumption with 90% in a household. Health and welfare have improved (Not measured).	