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Supply Chain Incentive Alignment in Bottom of the Pyramid environments

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ABSTRACT

Background: Alleviating poverty is critical for achieving sustainability (Zomorodi et al., 2019). One business approach to alleviate poverty is the Bottom of the pyramid (BoP) approach which implies engaging the poor in doing business, and including them into supply chains with both profitability and poverty alleviation as objectives (Brix-Asala et al., 2021). The populations living in the BoP are generally outside of the global capitalism system (Khalid and Seuring, 2019), composing the poorest two-thirds of the world income pyramid which in turn translates to the more than four billion people living in poverty (Kirchgeorg and Winn, 2014) that are mainly located in developing countries (Khalid and Seuring, 2019). While Supply chain incentive alignment (SCIA) is argued to be a success factor for Supply chain management (SCM) implementation (Norrman and Näslund, 2019), its application on SC:s operating in the BoP environments is yet to be researched. This study is hence based on the literature gap found in the intersection of SCIA literature and BoP literature.

Purpose: The purpose of this study is to examine the implications of the BoP environment on SCIA, specifically for Multinational Corporations (MNC:s) operating in the BoP. The desired outcome is a conceptual framework that could help explain the phenomenon of SCIA in the specific context of the BoP environment.

Research questions: This study includes two research questions: 1) How does the BoP environment influence the supply chains of MNC:s operating in the BoP and is it likely that SC misalignments could occur due to its influence? and 2) What implications does the BoP environment have on supply chain incentive alignment?

Method: This study is qualitative and explorative and takes on a systems approach. An abductive research process was hence utilized to attempt theory elaboration on the topic of SCIA in the specific context of the BoP environment. Inspiration from Jabareen's (2009) qualitative method to create a conceptual framework was followed, by utilizing both literature and interviews. Eight interviews were conducted with professionals working in MNC:s, nonprofit organizations, social enterprises, local companies, as well as academia, in different countries and contexts.

Theory: The frame of reference in this study includes literature on the BoP approach, literature on the BoP environment, literature on SCM in the BoP environment and literature on SCIA.

Results: The found literature proved that the BoP environment has significant influence on the SC:s of MNC:s, as the implications affect the SC structure, processes and managerial components of the SC. This in turn implies that SC misalignment is likely to occur due to the influence of the BoP environment. The analysis further provided 18 problem concepts identified from the five SC misalignment areas (hidden action, hidden information, incentive design, goal conflicts and differing business logics) and 15 solution concepts identified from the three SCIA areas (contract-, information- and trust based solutions), that were then connected to each other to develop the conceptual framework consisting of seven problem dimensions that influence SCIA in BoP environments and corresponding SCIA solutions to counteract them.

Conclusion: The seven problem dimensions that influence SCIA in BoP environments are: 1) Unreliable and unpredictable business and regulatory environment in the BoP, 2) Partnership with intermediaries and non-market actors in the BoP, 3) Importance of trust and transparency between MNC:s and BoP actors, 4) Power imbalance between MNC:s and BoP actors, 5)

Differing contexts between MNC:s and BoP actors due to vulnerability and informality of BoP, 6) Information asymmetries and inefficient information flows and technology in the BoP and 7) Lower level of literacy, education and skills in the BoP. Identified SCIA solutions are e.g. creating incentives based on collaboration, risk sharing, education, training and alignment with BoP, creating clearer contracts and educating on its content and incentives, using certifications as rewards, aligning payment type and time with BoP conditions, sharing information frequently and transparently, reducing information asymmetries prior to contracting, leveraging available IT, involving NGO:s, reducing mistrust and proving good and long term intentions.

Contribution: This study has the theoretical contribution of a first attempt at filling the research gap observed on the area of SCIA in BoP environments and the empirical data in this study also appears to be the first that targets the area. This study also attempts to contribute to the perceived lack of theoretical generalization that appears to be common in BoP literature as stated by Basu et al. (2021). The contribution from this study to the industry is in terms of which areas to pay emphasized attention to when operating specifically in the BoP context and handling SCIA efforts. Organizations can utilize the framework in order to analyze and identify SC misalignment areas as well as to receive an understanding of the SCIA solutions suitable in the BoP to counteract them.

Keywords: Supply chain incentive alignment, Supply chain incentives, Bottom of the pyramid, Base of the pyramid, Multinational Corporations

SAMMANFATTNING

Bakgrund: Fattigdomsbekämpning är avgörande för att uppnå hållbar utveckling (Zomorodi et al., 2019). En affärsstrategi kopplad till fattigdomsbekämpning är Bottom of the Pyramid (BoP) ansatsen som innebär att inkludera de fattiga i försörjningskedjor med både lönsamhet och fattigdomsbekämpning som mål (Brix-Asala et al., 2021). Befolkningen som bor i BoP är generellt utanför det globala kapitalismssystemet (Khalid och Seuring, 2019), och utgör de fattigaste två tredjedelarna av världens inkomstp pyramid, vilket i sin tur motsvarar mer än fyra miljarder människor som lever i fattigdom (Kirchgeorg och Winn, 2014) och som främst är belägna i utvecklingsländer (Khalid och Seuring, 2019). Trots att Supply chain incentive alignment (SCIA), även benämnt anpassade incitament i försörjningskedjor, hävdas vara en av de nödvändiga faktorerna för en framgångsrik implementering av Supply chain management (SCM) (Norrman och Näslund, 2019), så verkar inte dess användning i försörjningskedjor i BoP miljön vara utforskad. Denna studie är därför baserad på ett gap funnet mellan SCIA-litteratur och BoP-litteratur.

Syfte: Studiens syfte är att undersöka konsekvenserna av BoP-miljön på SCIA, specifikt för multinationella företag som arbetar i BoP-miljön. Det önskade resultatet är ett konceptuellt ramverk som kan förklara fenomenet av SCIA i den specifika miljön av BoP.

Forskningsfrågor: Denna studie inkluderar två forskningsfrågor: 1) Hur påverkar BoP-miljön multinationella företags försörjningskedjor i BoP och är det troligt att dess påverkan kan orsaka Supply chain misalignment (SC-misalignment), även benämnt missanpassning i försörjningskedjor? och 2) Vilka konsekvenser har BoP-miljön på SCIA?

Metod: Denna studie är kvalitativ och utforskande och tar en systemansats. En abduktiv forskningsprocess användes för att försöka utarbeta teori om ämnet SCIA i den specifika sammanhanget av BoP-miljön. Inspiration från Jabareens (2009) kvalitativa metod för att skapa ett konceptuellt ramverk följdes, genom att använda både litteratur och intervjuer. Åtta intervjuer genomfördes med yrkesverksamma inom multinationella företag, ideella organisationer, sociala företag, lokala företag, samt akademi, i olika länder och sammanhang.

Teori: Referensramen i denna studie inkluderade litteratur om BoP-ansatsen, litteratur om BoP-miljön, litteratur om SCM i BoP-miljön samt litteratur om SCIA.

Resultat: Litteraturen menade att BoP-miljön har en betydande påverkan på multinationella företags försörjningskedjor, på grund av att miljön påverkar försörjningskedjans struktur, processer och management-komponenter, vilket i sin tur antyder att SC-misalignment sannolikt kommer att inträffa. Analysen identifierade vidare 18 problemkoncept i fem SC-misalignment områden (dold handling, dold information, incitamentdesign, målkonflikter och olika affärslogiker) och 15 lösningskoncept identifierade från de tre SCIA områdena (kontrakts-, informations- och förtroendebaserade lösningar). Dessa kopplades sedan till varandra för att utveckla det konceptuella ramverket bestående av sju problemdimensioner av påverkan på SCIA i BoP-miljöer och motsvarande SCIA-lösningar som motverkar dem.

Slutsats: De sju problemdimensionerna som påverkar SCIA i BoP-miljöer är: 1) Opålitlig och oförutsägbar affärs- och regleringsmiljö i BoP, 2) Partnerskap med mellanhänder och icke-marknadsaktörer i BoP, 3) Vikten av förtroende och transparens mellan multinationella företag och BoP-aktörer, 4) Maktobalans mellan multinationella företag och BoP-aktörer, 5) Olika kontexter mellan multinationella företag och BoP-aktörer på grund av sårbarhet och

informalitet i BoP, 6) Informationsasymmetrier och ineffektiva informationsflöden och teknologi i BoP och 7) Lägre nivå av läskunnighet, utbildning och färdigheter i BoP. Identifierade SCIA-lösningar är t.e.x att skapa incitament baserat på samarbete, riskdelning, utbildning och anpassning till BoP, skapa tydligare kontrakt och utbilda om dess innehåll och incitament, använda certifieringar som belöningar, anpassa betalningstyp och betalningstid med BoP-miljön, dela information frekvent och transparent, minska informationsasymmetrier inför kontraktering, utnyttja tillgänglig teknologi, involvera icke-statliga organisationer, minska misstroende och bevisa goda och långsiktiga avsikter.

Bidrag: Denna studies teoretiska bidrag är dess första försök att fylla litteraturluckan som observerats på området SCIA i BoP-miljöer. Empirin i denna studie verkar också vara den första som är specifikt inriktad på detta område. Denna studie försöker också bidra till den upplevda bristen på teoretisk generalisering som tycks vara vanlig i BoP-litteraturen enligt Basu et al. (2021). Bidraget från denna studie till industrin är i form av de områden man bör ägna särskild uppmärksamhet åt när man arbetar specifikt i BoP-miljön och hanterar SCIA-insatser. Organisationer kan använda ramverket för att analysera och identifiera SC-misalignment samt för att få en förståelse för de SCIA-lösningar som är lämpliga i BoP-miljön för att motverka problemen.

Sökord: Anpassade incitament i försörjningskedjor, Incitament i försörjningskedjor, Bottom of the Pyramid, Base of the Pyramid, Multinationella företag

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LIST OF ABBREVIATIONS

BoP	Bottom of the Pyramid / Base of the Pyramid
CSR	Corporate social responsibility
MNC	Multinational Corporation
MNE	Multinational Enterprise
NGO	Non-governmental organization
SC	Supply chain
SCM	Supply chain management
SCIA	Supply chain incentive alignment
SD	Supplier development
SDG	Sustainable Development Goal
TAREA	Tanzania Renewable Energy Association
ToP	Top of the Pyramid
UN	United Nations
UNDP	United Nations Development Programme
UNIDO	United Nation Industrial Development Organization

1 INTRODUCTION

This master thesis will be conducted on the topic of Supply Chain Incentive Alignment in Bottom of the Pyramid environments. The introductory chapter will define the background, problem formulation, purpose, research questions, target group and delimitations of this study.

1.1 Background

Ending poverty is one of the United Nations (UN) 17 Sustainable Development Goals (SDG:s) that is set to be achieved by 2030, in line with the 2030 Agenda for Sustainable Development. Although poverty was declining globally, it is now at risk of increasing again for the first time since 1998. The major impact of the Covid-19 pandemic on communities all around the world is one of the biggest reasons behind the threat to the positive progress, risking that tens of millions more people will be at risk of living in poverty again (United Nations, 2020).

Alleviating poverty is critical for achieving sustainability, and it has been found to be the most difficult global challenge (Zomorodi et al., 2019). One business approach to alleviate poverty is engaging the poor in doing business, and including them into supply chains as suppliers, service providers and consumers. This concept is the core of the so-called Bottom of the pyramid (BoP) business approach (Brix-Asala et al., 2021). The concept of doing business with the poorest parts of the world with the aim of making a profit whilst helping people escape poverty sounds appealing, however it is much more challenging to actualize. Supply chains operating in wealthy markets have to make changes and adapt to the markets of the BoP if they want to succeed, since doing business in the BoP is in fact distinct from doing business in other wealthier and more developed areas in the world (Zomorodi et al., 2019).

1.1.1 Bottom of the Pyramid

The encyclopedia Britannica defines the term Bottom of the pyramid/Base of the pyramid as “...the poorest two-thirds of the economic human pyramid, a group of more than four billion people living in abject poverty“ (Kirchgeorg and Winn, 2014). The reason that the encyclopedia is used to define the term BoP is that there are many definitions and numbers stated in various research articles on how many people the BoP refers to and how much money they are living on daily. Table 1.1 below shows some examples of descriptions of the BoP mentioned in literature. Khalid and Seuring (2019) state however that many factors impact the income figure used in BoP literature, such as the used definition of poverty by the author. While the term poverty itself also has many definitions, such as living on less than \$2 daily or the absence of basic human needs, freedom and wellbeing, the choice of definition depends on its intended use (UNDP, 2014). Nonetheless, the target population in BoP literature is generally the people that are outside of the global capitalism system, composing the “bottom tier of the world income pyramid” (Khalid and Seuring, 2019). A final note on the definition of the BoP is that it can also be referred to as subsistence markets (Parmigiani and Rivera-Santos, 2015).

Table 1.1: Examples of different descriptions of the BoP mentioned in different articles.

<i>Author</i>	<i>BoP definition</i>
<i>Casado Caneque and Hart (2017, pp. 5)</i>	“The base (bottom) of the pyramid (BoP) is a demographic that covers approximately four and a half billion people who live on less than US\$8 per day at the base of the global economic pyramid.”
<i>Fawcett and Waller (2015, pp. 233)</i>	“For many MNCs, the only remaining market is found at the bottom of the economic pyramid—that is, the four billion people who live on \$5 or less per day.”
<i>Gupta and Khilji (2013, pp. 8)</i>	“In this paper, we define the BoP as the segment of the world’s population that is not well connected with the global markets, thus often tends to be forgotten while formulating business strategies”

1.1.2 Supply chain management at the Bottom of the Pyramid

Before diving into supply chain management (SCM) in the context of the BoP, definitions are to be provided of both what is meant by a supply chain (SC) as well as what is meant by the management of a supply chain. Mentzer et al. (2001, pp. 4) describes a SC as a “set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer”. They further describe SCM as “systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the SC, for the purposes of improving the long-term performance of the individual companies and the SC as a whole” (Mentzer et al., 2001, pp. 18).

The main part of the BoP population is located in developing countries (Khalid and Seuring, 2019). Furthermore, the market of the BoP population is characterized by an informal economy and institutional voids (Brix-Asala et al., 2021) as well as insufficient communication infrastructure, which causes an inefficient market structure (Khalid and Seuring, 2019). Schilling and Seuring (2023) further argue that one of the causes of poor economic development in countries is challenges in the flows of products and services, which in turn causes inefficiencies in the management of SC:s. Insufficient infrastructure, lack of knowledge and lack of market information are some of the reasons for the mentioned challenges of the SC flows (Schilling and Seuring, 2023). Due to the challenging environment of the BoP market, including actors from the BoP into formal SC:s poses great risks and challenges (Brix-Asala et al., 2021).

Sodhi and Tang (2014) who examined how SC design can alleviate poverty, mention how the poor can be integrated in both the upstream SC flow as suppliers and in the downstream SC flow as distributors and describe the challenges of doing so. One of the mentioned challenges is for instance how to guarantee that the suppliers and distributors will receive a fair share of the profits since they lack market power. They further mention that SC:s doing this type of integration will face operational challenges that are relatively distinct from ones found in traditional SCM literature. For instance, they mention that engaging the poor as suppliers and distributors implies that the SC needs to be set up around business models that ensure both profits and poverty alleviation, which in turn means rebuilding the current SC:s that are built entirely on profit maximization.

As can be understood, conducting business in the BoP seems to be accompanied by many challenges and Schilling and Seuring (2023) argue that further research that combines BoP and SCM is needed.

1.1.3 Supply chain incentives at the Bottom of the Pyramid

An interesting suggestion for further research was made by Fawcett and Waller (2015) that mention the topic of incentives with regards to suppliers. They mention the following question as an example: “How can companies incent suppliers to share the risks and rewards of operating in the bottom of the pyramid?”.

Incentives relate to the rewards and punishments connected to the actions a SC partner engages in, and influences their behavior as well as their relationship to other partners (Simatupang et. al, 2002). Supply chain incentive alignment (SCIA) in turn concerns the reward and punishment systems applied by the SC members, with regards to sharing the costs, benefits and risks of the partnership (Simatupang and Sridharan, 2005). Incentives play a major role in SCM, since for instance their alignment is critical for the success of SC integration and their misalignment could impair the performance of the entire SC (Norrman and Näslund, 2019). Aligned incentives is also one of the antidotes to SC discontent presented by Simatupang and Sridharan (2005), who define SC discontent as “a situation that occurs when two or three parties working together at the same supply chain perceive organisational differences that affect their ability to perform better to maximise potential profits“ (Simatupang and Sridharan, 2005, p.351). Incentive alignment is further argued to be a success factor for SCM implementation (Norrman and Näslund, 2019).

The above literature on the importance of SCIA provokes the question of its application in settings such as the BoP. However, when searching for literature targeting SCIA, or incentives alone, in combination with the BoP, not much general literature is found. A search for literature was done through the database LUBSearch (the search engine of Lund University Libraries) which partially or fully includes a great number of databases such as Emerald, EBSCOhost and Britannica Academic. The results from the search showed that this intersection of literature is yet to be developed. Table 1.2 below shows the search results.

Table 1.2: Search results when searching for SCIA and BoP in the database LUBSearch.

<i>Search word 1</i>	<i>Search word 2</i>	<i>Search result</i>
Supply chain incentive alignment	Bottom of the pyramid	0
Supply chain incentive alignment	Base of the pyramid	0
Incentives	Bottom of the pyramid	38
Incentives	Base of the pyramid	38

It should be noted that different examples of how incentives have been used in BoP markets can be found in several case studies and researches, but a more generalized literature is hard to find. However, it seems as if this type of lack of theoretical generalization is common in BoP literature, as stated by Basu et al. (2021).

1.2 Problem formulation

Adding on to the SC challenges described in the sections above, Rivera-Santos and Rufin (2010) argue that there are significant differences between business networks operating in the BoP in comparison to outside the BoP, which they refer to as the Top of the Pyramid (ToP), and that these differences pose implications for Multinational Corporations (MNC:s)¹ operating in the BoP. Brix-Asala and Seuring (2020) further mention that the institutional voids that permeate the BoP market have implications on all stages of a SC² operating in the BoP environment.

Changes in a SC's network structures, business processes or managerial components are argued to lead to SC misalignment (Lundin and Norrman, 2010). On the other hand, incentives problems are prone to arise each time a new change effort is in place (Narayanan and Raman, 2004) and thus SCIA has the aim of realigning the risks and rewards in the SC when changes occur (Simatupang and Sridharan, 2002). Furthermore, Narayanan and Raman (2004) argue that SCIA is the only way to achieve an aligned SC that pulls in the same direction and that this can be done by three different types of solutions which are contract based-, information based- or trust based solutions (Narayanan and Raman, 2004).

Hence, a twofold question arose, on how specifically the BoP environment affects the SC:s of MNC:s and whether it is likely that a misalignment will occur due to its influence; as well as how the BoP environment influences SCIA and specifically how contract-, information- and trust based solutions look like in the BoP.

1.2.1 Target group

The target group of this master thesis are MNC:s interested in targeting both profit creation and impact creation (such as poverty alleviation), due to two reasons. First, the private sector is argued to play an important role in alleviating poverty (UNDP, 2014), hence a target group within the private sector was preferred. Second, there exists literature where the SC:s of MNC:s have been studied in the context of the BoP environment. The mentioned literature could hence pose as a foundation when studying a phenomenon that is yet to be developed in literature, i.e SCIA in the context of the BoP environment.

¹ The literature targeting the BoP and MNC:s, uses both the term MNC as well as Multinational Enterprises (MNE:s). Moving forward in this study, the term MNC will be used unless a citation is given in which the original author uses the term MNE.

² Value chain and supply chain are both terms used in the literature targeting the BoP and SCM. For instance, one of the main sources used in this study (the research by (Parmigiani and Rivera-Santos from 2015) uses the term value chain to analyze a supply chain through its different stages (raw material procurement, manufacturing and operations, distribution and marketing). Since the supply chain is in the center even when value chains are discussed, the term supply chain will be used moving forward in this study (except for in citations if the original author uses the term value chain), with the purpose of creating a consistent and common language in this report.

1.2.2 Purpose, outcome and vision

The purpose of this master thesis is to examine the implications of the BoP environment on supply chain incentive alignment, specifically for MNC:s operating in the BoP.

The desired outcome of this master thesis is a conceptual framework that could help explain the phenomenon of SCIA in the specific context of the BoP environment.

Finally, the vision is that by understanding the influence of the BoP environment on SC incentives, it can help MNC:s towards achieving alignment in order to successfully manage their SC:s in the BoP. In turn, the successful management of the SC in the BoP can potentially target sustainability in all its forms, i.e. socially by targeting poverty alleviation, economically by targeting profitability as well as environmentally by conducting sustainable SC operations.

1.2.3 Research questions

The purpose of this thesis will be achieved by examining the following research questions (RQ:s):

RQ1

How does the BoP environment influence the supply chains of MNC:s operating in the BoP and is it likely that SC misalignments could occur due to its influence?

RQ2

What implications does the BoP environment have on supply chain incentive alignment?

To answer RQ1, a comprehensive literature study needs to be conducted, where the BoP environment needs to firstly be understood to eventually understand its influence on the SC:s of MNC:s. By answering RQ1 a foundation for answering RQ2 will be created, which will need to be complemented with empirical data in order to finally create a conceptual framework of SCIA in BoP environments.

1.3 The studied system

Figure 1.1 below presents the studied system. An emphasis will be put on understanding the implications from each layer on the next while focusing on MNC:s.

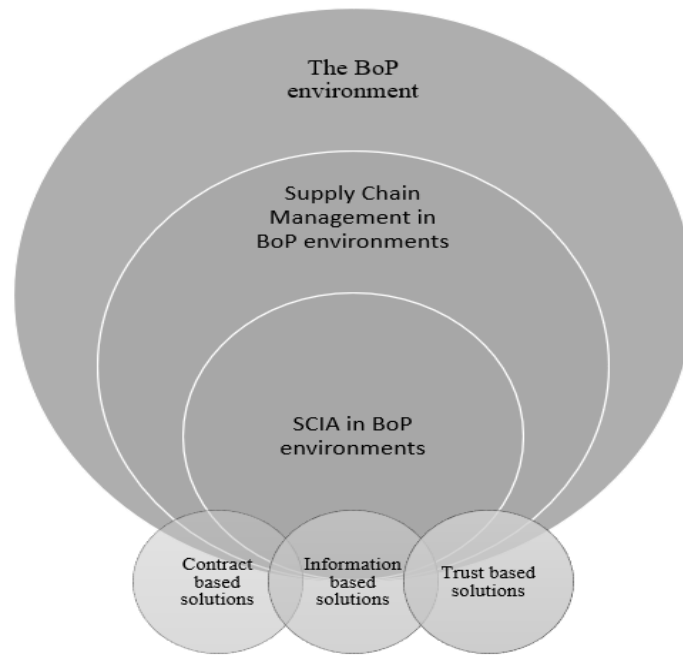


Figure 1.1: The studied system.

1.4 Focus and delimitations

The BoP approach (i.e. doing business with the poor with both profitability as well as poverty alleviation as objectives) which will be further explained in section 2.1, will be utilized to learn the challenges and advantages of business conducted in the BoP which has the aim of simultaneously targeting profitability and poverty alleviation. However, the author will choose to not only view MNC:s that have explicitly announced that they are engaged in a BoP business, but will take a holistic view on MNC:s operating in the BoP environment. Finally, the focus will be on the BoP environment and its influence on MNC:s and SCIA.

As mentioned before, individuals and organizations of the BoP can be viewed as suppliers, service providers (e.g. distributors), as well as consumers. In this study, organizations or individuals in the BoP providing services (such as suppliers, distributors or any other types of service providers) will be focused on and will be denominated local *BoP actors* moving forward (unless stated otherwise).

Casado Caneque and Hart (2017) argue that there are nine categories of roles in BoP businesses that different organizations and individuals can take (see table 1.3); co-developers, suppliers, distributors, complementors, customers, microfinance providers, brokers, funders and impact assessors.

Table 1.3: An overview given by (Casado Caneque and Hart, 2017) of the nine categories of roles in BoP businesses as well as examples of who takes on these roles.

Partner role	BoP micro-entrepreneurs	NGO:s	Governments	Companies	Other
Co-developers	X	X	X	X	X
Suppliers	X			X	
Distributors	X	X		X	
Complementors				X	
Customers			X	X	
Micro-finance providers		X		X	
Brokers	X	X	X		
Funders			X	X	X
Impact assessors		X		X	X

Two roles, suppliers and distributors, will be focused on in this study, where the MNC can take the role of either the supplier or distributor and the same goes for the BoP actor. Table 1.3 also gives guidance on the types of organizations to establish contact with. Hence, BoP actors, NGO:s and MNC:s are included in the empirical part of this study. Governments are however considered too difficult to include since it would imply that a specific or a group of specific countries are to be chosen for further investigation, however this will not be the case in this study.

Nonetheless, a geographic delimitation could be considered to automatically fall into place given that the empirical data of this study includes data from Ghana, Nigeria, Zambia, Tanzania, Mozambique, Ethiopia, Bangladesh, India and Indonesia.

Another delimitation concerns the type of industry that will be studied. This research has no specific industry in focus, however the empirical data gathered is connected to organizations operating in the sectors of agriculture, solar energy, handicraft and social enterprises. It should however be noted that since this study has a focus on the general environment of the BoP, this is reflected on the empirical data as well.

An additional emphasis will furthermore be put on generalization in this study to contribute to the lack of theoretical generalization that is common in BoP literature, as was stated by Basu et al. (2021).

1.5 Report outline

Chapter 1: Introduction

The introductory chapter defines the background, problem formulation, purpose, research questions, target group and delimitations of this study.

Chapter 2: Methodology

The second chapter presents the methodological background of this study. The chapter will be divided into four main parts; introduction, the investigation design, the research method and the practical approach. A summary will finally be provided to conclude the methodology chapter.

Chapter 3: Theory

The theory chapter provides the theoretical background of this study. The structure of the presented theory is mainly inspired by the studied system presented in figure 1.1. Hence, the theory is categorized into four general areas. The first area that will be discussed is the BoP approach, followed by the BoP environment and its characteristics, the influence of the BoP environment on the SC:s of MNC:s and finally a theoretical background to SCIA. The chapter is concluded by the finalizing of RQ1 and the creation of the guiding framework as well as the matrix of the eight areas of investigation that the empirical data gathering will be based on. The theory chapter corresponds to the first part of phase two of the method followed in this study.

Chapter 4: Empirical data

The fourth chapter presents the empirical data of this thesis. First, interview data from MNC:s will be presented, followed by data from nonprofit organizations, data from social enterprises and finally an interview perspective from academia. The fourth chapter corresponds to the second part of phase two of the method followed in this study.

Chapter 5: Analysis

The fifth chapter outlines the analysis of the literature and the empirical data. Each of the eight areas of investigation (P1-P5 and S1-S3) is examined separately to identify and extract concepts from each of them. The emerging concepts will firstly be identified from the empirical data and secondly from the literature (theory). The result is 18 problem concepts from the problem areas (P1-P5) and 15 solution concepts identified from the solution areas (S1-S3). Chapter five corresponds to the third phase of the research method followed in this thesis.

Chapter 6: Creation of the conceptual framework

The sixth chapter provides the path of the creation of the final conceptual framework. In the first step, the concepts related to the problem areas (P1-P5) will be connected to the concepts related to the solution areas (S1-S3). Next, the concepts related to the problem areas will be integrated into problem dimensions that influence SCIA in BoP environments, and highlight the main SCIA solutions that can target each problem dimension. The result is seven problem dimensions with several corresponding SCIA solutions to target them. The third step is to understand the connection between RQ1 and RQ2. Finally, the final framework is presented which will include the mentioned seven problem dimensions and related SCIA solutions. The chapter is concluded by a discussion regarding the practical implication of the framework. Chapter six corresponds to the fourth, fifth, sixth and seventh phase of the research method followed in this thesis.

Chapter 7: Conclusion

The last chapter of this thesis concludes the study by revisiting the research questions and providing answers to them. Limitations of the study and the findings will also be discussed as well as suggestions for future research. Finally, the contribution of this study to both academia and industry is discussed.

2 METHODOLOGY

The following chapter will present the methodological background. The chapter will be divided into four main parts; introduction, the investigation design, the research method and the practical approach. A summary will finally be provided to conclude the methodology chapter.

2.1 Introduction

To remind the reader of the purpose and desired outcome of this study as well as the research questions, table 2.1 below presents an overview of them. With foundation in the purpose and research questions, the unit of analysis in this study is the phenomenon of SCIA in SC:s of MNC:s operating in the BoP environment.

Table 2.1: An overview of the purpose, desired outcome and research questions of this study.

<i>Purpose and Outcome</i>	<i>Research questions</i>
<p style="text-align: center;"><i>Purpose</i></p> <p>The purpose of this master thesis is to examine the implications of the BoP environment on supply chain incentive alignment, specifically for MNC:s operating in the BoP.</p>	<p style="text-align: center;"><i>RQ1</i></p> <p>How does the BoP environment influence the supply chains of MNC:s operating in the BoP and is it likely that SC misalignments could occur due to its influence?</p>
<p style="text-align: center;"><i>Outcome</i></p> <p>The desired outcome of this master thesis is a conceptual framework that could help explain the phenomenon of SCIA in the specific context of the BoP environment.</p>	<p style="text-align: center;"><i>RQ2</i></p> <p>What implications does the BoP environment have on supply chain incentive alignment?</p>

Björklund and Paulsson (2014) explain that while there are several approaches to achieving the purpose of a study, to choose an approach requires method awareness which includes three phases; the investigation design, the research method and the practical approach. The scientific approach relates to the assumptions of what is viewed as true (ontology) and what constitutes good knowledge (epistemology) (Björklund and Paulsson, 2014). The extremes of the two mentioned topics is described in table 2.2 below.

Table 2.2: A summary of the scientific approach as explained by Björklund and Paulsson (2014).

<i>Ontology - Conception of the world</i>	<i>Epistemology - Theory of knowledge</i>
<p>Extremes of ontology exist:</p> <p><i>Realism</i> Social reality is considered objective. The observer is not relevant for the definition or interpretation of social reality.</p> <p><i>Nominalism</i> Social reality is considered subjective.</p>	<p>Extremes of epistemology exist:</p> <p><i>Positivism</i> Knowledge is considered cumulative. Hypothesis and theories are examined in order to create knowledge. The investigator of knowledge is an outsider that does not influence the studied phenomena. Questions of how a phenomena works is of interest</p> <p><i>Non-positivism</i> The investigator of knowledge is not distinguished from the studied phenomena. The underlying laws of social reality are not of interest. Knowledge can be created from understanding a phenomena and its context.</p>

With regards to my own position in ontology and epistemology, an intermediate position could be considered to be taken. I believe that there is a mix of objectivism and subjectivism in what is referred to as true. There should be objectivism when conducting research and my definitions and interpretations are not of relevance when trying to understand the phenomenon. However, when humans are involved, I believe subjectivism is inevitable. Furthermore, I am distinguished from the phenomenon and opt only to create and map out an understanding for how it works in the chosen context. When starting this project, I had assumptions about the studied phenomena (for instance that the BoP environment has an influence on SCIA). However, my vision is to create knowledge by understanding the phenomenon and its context.

Saunders et al. (2007) explain that pragmatism is a third position that can be taken besides purely objectivism or subjectivism. Pragmatism emphasizes that the choice between objectivism and subjectivism is mainly dependent on the research question at hand, meaning that for some research questions one of them may be better than the other and vice versa. Hence, my ontological position could be considered close to pragmatism. Furthermore, Saunders et al. (2007) also explain that critical realism implies the belief that what the mind sees is “images of the things in the real world, not the things directly” (Saunders et al., 2007, pp. 105), and that such reality cannot be understood independently of the “social actors involved in the knowledge derivation process” (Saunders et al., 2007, pp. 105). Hence, I consider myself to be close to critical realism.

2.2 The investigation design

Investigation design is often also referred to as methodology. Common areas to ponder about is whether the research takes an analytical, systems or actors approach, uses an inductive, deductive or abductive approach, is a qualitative or quantitative study and whether the study is explorative, descriptive, explanatory or normative (Björklund and Paulsson, 2014). These areas will hence be defined for this study next.

2.2.1 Methodological approach

According to Arbnor and Bjerke (2009) there are three methodological views: the analytical view, the systems view and the actors view. When the methodological view is applied, they refer to it as an approach.

In the analytical view, reality is viewed as factive, containing both objective and subjective facts, and both types of facts are considered true (Arbnor and Bjerke, 2009), which can therefore be connected to what is described as realism as well as positivism in table 2.2 above. Reality is also viewed as summative, meaning different components of it can be examined and summed without them influencing each other (Arbnor and Bjerke, 2009). In the actors view, reality is viewed as a social construct, dependent on humans (Arbnor and Bjerke, 2009), which can hence be connected to what is described as nominalism as well as non-positivism in table 2.2 above. Reality is hence not considered objective since the researchers own interpretations impact the knowledge creation (Gammelgaard, 2004). Finally, in the systems view, all phenomena are viewed as systems, consisting of a network of different components. The ambition of the systems approach is twofold; to explain a phenomenon by describing it as it is, or/and to understand it by making interpretations about it. In the systems view, the system as a whole influences the way its components exist, thus examining each component alone without examining the interrelations between them does not make sense in the systems approach. (Arbnor and Bjerke, 2009). The systems view could thus be connected to a middle position in the extremes described in table 2.2 above.

2.2.1.1 The chosen methodological approach - Systems approach

The author of this thesis views the phenomenon as a system that is to be studied (see figure 1.1). The components of the chosen phenomenon in this study can not be viewed in isolation and the relationships between them play a major role for the outcome. Reality is hence also not viewed as a social construct, but is viewed as a system of interlinked components. Furthermore, given the aim of the thesis, explaining reality alone is not enough but understanding it and creating a base for improvement and problem solving is needed since the aim is to create a conceptual framework. Furthermore, in relation to the discussion in 2.1 regarding where the author stands on the ontology and epistemology dimensions, the systems approach prefers the researcher to be outside of the phenomenon, which is in line with what the author believes in. The systems view is hence considered suitable for this thesis by the author and a systems approach will further be used.

2.2.2 Methodological reasoning

2.2.2.1 Quantitative versus qualitative approach

Kotzab et al. (2005, pp. 19) explain that “qualitative and quantitative research approaches are not substitutes for one another; rather they observe different aspects of the same reality”. Furthermore, Ketokivi and Choi (2014) suggest using the meaning of the terms qualitative and quantitative when defining these two approaches. Table 2.3 presents the suggested definition presented by (Ketokivi and Choi, 2014).

Table 2.3: Suggested definitions of quantitative and qualitative research approaches by (Ketokivi and Choi, 2014 pp. 233).

<i>Qualitative approach</i>	<i>Quantitative approach</i>
“Research approach that examines concepts in terms of their meaning and interpretation in specific contexts of inquiry.”	“Research approach that examines concepts in terms of amount, intensity, or frequency.”

Näslund (2002, pp. 321) further explains that “the nature of the problem and the goals of the researcher should guide the research methodology” and means that this will build the foundation for the choice of the qualitative or quantitative approach or even a combination of them.

This thesis studies the meaning and interpretation of the concept of SCIA in the specific context of the BoP. Hence, by the definition given by Ketokivi and Choi (2014), the qualitative approach seems adequate. As mentioned in the introduction, not much literature can be found on the intersection of SCIA and the BoP. One could hence argue that this study examines a relatively known concept (SCIA) in a new context (the BoP), which is a type of phenomenon study that is argued by Kotzab et al. (2005) to be suitable for a qualitative approach.

2.2.2.2 Inductive, deductive or abductive research process

There are three specific logical paths of inference that constitute the foundation of a research process: the deductive, inductive and abductive approach (Woo et al., 2017). The deductive research process is typically used in combination with the quantitative approach whereas the inductive research process is often used with the qualitative approach (Kotzab et al., 2005). However, most of the important progress made in science stems from research combining both inductive and deductive characteristics. This type of research approach is what is referred to as the abductive approach (Kovács and Spens, 2005). This approach focuses on “explanation and the development of theories concerning the reason for phenomena” (Woo et al., 2017 pp. 257). Kotzab et al. (2005) also discuss the research process integrating both inductive/qualitative and deductive/quantitative approaches, which they call a balanced approach. They mean that “an inductive approach is often needed to begin to understand and generate substantive theory about new and/or complex phenomena while a deductive approach is better for developing and then testing formal theory” (Kotzab et al., 2005 pp. 23). They further mean that a balance will be obtained by going back and forth between the two approaches.

2.2.2.3 The chosen methodological reasoning approach - abductive

This study will follow the abductive research process as it is argued by Ketokivi and Choi (2014) to be suitable for theory elaboration efforts, which this study aims for. The research process followed in this study is summarized below in figure 2.1. Theory elaboration has the aim of understanding general theory from a contextualized perspective (Ketokivi and Choi, 2014). In this study, the general theory corresponds to SCIA theory and the specific context in the BoP environment. Furthermore, theory elaboration can be achieved by introducing new concepts, thorough examination of interlinking relationship of concepts or investigating boundary conditions (Ketokivi and Choi, 2014). This study will attempt both introducing new concepts as there currently exists limited research on the intersection of the topics SCIA and BoP, as well as examination of the interlinking relationships of concepts as the ambition is to understand how the BoP environment affects SCIA. Empirical data and literature will hence be utilized together to identify and discuss concepts, which is in line with Ketokivi and Choi (2014, pp. 236) as they explain that “one can think of theory elaboration as disciplined iteration between general theory and the empirical data”.

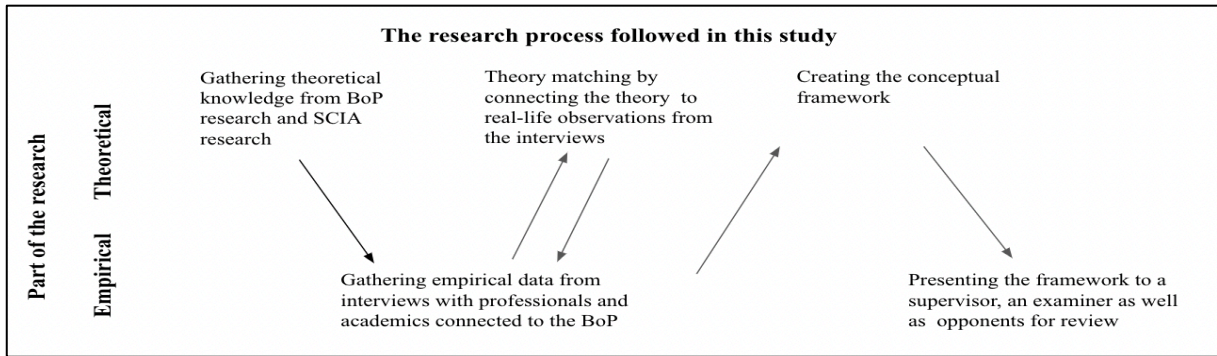


Figure 2.1: The research process followed in this study.

2.2.3 Type of research

Table 2.4 explains the four types of research based on Björklund and Paulsson's (2014) description.

Table 2.4: A description of the different forms of research based on Björklund and Paulsson (2014).

Form of study	Description
<i>Explorative</i>	Explorative studies are conducted with the aim of creating a fundamental understanding of a phenomena since there exists limited knowledge about it.
<i>Descriptive</i>	Descriptive studies are conducted with the aim of describing a phenomena and there already exists fundamental knowledge about it.
<i>Explanatory</i>	Explanatory studies are conducted with the aim of describing as well as explaining a phenomena in order to create a deeper understanding about it.
<i>Normative</i>	Normative studies are conducted with the aim of creating and proposing guidance on the studied phenomena and there already exists fundamental knowledge as well as understanding about it.

SC incentives and SCIA is not a new concept, and neither is the BoP. However, SCIA is not a mainstream topic, hence it could be considered to have existing fundamental knowledge about it while the BoP on the other hand could be considered to have existing deep knowledge and understanding about it. However, the studied area which is the intersection of these two areas is not as theoretically or empirically developed. Hence, this thesis can be considered to be explorative since an emphasis is put on creating a fundamental understanding in order to find patterns and linkages within it.

The form of the study can also have an implication on the choice of research approach. Kasanen et al. (1993) present a chart where the type of study can guide the choice of approach, however, they only include the normative and descriptive types. The two study types, descriptive and normative, form one of the axes included in Kasanen et al.'s (1993) chart, while theoretical versus empirical studies form the second axis. It should be noted that Kasanen et al. (1993) were discussing accounting research in their article. Nonetheless, they provide important guidance on different approaches, hence their chart is presented in figure 2.2 below.

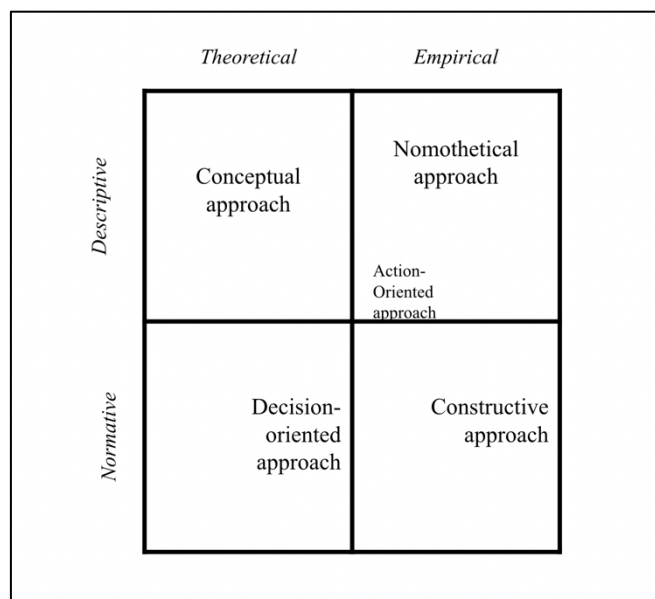


Figure 2.2: Different research approaches and their placement in the descriptive/normative and theoretical/empirical dimensions, given by Kasanen et al. (1993).

Since this thesis is explorative it could be considered to fall under the dimension of descriptive studies in Kasanen et al.'s (1993) chart. Furthermore, this thesis takes a theoretical path, hence according to the chart, this thesis should adopt the conceptual approach. The conceptual approach which is placed in the theoretical/ descriptive dimension has the aim of building new knowledge (Kasanen et al.,1993), which is in line with the aim of the study and the aim of theory elaboration efforts.

2.3 The research method

2.3.1 Qualitative method to a Conceptual framework

As mentioned earlier, the desired outcome of this master thesis is a conceptual framework that can help explain the phenomenon of SCIA in the specific context of the BoP environment. The chosen research method in this study is aligned with the desired outcome, the qualitative characteristic as well as the conceptual path of this study. The chosen method is Jabareen's (2009) qualitative method to create a conceptual framework. He explains that a concept has a story and is defined by its components, which in turn could originate from other concepts, since it cannot be built from nothing. A concept needs to be understood from several perspectives, more specifically, in relation to its components, in relation to other concepts, in relation to its context and in relation to the challenge it is intended to solve (Jabareen, 2009). Jabareen (2009, pp. 50) means that "conceptual frameworks are products of qualitative processes of theorization" and further defines a conceptual framework as "a network, or "a plane," of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena." (Jabareen, 2009, pp. 51). Each step of the method will be further explained in detail in the following sections. The steps of the method can be seen in table 2.5 below, where the right column shows the corresponding section of the report where the steps are implemented.

Table 2.5: A qualitative method for creating a conceptual framework (Jabareen, 2009).

Qualitative method for building a conceptual framework by Jabareen (2009)		Corresponding report section
Phase 1	Mapping the selected data sources (texts and interviews)	Appendix A and F
Phase 2	Extensive reading and categorization of the selected data	Chapter 3 and 4
Phase 3	Identifying and naming concepts	Chapter 5 and Appendix G
Phase 4	Deconstructing and categorizing the concepts	Chapter 6
Phase 5	Integrating concepts	Chapter 6
Phase 6	Synthesis, resynthesis, and making it all make sense	Chapter 6
Phase 7	Validating the framework	Chapter 6
Phase 8	Rethinking the conceptual framework	(Chapter 7)

2.3.1.1 Phase 1 - Mapping the selected data sources

In the first phase of Jabareen's (2009) the task is to conduct a mapping of the existing multidisciplinary literature about the phenomenon in question, which in this study translates to SCIA in BoP environments. He further suggests to map out opportunities for interviews with professionals and academics connected to the studied phenomenon. The first phase should hence result in a comprehensive amount of data sources that covers the phenomenon from several perspectives to ensure validity (Jabareen, 2009). In regards to how the first phase is implemented in this study, a broad mapping and initial categorization of various texts was conducted. The initial categorization was created by reading the introduction and findings of each relevant report. The initial categorization of literature can be seen in Appendix A. Furthermore, as an initial step in mapping interview opportunities, the author's relevant contacts were asked if they have any acquaintances working or studying areas related to the BoP or if they are familiar with organizations working within this area. In the meantime a mapping of organizations and individuals was also done by searching online and reading about different organizations. The business focused social media platform LinkedIn was used when searching for relevant individuals working in the organizations of interest. A table of all contacted organizations can be found in Appendix B.

2.3.1.2 Phase 2 - Extensive reading and categorization of the selected data

Jabareen (2009) explains that the aim of the second phase is to read the literature found in phase one and to categorize it. He further suggests that the categorization should be done by discipline and degree of importance within the discipline. A theory study has been conducted by reviewing literature from various categories identified in phase one. However, instead of categorizing the literature into different disciplines in phase two, the categorization was instead done in alignment with the studied system shown in figure 1.1 as well as the RQ:s of this study (found in table 2.1). The categorization hence consists of four general areas: the BoP approach (section 3.1), the BoP environment (section 3.2), SCM in BoP environments (section 3.3) and finally SCIA (section 3.4).

The result of the second phase in terms of the selected literature was 32 implications from the BoP environment on the SC:s of MNC:s categorized into six *General categories of implications* (presented in table 3.11), and in turn the conclusion of RQ1. The second phase also resulted in

the creation of the guiding framework presented in figure 3.3. The framework further produced eight areas of investigation (five problem areas and three solution areas) that are of interest for further examination by the empirical data, which in turn formed the matrix of said eight areas of investigation (presented in figure 3.4). The guiding framework and the matrix furthermore posed as the basis when the interview guides (presented in Appendix C, D and E) were created as preparation for the interviews with the selected individuals and organizations (presented in Appendix F). The results (empirical data) of the interviews are presented in chapter four along with additional data related to the organization or interview person in question. An initial categorization was done when presenting the data from the interview by categorizing the data in accordance with the eight areas of investigation.

2.3.1.3 Phase 3 - Identifying and naming concepts, Phase 4 - Deconstructing and categorizing the concepts and Phase 5 - Integrating concepts

The third phase of Jabareen's (2009) method has the purpose of creating a list of concepts by reading the selected data again and detecting emerging concepts from it. The idea is to list all found concepts whether they are contradictory or competing with one another. Next, the fourth phase aims for creating a table with four columns; "the first includes the names of the concepts; the second includes a description of each concept; the third categorizes each concept according to its ontological, epistemological, or methodological role; and the fourth presents the references for each concept" (Jabareen, 2009, pp. 54). The methodological role of concepts is considered irrelevant for the aim of this study and will hence not be included in the table. Finally, the fifth phase of Jabareen's (2009) suggested method is to merge concepts that are related to each other, in order to reduce the number of concepts.

To conduct phase three, four and five in accordance with qualitative data analysis, ideas from Gioia et al. (2013) will be utilized as they explain how to create a data structure. Gioia et al. (2013, pp. 20) explain that the data structure "not only allows us to configure our data into a sensible visual aid, it also provides a graphic representation of how we progressed from raw data to terms and themes in conducting the analyses—a key component of demonstrating rigor in qualitative research".

Gioia et al. (2013) mention that the first step of creating a data structure includes extracting categories, which are often high in number due to the minimal filtering done in this first step as well as the inclusion of all the important terms. This step is presented in summarizing tables in Appendix G of the literature and empirical data for each of the eight investigation areas, visualized as rows in the tables (categories) to facilitate an easier overview as well as foundation for the identifying of concepts.

Gioia et al. (2013) explains that in the next step the researcher will start to seek similarities and differences in the categories (which in turn reduces the number of categories) and to examine the reduced categories on various levels such as on a deeper and more theoretical and abstract level as well as at the practical level of the important terms. The result from this second-order analysis is to identify themes from the grouping of the reduced categories that can "explain the phenomena we are observing" (Gioia et al., 2013, pp. 20). The themes in this study are denominated concepts. The above described step is conducted by grouping the data (categories) in Appendix G for each area of investigation and placing them together in order to identify concepts (in accordance with the third and fourth phase of Jabareen's (2009) method). Each area of investigation was firstly examined by identifying concepts from the empirical data and secondly from the literature. In total, 33 concepts (18 problem concepts and 15 solution

concepts) were identified from the empirical data as well as the literature, which are presented in the analysis chapter (chapter five) categorized under their corresponding area of investigation. Each area of investigation was concluded in accordance with phase four by Jabareen (2009), by creating tables that include three columns; the name of the concept, a description of the concept as well as their references.

The final step of creating a data structure according to Gioia et al. (2013) is condensing the second-order themes (denominated concepts in this study) into aggregate dimensions. This step is aligned with the fifth phase of Jabareen's (2009) suggested method for creating a conceptual framework. Before integrating the problem concepts into aggregate dimensions, the problem concepts were connected to the solution problems and illustrated by filling out the matrix of the eight areas of investigation (figure 6.1) originally presented in figure 3.4. This step is also in line with the theory elaboration process as it entails both introducing new concepts as well as examination of the interlinking relationships of concepts, through iterations between the gathered general theory and the empirical data (Ketokivi and Choi, 2014). The integration into aggregate dimensions was then conducted by combining the 18 problem concepts into 7 problem dimensions (presented in figure 6.2) of influence on SCIA in BoP environments.

2.3.1.4 Phase 6 - Synthesis, resynthesis, and making it all make sense

In the sixth step of the method of creating conceptual frameworks suggested by Jabareen (2009) is where the framework gets produced. The process includes synthesizing the found and emerged concepts into a framework, and doing so iteratively until a reasonable and understandable framework is created. Jabareen (2009) further emphasizes that the creator of the framework should be patient and open minded when engaging in the process in order to achieve the desired results. In this study, phase six is implemented by taking inspiration from the seven identified problem dimensions and their corresponding SCIA solutions. The dimensions were further categorized into environmental versus relational ones and illustrated accordingly in the framework. Alterations and iterations were made until a reasonable and easily understood version of the framework was created. The final framework is presented in figure 6.11. The practical implication of the framework is also provided in section 6.4.

2.3.1.5 Phase 7 - Validating the framework

The seventh phase of the method of creating a conceptual framework presented by Jabareen (2009) is seeking validation from professionals and academics. The aim is to examine whether the created framework is understandable for not only the creator but also individuals studying the phenomena that the framework aims to describe. An example of how to receive validation includes presenting the framework at a seminar. The validation of the conceptual framework created in this study is conducted in two parts. Firstly, the supervisor of this thesis reviews the created framework and provides feedback, in which the author will get a sense of whether the framework makes sense. Secondly, the framework is presented to an examiner as well as opponents and other audiences present during the final seminar of the master thesis after which any comments will be taken into consideration. However, a limitation to consider is that the framework is not presented to practitioners and researchers active in the specific field of the BoP.

2.3.1.6 Phase 8 - Rethinking the conceptual framework

Jabareen (2009) concludes his description of the method by mentioning the dynamic nature of theory that targets multidisciplinary phenomena and needs to be open to new input. Although this phase of the method is difficult to adapt since this study represents a master thesis, meaning the author will not maintain the framework moving forward, the hope is that the created framework reaches several disciplines and stays dynamic by the input of practitioners and academics.

2.4 The practical approach

The practical approach impacts the identification of information needed, the collection of the needed information and the structure of the obtained information. Furthermore, several aspects should be considered such as how to ensure critical thinking, credibility, reliability and objectivity. (Björklund and Paulsson, 2014)

2.4.1 Data sources

2.4.1.1 Litterature

When secondary data is used, it is important to reflect upon factors such as the date of the publication, biases in the literature, originality of the information as well as the diversity and independence of the sources (Björklund and Paulsson, 2014).

The majority of the search for literature was done through the database LUBSearch (the search engine of Lund University Libraries) which partially or fully includes a great number of databases such as Emerald, EBSCOhost and Britannica Academic, as well as through Google Scholar (a web search engine for scholarly literature). The main and holistic level search words were *Bottom of the pyramid*, *Base of the Pyramid*, *Supply chain management* and *Bottom of the pyramid*, *Supply chain* and *Bottom of the pyramid*, *Logistics* and *Bottom of the pyramid*. The found literature from the mentioned searches further enabled the use of more specific search words. An idea of the search words utilized can be found in Appendix A that presents an overview of the initial categorization of the literature when it was first gathered.

With regards to the date of the publication of the literature, it depends on the topic in question. The majority of the research on BoP is published within the past ten years except a few of the research articles used. With regards to the literature concerning SCM, the date of publication is more diverse. Furthermore, the body of the literature in this study is based on research articles, whereas additional details were collected from websites of trustworthy organizations (such as UN organizations and The World Bank) as well as a few books when needed. With regards to the diversity and independence of the data, the journals from which the research articles originate are diverse and include journals of e.g. logistics, physical distribution, production, operational management, process management, supply chain management, business ethics, organizational management, human resources, sociology, economy and environment.

2.4.1.2 Interviews

As mentioned earlier, Jabareen (2009) suggests conducting interviews as part of the data collection phase in combination with the literature. Table 2.7 below shows an overview of the conducted interviews including the roles of the interview persons, the organization as well as

the country or area that their information is related to. In the report, the roles of the interview persons will be used instead of their names as the roles can be argued to be more interesting than the names. However, Appendix F presents an overview of all interview persons including their names as well as the date of the interview. To further provide an overview of the countries that the data from the interviews is connected to, a summary of country specific information is provided in Appendix H for the countries in Asia and Appendix I for the countries in Africa.

As mentioned in the background chapter, data is to be collected from several types of actors such as BoP actors, NGO:s and MNC:s, hence this was the objective when searching for contacts to interview. As can be seen in table 2.7, the interviews obtained are from MNC:s as well as nonprofits, social enterprises and local companies operating in BoP environments. Lastly, an expert interview was conducted with a professional from academia to capture the academic point of view as well. Each interview lasted around one hour and was conducted online through a video call except for with SOS Children's Village Mozambique which was conducted through a written interview. Introduction to each of the organizations and interviewees in the interviews will be given before presenting the data from each interview in chapter four. Furthermore, the interview guides can be found in Appendix C for the interviews with MNC:s, Appendix D for the interviews with local actors and Appendix E for expert input interviews.

Table 2.7: Overview of the conducted interviews including the role of the interview person, the organization, the country of the data.

<i>Overview of the conducted interviews</i>		
<i>MNC:s</i>		
<i>Role</i>	<i>Organization</i>	<i>Country of the data</i>
Partner Development Leader	IKEA of Sweden	Bangladesh, India
International Head of Sustainability	Arla Foods	Nigeria, Indonesia, Bangladesh, Ethiopia
<i>Nonprofits</i>		
<i>Role</i>	<i>Organization</i>	<i>Country of the data</i>
Coordinator of the Kurima project	SOS Children's Village Mozambique	Mozambique
Executive Secretary	Tanzania Renewable Energy Association	Tanzania
Executive Director	Social Enterprise Ghana	Ghana
<i>Social Enterprises</i>		
<i>Role</i>	<i>Organization</i>	<i>Country of the data</i>
Deputy Country Manager	One Acre Fund - Zambia	Zambia
<i>Local companies</i>		
<i>Role</i>	<i>Organization</i>	<i>Country of the data</i>
Managing Director	ENSOL LTD.	Tanzania
<i>Academia</i>		
<i>Role</i>	<i>Institution</i>	<i>Country of the data</i>
Research Assistant	University of Kassel in Germany, Chair of Supply Chain Management	N/A General BoP

2.4.2 Research quality

Björklund and Paulsson (2014) note that credibility in a research is composed of the three measures validity, reliability and objectivity. Halldorson and Aastorp (2003) on the other hand highlight the four research quality criterias credibility, transferability, dependability and confirmability for creating trustworthiness in qualitative research (especially in the field of logistics), as parallels to the “traditional” criterias of validity, reliability and objectivity which are often used in combination with quantitative research. Hence, the four criterias mentioned by Halldorson and Aastorp (2003) will be described in the following sections including discussion of how they are implemented in this study to achieve trustworthiness.

2.4.2.1 Credibility

The first dimension of trustworthiness is credibility which is a parallel to the traditional research quality criteria of internal validity (Halldorson and Aastorp, 2003). Björklund and Paulsson (2014) generally describe validity as the degree of the study’s correctness. For instance, when interviews are utilized, it is important for the validity of the study to specify the target group as

well as define specific questions (Björklund and Paulsson, 2014). Halldorson and Aastorp (2003) further emphasize the role of the interviewees and respondents included in a qualitative research and mean that they are the ones falsifying and correcting the idea of reality created by the researcher. The authors explain that it is “the degree of match between the respondents' constructions and researchers' representation of these that determines credibility “ (Halldorson and Aastorp, 2003, pp. 327).

In order to lay the foundation for the credibility in this study and to ensure a match between the interviewees' constructions and my representation of these, all interview data was sent to the interviewees for reading and verifying that the all discussed ideas were captured and described in a correct way. The presented interview data in chapter four presents the approved versions. However, the interviewees have a strong influence on the concepts found as for instance if other interviewees were selected (and consequently have different experiences), the identified concepts might vary from the ones identified in this study. Hence, in order to counteract the heavy dependency on the interviews, literature and data related to the regions from which the data is extracted is utilized as much as possible to back up the arguments made by the interviewees and to create a greater generalization of the results.

2.4.2.2 Transferability

Another dimension of trustworthiness is the criteria of transferability, which is a parallel to the traditional research quality criteria of external validity (often described as a generalization measure). Transferability concerns the degree to which the research can produce general claims about reality (Halldorson and Aastorp, 2003). Halldorson and Aastorp (2003, pp. 327) further emphasize that although “both time and space constitute a major constraint in generalizing findings”, it does not imply that findings emerged from one context and time cannot be applied to other contexts and periods of time.

As mentioned in the introduction of this study, lack of theoretical generalization is common in BoP literature, as stated by Basu et al. (2021). Hence, attempting to achieve generalizable findings is of importance in this study to contribute to the mentioned lack of generalized theory.

With regards to the space aspect, the empirical data is connected to nine different countries, which could be a beneficial factor for the generalization for instance when several interviews from several regions point towards the same finding. Hence, in order to create generalizable results from it, the observations were attempted to be confirmed either through the literature, secondary data or as mentioned above through observations from other cases. Another note is that the main literature was focused on the BoP environment in general and its implications, which further contributed to the generalization of findings. With regards to the time aspect, the data related to the BoP could be argued to be more time sensitive than the SCM literature. As mentioned earlier, most of the literature regarding the BoP environment originates from the past ten years except a few of the research articles used. Furthermore, the empirical data as well as secondary data regarding the countries of origin of the data provides insights from the present time.

2.4.2.3 Dependability

The third trustworthiness dimension is referred to as dependability, which is a parallel to the traditional research quality criteria of reliability (Halldorson and Aastorp, 2003). Reliability

describes the degree to which the same result is achieved if a study is repeated (Björklund and Paulsson, 2014). Halldorson and Aastorp (2003) however highlights that dependability further takes into account the view that changes in design and constructs can be valuable, provided that they are clearly trackable and inspectable. In order to create dependability, descriptions of the logic behind decisions made throughout the study were provided to facilitate the inspection of the design and construction of the study.

2.4.2.4 Confirmability

Confirmability is the final dimension of trustworthiness and is a parallel to the traditional research quality criteria of objectivity (Halldorson and Aastorp, 2003). Objectivity is related to the degree of which personal opinions influence the study, hence for instance clarifying the choices made during the study is hence important for obtaining objectivity (Björklund and Paulsson, 2014). Confirmability further emphasizes that the researcher should clearly show that the findings are confirmable by the data used to obtain them, meaning that “conclusions, interpretations, and recommendations are to be traced back to their sources” (Halldorson and Aastorp, 2003, pp. 328).

In order to achieve confirmability, an emphasis was placed on creating trackability of all paths to arguments and findings. For instance, when creating the summarizing tables in Appendix G, the data originating from the theory chapter and the empirical data chapter was barely altered from its original state to showcase the exact data from which the ideas of the concepts emerged. The same logic was utilized when constructing the illustration of the concepts (table 2.6) which are presented in the analysis chapter, to facilitate for the reader to easily recognize the data (from earlier read chapters) and to verify the arguments made. Showcasing the references to all data throughout the analysis furthermore allows the reader to trace the data and judge whether the findings are confirmable by the data used to obtain them. Furthermore, identifiers (in the format X.Y, where X corresponds to the area of investigation and Y to the number of the concept in said area) for each concept are utilized to create a higher trackability.

2.5 Summary of the methodology chapter

Table 2.8 below presents a final overview of the methodological choices in this study.

Table 2.8: Overview of the methodological choices followed in this study.

<i>Overview of the methodological choices followed in this study</i>	
<i>Scientific approach</i>	Pragmatism Critical realism
<i>Methodological approach</i>	Systems approach
<i>Methodological reasoning</i>	Qualitative
<i>Research process</i>	Abductive research process
<i>Type of research</i>	Explorative
<i>Research approach</i>	Conceptual approach
<i>Research method</i>	Qualitative method to a conceptual framework by Jabareen (2009)
<i>Data sources</i>	Literature Interviews
<i>Research quality criterias</i>	Credibility
	Transferability
	Dependability
	Confirmability

3 THEORY

The theory chapter provides the theoretical background of this study. The structure of the presented theory is mainly inspired by the studied system (regiven in figure 3.1 below). Hence, the theory is categorized into four general areas. The first area that will be discussed is the BoP approach, followed by the BoP environment and its characteristics, the influence of the BoP environment on the SC:s of MNC:s and finally a theoretical background to SCIA. The chapter is concluded by the finalizing of RQ1 and the creation of the guiding framework as well as the matrix of the eight areas of investigation that the empirical data gathering will be based on. The theory chapter corresponds to the first part of phase two of the method followed in this study.

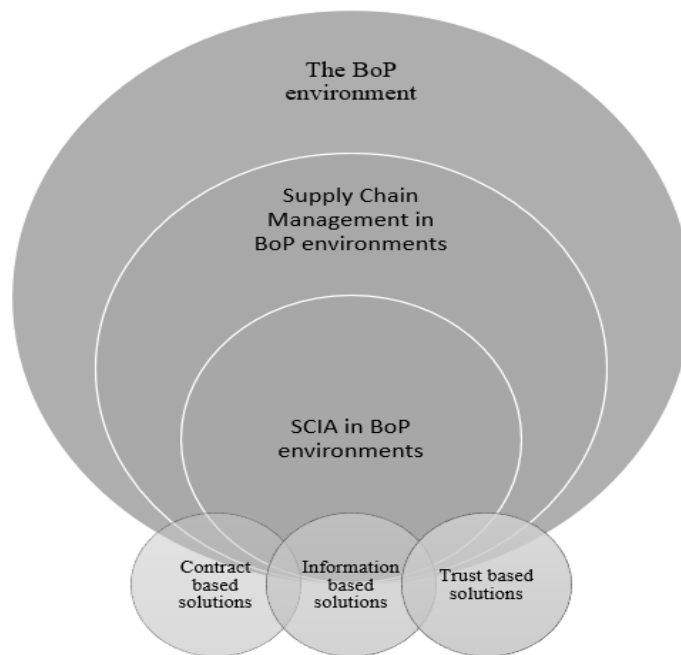


Figure 3.1: The studied system.

3.1 The BoP approach

The BoP approach originates from the article *The fortune at the bottom of the pyramid*, published in the journal *Strategy+Business* in 2002 and written by the authors Prahalad and Hart (Borchardt et al., 2020; Gupta and Khilji, 2013). The approach became further popularized by the book *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits* which was published 2004 and was also written by Prahalad (Fawcett and Waller, 2015).

Since then, several versions of the BoP approach have been developed. However, when viewing literature on the BoP approach, such as when this theoretical chapter was conducted, it is often not stated which version of the BoP approach that is being attempted or studied. Nevertheless, much can be learned from understanding the history of the approach and what triggered the development of the several versions and their improvements.³

³ Three articles were found that studied and described the four different approaches and these will hence build the base for the below introduction to the development of the BoP approach.

3.1.1 BoP 1.0 - Finding fortune

The first version of the BoP approach, referred to as *BoP 1.0* and *finding fortune*, originates from the above mentioned book, *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits* by Prahalad (Borchardt et al., 2020). This version of the BoP approach is based on the idea that the BoP population collectively can form a consumer base for MNC:s to profit from (Borchardt et al., 2020), by offering them goods that meet their needs at a low affordable price (Gupta and Khilji, 2013). BoP 1.0 initiatives included extended distribution channels (Gupta and Khilji, 2013) and top-down strategies such as for instance redesigning existing products produced by MNC:s and selling them for a lower price by reducing the product size to for instance single use packages (Chmielewski et al., 2020). It also included that MNC:s engaged in unconventional partnerships such as with governments and NGO:s (Gupta and Khilji, 2013).

Criticism and questionable results accompanied the first version of the BoP approach (Chmielewski et al., 2020; Gupta and Khilji, 2013). An example of criticism to the BoP 1.0 approach is lack of engagement with the BoP population itself (Gupta and Khilji, 2013). Another aspect is that poverty alleviation is not put in focus, and instead the MNC:s objective of selling is put in the center (Borchardt et al., 2020; Gupta and Khilji, 2013). The social and environmental aspect has also been criticized, since the social impact is not actually being addressed and instead MNC:s simply assume that by selling to the poor a positive social impact is created (Borchardt et al., 2020). The environmental aspect is also not taken care of properly and even a negative environmental impact was observed (Chmielewski et al., 2020), through for instance pollution due to packaging and waste (Borchardt et al., 2020). Due to the poor results and criticism of BoP 1.0, new versions had to emerge (Chmielewski et al., 2020) that take a broader stand of the entire SC (Gupta and Khilji, 2013).

3.1.2 BoP 2.0 - Creating fortune

The second version of the BoP approach is referred to as BoP 2.0 and *creating fortune* (Borchardt et al., 2020). This version puts more emphasis on empowering the local communities and engaging them in doing business instead of just selling to them (Chmielewski et al., 2020). The core idea of this approach is value creation and taking a broader stand by viewing the approach from “a value chain perspective” (Borchardt et al., 2020, pp.174). By including the population as business actors and partners such as suppliers, distributors, service providers and innovators (Borchardt et al., 2020), the BoP population is intended to be included in the global SC (Gupta and Khilji, 2013). Involving local actors in the distribution process of the SC appeared particularly favorable for inclusion of the BoP into global SC:s (Borchardt et al., 2020).

Instead of the top-down strategies that were utilized in BoP 1.0, bottom-up approaches are included in BoP 2.0. Value co-creation and co-designing with the BoP population are hence examples of strategies used in the second version of the BoP approach (Chmielewski et al., 2020). Borchardt et al. (2020) mention that the advantages for the MNC:s would be to get access to local capabilities, and simultaneously have the role of introducing new business and SC knowledge and networks from the developed markets into the BoP. Furthermore, they explain that the role of BoP partners would be to facilitate local network connections that in turn facilitate improved organization of the SC. The poverty alleviation objective is considered to be generated by increasing and creating incomes in the BoP through the involvement of the BoP population in the global SC (Borchardt et al., 2020).

Gupta and Khilji (2013) mention the power dynamics aspect, and argue that the power dynamics in traditional global SC:s is often not distributed evenly across the chain and the largest MNC is often given the most powerful position, leading to BoP actors being taken advantage of. They further argue that “Such global value chains compromise competitive fundamentals because incentives for the BoP are compromised.” (Gupta and Khilji, 2013, pp.12). Thus, more MNC:s are engaging in creating higher competitiveness by redesigning their role of leaders of the chains. Instead, they take on the role of facilitating value-creation throughout the entire network, by linking and sharing power among all actors in the network such as BoP actors and organizations as well as NGO:s and governmental actors (Gupta and Khilji, 2013). Borchardt et al. (2020, pp.175) argue that “this approach requires a pluralist understanding of the meaning of value from multiple perspectives, demanding different interpretations of the problems inherent to each player in the value chain”.

Although improvements were made from BoP 1.0 to BoP 2.0, neither attempt proved to be successful as most BoP 1.0 and BoP 2.0 efforts experienced failure or under-performance (Chmielewski et al., 2020). Chmielewski et al. (2020) mention two possible reasons for the poor performances. The first reason is the used definition of poverty in BoP literature, which is often the monetary definition using global poverty lines. They mention for instance that BoP literature often uses the World Bank’s definition of poverty, which is living on less than \$1.90 per day. However it should be noted that as of September 2022, the new extreme poverty line set by the World Bank is \$2.15 per day, and it replaces the old poverty line of \$1.90 per day (The World Bank, 2022). Chmielewski et al. (2020) mean that the use of the monetary definition of poverty by itself is troubling since it diminishes the complexity of poverty which includes various aspects and issues. Casado Caneque and Hart (2017) also mention the complexity aspect and argue that scaling down the complexity of the BoP environment is problematic and could lead to failure. Borchardt et al. (2020) further point out an important note:

Most of the examples in the literature address the symptoms, rather than the cause, of poor health and wealth at the BoP. For example, when a community lacks access to clean water due to pollution, the common solution is to sell drinking water at an affordable price to this community, instead of addressing the cause and promoting actions to stop polluting the water in the first place.

- Borchardt et al. (2020, pp. 175)

The second reason for failure of the BoP 1.0 and BoP 2.0 approaches that Chmielewski et al. (2020) mention, is the *mind-set of thinking that the BoP is similar to the markets in the top of the pyramid, i.e the developed markets*. This mind-set encourages organizations to treat new ventures in the same way they are treated in the developed markets, which the authors believe will lead to under-performance. The poor performance of the BoP 1.0 and BoP 2.0 call for further improvement and approaches that take a bigger responsibility for inclusion and proper poverty alleviation (Chmielewski et al., 2020).

3.1.3 BoP 3.0 - Sharing fortune

The third version of the BoP approach is referred to as BoP 3.0 and *sharing fortune* (Borchardt et al., 2020). Chmielewski et al. (2020) mention that the BoP 3.0 pushes towards a broader and more complex understanding of poverty. They further mention that several more perspectives, besides the monetary perspective of poverty, should be included. Poverty should also be

perceived from a cultural, political, emotional and social perspective (Chmielewski et al., 2020).

The BoP 3.0 version is based on the idea that MNC:s should compensate for their negative impact seen in the previous versions of the BoP approach, by sharing their wealth and profits with the BoP communities (Borchardt et al., 2020). Borchardt et al. (2020, pp.175) explains that “sharing fortune with BoP communities reduces the volatility of global markets, mitigates risks related to crime and terrorism and enhances income and employment creation in BoP clusters”. Gupta and Khilji (2013) further note that in BoP communities where informal markets are present, the local context and social context is of great importance. In contrast, the context of the global economy that permeates the MNC:s might not be as appealing in the BoP. They further mean that it is in the interest of MNC:s to share their wealth with the communities, since this might be in line with the hospitality spirit that is often encountered in the local context of the BoP. In practice, the BoP 3.0 translated for MNC:s to “take over functions which have typically been associated with governments and the welfare state, such as philanthropic corporate activities and welfare, in addition to their role as employers” (Borchardt et al., 2020, pp. 175).

Sustainability is a key area in BoP 3.0. It should however be noted that the term sustainability is not defined for the BoP context in BoP literature. Different definitions and use of the term are however present (Borchardt et al., 2020). Examples of sustainability interpretations in BoP literature are according to Borchardt et al. (2020) sustainability in product/service development and in SC operations. The authors however highlight the fact that sustainability seems to be connected to organizations instead of it being applied to elevate the general condition of nations. They mention for instance that in BoP 3.0 MNC:s are to engage in both local sustainability issues such as the implications of climate change in the area as well internal organizational sustainability issues, such as looking over the SC from a sustainability perspective, and doing so by collaborating with local BoP organizations.

Corporate social responsibility (CSR) is another key area that is important in BoP 3.0 (Gupta and Khilji, 2013; Borchardt et al., 2020). The United Nation Industrial Development Organization (UNIDO) (2022) defines CSR as:

Corporate Social Responsibility is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders. CSR is generally understood as being the way through which a company achieves a balance of economic, environmental and social imperatives (“Triple-Bottom-Line - Approach”), while at the same time addressing the expectations of shareholders and stakeholders.
- UNIDO (2022)

CSR initiatives in the BoP context relate to balancing the power dynamics as well as capabilities and knowledge in the global SC (Borchardt et al., 2020; Gupta and Khilji, 2013) (i.e. sharing fortune) through for instance involvement with both other commercial organizations as well as non-commercial ones (Gupta and Khilji, 2013). Such initiatives are argued to create competitive advantages for the MNC:s operating in the BoP and improving their chances of a long-term business commitment in the BoP (Gupta and Khilji, 2013). However, Borchardt et al. (2020) notes that CSR initiatives often have a philanthropic view on the BoP communities, which could restrict the objective of sharing the fortune, i.e balancing the power dynamics and treating BoP actors as significant value-creation partners. They further mention that the philanthropic view

of the communities is often used instead of the view that the communities are actors capable of driving their own development.

3.1.4 BoP 4.0 - Enabling fortune

The fourth version of the BoP approach is referred to as BoP 4.0 and *enabling fortune* (Borchardt et al., 2020). Gupta and Khilji (2013 pp.17) explain that this version is based on the idea of “recognizing the unique traditional and indigenous knowledge systems of BoP and on an ethical and pragmatic approach for enabling the BoP to take a fair share of the value when these systems are connected with global value chains” hence the focus is to create local and global knowledge systems. Borchardt et al. (2020) also mention that the BoP communities and the knowledge systems that they form are an invaluable resource that should be respected and valued properly as they are often undervalued by MNC:s. The mentioned BoP knowledge systems refer to “intellectual property such as a unified view of natural (physical, bio-scientific), social (personal, interpersonal behaviors) and spiritual (supernatural, sensory) existence” (Borchardt et al., 2020, pp.176).

In classic SCM, spiritual aspects might not be common, hence a definition of spirituality and its role in for instance organizations will be given. Jaén et al. (2021) explains that spirituality can be described as the drive within humans to live and work in a way that corresponds to a deeper meaning or purpose of life. They further explain that in organizations “leaders’ actions and values shape organizational culture, which in turn shapes an organization’s spirituality” (Jaén et al., 2021, pp. 476).

Social businesses are one example of a practice that can contribute to the desired outcome of BoP 4.0 and the preservation and correct utilization of BoP knowledge systems. Social businesses have the main objective of joint value creation and view the BoP as the main actor in the SC (Borchardt et al., 2020). The United Nation Development Programme (UNDP) (2014) describe social enterprises as below:

Social enterprises are commercial, market-based firms that operate to improve human well-being rather than to maximize profits, usually focusing on innovative solutions for people affected by poverty. They can take a variety of institutional forms, but commonly include organizations that pursue primarily social objectives through entrepreneurial approaches and business principles.
- UNDP (2014, pp. 10)

Inclusive businesses are a second practice that can enable the advantages of BoP 4.0 and has the main objective of increasing the capacity of BoP communities (Borchardt et al., 2020). The UNDP (2014) provide a further description of the practice:

The inclusive business model goes beyond an exclusive focus on people in poverty as a group of consumers to focus on building skills so that they can generate products and services that the market demands. Inclusive businesses think about creating shared value, about making money by increasing the size of the pie for everyone. For that to happen, the model needs to have a much broader scope than just immediate profit maximization. The new model involves creating economic value in a way that also creates value for society by addressing its needs and challenges.
- UNDP (2014, pp.14)

Borchardt et al. (2020) explain that both practices, social business and inclusive business, mix a market logic with a social logic as they take into account both demand and needs, and they both consider an environmental aspect as well in their value creation process. Another area that the authors highlight is trust-based partnerships, which they mean could contribute further to the BoP 4.0 approach. They argue that the different actors in the SC could utilize trust-based partnerships to tackle scalability problems as well as ensuring that the power dynamics are balanced.

Gupta and Khilji (2013 pp.17) mean that the fourth version of the BoP approach “offers a real possibility for uplifting the status of BoP communities from receivers (of resources) to providers of knowledge, thus restoring dignity and balance of power”. Borchardt et al. (2020) agree on that note and add that the BoP 4.0 has the potential of presenting a way to tackle complex social and ecological issues since it connects different knowledge systems from different communities and global SC:s, meaning it enables fortune that can tackle said issues. They further mean that the objective of poverty alleviation has the potential to be achieved with BoP 4.0 since the approach ensures that the low-income communities as well as their knowledge systems are included in not only global SC:s but also global SC knowledge systems. This type of inclusion could contribute to overcoming the social exclusion that often affects poor communities, as argued by the authors.

3.2 The BoP environment

This section aims to set the general context of the BoP environment. This will be done in two stages. First, a segmentation of the BoP will be conducted, in accordance with Rangan et al. (2011) who suggest segmentation as a tool for creating a fundamental understanding of the BoP population. Second, major areas and factors that are common for all BoP communities will be investigated. According to Borchardt et al. (2020), in academic BoP literature, two conditions stand out and are common for all BoP communities. The first condition is lack of resources and the second is lack of institutions (Borchardt et al., 2020). Hence, these will be the two broad areas that will be examined to further understand the general environment of the BoP.

3.2.1 Understanding the BoP population

Rangan et al. (2011) argue that a segmentation of the BoP can provide a foundation for understanding the 4 billion population that form the bottom tier of the world economy pyramid. In their report they take a look at the two dimensions: living standard and value-creation role when conducting their segmentation of the BoP. These two areas will hence be investigated as well as an additional dimension, which is the geographical location of the BoP population.

3.2.1.1 Segmentation by geographical location of the BoP population

The people of the BoP can mostly be found in two typical locations; rural areas and slums in urban areas (Casado Caneque and Hart, 2017; Rivera-Santos and Rufin, 2010). The rural areas are hard to reach not only due to the population in them being scattered but also due to lack of safety on certain routes leading to them. The level of formal education is also lower among the population. While the rural population is scattered, the slums have a dense population. These urban areas are however also hard to reach, mainly since the neighborhoods in the slums are unsafe and not everyone from outside the slums are allowed to enter. The population in the slums do not usually follow standard laws and rules, but instead they have their own logic (Casado Caneque and Hart, 2017). Due to the populations being isolated, either in rural areas

or slums, the local cultures developed in the areas become strong and important (Rivera-Santos and Rufin, 2010).

3.2.1.2 Segmentation by living standard

The four billion people that the BoP approach aims to target can be divided into three segments, when segmenting by living standard, according to Rangan et al. (2011), as presented in table 3.1.

The table indicates that the BoP population contains several realities and understanding the specific context of the targeted population within the BoP, is of great importance. For instance, the living standard is significantly different between the segment of low-income and extreme poverty, albeit both segments considered being poor. Another interesting observation when keeping in mind this study's focus on MNC:s, is the transactional behavior in the BoP which is mostly informal, in comparison to the transactional behavior of MNC:s which is presumed to be mostly formal.

Table 3.1: A segmentation of the BoP population by living standard given by Rangan et al. (2011).

<i>Characteristics of the segments</i>	<i>Life standard: Low-income</i>	<i>Life standard: Subsistence</i>	<i>Life standard: Extreme poverty</i>
<i>Quantity</i>	1.4 billion people	1.6 billion people	1 billion people
<i>Living standard</i>	\$3 - \$5 per day	\$1 - \$3 per day	Less than \$1 per day
<i>Education</i>	Secondary education Sufficient skills for the job market	Low education Low skills	Limited education Lack of skills
<i>Jobs</i>	Drivers Construction work Petty trading Low-level personnel staff in public/commercial organizations	Assistants in petty trading (in slums) Temporary workers in farms, during sowing/harvesting season (in rural areas) Day/temporary work	Barter economies Bonded laborers Uncertainty and challenges of life hinders taking part of consumption and production in organized economies
<i>Transaction behavior</i>	Formal and informal	Informal (both for consumers and producers) No bank accounts or credit - moneylenders can exploit this segment with great levels of rates	Transaction of irregular patterns even in comparison with informal markets
<i>Assets</i>	Consumer goods Television Phones Bicycles	One square meal per day (insufficient nutritions in meals)	- (Some receive aid from NGO:s and government)
<i>Needs</i>	Good housing Access to credit Access to health care	Good sanitation Access to health care Access to education Better employment as incomes are irregular Affordable goods	Basic needs Food Clean water Housing Education

3.2.1.3 Segmentation by value-creation role

Rangan et al. (2011) argue that by examining multiple organizations over a long time, they have found that the organizations that succeed at creating both private and public value, are those

who have an adequate sense of their electors. They further suggest that this can be done through segmentation and suggest starting with the segmentation presented in table 2.1, which is the segmentation by living standard. They also present another type of segmentation of the BoP based on value-creation roles. They argue that organizations need to understand the different roles encountered in the BoP, with regards to value-creation. The different segments and their description can be found in table 3.2:

Table 3.2: A segmentation of the BoP population by value creation role, given by Rangan et al. (2011).

<i>Details of the segments</i>	<i>Value-creation role: Consumer</i>	<i>Value-creation role: Co-producer</i>	<i>Value-creation role: Client</i>
<i>Description</i>	<ul style="list-style-type: none"> Organizations can create value by providing the needed services. Value creation can also be achieved by innovatively offering goods and services at much lower prices and of much better quality. The increased accessibility leads to increased volumes of consumption and profits. 	<ul style="list-style-type: none"> Organizations (e.g. MNC:s) can provide guidance and knowledge to elevate the outcome of BoP actors' work to later hand out a higher reward. When guidance and training is provided, the BoP population can participate in several parts of a SC such as production, distribution and retailing. 	<ul style="list-style-type: none"> The client role applies to a great part of the BoP. The people taking this role need agents such as governments, NGO:s or commercial enterprises, to provide resources for them.
<i>Corresponding life-standard segment</i>	<ul style="list-style-type: none"> The low-income segment is best suited since this segment has the most resources in the BoP. 	<ul style="list-style-type: none"> The subsistence segment is best suited since this segment eagerly seeks to improve their income, hence increasing their work outcome and earnings through co-production makes this segment well fit for the role. 	<ul style="list-style-type: none"> The client role is primarily but not solely taken by the extreme-poverty segment.

An interesting observation from the above segmentation is that according to table 3.2, it is indicated that the subsistence segment (who are most suited for the role of co-producers) might be the segment that is likely to be or want to be involved in doing business with MNC:s. This is interesting since then much can be learnt from both table 3.1 as well as 3.2 with regards to the characteristics of BoP actors, since as mentioned before, the focus of this study will be on suppliers and distributors, i.e. co-producers.

3.2.2 Understanding poverty and the lack of resources condition

Borchardt et al. (2020, pp. 173) explain that the condition of lacking resources is connected to both individuals and businesses. With regards to the scarcity of resources for local businesses, it can present itself as having a lack of access to “resources, capabilities, expertise and talent,

which are often hard to access in the BoP context”. Consequently, limited productivity and operational efficiency are often experienced by local businesses (Borchardt et al., 2020).

For individuals in the BoP the lack of resources is connected to both low income and lack of goods and services that meet the basic human needs. Examples of such needs include food security, access to clean water and sanitation as well as access to health services and education (Borchardt et al., 2020). The described needs are also the ones mentioned by Casado Caneque and Hart (2017) when they discuss poverty in the BoP. They mean that when poverty is discussed in BoP context, it is important to recognize that it includes several more aspects than the definition of extremely low incomes, such as the above mentioned basic human needs, which is also the definition that will be used moving forward in this study.

3.2.2.1 The poverty penalty

As was described in the previous section, BoP literature and authorities are in agreement that poverty is not just a matter of low income, but is in fact much more complex and a matter of several interlinking aspects. A major problem that accompanies poverty is the poverty penalty (Casado Caneque and Hart, 2017), or also referred to as the BoP penalty (The World Bank 2007). The environment and circumstances of the BoP population, such as the lack of access to basic services and opportunities, often results in a poverty penalty. The poverty penalty is a concept encountered among poor populations and entails that the poor pay higher prices for basic goods and services that are of lower quality (Casado Caneque and Hart, 2017; Rangan et al., 2011). The World Bank (2007) explains that the higher price being paid by the poor populations is not only in terms of money but also in terms of effort to access the goods or services. Examples of the BoP penalty is for instance having to travel long distances to receive health care, or paying extreme fees for loans from banks. The World Bank (2007) further mentions that this phenomena affects not only the poorest populations but the entire BoP.

3.2.3 Understanding the lack of institutions condition

As mentioned earlier, besides the condition of lack of resources in the BoP, the lack of institutions is the second area that permeates BoP literature and the BoP environment. Institutional voids is a concept that is often encountered in BoP literature. The definition of institution has been disputed many times over the years (Hodgson, 2006). One definition of institutions given by Hodgson (2006, pp. 18) is: “*Institutions are systems of established and embedded social rules that structure social interactions.*”. A few examples of institutions are languages, money and organizations (Hodgson, 2006).

The institutional voids that are mentioned in BoP literature refer to the lack of institutional arrangements between SC:s originating in formal environments (such as the ToP) and SC:s originating in the informal environment of the BoP. The discussion about this concept started in connection to entries of MNC:s into the developing markets. However, institutional voids are not limited to SC:s containing MNC:s, but the voids are also present in SC:s containing other actors from both formal and informal markets (Brix-Asala and Seuring, 2020). The impact of the voids can be observed in several areas of the SC since they impact the business transactions (Parmigiani and Rivera-Santos, 2015). The voids are furthermore interlinked with each other since they all have emerged from the same context, which is the poverty environment (Brix-Asala and Seuring, 2020).

Institutional voids can be divided into two analytical levels. The first level relates to voids that impact transactions between two parties such as a buyer and a seller, and is called the dyadic level. The second category is called the network level, and relates to the voids that impact the whole BoP market network instead of only a transaction between two parties (Parmigiani and Rivera-Santos, 2015). Illustrations of the two types of voids will be given by introducing the five institutional voids in the following sections. The five institutional voids are contracting voids, regulatory voids, labor market voids, capital market voids and product market voids (Parmigiani and Rivera-Santos, 2015). A detailed description of each void will be presented in the following sections.

3.2.3.1 Contracting voids - Dyadic level

Contracting voids relate to “Difficulty to create a written agreement that can be enforced” (Parmigiani and Rivera-Santos, 2015 pp. 62). The BoP is often characterized by an informal environment, where a characteristic of this type of environment is that formally written agreements are unusual to use (Brix-Aslala and Seuring, 2020). The informal institutions that are often encountered in the BoP are the underlying reason for the contracting voids since they lead to an inadequate quality in contracts (Rehman et al., 2020; Parmigiani and Rivera-Santos, 2015). Inadequate contracts in turn can result in difficulty of enforcement, lack of legally binding contracts and property rights (Parmigiani and Rivera-Santos, 2015) as well as breaches of contracts (Rehman et al., 2020).

However, the contracting voids do not always lead to problems, and they might even be unnoticed if the agreements or the contracts are established within the informal environment, meaning between parties of the community (Brix-Aslala and Seuring, 2020; Parmigiani and Rivera-Santos, 2015). Parmigiani and Rivera-Santos (2015, pp. 62) mention that such agreements are traditionally based on “trust, repeated interactions, and embeddedness within broader social networks “, and that this results in the informal agreements being less difficult to enforce.

The level of significance of the contracting voids is affected by two factors, the parties involved in the contract and the type of activity that is established by the contract (Parmigiani and Rivera-Santos, 2015). The first factor relates to whether external parties are involved, whereas the second factor becomes salient when there are high financial investments involved (Brix-Aslala and Seuring, 2020). Furthermore, since a contract is traditionally conducted between two parties, the contracting void is considered to be on the dyadic level (Parmigiani and Rivera-Santos, 2015; Rehman et al., 2020).

3.2.3.2 Regulatory voids - Network level

Regulatory voids are another type of voids encountered in the BoP and refer to the “changing and unpredictable rules and decisions that make it difficult for firms to predict future regulatory conditions” (Parmigiani and Rivera-Santos, 2015, pp. 62). Rehman et al. (2020) mentions that there are typically two types of regulations that affect a company’s activities, regulations on the national level or regulations on the regional level. However, in BoP contexts, another level of regulations are often also present and constitute local regulations that are at a community level (Brix-Aslala and Seuring, 2020) and affect the society, politics and religion of the region (Rehman et al., 2020). The significance of the regulatory voids are connected to the differences of these two levels of regulations, i.e. national/regional regulations versus local/community-based regulations (Parmigiani and Rivera-Santos, 2015; Brix-Aslala and Seuring, 2020).

Parmigiani and Rivera-Santos (2015) explain that on one hand, decision-makers on the national/regional level can alter laws and affect the rules under which a business is operating, and on the other hand, local decision-makers in communities such as elders or religious authorities, can impact the local/community-based level regulations. The regulatory voids can be especially salient in communities that are isolated which is often the case for subsistence markets (Parmigiani and Rivera-Santos, 2015). Figure 3.2 below presents a simple illustration of the three described levels of regulation and where the regulatory can become significant.

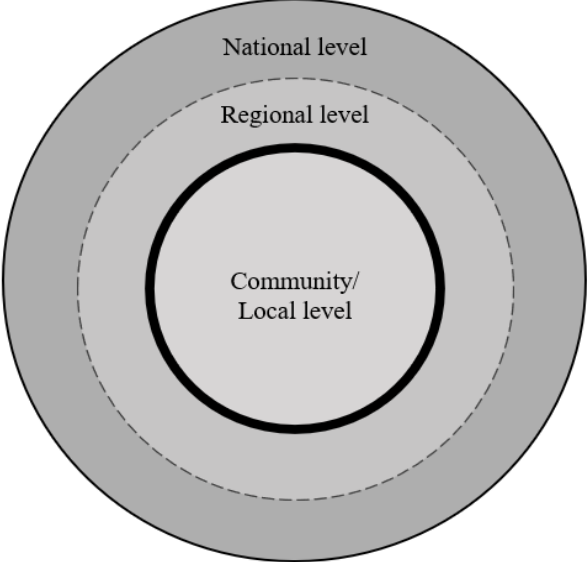


Figure 3.2: The three different levels of regulations that companies need to take into consideration in BoP environments, where the bold contour marks where the regulatory voids can become significant.

One area on the national/regional level that can aggravate the situation further is corruption (Parmigiani and Rivera-Santos, 2015), and results in increased SC costs for companies due to unpredictable results and costs (Brix-Aslala and Seuring, 2020). However, besides the potentially conflicting differences of the regulations set by the different decision-makers, the regulatory voids are also affected by the type of business activity at hand. Low investment activities as well as activities that only involve one community might not suffer as much from the regulatory voids and the changing laws (Parmigiani and Rivera-Santos, 2015). Brix-Aslala and Seuring (2020, pp. 905) adds that “limited access to formal and informal justice leaves a big gap between the BoP business environment and the expectations of the formal business partners”.

As described above, the regulatory void does not only involve transactions between two parties, but it affects entire networks. Hence the regulatory voids are considered to be on the network level (Parmigiani and Rivera-Santos, 2015; Rehman et al., 2020).

3.2.3.3 Labor market voids - Network level

Labor market voids are “failures in the labor markets, such that it is difficult for firms to identify employees or partners with the desired skill base, or that people with the desired set of skills are simply not available in the market” (Parmigiani and Rivera-Santos, 2015 pp. 62). Rehman et al. (2020) mention that the lack of skilled labor is a problem in a majority of the emerging markets. The underlying reason for the lack of skilled labor is the insufficient education in the emerging markets (Parmigiani and Rivera-Santos, 2015; Brix-Aslala and Seuring, 2020).

However, even when the desired skills exist, it is difficult for companies to identify and reach them due to lack of channelization (Rehman et al., 2020). For SC:s, the labor market voids translate to challenges of finding adequate SC partners as well (Brix-Asala et al., 2021). Further SC implications occur for instance due to the collision between the requirements of SC:s for formal training of labor and the informal type of training often encountered in the BoP (Brix-Asala et al., 2021).

The labor market voids affect companies greatly as they limit the growth of the business. However, the significance of the labor market voids on companies depends on the type of skill they need. Specialized skills, such as for instance within the education sector, are often of extreme scarcity, while skills such as cooking or physical strength might be more available. Hence the impact of the labor market voids depends on the needed skills (Parmigiani and Rivera-Santos, 2015). Another type of skill that is lacking in the BoP is business skills, which is further argued to hamper the profitability of businesses operating in the BoP (Brix-Asala et al., 2021). Furthermore, the labor market void is also a network-level void since it affects entire industries (Brix-Aslala and Seuring, 2020; Parmigiani and Rivera-Santos, 2015; Rehman et al., 2020).

3.2.3.4 Capital market voids - Network level

Capital market voids are another type of institutional void encountered in the BoP and refers to “a dearth of financial institutions to provide capital that entrepreneurs or established firms need to grow” (Parmigiani and Rivera-Santos, 2015 pp. 62). Hence, the lack of financial institutions in BoP environments is the underlying reason for the capital market voids (Brix-Asala et al., 2021). Parmigiani and Rivera-Santos (2015) explain that microfinance has emerged due to the scarce capital alternatives that affect especially poor customers and microentrepreneurs. Microfinance has consequently the objective of bridging the capital market voids. They further mention that “the poor develop complex financial strategies to overcome their limited access to capital, often using both traditional sources of capital, such as lending circles or local loan providers, and new sources, such as microfinance institutions” (Parmigiani and Rivera-Santos, 2015 pp. 62). Brix-Aslala and Seuring (2020) note however, that there is still a substantial dearth of capital infusion despite the development of microfinancing and the use of traditional financial solutions. They further mention that the informal environment of the BoP also affects the external interest for investment negatively due to for instance informal reporting of finances often encountered in the BoP environment.

The significance of the capital market void on companies depends on the activity that the capital is needed for (Rehman et al., 2020; Parmigiani and Rivera-Santos, 2015). For instance, when the activity at hand requires a great amount of capital infusion, the capital market voids might impose a much bigger challenge compared to when an activity only requires traditional financing solutions, i.e. when no external financing is needed (Parmigiani and Rivera-Santos, 2015).

Brix-Asala et al. (2021) mentions that for SC:s, the capital market voids translate to a mismatch between the formal SC:s' often constant requirement for investment and the scarcity of financial resources in the BoP. They further explain that “the lack of significant capital infusion might hinder investments that are necessary for the BoP to even enter formal SC structures” (Brix-Asala et al., 2021, pp. 4).

Alike regulatory voids and labor market voids, the capital market void is also a network-level void since lack of capital solutions affects the whole market (Brix-Aslala and Seuring; 2020; Parmigiani and Rivera-Santos, 2015; Rehman et al., 2020).

3.2.3.5 Product market voids - Dyadic level

The fifth institutional void is the product market void and refers to “Difficulty to assess product attributes, especially quality, due to information asymmetries” (Parmigiani and Rivera-Santos, 2015 pp. 62). The mentioned information asymmetries are connected to economic interactions between the buyer and the seller, i.e. between the supplier and the company or between the company and the customer (Parmigiani and Rivera-Santos, 2015). In the first-mentioned example, the deficient amount of intermediaries as well as standards in the BoP environment are the underlying reasons for the asymmetry (Brix-Asala et al., 2021; Parmigiani and Rivera-Santos, 2015). This type of deficiency causes issues in identifying suitable suppliers, since the intermediaries and standards enable the company to find potential suppliers as well as examine the quality of the suppliers products (Parmigiani and Rivera-Santos, 2015), which in turn contribute to a “ non-transparent product markets” (Brix-Asala and Seuring, 2020 pp .904).

Parmigiani and Rivera-Santos (2015) further explain that the information asymmetry associated with the downstream economic interactions, i.e. between the company and the customer, relate to deficiencies in understanding the products as well as a lack of information about the products. They further mention that these deficiencies could partly be due to the low educational level in the BoP. Brix-Aslala and Seuring (2020) note that the deficient communication infrastructure in the BoP is another underlying reason for the product market void, since this type of deficiency constrains product information to be transmitted appropriately.

Brix-Asala et al. (2021 pp.3) further mention that the BoP has a “simple and trust-based way of meeting product requirements, which diverges from the demand for formal documents and quality assessments of products in formal SC environments”, which causes conflict when a formal SC meets the informal BoP environment.

The product type is however a factor that impacts the significance of the product market voids. Organizations working with complex products or services are more at risk of suffering the consequences of the product market voids than for instance organizations delivering simple and easily understood goods and services. The product market void is furthermore a dyadic void since it relates to the transaction between two parties and relates to specific products or services (Parmigiani and Rivera-Santos, 2015).

3.3 Supply chain management in the BoP environment

The following section will examine the context of SC:s of MNC:s operating in the general BoP context described in the previous section. First, the impact of the BoP context on the network level will be described to understand the bigger picture of the environment that the SC:s operate in. Next, the implications from the BoP environment on the SC and its operations will be examined. Different types of SC approaches targeting the institutional voids will be specifically addressed thereafter.

3.3.1 The business network in the BoP and its implication on MNC:s

As mentioned in the background chapter, Rivera-Santos and Rufin (2010) argue that there are significant differences between networks in the BoP in comparison to the ToP, and that these differences pose implications for MNC:s operating in the BoP. In their analysis, they investigate five network characteristics by comparing them between the BoP and the ToP and finally presenting what implications they imply for MNC:s. The five areas will be presented in the following five subsections below.

3.3.1.1 Structural characteristics

The first network characteristic in Rivera-Santos and Rufin (2010) analysis relates to the structure of the network. Table 3.3 below presents a description of the structural characteristics of networks and how they are typically designed in the ToP and the BoP.

Table 3.3: Description of the structural characteristics of networks and their design in the ToP and BoP (Rivera-Santos and Rufin, 2010).

<i>Structural characteristics</i>		
<i>Description</i>	<i>In the ToP</i>	<i>In the BoP</i>
<p>The structure of a network includes:</p> <p><i>Centralization:</i> Degree of whether only a few organizations are in the center of the network.</p> <p><i>Linearity:</i> Degree of which a network works according to a sequential process (e.g. without the need of intervention from non-market actors).</p> <p><i>Density:</i> Amount of redundant ties facilitating the covering of gaps between the organizations within a network.</p> <p><i>Structural holes:</i> Amount and location of structural holes (unconnected parts) of a network.</p>	<p>Network centralisation is common in the ToP. Due to the existence of well functioning institutions, non-market dimensions of a network, such as social capital and trust, are often not needed in the networks. Linearity is hence an effect of the network being mainly commercial. ToP networks typically have a high density due to the accessibility to information and utilization of low transaction costs and intermediaries. Outsourcing of activities that are not possessed within the network is common. The networks are further characterized by not having many structural holes.</p>	<p>BoP networks are often decentralized due to the inclusion of NGO:s, local communities and governments. The networks are not particularly linear (due to involvement of non-traditional actors) and involve not only commercial transactions but also have much reliance on trust and political input. SC gaps also contribute to the decentralization and low level of linearity. The density of the network is higher on the local level, however outside the local level it is much more difficult to achieve a high level of density. Structural holes are common in BoP networks due to lack of intermediaries.</p>

Rivera-Santos and Rufin (2010) further explain that there are several implications from the structural characteristics of the network on MNC:s operating in the BoP. The decentralization encountered in BoP networks implies that MNC:s need to let go of some of the power and central roles they are used to be entitled to, and instead share it with other network members. This implies that the power is not only shared with market actors but also with non-market actors in the BoP. The authors further explain that “ while MNEs may need to play a central role in the construction of BoP networks that create profitable opportunities for these companies, MNEs may not be able to occupy a central position in the operation of these networks” (Rivera-Santos and Rufin, 2010, pp.131). Furthermore, SC gaps and structural holes encountered in the BoP imply that MNC:s need to find ways to fill these gaps, since outsourcing is not always an option in the BoP context. Two methods that MNC:s can consider for this purpose are to either identify an actor or help create an actor that can help fill the gap or to internalize the needed activity. As a consequence, MNC:s will need to face greater integration both horizontally and vertically. (Rivera-Santos and Rufin, 2010)

Moreover, as explained by (Rivera-Santos and Rufin (2010), the differing network density of BoP networks, on the local level versus outside of it, further has implications for MNC:s. The high density of networks on the local level can be utilized by MNC:s to counteract the lack of institutions in the BoP environment. MNC:s can do so however, only if they can be accepted by and take part of the local network. On the other hand, outside the local context, MNC:s can create a competitive advantage by strengthening the low density of networks through their global connections. The authors note that “an MNE can thus become the link between isolated local BOP networks and the outside world” (Rivera-Santos and Rufin, 2010, pp.132).

3.3.1.2 Network boundaries

Another network characteristic that is of interest to investigate is the area of network boundaries. Table 3.4 below presents a description of the network boundaries and how they typically present themselves in the ToP and the BoP as described by Rivera-Santos and Rufin (2010).

Table 3.4: Description of network boundaries and their design in the ToP and BoP (Rivera-Santos and Rufin, 2010).

<i>Network boundaries</i>		
<i>Description</i>	<i>In the ToP</i>	<i>In the BoP</i>
<p>The network boundaries include: <i>Scope:</i> The span of activities conducted by the network. <i>Tie domains:</i> The number of dimensions that the relationship between the partners are based on. The dimensions are for instance political, social, economical and ecological. <i>Size:</i> The amount of members within a network.</p>	<p>Due to heavy competition within ToP markets, there is a need to specialize and focus on core activities, which in turn is facilitated by the access to complementary services, resulting in a narrow scope within ToP networks. The tie domains are often limited in number due to the strong institutions making for instance the political dimension less important. For MNC:s the networks are often large.</p>	<p>The network scope is wider than in the ToP and the tie domains are many with both the social and political dimensions being of great importance as well as the environmental and social dimensions as they are often demanded by NGO:s and local organizations (both types of organizations are needed to establish local contacts and presence). The size of the networks are often smaller due to isolation and being local.</p>

The implication from the network boundaries in the BoP on MNC:s can be observed in several ways. For instance, while specialization is needed for MNC:s to be competitive in ToP markets, it does not have the same effect in the BoP. MNC:s and their networks in the BoP need to make the network scope wide instead of narrow to be able to make up for the SC holes encountered in the BoP. This implies that MNC:s will need to manage more complex networks since several activities that are not included in ToP networks will need to be included in BoP networks. The mentioned activities in turn are dependent on the local context and its implications on the network. (Rivera-Santos and Rufin, 2010)

Due to the characteristics of the tie domains in BoP networks, MNC:s need to take into consideration more dimensions beside the commercial one, such as the social and environmental dimensions, when entering the BoP market. Another area that MNC:s need to take into consideration is the grouping of BoP networks that is caused by the informal institutions encountered in the BoP. For instance, the groupings could be based on religion, geographic location or ethnicity. The authors explain that MNC:s might need to establish local legitimacy within each group, but also need to face the fact that each group might require different types of investment to establish legitimacy within it. Furthermore, the implication of BoP networks being smaller in size is that MNC:s will not have a large number of partners to

count on as they might do in ToP networks. However, MNC:s can play a role in making the BoP networks, that are usually local and isolated, larger. (Rivera-Santos and Rufin, 2010)

3.3.1.3 Tie characteristics

Tie characteristics is the third area of network characteristics that has an impact on MNC:s operating in the BoP (Rivera-Santos and Rufin, 2010). Table 3.5 below presents a description of the tie characteristics and how they usually are set in the ToP and the BoP.

Table 3.5: Description of the tie characteristics of networks and their design in the ToP and BoP (Rivera-Santos and Rufin, 2010).

<i>Tie characteristics</i>		
<i>Description</i>	<i>In the ToP</i>	<i>In the BoP</i>
The tie characteristics include: <i>Directness:</i> Amount of ties that are direct vs. indirect between network members. <i>Formality:</i> Level of flexibility in communication among members. <i>Frequency of interactions:</i> Frequency of interactions between network members.	The ties between network members are often indirect. The network is characterized by a high degree of formality due to strong institutions (that e.g. help enforce contracts), access to information, low level of corruption and no haggling in ToP markets. The communication is regular but is often not required to be frequent.	The ties within BoP networks are often direct and characterized by informality due to insufficient information flows, informal transactions, corruption and haggling within the BoP. The mentioned factors reinforce the need for direct and informal interaction and lead to a higher frequency of communication between network members.

The tie characteristics of networks in the BoP affect MNC:s in several ways. Due to the need for direct and informal communication within the BoP network, embeddedness becomes an important factor for MNC:s to establish within the network in order to be able to carry out the needed interactions. The need for higher frequency of communication implies that MNC:s also need to consider how to carry out their logistics in order to fit the higher frequency of interactions. (Rivera-Santos and Rufin, 2010)

3.3.1.4 Member diversity

The fourth area relates to the member diversity encountered in the networks. A description of what is meant by member diversity as well as its characteristic in both the ToP and the BoP in accordance with Rivera-Santos and Rufin (2010) is presented in table 3.6 below.

Table 3.6: Description of member diversity in networks and their design in the ToP and BoP (Rivera-Santos and Rufin, 2010).

<i>Member diversity</i>		
<i>Description</i>	<i>In the ToP</i>	<i>In the BoP</i>
Member diversity refers to the degree of diversity among partners and their resources and knowledge.	The aim is a high level of member diversity to utilize resources and knowledge. The networks often include different types of members such as for instance competitors, organizations providing complementary services, suppliers and distributors.	The member diversity within BoP networks is wider than ToP networks in the sense that BoP networks also include non-market actors. The wide diversity encountered in the networks is due to the limited access to specialized actors within the BoP.

The member diversity aspect also impacts the MNC:s in the BoP, since it implies that MNC:s need to depend on non-market actors in order to conduct their planned commercial activities (Rivera-Santos and Rufin, 2010).

3.3.1.5 Dynamics

The fifth and final characteristic of networks is related to the dynamics of the network. Table 3.7 below shows what is meant by dynamics and what dynamics are present in the ToP and in the BoP.

Table 3.7: Description of the dynamics of networks and their design in the ToP and BoP (Rivera-Santos and Rufin, 2010).

<i>Dynamics</i>		
<i>Description</i>	<i>In the ToP</i>	<i>In the BoP</i>
The network dynamics relates to the stability of a network over time, as the members of the network change.	ToP networks are often stable over time.	The stability is subject to the formal ties that are based on contracts and institutions (often unstable and unpredictable) and the informal ties that are based on trust and social acceptance (often more resilient and stable).

The network dynamics encountered in the BoP context have implications on MNC: in more than one way. The unstable and unpredictable formal ties pose risks of added costs for MNC:s. The resilient and more stable informal ties, on the other hand, imply that it is important for MNC:s to be embedded in the local context in order to benefit from these ties and the advantage they entail of being resistant to external disturbance. (Rivera-Santos and Rufin, 2010)

3.3.2 The BoP environment's implication on the supply chain

Fawcett and Waller (2015) argue that success at the BoP is predominantly a matter of SCM. This section will hence investigate the implications of the BoP environment on the SC and what solution can be used to help overcome the challenging implications to achieve a successful SCM. This will be done by firstly examining the impacts of the geographical location and the living standards of the BoP on the SC. Next, the implications from the institutional voids on the SC will be investigated. Finally, solutions that can help bridge the institutional voids will be addressed.

3.3.2.1 Implications due to geographical location and living standards of the BoP population

As a result of the geographical location of the BoP population, several challenges can be identified with regards to the SC. For instance, as the populations are relatively isolated either in rural areas or in slums, the consumer behavior also gets affected by the isolation and is hence different from consumer behaviors encountered nationally or globally and in turn creates isolated markets. The low and irregular incomes of the BoP population, further implies that there is a need for products and services that are affordable in a way that suits the irregularity of the income flow. Hence small products purchased frequently are commonly needed in the BoP environment. (Rivera-Santos and Rufin, 2010)

Furthermore, as the BoP population is located in areas that are hard to reach, it poses implications on the distribution stage of the SC. For instance, a natural consequence is that it is hard to distribute to the rural areas due to the population being scattered in these areas. On the other hand, in slums where the population density is much higher, the distribution network needs to take into consideration for instance that the streets are narrow and that it might take a special fleet in order to be able to deliver products and services to these areas. Further implication on the distribution is that the areas pose great security risks. Companies will face great challenges to enter the slums due to security reasons, forcing them to obey the regulations of the slums such as only being allowed to enter during certain times of the day or completely denied entry to the slums. Companies might also be hesitant to enter the slums if the security risks are too high. Security risks are also faced when distributing to rural areas since routes leading to these areas might also be unsafe to use. (Casado Canequé and Hart, 2017)

Another distribution challenge is caused by the isolation of populations mentioned above and implies that the distribution networks need to be designed to fit the local characteristics of the isolated BoP markets at hand. The distribution network also needs to be adapted to the types of products needed as well as the frequent purchases. (Rivera-Santos and Rufin, 2010)

3.3.2.2 Implications due to lack of resources in businesses and the use of information and communication technologies to improve SCM in the BoP

As mentioned in section 3.2.2, the condition of lack of resources connected to businesses in the BoP translates to compromised productivity and operational efficiency for BoP actors. However, running efficient SC operations is needed to create and capture better value in their offerings (Schilling and Seuring, 2023), in order to create greater profitability.

Schilling and Seuring (2023) studied the different implications of Information and communication technology (ICT) on SC flows in the BoP and how the use of ICT:s can reduce Transaction costs (TC) and improve SCM in the BoP. They focused their case studies on the agriculture sector and ICT:s in the form of web- and SMS-based service delivery, and arrived at several interesting findings. The authors explain that ICT:s have implications on the information, financial and material flows of the SC and can hence help create more efficient SC operations. ICT:s can furthermore help actors with payment mechanisms as well as access accurate information in time. The authors further mention that by simplifying the mentioned processes “TCs incurred before the contract is closed, such as screening, selection, communication, negotiation, and coordination costs, as well as TCs incurred after the contract is closed, such as measurement, communication, negotiation, and coordination costs, can be reduced” (Schilling and Seuring (2023, pp. 1194). The reduction of transaction costs translates to improved operations for BoP smallholders as well as their SC partners as the ICT:s help the sharing of market information as well agriculture related information. Furthermore, Schilling and Seuring (2023, pp. 1194) explain that “ICTs allowing farmers to share risks and rewards help farmers to enhance their financial independence, which reduces their vulnerability to disruptions”.

An interesting observation from table 3.1 connected to technology is that for instance phones and televisions are considered assets of only the low-income segment of the BoP consisting of 1.4 billion people and not the remaining 2.6 billion. Lack of ICT availability can cause market and information access issues which in turn can result in potential isolation and poverty consequences on communities (Schilling and Seuring, 2023). Fortunately, the use of ICT:s seem to be growing rapidly in areas such as South Asia and Sub-Saharan Africa. However, in

order for the ICT’s potential positive impact to be captured and integrated into SC:s in the BoP, the ICT:s need to be accessible and affordable. (Schilling and Seuring, 2023)

3.3.2.3 Implications due to lack of institutions

Brix-Asala and Seuring (2020) explain that the institutional voids have implications on all stages of a SC. Common examples of implications include for instance “uncertainty in regard to regulatory framework, difficulty in enforcing rules and contracts, the limited availability of skills and capital, and the difficulty of transparent product attributes due to information asymmetries” (Brix-Asala and Seuring, 2020, pp. 903). Parmigiani and Rivera-Santos (2015) explains the most significant impacts of the institutional voids on the SC stages in a figure that is shown in table 3.8 below.

Table 3.8: Overview of the most significant impacts of the institutional voids on the different SC steps as given by Parmigiani and Rivera-Santos (2015).

<i>Void type</i>	<i>Raw material procurement</i>	<i>Manufacturing and operations</i>	<i>Distribution and logistics</i>	<i>Marketing and sales</i>
<i>Product market</i>	Difficulty in finding a good source and verifying quality, as there are no certification or industry standards			Difficulty in communicating with customers, understanding their needs, promoting a value proposition, and establishing a brand
<i>Labor market</i>		Scarcity of skilled employees, due to low education levels and poor training	Difficulty in finding, training, and motivating qualified individuals to act as distributors	
<i>Capital market</i>		Difficulty in financing plant construction and equipment due to poor debt and equity markets		
<i>Contracting</i>	Difficulty in guaranteeing long term material flows		Difficulty in setting up, enforcing, and ending agreements	Difficulty in working with retailers to ensure pricing, promotion, and prompt payments
<i>Regulatory</i>		Difficulty in addressing corruption, ambiguous regulations, and changing government policies		

It is interesting to observe how all stages of a SC are affected by the institutional voids, in one way or another. This could indicate why it is important to understand the BoP environment thoroughly when trying to understand SCM in this environment and when operating in the BoP since its environment does in fact cause implications that need to be addressed.

When a MNC is setting up a SC to operate in the BoP environment, it needs to consider bridging the institutional voids to manage the implications presented in table 3.8. This should be done on two levels; the holistic SC level as well as at each step of the SC (Parmigiani and Rivera-Santos, 2015). The two areas will be further investigated in the following section.

3.3.3 Supply chain solutions to bridge the institutional voids

3.3.3.1 Solution on the supply chain steps level

Parmigiani and Rivera-Santos (2015) suggest a two step approach to bridge the institutional voids encountered at each SC step.

The first step is to assess the impact of the institutional voids on each step and its activities. By utilizing an impact threshold, activities can be assessed and managed accordingly. For instance, activities that are non complex can be considered to be limitedly impacted by the institutional voids. A practical example of this is when a MNC purchases raw materials from suppliers in the BoP on a short term basis, it is likely to be limitedly affected by the contracting voids. However, when the impact of the institutional voids is considered to be too high, and companies find the threshold too high to overcome, they might need to relocate the highly impacted activity outside the BoP. A practical example of this is when a MNC tries to produce a complex product which requires special skills, it is likely to be impacted by the labor market void. Another example is if the product needs patent protection and the regulatory voids make that difficult. Consequently, a company can split its SC activities inside and outside the BoP according to the impact threshold that needs to be overcome, which is an idea that many companies have not yet come to grips with causing them to struggle operating in the BoP. (Parmigiani and Rivera-Santos, 2015)

The second step is to decide how to bridge the gaps that are affecting the activities that are conducted in the BoP. In this step, it is necessary to consider whether the impacting void is on the dyadic or network level since it leads to different solutions. For the dyadic level voids, i.e. product market voids and contracting voids, MNC:s need to establish connections within the local context in order to utilize relational mechanisms to overcome these voids. This can be done with help from intermediaries or by the MNC itself. The intended relational mechanisms relate to assigning local organizations and individuals to educate customers and suppliers. The use of social norms and reputation in these relational mechanisms can be greatly efficient to establish local connections. On the other hand, the network level voids i.e. the labor market, capital market and regulatory voids, require that the MNC reaches out to different types of partners to be able to bridge these gaps. It is not only in MNC:s interest to overcome these gaps, but other companies such as competitors or others, public institutions, and nonprofit organizations might also share the same objective. Examples of shared goals could be to improve education to bridge the labor market void or to improve the capital system. However, although these different types of organizations might share the same goal, they all have their own approach and agenda. Hence, MNC:s need to partner up with a variety of actors to overcome these voids since it is unlikely that these actors will have completely aligned agendas with the MNC in question. (Parmigiani and Rivera-Santos, 2015)

3.3.3.2 Solutions on the holistic level

MNC:s also need to consider the impact from the institutional voids on a holistic level. The implications on each step of the SC have interconnections between them, meaning that a solution that fills one void at a certain stage is impacted by a void filling solution implemented at another stage. MNC:s can solve these holistic level implications by either partnering with a few larger organizations that have the capacity and power to help bridge multiple gaps at the same time, or partnering with several smaller organizations that can help bridge specific gaps in specific steps of the SC. These two solutions in turn imply two SC approaches for MNC:s

when constructing their SC in the BoP environment: agency driven approach and corporate driven approach (Parmigiani and Rivera-Santos, 2015). Both SC approaches traditionally have one common factor between them, and that is the partnership with NGO:s that is needed regardless of the chosen approach, with the reason being their strong local embeddedness (Brix-Asala and Seuring, 2020).

Agency-driven approach

The agency driven SC approach relates to the use of a few larger organizations that have the power to fill the institutional voids, meaning that the MNC is not directly involved in bridging the voids itself (Parmigiani and Rivera-Santos, 2015; Brix-Asala and Seuring, 2020). The organizations involved could be large NGO:s, large international suppliers and aid organizations. These organizations can realize the agency driven approach by taking on the role of contact brokers (Brix-Asala and Seuring, 2020).

The advantage of the agency driven approach is that it allows for fast access to the local BoP context including its available services (Brix-Asala and Seuring, 2020). Parmigiani and Rivera-Santos (2015) explain that by partnering up with the large organizations, the MNC will get access to their already established networks. Furthermore, while this implies that the MNC quickly can get connected to many partners, it also implies that the MNC cannot control or expand the SC fully to its own interest. The authors explain that “MNCs and agencies have very different goals and incentives, leading to conflicts and making a customized solution and expansion more difficult for the firm” (Parmigiani and Rivera-Santos, 2015, pp. 68). An important difference is that large nonprofit agencies might try to find solutions that work on the generic level to try to cover as many areas in need as possible as well as to use its donations according to guidelines. Consequently, the agencies might not be targeting the specific market where the MNC is trying to construct its SC with specific solutions. Another implication from the agency driven approach is that the MNC needs to be accountable for its SC while it might not have much control over some of its key SC members, such as the large agencies helping to fill out the institutional voids. However, the agency driven SC approach does indeed entail less uncertainty for the MNC when constructing its SC in the BoP (Parmigiani and Rivera-Santos, 2015).

Corporate-driven approach

The corporate driven SC approach implies that the MNC is directly involved in the bridging of the institutional voids, instead of using larger intermediaries as in the agency driven approach (Parmigiani and Rivera-Santos, 2015; Brix-Asala and Seuring, 2020). It should be noted that although MNC:s might not have connections to the local context from the beginning, they can still be leaders in the work of filling institutional voids (Brix-Asala and Seuring, 2020).

The corporate driven approach is realized by the establishment of networks with local and smaller NGO:s and other organizations present in the local BoP context. As a consequence these local actors receive training through their involvement with the MNC. The advantage of this approach is that the smaller local NGO:s and organizations are argued to have more potential to successfully bridge institutional voids than their larger counterparts, due to their embeddedness and close ties within the local BoP context (Brix-Asala and Seuring, 2020). Another advantage of the corporate driven approach is that a MNC can design a specific and scalable approach through its selection of partners that fit the needs and have more aligned interests with the SC. Further advantages with this approach is that it allows for more experimentation and customization. However, the corporate driven approach does also have its

disadvantages, since it entails more uncertainty and takes more time to implement than the agency driven approach (Parmigiani and Rivera-Santos, 2015). It is however, simultaneously “more scalable, relies on relatively aligned incentives of both non- and for-profit partners, and provides the potential for differentiation and branding” (Parmigiani and Rivera-Santos, 2015, pp. 68).

Example of the Corporate-driven approach: Supplier Development

To exemplify how the corporate-driven approach can be implemented, the following section will explain how supplier development (SD) can be utilized to overcome the institutional voids. The reason why SD has the potential to bridge institutional voids is that it is a form of collaboration, and collaboration in turn being essential for overcoming the voids. SD is based on the ideas of aligned goals, continuous and free communication, as well as the sharing of resources, risks and rewards. Furthermore, there are two different types of SD: indirect and direct (Brix-Asala and Seuring, 2020). The first mentioned is “based on its incentive systems; however, if the goals cannot be achieved, this restricts who is able to participate in the SC. Therefore, indirect SD limits unconditional inclusion from the BoP perspective.” (Brix-Asala and Seuring, 2020, pp. 907). The authors further explain that while the mentioned limitation is ethically questionable, it is however important in order to be able to realize the advantages of an efficient SC. On the other hand, direct SD relates to creating access for suppliers in the BoP to resources and knowledge. Brix-Asala and Seuring (2020, pp. 907) finally summarize the indirect and direct SD by explaining that “the incentive character of indirect SD can stimulate the process of finding ways to develop capabilities and skills for the BoP themselves, while direct SD actively supports what is core in BoP research”. Brix-Asala and Seuring (2020) further present a theoretical framework that explains the connection between the different institutional voids and their relation to indirect and direct SD practices, which is shown in table 3.9 below.

Table 3.9: The connection between the institutional voids and different SD practices as presented by Brix-Asala and Seuring (2020).

<i>Institutional void</i>	<i>Indirect supplier development</i>	<i>Direct supplier development</i>
<i>Product market</i>	Supplier selection Evaluation and feedback Cooperation if goal attainment Communicating/increasing supplier’s performance goals Supplier rewards Instilling of competition using multiple sources Auditing and certification Supplier visits	Training and education Inviting supplier’s personnel Temporary personnel transfer On-site consultation Continuous supplier monitoring Financial assistance Logistical integration
<i>Labor market</i>	Supplier selection/ assessment Evaluation and feedback Auditing and certification Supplier visits	Training and education Inviting supplier’s personnel Temporary personnel transfer On-site consultation Continuous supplier monitoring
<i>Capital market</i>	Supplier rewards Auditing and certification	Financial assistance Logistical integration
<i>Contracting</i>	Cooperation if goal attainment	Logistical integration
<i>Regulatory</i>	N/A	N/A

The above discussion is interesting from a SCIA perspective since it is based on risk and rewards sharing and much of it is based on an incentive system. It is furthermore interesting to observe that several practices, such as supplier rewards, are viable for bridging several institutional voids.

3.4 Supply Chain Incentive Alignment

This section has the aim of introducing SCIA and its background as well as its key areas. Firstly, SC misalignment will be discussed. Next, the process of achieving SCIA will be described. Finally, agency theory and risk sharing will be examined to create a better foundation for the analysis further in this study.

3.4.1 Supply chain misalignment

Narayanan and Raman (2004) explain that there is a mistaken assumption in companies, that when they act in a way that benefits their own interest, they simultaneously will benefit the SC's best interest as well. Hence companies are often not interested in the behavior of their partners when building a SC. However, this mindset leads to the underperformance of SC:s, since companies in fact often do not behave in a SC's best interest (Narayanan and Raman, 2004).

Narayanan and Raman (2004) further explain that this common but mistaken mindset is understandable since a SC involves multiple companies and functions with different objectives and priorities, and making the entire chain pull in the same direction is not an easy task. It is furthermore difficult to detect the cross-company issues that are causing the misalignment. Another factor that is important to consider is the difficulty of coordinating behaviors across companies due to differences in organizational cultures. This in turn means that companies cannot easily utilize shared values and loyalty to motivate their SC partners to behave in a certain way. Narayanan and Raman (2004, pp.96) further notes that in order to motivate SC partners to act not only in their own best interests, but also in the SC's best interest, organizations need to "create or modify monetary incentives".

As SCIA is one of the mechanisms used to overcome SC misalignments (Lundin and Norrman, 2010), it is of interest to first understand the different types of misalignment that can arise in a SC. Lundin and Norrman (2010, pp. 278) define SC misalignment, with inspiration from Narayanan and Raman (2004), as "what results when the elements of supply chain management are designed so that they counteract or do not support each other, leading to unintended or unwanted performance of the supply chain".

3.4.1.1 Types of SC misalignment

In Lundin and Norrman's (2010) study of SC misalignment, five types of SC misalignment areas were investigated and these will be followed in this study and described further below.

- 1. Hidden action:** Hidden action relates to the situation that occurs when a SC partner cannot observe the actions of another partner and as a consequence struggle to persuade them to act in the whole SC's best interest (Narayanan and Raman, 2004). Simatupang and Sridharan (2005) mention that information asymmetry is the underlying cause of hidden actions and explain that the asymmetry is related to one SC partner having better access to specific information than the other. The SC partner with the better access to

information can utilize this in their benefit by either engaging in hidden actions or hidden information.

2. **Hidden information:** As mentioned above, information asymmetry can lead to hidden information. Hidden information relates to the situation of one SC partner possessing information that other partners do not (Simatupang and Sridharan, 2005; Narayanan and Raman, 2004). Lundin and Norrman (2010) provide an example and mention that traditionally, information is often hidden by suppliers which causes SC:s to not live up to its full efficiency potential.
3. **Badly designed incentives:** Another reason for misalignment is badly designed incentives. This area relates to having incentives that induce SC partners to act in unwanted ways (Narayanan and Raman, 2004). Simatupang and Sridharan (2005) explain that this occurs when rewards and punishments are assigned in misalignment with what is best for the SC (Simatupang and Sridharan, 2005).
4. **Goal conflicts:** The fourth area of misalignment is goal conflicts and relates to the situation that occurs when SC partners have differing goals with the consequence of a negative impact on the costs and efficiency of the SC (Lundin and Norrman, 2010).
5. **Different business logics:** The final area of misalignment is differing business logics and refers to the different ways of doing business according to different business models between SC partners. As a consequence, the partners might end up with colliding objectives (Lundin and Norrman, 2010).

3.4.2 Supply Chain Incentive Alignment

Narayanan and Raman (2004, pp. 96) note that incentives relate to risk and reward sharing and explain that “a supply chain works well if its companies' incentives are aligned-that is, if the risks, costs, and rewards of doing business are distributed fairly across the network”. By aligning the incentives in a SC, not only will all partners benefit, but the SC will gain a competitive advantage over other SC:s and will also create better and bigger desired outcomes (Narayanan and Raman, 2004).

Simatupang et. al (2002) explain that when there exists inadequate and misaligned incentives, SC partners can be more prone to act in a way that maximizes their own benefit, albeit knowing that the optimal solution for the SC is not aligned with their actions. Important to note is that optimizing SC performance does not automatically imply minimized individual costs for the SC partners (Simatupang and Sridharan, 2005). Furthermore, misaligned incentives imply “assigning rewards and punishments incompatible with optimising the performance of the SC as a whole” (Simatupang and Sridharan, 2005, pp. 365). The mentioned issue is often present when organizations “lack the means to compel others to adjust their policies and priorities to align with the overall profit” (Simatupang and Sridharan, 2002, pp. 18). When the incentives are not in alignment, it can lead to underperformance of SC:s through for instance incorrect inventory levels (e.g. stock out or surplus), incorrect forecasts, insufficient sales efforts and insufficient customer service (Narayanan and Raman, 2004).

3.4.2.1 Choosing the Supply Chain Incentive Alignment areas to move forward with

As the intersection of BoP research and SCIA research appears to be vacant, literature on different types of incentive alignment mechanisms and solutions discussed in literature were explored in order to evaluate which areas to move forward with when gathering the empirical data. To facilitate an easier reading, only the chosen literature will be presented in the following section and the remaining incentive alignment mechanisms found in literature are presented in Appendix J for the interested reader. An important note to keep in mind is that due to the vacancy of literature on the topic (SCIA in the BoP), the nature of the empirical data (single interviews with different organizations and professionals) as well as the desired outcome of the study, i.e. mapping the implications of the BoP environment on SCIA, the focus is on identifying the general areas of SCIA in BoP environments. Thus, the SCIA solution areas presented by Narayanan and Raman (2004) (contract based, information based and trust based solutions) are believed to be the best suited.

3.4.2.2 Incentive Alignment through Contract-, Information and Trust based solutions

Narayanan and Raman (2004) who studied over 50 supply chains, suggest that aligning misaligned incentives can be done in three steps, which are described below. The first step in Narayanan and Raman's (2004) model for aligning incentives is called accepting the premise and refers to understanding that the incentives are causing SC problems and that one needs to overcome the mental barriers that hinder discussions about the topic of incentives. The authors explain that companies often struggle in the beginning to understand how incentives relate to the problems observed in the SC. One reason for this is that managers do not always possess enough operational knowledge about their SC partners to be able to connect the SC problems to incentives. Another issue is that the topic of monetary incentives is a sensitive topic since it could provoke suspicion about negotiation. They further note that incentives problems arise every time a new change effort is in place since change efforts often impact the incentives of the stakeholders.

The second step of managing misaligned incentives is according to Narayanan and Raman (2004), to pinpoint the root causes of the misalignment in order to choose the appropriate incentive alignment strategy. The process of solving incentive alignment problems differs from the often more structured processes of solving other SC problems which for instance utilize algorithms or equations. The authors further mention that "only managers who understand the motivations of most companies in their SC can tackle incentive-related issues" (Narayanan and Raman, 2004, pp. 99).

The third step in the process of aligning incentives is according to (Narayanan and Raman, 2004) to either align or redesign the incentives with help from the root causes identified in the previous step of the process. The authors explain that companies often do not possess the power to redesign the entire SC. However, companies have the power to manage the incentives involving their closest partners. The authors further mention that it is not only the largest partner in a SC that can engage in redesigning incentives, but even small partners in the SC can help achieve alignment. There are furthermore three alternatives of incentives solutions that can be utilized to achieve alignment. The first one is a contract based solution, the second one is an information based solution and the third one is a trust based solution. The following sections

will examine these three solutions. The three SCIA solutions suggested by Narayanan and Raman (2004) are further described below.

- 1. Contract based incentive alignment solutions:** Redesigning contracts even in the slightest can lead to a significant impact on the behavior of the partners involved and the results can be seen on the SC performance relatively fast. If hidden action is the identified root cause of the misalignment of incentives, then contracts can be utilized to reveal the action by either rewarding or punishing the partner in the contract for the outcome. Even if a company cannot observe the exact actions of their partners, they can “track the outcome of their efforts” in order to reveal their actions (Narayanan and Raman, 2004, pp. 99). Also when the root cause to the misalignment is badly designed incentives, it is important to redesign the contracts. Narayanan and Raman (2004, pp. 100) further point out that “by changing how, rather than how much, they pay partners, companies can improve supply chain performance. When that happens, all the firms in the chain make more money than they used to.”
- 2. Information based incentive alignment solutions:** Another way of aligning incentives in a SC is through an information based solution. The idea of this solution is to make business variables and information visible and shared in the SC, and in that way revealing whether a desired action is accomplished or not. By monitoring more variables a company can efficiently reveal hidden actions in its SC. The information based incentives solution can be achieved in several ways. For instance, technology can be used to gather and observe business variables. Another way is to engage in activities involving so-called mystery shoppers, meaning a company sends agents to a SC partner, and lets the agents act as customers in order to observe and track whether a desired behavior is being followed by the partner. Furthermore, when the costs related to hidden actions need to be observed and managed, information systems based on activity-based costing are essential to be able to manage the hidden actions and their related outcomes. (Narayanan and Raman, 2004)
- 3. Trust based incentive alignment solutions:** The third type of incentive alignment solution is a trust based one. The idea behind this solution is using intermediaries and trust between individuals to ensure that partners are acting in everyone's best interest. The use of intermediaries in the SC gained importance when companies from the Western market started to outsource their production to manufacturers based in the developing countries as well as source supplies from these markets as well (Narayanan and Raman, 2004). As mentioned earlier in section 3.2.3.1 regarding the contracting voids, it is often difficult to enforce contracts in developing countries, as Narayanan and Raman (2004) also notes. The need for intermediaries also arises from the suspicions present between the western companies and the manufacturers. The western companies fear that the suppliers or manufacturers will lack in producing timely, keeping a consistent quality and staying loyal to the contracts and instead take on orders from higher paying customers. Another issue that the western companies are afraid of is that the suppliers or manufacturers are utilizing child labor or bribes to cut their costs. The suppliers and manufacturers however, also have suspicions towards the western companies. They fear incorrect forecasts and in turn incorrect quantities in the orders received from the western companies, since the orders are usually placed several months in advance. The suppliers and manufacturers are afraid that if the demand is lower than predicted, the western companies will blame it on the quality of the products when they do not purchase the beforehand agreed-on amount. Narayanan and Raman (2004)

further mention that due to the challenges of enforcing contracts as well as the suspicions between partners, intermediaries can be a valuable tool in such SC:s in order to align the incentives and motivate partners to only engage in actions that benefit all parties. However, it should be noted that trust based incentive solutions should be explored as the last option of the three incentives solutions described above. This is due to the fact that there is a need to find a trustworthy and secure intermediary, which is often hard to find.

Narayanan and Raman (2004) argue that a contract based incentives solution should be the first priority since these can have a fast effect on the SC. The second priority is information based solutions which are becoming increasingly easier to adopt since the cost of gathering data is reduced due to technological advancements, and companies can even utilize real-time data. The third priority should be trust-based incentive solutions due to the difficulty of identifying and utilizing the right intermediaries.

3.4.3 Agency theory

3.4.3.1 Introduction to Agency theory

Norrman and Näslund (2019, pp. 131) mention that agency theory "has clearly inspired researchers, such as Simatupang and Sridharan (2005) and Narayanan and Raman (2004), to highlight incentive alignment issues, such as hidden action, hidden information, and badly designed contracts.". Hence, agency theory appears to contribute to the foundations of SCIA and will therefore be discussed next to create a deeper understanding of the topic. Eisenhardt (1989a) argues that agency theory can be used in circumstances that contain substantial contracting issues. One of the most essential challenges in contracting is overcoming opportunism, meaning "each contract partner primarily serves their own self-interest", which is the central concept of agency theory (Van Weele, 2014, pp. 95). The contract partners are referred to as principal and agent. The first mentioned refers to the partner that lacks a needed resource to realize a specific interest while possessing other resources such as money. The agent in turn, refers to the partner that possesses the required resource and accepts to help realize the principal's interest in return for e.g. money (Braun and Guston, 2003). Eisenhardt (1989a) emphasizes the relevance of agency theory in scenarios involving great goal conflicts between agents and principals and especially in situations where there exists a risk of opportunism on the agent side. It is important to note that in this study both the MNC and the BoP actor can take either the principal or agent role in the relationship. The agency problem which "finds its origin in the risks that parties face when collaborating" (Van Weele, 2014, pp. 96), can be tackled in two ways according to Kistruck et al. (2013). The first option is to create contracts based on well designed incentives to achieve alignment in the two partners' interests while the second option is attempting to address the information asymmetry through monitoring (Kistruck et al., 2013). Van Weele (2014) further mentions that two types of contracts are present from the perspective of agency theory: Behavior-oriented contracts which dictate the agent's expected behavior when delivering the requested work and outcome-oriented contracts (also known as performance based contracts) which imply that the principal pays once the agent delivers the requested work (Van Weele, 2014). As information asymmetry and risks are recurring topics of both agency theory and SCIA, these will be further discussed below.

3.4.3.2 Information asymmetry

As mentioned earlier, information asymmetry refers to one SC partner having better access to information than the rest of the SC. Simatupang and Sridharan (2002) further mention that SC partners are often hesitant to share personal information with the rest of the SC transparently with the reason being the real or perceived economic value of the information. Lack of information sharing, leads to two general areas of problems: sub-optimized SC decisions and opportunism. The first area appears when insufficient visibility to other partners' information causes difficulties to assess trade-offs properly when making decisions as well as difficulties to make informed decisions and instead having to rely on estimation, as explained by the authors. The second area involves two types of risks of opportunism: adverse selection (which implies “concealing prior information of capabilities from parties with less accurate information”), and moral hazard (which refers to “cutting the effort levels or shirking”) (Simatupang and Sridharan, 2002, pp.18). Adverse selection is what is also referred to as hidden information while moral hazard can also be referred to as hidden action (Shapiro, 2005).

3.4.3.3 Risks

Van Weele (2014) further mentions four types of risks that accompany the agency problem and although he explains them in connection to the area of outsourcing, much can be learnt from examining the risks. Hence, the four risks connected to the agency problem are presented below.

1. **Technical risks:** The technical risks relate to the ability of the agent to deliver the requested functionality and performance. The extent of technical risks are argued to be connected to whether the requested performance of the agent can be defined in objective terms. (Van Weele, 2014)
2. **Commercial risks:** Commercial risk is connected to “the uncertainty with regard to the price we will pay and the costs that we will incur”, as well as additional costs when the agent needs to deviate from the agreed on work to be conducted (Van Weele, 2014, pp.189). This type of risk can be managed by utilizing incentives and penalties for performance levels above or below agreement (Van Weele, 2014).
3. **Contractual risks:** The contractual risks concern the risks related to the contract between principals and agents which are often complex and involving much uncertainty. Performance based contracts can help align the interests of both parties. Areas of interest to assess in the contracts are for instance the level of detail of the performance specification, whether the performance indicators are sufficiently designed, whether penalties can be realized when needed without jeopardizing the relationship and the performance as well as whether agreements have been defined with regards to the scope of work and the resources to be utilized. (Van Weele, 2014)
4. **Performance risks:** Performance risk concerns the capability of the agent to perform as agreed upon. Areas included in this type of risk are related to for instance the agent’s capacity and flexibility as well as the principal's access to information as well as capacity to monitor the operational processes of the agent. (Van Weele, 2014)

3.5 Creation of the guiding framework

3.5.1 Supply Chain Management categorization of BoP implications

This master thesis is based on the literature gap found in the intersection between BoP and SCIA. The found literature on how the BoP environment influences the network setup and SC operations proves that the BoP environment has significant implications on MNC:s trying to operate in the BoP. The found implications are viewed as changes that the MNC entering the BoP needs to address. As argued by Lundin and Norrman (2010), changes in a SC's network structure, business processes or managerial components is likely to lead to SC misalignment, although it does not always have to be the case. To understand how the identified changes fall into the structure, processes and managerial components, and whether a SC misalignment is likely to occur due to them, Lundin and Norrman's (2010) summary of SCM elements will be used to categorize the changes that MNC:s need to address when operating in BoP environments. In their study, the subdivision of the SCM elements was adapted to explain and sort changes in the SC, and this will also be the use of the subdivision in table 3.10 below.

Table 3.10: Categorizing the different implications that MNC:s face when entering the BoP (based on the literature found), into the different elements of SCM presented by Lundin and Norrman (2010).

Categorization of BoP implications (changes) into different elements of SCM	
<i>Network Structures</i>	
<i>Elements of SCM</i>	<i>BoP implication (change)</i>
<i>Members of the SC and their roles</i>	[1] MNC:s need to interact and work with a more diverse but smaller set of partners (Rivera-Santos and Rufin, 2010). [2] Non-market actors such as NGO:s are important actors to consider (Brix-Asala and Seuring, 2020).
<i>Structural dimensions:</i> The vertical/horizontal structure as well as the horizontal position of the company in center.	[3] MNC:s need to establish a local presence in order to be accepted by and take part of the local network to leverage the high density of networks on the local level (Rivera-Santos and Rufin, 2010). [4] MNC:s need to create a competitive advantage by strengthening the low density of networks in the BoP through their global connections (Rivera-Santos and Rufin, 2010).
<i>The degree of integration within the SC</i>	[5] MNC:s will face a greater degree of integration both horizontally and vertically (Rivera-Santos and Rufin, 2010).
<i>Business Processes</i>	
<i>Elements of SCM</i>	<i>BoP implication (change)</i>
<i>Flows:</i> The flows of material, information and money within the SC.	Product flow: [6] MNC:s need to consider that the BoP often requires small products purchased frequently (Rivera-Santos and Rufin, 2010). [7] MNC:s will face difficulty in ensuring a consistent material flow in the long term (Parmigiani and Rivera-Santos, 2015). Information flow: [8] The information flows in the BoP are insufficient which causes for instance a need for direct and informal communication between partners (Rivera-Santos and Rufin, 2010). [9] MNC:s need to consider that the BoP often suffers from information asymmetry (Parmigiani and Rivera-Santos, 2015) as well as insufficient communication infrastructure (Khalid and Seuring, 2019). Monetary flow:

	[10] MNC:s will face difficulty in financing investments especially if the investments are big, due to the informal institutions causing the contracting voids in the BoP (Parmigiani and Rivera-Santos, 2015).
<i>Operational activities:</i> The type of activities and their sequence	<p>[11] MNC:s need to manage more types of activities due to SC gaps in the BoP (Rivera-Santos and Rufin, 2010).</p> <p>Raw material procurement: [12] MNC:s will face difficulty in identifying suppliers and assessing quality of materials due to the deficient amount of intermediaries as well as standards (Parmigiani and Rivera-Santos, 2015).</p> <p>Manufacturing and operations: [13] MNC:s will face difficulty in identifying skilled labor (Parmigiani and Rivera-Santos, 2015).</p> <p>Distribution and logistics: [14] MNC:s will face difficulty in identifying and motivating skilled distributors (Parmigiani and Rivera-Santos, 2015). [15] MNC:s need to design the distribution networks to fit the local characteristics of the isolated BoP markets. The distribution network also needs to be adapted to the types of products needed as well as the frequent purchases (Rivera-Santos and Rufin, 2010). MNC:s also need to consider that the BoP often entails insufficient infrastructure (Schilling and Seuring, 2023).</p> <p>Sales and marketing: [16] MNC:s will face difficulty in working with retailers and ensuring reliable pricing, promotions and payment mechanisms (Parmigiani and Rivera-Santos, 2015). [17] MNC:s could face difficulty with their customer relations and creating a solid brand (Parmigiani and Rivera-Santos, 2015).</p>
<i>Management components</i>	
<i>Elements of SCM</i>	<i>BoP implication (change)</i>
<i>Physical and technical</i> Planning and control methods: including for instance the measurements used for assessing performance Organizational structure: including for instance the intraorganizational and interorganizational structure Responsibility: in the form of ownership and liability of products or responsibility of operations	<p>[18] MNC:s need to have a higher frequency of interorganizational communication, and hence corresponding logistics to fulfill this need (Rivera-Santos and Rufin, 2010). [19] SC gaps encountered in the BoP imply that MNC:s need to find ways to fill these gaps, since outsourcing is not always an option in the BoP context (Rivera-Santos and Rufin, 2010).</p>
<i>Managerial and behavioral</i> Management methods: including for instance degree of commitment Power and leadership structure: including for instance dynamics between SC members Risk and reward structure: including for instance contract and fee mechanisms	<p>[20] MNC:s need to face corruption and unreliable regulations and policies (Parmigiani and Rivera-Santos, 2015). [21] MNC:s need to let go of some of the power and central roles they are used to be entitled to and instead share it with other members, including non-market actors (Rivera-Santos and Rufin, 2010). [22] MNC:s need to depend on non-market actors such as NGO:s in order to conduct their planned commercial activities (Rivera-Santos and Rufin, 2010). [23] MNC:s need to take into consideration demands from for instance NGO:s and local organizations on for instance social and environmental aspects, in order to receive help from these organizations to establish local contacts and presence (Rivera-Santos and Rufin, 2010). [24] MNC:s need to consider that decision-makers on the national/regional level can alter laws and affect the rules under which a business is operating (Parmigiani and Rivera-Santos, 2015).</p>

<p>Culture and attitude: including for instance trust</p>	<p>[25] Local decision-makers in communities such as elders or religious authorities, can impact the local/community-based level regulations (Parmigiani and Rivera-Santos, 2015).</p> <p>[26] MNC:s need to consider that the business in the BoP extends to more than the commercial dimension, but also includes for instance social, environmental and political dimensions (Rivera-Santos and Rufin, 2010).</p> <p>[27] MNC:s need to establish embeddedness in the local context in order to carry out the needed interactions and operations as well as benefit from it (Rivera-Santos and Rufin, 2010).</p> <p>[28] MNC:s might need to establish local legitimacy within each group in the BoP context (e.g. groupings based on religion, geographic location or ethnicity), but also need to face the fact that each group might require different types of investment to establish legitimacy within it (Rivera-Santos and Rufin, 2010).</p> <p>[29] MNC:s might need to understand and value untraditional aspects of knowledge systems found in BoP communities (that might not be common in traditional SCM), such as the spirituality aspect (Borchardt et al., 2020).</p> <p>[30] MNC:s will face difficulty in establishing contracts as well as enforcing them (Brix-Asala and Seuring, 2020).</p> <p>[31] MNC:s need to manage risks of increased costs due to unstable and unpredictable formal ties based on contracts and institutions which are unreliable (Rivera-Santos and Rufin, 2010).</p> <p>[32] The inadequate contracts can also result in difficulty of enforcement, lack of legally binding contracts and property rights (Parmigiani and Rivera-Santos, 2015) as well as breaches of contracts (Rehman et al., 2020).</p>
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Table 3.10 provides two takeaways. First, the table presents the conclusion of the first research question (RQ1) in this study, *How does the BoP environment influence the supply chains of MNC:s operating in the BoP and is it likely that SC misalignments could occur due to its influence?*. As can be seen from the table, the implications of the BoP environments fall into the SC network structure, business processes and managerial components of the SC, which in turn indicates that when a MNC:s operate in the BoP, SC misalignments are likely to occur. To make the 32 implications easier to overview, they have been placed into six *General categories of implications* in table 3.11 below. The categories of implications from the BoP environment on the SC:s of MNC:s are: *Reliance on non-traditional partners, Strong need for local embeddedness, Changes in SC flows and operations, Revised power distribution, Unreliable and unpredictable business environment and Increased number of activities and dimensions.*

Table 3.11: Categorization of the BoP implications on SC:s of MNC:s (see table 2.14 for reference).

<i>Categorization of the BoP environment's implications on SC:s of MNC:s</i>	
<i>General categories of implications</i>	<i>Number of implications (see table 3.10)</i>
Category 1: Reliance on non-traditional partners	1, 2, 22
Category 2: Strong need for local embeddedness	3, 23, 27, 28
Category 3: Changes in SC flows and operations	4, 6, 7, 8, 9, 12, 13, 14, 15, 16, 17, 18
Category 4: Revised power distribution	21
Category 5: Unreliable and unpredictable business and regulatory environment	10, 20, 24, 25, 30, 31, 32
Category 6: Increased number of activities and dimensions	11, 19, 26

3.5.2 The guiding framework

As the existing literature on the influence of the BoP on MNC:s was able to assist in proving that a SC misalignment is likely to occur, it could also indicate that the existing literature might be sufficient to answer how this affects SCIA. The literature study as well as the above illustrated implications on the SC of MNC:s assists in creating a guiding framework that can help facilitate the further development of this study. The guiding framework is presented in figure 3.3 below.

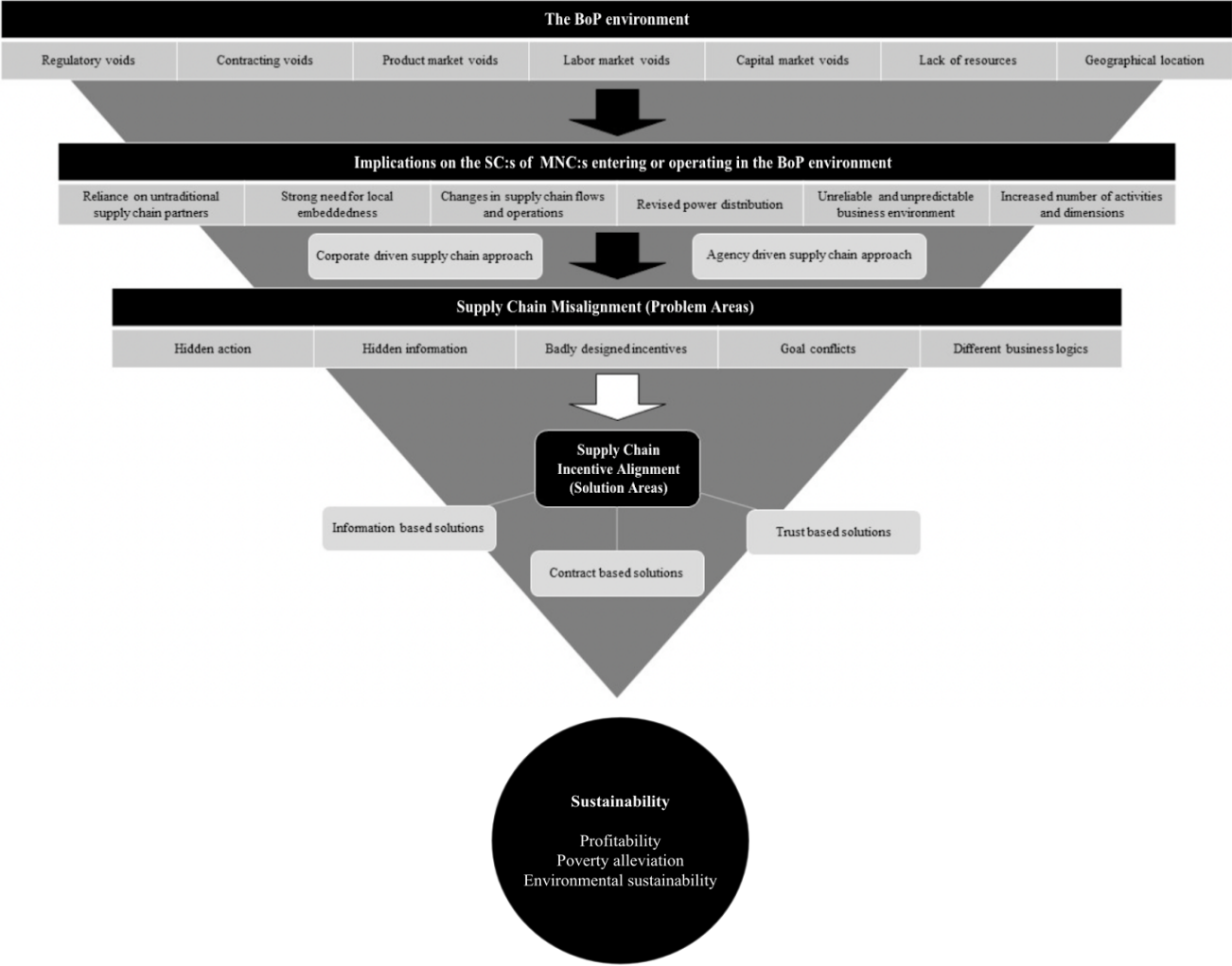


Figure 3.3: The guiding framework of this master thesis.

The first level of the above presented guiding framework corresponds to the BoP environment, which is characterized by the five institutional voids, the lack of resources conditions, as well as the geographical location.

The second level corresponds to the categorization found in table 3.11 of the BoP environments implications on SC:s of MNC:s, i.e. the implications of the first level of the framework on the SC. The second level hence represents the conclusion of RQ1 (*How does the BoP environment influence the supply chains of MNC:s operating in the BoP?*). The second level also contains the two SC-approaches that MNC:s can apply when operating in the BoP.

The third level corresponds to the different causes for the potential SC misalignment that can occur when MNC:s enter the BoP due to the many changes that need to be taken into account. The third level of the framework can hence be viewed as the problem areas.

The fourth level of the framework represents the SCIA areas, i.e. the solution areas to the problem areas in level three. The white arrow between the second and third level represents the vacancy of literature on the topic of SCIA in BoP environments. The white arrow is hence what this study aims to fill by answering RQ2 (*What implications does the BoP environment have on supply chain incentive alignment?*) through the theory, the empirical data and the analysis of both.

Finally, the framework is concluded by a circle that represents the vision that when SC:s accomplish an aligned SC through SCIA in the BoP environment, all SC partners win together and reach sustainability in the form of profitability, poverty alleviation and environmental sustainability.

3.5.3 Matrix of the eight areas of investigation

The white arrow in the guiding framework presented in figure 3.3 above, indicates that the study moving forward will have eight investigation areas, five within SC misalignment and three within SCIA. The five SC misalignment areas will be viewed as problem areas (referred to as P1, P2, P3, P4 and P5 in figure 3.4 below). The three SCIA solution areas (referred to as S1, S2 and S3 in figure 3.4 below) will be viewed as the solution areas. Figure 3.4 below shows a summary of the problem and solution areas of investigation presented in a matrix form which will guide the interviews and the analysis.

As can be seen in the matrix in figure 3.4 below, the three types of SCIA solutions are assumed to be applicable for all five SC misalignment areas and vice versa. Hence, the study moving forward has the aim of firstly understanding the eight areas separately, before connecting the problem areas to the solution areas, by understanding the interlinkage between them. The aim of doing so is to answer and conclude RQ2 (*What implications does the BoP environment have on supply chain incentive alignment?*) by filling the matrix with identified concepts from the theory and empirical data. The idea is to then identify problem dimensions that influence SCIA in BoP environments and related SCIA solutions to tackle each dimension, which in turn will constitute the final conceptual framework of the phenomenon of SCIA in BoP environments. The problem dimensions will also be connected to the identified six *General categories of implications* from the BoP on the SC:s of MNC:s in RQ1 (table 3.11), to examine how the SC changes translate to incentives problems and solutions.

		Solution areas SCIA solution areas		
		Contract based solutions (S1)	S2: Information based solutions (S2)	S3: Trust based solutions (S3)
Problem areas SC misalignment areas	Hidden action (P1)			
	Hidden information (P2)			
	Incentive design (P3)			
	Goal Conflicts (P4)			
	Differing business logics (P5)			

Figure 3.4: Matrix of the eight areas of investigation in this study moving forward.

4 EMPIRICAL DATA

In the following chapter the empirical data of this thesis will be introduced. First, interview data from MNC:s will be presented, followed by data from nonprofit organizations, data from social enterprises and finally an interview perspective from academia. The fourth chapter corresponds to the second part of phase two of the method followed in this study.

4.1 Interview data from MNC:s

4.1.1 Arla Foods

Arla Foods is one of the MNC:s that is examined in this study and was chosen due to its development work of the local dairy sector in several emerging markets. Arla Foods is a dairy cooperative owned by dairy farmers who produce the majority of the dairy that the organization processes. The organization has a long and rich history which started in 1915. The dairy farmers owning Arla Foods are spread across seven countries: Sweden, Denmark, The United Kingdom, Germany, Belgium, The Netherlands and Luxembourg. (Arla, 2023b)

An interview was conducted with the International Head of Sustainability at Arla Foods, who is part of the global sustainability department supporting the international market. Her work focuses on Arla Foods' international dairy development programmes. Arla Foods engages in the development of sustainable local dairy farming in emerging markets where it operates. Its work is designed in alignment with the UN's SDG:s (Arla, 2023a).

The data from this interview is based solely on the interviewee's input unless stated differently. Due to time constraints, the interview with the International Head of Sustainability focused on the three SCIA areas, hence these will be exclusively elaborated on in the coming sections. Furthermore, the data from this interview relates to the work in Nigeria, Bangladesh, Indonesia and Ethiopia.

4.1.1.1 Contract based solutions (S1)

The International Head of Sustainability explains that in western Europe, offtake agreements are used for dairy farmers which are implemented with bank transfers. It is however a huge challenge to have the same type of agreements in developing countries, as people living in BoP environments are often living on a day to day basis, meaning that the preferred payment method is direct cash payment to be able to make the living situation work.

Furthermore, the International Head of Sustainability mentions that middlemen might shortcut the farmers and the buyer (e.g. Arla Foods). These middlemen offer a slightly higher price in cash, and the farmers might take the middlemen's offer since they need the cash. These types of issues intensify difficulties to commercialize the SC:s in BoP environments, since Arla aims for corruption free operations and hence prefers to operate with bank transfers and transparent bookkeeping standards as much as possible. Farmers' lack of loyalty due to their vulnerability and need for money further aggravates this issue since it implies unreliable flows of supply. The mentioned issues are present in both Nigeria as well as Bangladesh.

In Indonesia, where the farmers are organized in large and relatively well functioning cooperatives, the situation and the relationship with the farmers differs and is improved

compared to the situation above. Hence, when smallholder farmers are organized in well functioning cooperatives, some of the issues related to contractual structures can be improved, as the International Head of Sustainability explains.

4.1.1.2 Information based solutions (S2)

When asked to compare the farmers in western Europe to the smallholder farmers in the BoP with regards to the efficiency of information flows, the International Head of Sustainability's simple answer was that it is incomparable. For instance, most of the BoP smallholder dairy farming is based on subsistence agriculture where the family running the farm has been doing so for generations. As a consequence, the BoP smallholder farmers might lack a business mindset and hence do not operate like formal organizations with well established information flows and documentation. This becomes an issue when trying to commercialize the dairy SC involving such smallholder farmers. The International Head of Sustainability further mentions that it is hence of advantage to work with cooperatives of smallholder farmers to overcome some of the issues and make the transition to a commercialized SC smoother.

Regarding the simplicity of collecting and extracting requested data, the International Head of Sustainability explains that the context is the decisive factor. For instance, in Indonesia where the farmers belong to cooperatives, it is much easier to access the requested information in comparison to Nigeria where the smallholder farmers are operating independently. The same contrast applies when discussing the efficiency of information flows.

Furthermore, an important factor regarding information flows, mentioned by the International Head of Sustainability, is to have professionals out in the field who speak the local language and can communicate freely with the farmers, advising them based on their specific needs and context.

4.1.1.3 Trust based solutions (S3)

With regards to trust based solutions, the International Head of Sustainability explains that it is of great importance to make an effort to understand the BoP smallholder farmers and their reality, since they work in a completely different context than the farmers in for instance western Europe.

The international Head of Sustainability further mentions that while trust is of great importance, it is not sufficient enough on its own for building a commercial SC. For instance, a dairy SC needs to have reliable flows of milk and if there are many fluctuations in the flows, then it becomes difficult to commercialize. Another important factor is product quality, and testing the milk according to established standards can be challenging in the context of the BoP smallholder farmers. Hence, beyond trust and contracts, loyalty is needed to create a commercial SC or to scale up an existing one. Building loyalty is however considered a major challenge in the BoP context.

4.1.2 IKEA of Sweden

The second MNC that was examined is IKEA of Sweden. The choice of including this organization in this study was made due to the organization's work with social initiatives connected to the main supply chain, which will be further elaborated on in the coming sections.

An interview was conducted with the Partner Development Leader at IKEA of Sweden and the data from this interview is based solely on the interviewee's input unless stated differently.

IKEA of Sweden is one of the core business units focusing on development, maintenance and improvement of the IKEA offer (IKEA, 2023b). IKEA was founded in 1943 by Ingvar Kamprad and focuses on home furnishing and manages all stages from raw material to the finished product delivered to the customer, and is today present in 62 markets (IKEA, 2023a).

IKEA works with social aspects in four different ways: code of conduct with its suppliers, responsible sourcing, social business partnerships within the supply chain as well as supporting social entrepreneurs outside the supply chain. The fourth area will not be included due to it being out of the scope of this study.

When discussing the different areas of investigation in the sections below, a distinction between two lines of business within IKEA of Sweden will be made. The first line refers to IKEA's ordinary commercial business and the relationship to its suppliers and will be denominated the commercial business. The commercial business includes the code of conduct and responsible sourcing areas.

The second line refers to the partnerships with social businesses that are included in the supply chain as suppliers of mostly handicraft, and will henceforth be denominated the social businesses. IKEA of Sweden engages with social businesses that have a vision of creating job opportunities for marginalized groups and contributes with its scalability resources and capabilities to help realize the vision. Since job and development creation is the main objective of the partnership, the way of working is significantly different in comparison to the commercial businesses, which will be further elaborated in the sections below. Most of the social businesses are located in Southeast Asia (in India and Bangladesh) but can also be found in North Africa, South America and Central America.

4.1.2.1 Hidden action (P1)

With regards to IKEA of Sweden's relationship with their suppliers, the transparency is experienced to be equivalent in underprivileged countries as in for instance the developed countries in western Europe. The Partner Development Leader further explains that the high level of transparency is believed to be due to IKEA's ambition and history of working with the same suppliers over a long period of time. He further mentions that the high level of transparency is not surprising considering IKEA's way of working where for instance the development of collaborations and communication paths are central parts when working with suppliers. He further notes that the described way of working differs from many other competitors in the way that the latter usually enter a region in the BoP to procure the requested products and exit the region shortly after, once their operations are conducted.

The Partner Development Leader further mentions that the relationships with regards to social businesses are required to be completely transparent. All information needs to be shared between the partners, hence the transparency is higher in the social businesses than in the commercial ones.

4.1.2.2 Hidden information (P2)

The process of becoming an IKEA supplier is complex and takes around two years. The Partner Development Leader explains that the structure of the process unveils information regarding the supplier's complete capacity and competence, hindering any information from being hidden or altered. An important note is that the process includes different types of professionals from IKEA to visit the production plants and engage with the suppliers in person to understand their conditions. He further explains that IKEA has local representatives in almost all regions, which facilitates the evaluation process to be conducted in close cooperation with the potential supplier. It should further be noted that it is highly demanding to become an IKEA supplier and includes following numerous strict requirements, hence oftentimes suppliers will need to change their way of working in order to complete the process of becoming an IKEA supplier. The complexity of the process is believed to contribute to the high level of transparency achieved, the long term collaboration and the development that the suppliers experience along the way, as the Partner Development Leader explains.

With regards to the social businesses, the setup of the collaboration is significantly different since it does not entail undergoing the same process as in the commercial businesses as described above. An IKEA designer is instead sent to the production plant where the marginalized groups are to be provided job opportunities. The IKEA designer then creates a product design together with the craftsmen that is adapted to conditions in the specific production plant. Since the objective of social businesses is to create job opportunities, the production plant will be expanded if it does not carry enough space for the number of marginalized people to be provided with a job.

4.1.2.3 Incentive design (P3)

The Partner Development Leader explains that IKEA's work with its suppliers with regards to incentives is more focused on reward structures than punishments. Good performance as well as good contractual compliance are believed to lead to increased business and longer partnerships. The reward structures used are for instance through supplier certifications that IKEA's suppliers receive in accordance with their performance and where each certification level implies certain advantages. Hence, the punishments can be seen as the lack of access to the advantages when a supplier does not reach a certain certification level.

With regards to the social businesses, the Partner Development Leader explains that only reward structures are in place. Social businesses are often extraordinary at creating social impact, however they are oftentimes also less experienced within business areas, which is where IKEA's expertise is utilized. Plans, ambitions and objectives are hence set jointly to achieve the goal of job and development creation.

4.1.2.4 Goal conflicts (P4)

The Partner Development Leader highlights potential goal conflicts observed related to the relationship with the social businesses. When working with social businesses, IKEA aims to engage in developing the businesses and offer guidance on how to grow. It could for instance translate to IKEA aiming to produce more products in collaboration with a certain social business. However, the ambition of growing the business for instance into a regular supplier is not always shared by the social businesses. Reasons for the resilience to grow into a commercial

business are for instance that the social businesses see constraints in the local context or having beforehand decided to remain a social business and focus solely on impact creation.

4.1.2.5 Differing business logics (P5)

Differing business logics between IKEA and its regular suppliers is not experienced to be a challenge due to the evaluation of strategic fit conducted before the partnership begins, as the Partner Development Leader explains. The strategic fit among other things relates to the shared belief in the business model that IKEA works by, which has its core in economies of scale. There is furthermore no difference experienced between suppliers based in developed versus developing countries with regards to conflicts arisen due to differing business logics.

When working with social businesses the entire business logic is different since the overriding KPI is the number of jobs created, which is an objective shared with the social businesses. The Partner Development Leader further explains that conflicts due to differing business logics are unlikely to occur, since both IKEA and the social business in question have the aim of solely creating impact and since the goals are set together.

4.1.2.6 Contract based solutions (S1)

The Partner Development Leader mentions that IKEA utilized standardized contracting with its suppliers, hence no contractual differences are experienced with suppliers based in developed versus developing countries. However, contextual factors such as the informal environment as well as the occurrence of middlemen in BoP regions could have the tendency of complicating the business process.

When working with social businesses, the Partner Development Leader explains that the contracts are altered to protect the projects against market fluctuations, which is otherwise uncommon when working with regular suppliers. The protection against fluctuations relate to for instance the demand levels, as IKEA aims to keep them as stable as possible towards the social businesses.

4.1.2.7 Information based solutions (S2)

With regards to information flows, the Partner Development Leader explains that due to the high transparency achieved with the suppliers, accessing information is not experienced as a challenge. For instance, IKEA communicates beforehand that the supplier will be followed up and which KPI:s are to be measured. IKEA furthermore encourages its suppliers to create KPI:s for themselves to measure as well to drive their business and partnership forward. He however notes that the information structures within organizations may differ based on the regional or cultural factors.

The Partner Development Leader further explains that when working with social businesses, the supply chain KPI:s usually followed in the commercial business are altered and valued based on impact created, unlike when working with regular suppliers.

4.1.2.8 Trust based solutions (S3)

The Partner Development Leader notes that trust is an important factor in all relations, but especially in BoP environments, due to the more unstable business environment there as well

as the occurrence of more actors operating unfairly. He further highlights that trust goes both ways, meaning that both the supplier and the buyer are evaluated with regards to their trustworthiness. The buyer's ability to keep commitments as well as engage in development work are examples of factors that affect the buyer's trustworthiness. It is furthermore important to live up to what is promised, especially when the market fluctuates such as for instance when inflation rises. The Partner Development Leader furthermore points out that although partnership with intermediaries (e.g. NGO:s) and local organizations open up opportunities of trust building, trust is to be built up over time as well as through operating with fairness and trustworthiness.

4.2 Interview data from nonprofit organizations

4.2.1 SOS Children's Village Mozambique

SOS Children's Village Mozambique was chosen to be included in this study as one of the studied nonprofit organizations due to one of its current programmes targeting smallholder farmers to improve their socio-economic conditions in the districts of Chimoio and Vanduzi, which will be further elaborated on below.

SOS Children's Village Mozambique is a social and humanitarian NGO focusing on orphans and vulnerable children as well as protecting and advocating for children's rights. The organization's work includes the areas of education, health care, emergency aid, protection, prevention and family strengthening. The last mentioned area includes the Kurima project, which is a programme targeting 800 smallholder farmers consisting of mostly women and youth, with the aim of increasing their income as well as employment opportunity by implementing sustainable agriculture practices.

An interview was conducted with the coordinator of the Kurima project, who is responsible for the supply chains of the 800 smallholder farmers in the districts of Chimoio and Vanduzi. However, the input is based on the experience of the Kurima project coordinator as a community development worker in general and is not directly connected to the Kurima project. All data from this interview is based solely on the interviewee's input unless stated differently.

This interview has hence a focus on vulnerable smallholder farmers, local actors as well as the BoP context in the rural areas in Mozambique. Out of the eight areas of investigation in this study, the misalignment areas incentive design and differing business logics have been left out due to lack of received data concerning these areas. The remaining areas of investigation will be further discussed in the sections below.

4.2.1.1 Hidden action (P1)

The activities in NGOs and in particular in international NGOs are implemented on the basis of transparency, both with regards to office activities and activities in the field and in particular in the distribution of agriculture inputs. However, the Kurima project coordinator notes that she has faced challenges due to the tendency of breaking transparency by some farmers for wanting benefits above what they deserve, although the rules of NGO:s always prevail and the activities and benefits are implemented according to the established rules. However, outside the mentioned relationship, this type of dishonesty can also be observed in some local companies, who use dishonesty to receive funds they are not eligible for.

4.2.1.2 Hidden information (P2)

With regards to hidden information, the coordinator of the Kurima project notes that “faced with information that is difficult to understand, some farmers do not react well and some may even abandon the process. It should be noted that literacy is a challenge in rural communities and this affects the comprehension of certain processes which in some cases cause misunderstandings that can affect the participation in certain processes.”. The same type of reaction can also be observed when local actors face situations with risk of hidden information. However the coordinator of the Kurima project notes that the described consequences are more related to emergency projects that an NGO engages in than development projects. For the development projects, different interaction approaches are used by the community development agents to avoid misunderstandings in order to achieve an active participation by the target group.

4.2.1.3 Goal conflicts (P4)

Goal conflicts between MNC:s and farmers tend to arise due to the low prices offered to the farmers by the MNC:s, as explained by the coordinator of the Kurima project. The relationship between the two parties is often set up in the MNC’s favor. For instance, the MNC is the one who promotes the specific type of crops to be grown by the farmer as well as sets the price for the requested crop, which is often very low. Hence, the farmers have very little control and power in the relationship with the MNC. However, it should be noted that this type of behavior can also be observed in the relationship between farmers and other local buyers.

4.2.1.4 Contract based solutions (S1)

With regards to contracts, the Kurima project coordinator explains that “the contractual mechanisms are not very efficient since at this level (of the BoP) many do not apply the law applicable in the country”. To improve the contractual process when MNC:s are involved, the Kurima project coordinator suggests that MNC:s can offer a higher quality of assistance when establishing the contracts, creating reasonable agreements that are not only favorable for one party, and having qualified professionals in the field to oversee and assist in the process.

Furthermore, improvement of technical assistance for farmers in order for them to maximize productivity as well as take informed decisions is of great importance, as the Kurima project coordinator explains. Governmental support such as establishing policies that are developed with help from the community to protect the farmers is further considered important to improve the contractual situation in the BoP.

4.2.1.5 Information based solutions (S2)

The coordinator of the Kurima project explains that the information systems of MNC:s are much more organized and advanced than the ones of most local actors. Furthermore, conducting performance measurements as well as gathering data is not an easy task in BoP environments. However, it can be done by investing in proper preparation work as well as having a well organized performance measurement operation that is aligned with the BoP environment in question as well as the objectives of the performance measurement.

The coordinator of the Kurima project further explains that although information flows in BoP environments have become more and more efficient and present, the situation in rural

communities in Mozambique seems to show less progress. The majority of the rural communities lack access to modern information and communication technologies (ICT). The coordinator of the Kurima project further explains that it is a great challenge to provide farmers and communities with communication via radio or other types of media in order to increase their access to information and knowledge. She further suggests that a possible solution is to expand the availability of ICT:s and notes that “in the country there is one radio with local coverage and broadcast in national languages, however in some communities there are also community radios, but it is important to continue to invest in ICTs”.

4.2.1.6 Trust based solutions (S3)

The Kruima project coordinator explains that creating a trusting business environment can be utilized as an effective tool to counteract disloyalty as well as low engagement in BoP environments. Hence, building trust is considered to be a way of increasing productivity, collaboration and loyalty. She further notes that MNC:s are considered to be more reliable buyers to the farmers, in comparison to local buyers since MNC:s often have stronger managerial and financial structures.

4.2.2 Tanzania Renewable Energy Association

The second nonprofit organization included in this study is Tanzania Renewable Energy Association (TAREA) which is a business association created by its members within the renewable energy sector in mainland Tanzania. As of 2021, TAREA has 921 members. TAREA’s overall objective is to create an enabling environment for the use of renewable energy in Tanzania. The objective is realized through numerous activities such as continuous dialogue with the Tanzanian government to help the creation of favorable policies, education and training as well as creating networking opportunities to spread knowledge and information. (TAREA, 2021)

An interview was conducted with the Executive Secretary of TAREA and the presented interview data is based solely on the interviewee’s input unless stated differently. The following sections will cover all investigation areas excluding the areas hidden information as well as differing business logics due to lack of received data concerning these areas.

4.2.2.1 Hidden action (P1)

The Executive Secretary explains that when MNC:s work with smaller companies in Tanzania, it is common that there is a lack of transparency which oftentimes leads to mistrust to the MNC. However, due to unfair tax regulations in Tanzania, it is also common for local companies to be hesitant or avoid disclosing their real financial numbers to avoid being overtaxed. Hence, an issue when working with local companies, regardless if it is a MNC or another local company trying to work with them, is that there is uncertainty regarding the size of the company you are going into partnership with.

4.2.2.2 Incentive design (P3)

When asked about incentive design and how incentives are usually used and established, the Executive Secretary of TAREA explains that it depends on the business arrangement in question. He further provides an example which is being commonly used and explains the benefits of it. There are MNC:s who work with local distributors where the agreement states

that the distributors can buy the products on credit, hence they receive their products and sell them while only paying a part or even nothing in the beginning. When the products are sold, the distributor pays the MNC for the goods and keeps the rest of the money. The Executive Secretary of TAREA explains that by this agreement, the local distributor gets a type of capital investment and will have the opportunity to sell much more than they would have if they had to pay for the goods when receiving them. The MNC in turn also benefits from the increased sales. However, logically the terms and conditions (including punishments) in the agreement on the other hand could be strong, which is in order to protect the MNC's capital.

4.2.2.3 Goal conflicts (P4)

An issue that causes a negative impact on the relationship between MNC:s and local companies is the change of policies that can happen suddenly in Tanzania. A typical example is for instance when an agreement is already in place between the two parties when a sudden change in policies in terms of added tax on certain products occurs, making it more expensive for the local company to procure the agreed on goods from the MNC. Other types of policy changes automatically also pose an impact on local actors which in turn affects their relationship with the MNC that is outside of Tanzania. It should be noted that it is often experienced that the local actors cannot have a dialogue with the MNC about the changes, and instead they often carry the additional costs and consequences alone.

The sudden change of policies aggravates the goal conflicts between MNC:s and local actors in Tanzania even more when the local actor is operating as a social business. The reason for that is that the social business in that case is procuring goods to sell to a vulnerable target group, meaning the slightest raise in price could compromise their entire purchase power. Hence, when the goals of the two partners are different (e.g. profit goal by the MNC vs. social impact by the social business), the impact of the change of policies will magnify the conflict.

4.2.2.4 Contract based solutions (S1)

The Executive Secretary of TAREA explains that contract mechanisms can be considered to work well between MNC:s and local actors. MNC:s are viewed as more trustworthy than local actors with regard to contracts since if an unexpected change happens from their side, such as an increase in production cost, they will still fulfill their part of the agreement to protect their credibility. For local actors who are not as financially strong, if unexpected situations arise, they might not be able to afford fulfilling their part of the agreement.

4.2.2.5 Information based solutions (S2)

With regards to information flows and information based solutions in the BoP, an important factor to consider is that documentation is not a common practice, as the Executive Secretary of TAREA explains. Hence it is not an easy task to collect or introduce information and data from and to local actors. Furthermore, business systems are only accessible for larger companies since the technology is expensive and most local actors in Tanzania cannot afford to acquire such systems.

The Executive Secretary further mentions that in the relationship between local actors and MNC:s, information flows can further be impacted by the different environments they are operating in. As an example, when a local actor works with another local actor, they can communicate freely and share information more smoothly since they both are working under the same conditions

and the same context. This further creates an easier understanding for one another. It takes more effort when a local actor is trying to understand a MNC and how they operate.

4.2.2.6 Trust based solutions (S3)

The Executive Secretary of TAREA states that trust is one of the most important factors when working in BoP environments and explains that “if you want to work with a community or even do business with a community, if the community knows you, it is very easy to do anything with them“. He however notes that proving that there is good intention is an essential part of building trust since there is often initially mistrust to MNC:s when they approach local actors and communities. The mistrust is accompanied by a fear of exploitation as well as fear of the MNC:s leaving whenever they are done conducting their business in the area.

Another note made by the Executive Secretary is that if a MNC wants to reach a specific area and specific communities, they can collaborate with well known local actors in the area, and these local actors will have the power to carry the MNC and introduce them to the communities. Hence, the trust will easier be built to the MNC if there is a familiar partner involved in the process.

4.2.3 Social Enterprise Ghana

Social Enterprise Ghana is the third nonprofit organization from which input was gathered, and is a network connecting 840 social entrepreneurs and enterprises from a variety of sectors in Ghana. The organization helps its member organizations within areas such as training and capacity development, funding and investment support, policy and advocacy as well as research. (SE Ghana, 2023)

An interview was conducted with the Executive Director of Social Enterprise Ghana and the data from this interview is based solely on the interviewee’s input unless stated differently. Due to lack of received information regarding the investigation area hidden information, it is excluded from the presented interview data. All remaining areas of investigation are elaborated on below.

4.2.3.1 Hidden action (P1)

The transparency between MNC:s and local actors is experienced to be inadequate from both parties, as the Executive Director explains. The issues with the transparency are believed to be related to deficient information sharing between the two parties, which will be further discussed in section 4.2.3.6 below.

4.2.3.2 Incentive design (P3)

With regards to rewards and punishments, the Executive Director explains that it is positively perceived since many of the local actors are motivated to be rewarded. However, the issue is that the local actors oftentimes are not aware of the reward structures due to the lack of understanding of the contracts and agreement they sign. Consequently, the set target for the reward is often not achieved and the reward is not given, which in turn is disadvantageous for both the local actor and the MNC.

4.2.3.3 Goal conflicts (P4)

The Executive Director of Social Enterprise Ghana mentions that goal conflicts arise between MNC:s that focus solely on profit making and local actors that focus on both profit making and social and environmental impact in terms of caring for their community and their environment. MNC:s working within the gas and oil industry are for instance experienced to focus on profit making while neglecting the environmental impact caused by their operations when they operate in Ghana, as the Executive Director explains. When such MNC:s work with local actors that focus on social and environmental goals as well, conflicts are prone to arise. The Executive Director mentions that goal conflicts could hence arise when profit and impact creation goals collide between partners.

4.2.3.4 Differing business logics (P5)

When MNC:s work with local actors that operate as social enterprises with impact creation as their priority, challenges can occur due to their differing business logics as the Executive Director explains. The challenges are especially evident when the MNC in question solely focuses on profit creation. Furthermore, similar to the discussion in the section above, when a MNC and a local actor view profit versus impact creation objectives significantly differently, it can impair the partnership between them.

4.2.3.5 Contract based solutions (S1)

With regards to contracts, the Executive Director mentions that a major challenge is the lack of understanding of contracts that many local actors struggle with. Many organizations lack the capacity internally to understand the content of the contracts and cannot acquire the capacity externally since they cannot afford it. Furthermore, the Executive Director mentions that especially in the construction industry there occurs one issue related to contracts. Local actors often start working directly without a contract in place to prove to MNC:s that they are eligible for the job and can meet the deadline in question, since MNC:s could be hesitant to contract the local actors in the first place. However, it is much more beneficial for the local companies to wait for the contracts to be in place since the contract allows them to for instance apply for financial assistance from the bank as well as receive payment alternatives when procuring construction supplies.

4.2.3.6 Information based solutions (S2)

The Executive Director of Social Enterprise Ghana explains that the information flows between MNC:s and local actors are often not efficient, due to two reasons. The first reason is that the two parties oftentimes do not share important changes and information with each other. For instance, important information in terms of issues on the ground, research and market data as well as changes in cost elements is often not shared between the parties. Another area related to the deficient information sharing concerns the local actors' limited offering of education and sensitization regarding the context towards the MNC:s. Furthermore, the two parties seldom engage in workshops together or similar events with the aim of educating each other on important topics. As mentioned earlier, the lack of transparency is believed to be connected to the described deficient information sharing. The second reason for the inefficient information flows is the lack of capacity, resources and skills to gather data and conduct performance measurement that the local actors face.

Another area connected to measurements that the Executive Director highlights is the impact measurement of both the social as well as environmental aspects that he believes MNC:s need to take into consideration further and include in their performance measurement.

4.2.3.7 Trust based solutions (S3)

With regards to trust, the Executive Director notes that there is skepticism towards MNC:s from local actors. He further mentions that it is hence of great importance that MNC:s prove that they are not coming to the BoP to exploit the communities, but that they also care about their wellbeing and aim for growth for all parties involved. The Executive Director also mentions that MNC:s can be hesitant to trust the standards and systems of the local actors. However, an improvement has been observed due to the increasing use of global standards.

Finally, the Executive Director mentions that working with nonprofits could help increase the trust to MNC:s as well as for instance educate and sensitize the MNC:s on the context they are trying to enter since it is oftentimes an issue when MNC:s enter the BoP.

4.3 Interview data from social enterprises

4.3.1 Godfrey Mpala - Deputy Country Manager at One Acre Fund Zambia

Social enterprises are of interest to gather input from since such organizations are focused on social impact and vulnerable populations or areas. One social enterprise that has roots in BoP environments and targets smallholder farmers in rural areas is One Acre Fund. The organization is present in Sub-Saharan Africa and supplies quality seeds and agriculture services to the smallholder farmers to improve their efficiency in order to eventually improve their income and livelihoods. (One Acre Fund, 2023)

One of the countries that One Acre Fund has been active in since 2015 is Zambia. An interview was conducted with the Deputy Country Manager of One Acre Fund Zambia, who is responsible for the organization's operations. Currently, the organization is managing an agroforestry and carbon program, however prior to the current program the organization's so-called core program was in operation. The core program entails One Acre Fund to supply farmers with agricultural inputs such as seeds and fertilizers. The idea is to sell the agricultural inputs to the farmers on credit where the farmers only need to pay a downpayment of 20-50% and allow them six to seven months to pay the rest, meaning the farmers can plant, harvest and sell their crops before having to pay.

The views and opinions expressed in this interview are views of the interviewee, based on their experiences and observations and not in any way represent the views of the organization. Furthermore, the data from this interview is based solely on the interviewee's input unless stated differently. The investigation areas of hidden action and hidden information have been left out from the presented interview data due to lack of received information regarding the mentioned areas. Before exploring the remaining areas of investigation a description of the three ways that farmers sell their produce in Zambia will be given, since it will allow a better understanding of the context of this interview data.

The Deputy Country Manager explains that there are three ways for the farmers to sell their harvest. Firstly, the government can act as a buyer through the Food Reserve Agency (FRA) in Zambia by requesting certain crops that are to be grown by the farmers. However, this

arrangement often entails long payment terms (e.g. several months) which is problematic for farmers who are in need of the money in order to continue their farming operations and to provide for their households. Secondly, companies that are involved with agricultural products can also act as buyers (such as MNC:s). In this case, farmers can be a part of cooperatives, where they arrange themselves together to aggregate the harvest in order to sell it to the offtaker. Compared to the first option where the government agency is the buyer, the price paid is often lower while the payment terms are more favorable to the farmers since they receive their payment directly. It is furthermore easier for the buyers (such as MNC:s) to work with cooperatives than a number of scattered smallholder farmers. Lastly, the third type of buyer is what is referred to as middlemen (or briefcase-buyers). For instance, the middlemen can have agreements with an offtaker to provide a certain crop. The middlemen will then provide the requested crops by seeking farmers in rural areas that are in a desperate condition (i.e. in great need of money), and buy their crops at an extremely low price.

4.3.1.1 Incentive design (P3)

When asked about rewards and punishments in the relationship between MNC:s and farmers, the Deputy Country Manager explains that rewards create a motivation for the farmers to work more efficiently to reach the target and receive the reward. However, when rewards are involved it often implies that the agreed on price is low and that the reward is put in place to compensate for it. The promised reward in turn is connected to a target that is also often set unrealistically high. As a consequence, the farmers work hard to reach the unrealistic target in hopes of obtaining the reward, which results in higher efficiency and better results for both parties, while the MNC more often than not gets away with the original low price without dispensing any reward.

4.3.1.2 Differing business logics (P5)

With regards to differing business logics in the relationship between local actors and MNC:s, the Deputy Country Manager explains that such issues arise oftentimes when MNC:s are collaborating indirectly with farmers through for instance social enterprises (such as One Acre Fund in Zambia). Due to One Acre Fund in Zambia being well established, they have negotiation power and can obtain for instance seeds at a lower price than average from MNC:s in order to sell it to the farmers at an affordable rate. However, MNC:s require that the purchase orders are received well ahead of time, which can be problematic for organizations such as One Acre Fund since the farmers purchasing power fluctuates heavily. For instance, if One Acre Fund orders a certain amount of seeds based on historic data and only a fraction of it is sold to the farmers due to their current purchasing power, then One Acre Fund has to handle a high level of stock and tied up capital since the MNC:s does not accept returns. Another note by the Deputy Country Manager regarding differing business logics is that issues such as the above described one also occurs with local companies. However, the difference is that in this scenario, both parties are operating in the same environment, which consequently implies that the extent of the conflicts is not as magnified as when working with MNC:s.

4.3.1.3 Contract based solutions (S1)

The Deputy Country Manager mentions the lack of regulation on the minimum price for different crops as an important factor that has a tremendous effect for the farmers. The combination with the farmers' strong need for money as well as their lack of negotiation power (when operating alone), consequently leads to them being an easy target for exploitation, by

MNC:s and other buyers in general. The situation differs when farmers are included in cooperatives since representatives from the cooperatives will negotiate with the buyers (such as MNC:s) to obtain a fairer trade.

There is furthermore a difference in how MNC:s approach the farmers in comparison to for instance middlemen or other buyers that are from the same community as the farmers. MNC:s do not negotiate their prices, instead they communicate their prices and it is up to the farmers to decide whether to take the offer or not. However, when middlemen or other local buyers approach the farmers, there is a higher risk of exploitation since these buyers understand the farmers situation and context, and know how to manipulate the situation in their favor, hence there is much more negotiation involved and the offered prices tend to be extremely low. Hence, from the Deputy Country Manager's point of view, it is better for the farmers that operate alone to work with MNC:s since there is higher transparency in terms of what is being offered.

With regards to contracts, the Deputy Country Manager notes that there are differences when MNC:s are working with disaggregated smallholder farmers in comparison to when they work with cooperatives. In the first-named scenario, contracts are oftentimes not used and instead an informal agreement is set if the quality of the harvest meets the MNC:s standard and the offered price is accepted by the farmer.

When cooperatives are involved, then contracts are put in place. The Deputy Country Manager further notes that while contracts are beneficial, the challenge is that many of the farmers signing the contracts do not fully understand the terms and conditions they are agreeing to. As a consequence, the farmers might realize after the contract has been signed that the cost of farming the requested crop is too high and that the profit will be insignificant.

The Deputy Country Manager believes that the above mentioned challenge can be mitigated "if multinationals can invest a bit more into educating the farmers and clearly communicating the terms and conditions, because most of these farmers are not literate". Finally, when asked about important factors for the growth of farmers he highlights the area of prices, and states "most importantly, I think they need a fair price".

4.3.1.4 Information based solutions (S2)

With regards to information flows and the accessibility to conduct performance measurement, the Deputy Country Manager highlights two challenges. The first challenge relates to the major distances between villages in Zambia, meaning that a very large monitoring and evaluation team needs to be in place in order to obtain data from the farmers. The second challenge relates to the lack of mobile connectivity in many areas in Zambia meaning that a field team is needed to gather the needed information since it cannot be transferred virtually. Hence, real time data is hard to access in such BoP environments, as the Deputy Country Manager explains.

In the Deputy Country Manager's opinion, information is one of the most important areas for the farmers to be able to grow out of poverty. He further emphasizes that farmers need access to information in order to make informed decisions about their products as well as where and to whom they should sell their products. In turn, greater access to information is associated with enabling the farmers to make choices for themselves instead of having to obey the buyers demands due to desperation. The Deputy Country Manager however notes that granting better access to information for the farmers does not only bring benefits to the farmers, but to the MNC:s as well. He mentions that sometimes MNC:s ask the farmers to grow certain crops

but the farmers decline their requests due to them lacking information on where to access the inputs for the requested crop at an affordable price.

4.3.1.5 Trust based solutions (S3)

The Deputy Country Manager argues that trust is built over time and with proven integrity. Until the trust is built up, BoP farmers are usually hesitant to engage in partnership with MNC:s and might consult with organizations such as One Acre Fund Zambia before signing any agreements. Local buyers will have the upper hand until the farmers trust the MNC in question, since the farmers might already know the local buyers albeit the higher risk of exploitation as discussed earlier in section 4.3.1.3. However, it should be noted that once the trust is built to a certain MNC, the farmers tend to prefer selling their products to them since it entails less risk of exploitation and a higher paid price.

The Deputy Country Manager further mentions an example where a MNC was only able to reach certain rural villages through the partnership with One Acre Fund Zambia, since they are the ones that the communities trust and know. Hence, when MNC:s collaborate with local social enterprises or nonprofits, they are able to reach areas that they would not have been able to otherwise, since the communities and local actors trust that the social businesses or nonprofits in question are partnering up with MNC:s that trade fairly, as explained by the Deputy Country Manager.

4.4 Interview data from local companies

4.4.1 ENSOL LTD.

As the previous interviews focused on MNC:s, nonprofits as well as social enterprises, the following interview data will focus on the local company ENSOL LTD. in Tanzania to capture input from commercial local companies operating in BoP environments. An interview was hence conducted with the Managing Director at ENSOL LTD., which is a local Tanzanian company within the solar energy industry. ENSOL LTD. is procuring and installing solar energy systems in residential housings, commercial buildings and governmental projects such as in schools, health care facilities and other community buildings. The company was established in 2001 and has been in business for over 20 years. ENSOL LTD. sources mainly from MNC:s located outside of Tanzania.

Out of the eight areas of investigation, the misalignment areas incentive design, goal conflicts and differing business logics have been left out due to lack of received data concerning these areas. The data from this interview is based solely on the interviewee's input unless stated differently.

4.4.1.1 Hidden action (P1)

The Managing Director mentions that transparency is experienced to have some challenges accompanying it. For instance, challenges in exclusivity agreements have been encountered when working with MNC:s. The exclusivity agreement could for instance state that the supplier only supplies to the local distributor in a certain area in question, and the local distributor only distributes products from the specific supplier. However, it has happened that local distributors that have agreed on such terms eventually find out that there are other competitors in the area selling the same type of products. Solutions that can protect the local distributors are to avoid

signing the exclusivity agreement in the first place if there is suspicion that the MNC has tendencies to act in an unfair way or to revise the agreement and ensure protection of the local distributor, as the Managing Director explains.

4.4.1.2 Hidden information (P2)

Evaluating information about the MNC that is hard to detect, such as the real technical and financial competence and capacity, is considered to be one of the most crucial challenges by the Managing Director. A way to work around this challenge that ENSOL LTD. uses is to ask the supplier for references to ensure the capacity and competence of the supplier. A background check through the supplier's website is also done as well as looking for certifications that the supplier has achieved and applies.

4.4.1.3 Contract based solutions (S1)

The Managing Director mentions a first challenge for the local actors when entering a process of creating a contract with MNC:s, which is that the MNC usually has much larger market power than the local actor, which is a fact known by both parties. The local actor is eager to enter an agreement with the MNC since it could be a growth opportunity for them, while the larger market power for the MNC could entail having an even higher negotiation power with regards to for instance the prices and payment terms.

Furthermore, the Managing Director explains that it is not always clear what is said in the contracts and what the agreement is practically stating. When instead the agreement is between two local actors, this challenge is not as present and the agreements seem to be more clear, which could be due to the increased amount of information shared, as the Managing Director discusses.

Another challenge that arises in the relationship between local actors and MNC:s is that MNC:s could have standards or requirements that are far above what the local actor can live up to, which the local actor might understand first when executing the agreement. An example of a standard used by MNC:s that contributes to complications for the local actors (especially when the local actor is a supplier to the MNC) is the payment time which is normally set long, such as between 60 to 90 days. These types of payment terms create cash flow issues and other financial challenges for the local actors.

4.4.1.4 Information based solutions (S2)

With regards to the efficiency of information flows, the Managing Director mentions that MNC:s often have quick and efficient information flows in contrast to the local actor's information flows. The contrast could be due to the limited use of tracking systems and other types of information systems. As a consequence, conducting performance measurements or gathering performance indicators from the local actor could be a difficult task. Oftentimes the requested data is introduced and collected only when asked for, causing delays and slow information flows back to the MNC. A solution suggested by the Managing Director for avoiding such delays in sending performance data or other types of information, is for the MNC to be clear from the beginning of the agreement on what specific type of information will be requested. Consequently, the local actor gets a head start on gathering the requested information and delays can be avoided.

With regards to the willingness of sharing information, the Managing Director mentions that the local actors could be hesitant to share information with MNC:s due to fear of exploitation since they do not know in what purpose the information will be used by the MNC.

4.4.1.5 Trust based solutions (S3)

The Managing Director explains that for the local actor to gain trust in the MNC, it is important for the MNC to prove their good intentions by for instance proving that they are providing a fair and real opportunity of growth. He further mentions that trust from the local community is one of the most important factors for the growth of local actors. Through trust from the community, the local actor gains access to different types of market support such as invitation to networking and business training events, better credit terms, increased number of referrals, as well as attracting more customers.

Furthermore, the Managing Director believes that trust should be built up step by step and by creating an understanding for one another. Trust in the MNC can also grow when the partnership includes training such as business development or technical training. Another important factor is to consider the local actor for activities that are usually contracted to expatriates by MNC:s. The local actor knows the environment the best and also has connections within the community and can give guidance on where to find the requested labor in case the actor does not have it within their organization.

Another aspect of trust, as well as another reason for the importance of allowing the local actor to grow from the partnership with the MNC, that the Managing Director mentions, is that the MNC is free to leave the BoP at any time. There is a fear that the MNC will conduct their operations and leave the area in its original state, or worse from for instance an environmental aspect. Hence, the exit strategy of the MNC is an important factor to consider since it can cause mistrust and skepticism to the MNC. Proving good intentions and engaging in growth activities such as the ones mentioned above could help ease this type of mistrust, as explained by the Managing Director.

Furthermore, the Managing Director mentions that one way for the local actors to benefit from the partnership with the MNC in other ways than through better prices and payment terms, is to gain recognition and visibility in the local area or community in which they operate. This can be done through help from the MNC in terms of assisting in advertisement materials or guidance as well as allowing the local actor to be visible in the MNC:s campaigns in the local area. A further note is that even when CSR initiatives are conducted by the MNC, the visibility towards the public is one of the most important factors to consider for the growth of the local actor. Through recognition the local actor can attract further business opportunities as well as trust from its community.

4.5 Interview perspective from academia

4.5.1 Lara Schilling at the University of Kassel in Germany

To capture input from academia as well, an interview was conducted with Lara Schilling who is a PhD student as well as a research assistant at the Chair of Supply Chain Management department at the University of Kassel in Germany. She has a background in business administration as well as sustainable management and economics. The area of research she is involved with is technology in BoP environments. Two of her published articles have been used

in the theory chapter of this thesis. Due to time constraints, the interview with Schilling focused on the three SCIA areas, hence these will be exclusively elaborated on in the coming sections. The data from this interview is based solely on the interviewee's input unless stated differently.

4.5.1.1 Contract based solutions (S1)

Schilling explains that information asymmetries pose a challenge with regards to contract based solutions in BoP environments and mentions that “information asymmetries are a central aspect in these markets”. BoP actors often lack access to information that is available to the MNC, such as information about market prices. As a consequence, BoP actors become heavily dependent on MNC:s. Furthermore, BoP actors often do not have the power or possibility to tackle hidden actions or hidden information and similar issues (e.g. in situations where the BoP actor is the principal and the MNC is the agent) through contractual solutions due to the power imbalance in the relationship between BoP actors and MNC:s. Hence, contract based solutions can become rather challenging to maintain in a correct way. Schilling further discusses utilizing technology to overcome information asymmetries and allow a more collaborative approach to thrive, which in turn can help improve the contractual solutions. The mentioned technology area will be further elaborated on in the coming section.

4.5.1.2 Information based solutions (S2)

Schilling highlights that the most crucial point with regards to information based solutions is to understand the context and the information flows that are available to the specific context at hand. When transferring information from the BoP to the MNC:s operating in other contexts, it is important to view the information and the flows from the perspective of the BoP. One important area related to the importance of understanding the context, is understanding rebound effects. As an example she mentions the potential effects of for instance exporting clothing and textiles to BoP regions with the intention of granting the population better access to the items. A rebound effect could be that the local textile industry might be negatively affected since their products might not be as attractive to the population anymore. With regards to performance measurement, if the context is not understood and a rebound effect such as the mentioned one does occur, the rebound effect might not be captured through the performance measurement since it was not identified in the first place. Schilling further highlights that understanding the context can help identify the correct indicators to measure and the type of information flows needed.

Furthermore, Schilling emphasizes that while not all kinds of technology might be present in BoP environments, it is of importance to understand what types of technology that are in fact present and to utilize these technologies and the data gathered through them. As an example, she mentions a simple mobile financial service used by farmers in Africa, that utilizes normal text messages instead of the internet to function. Schilling further explains that one way to access more information and give the BoP actors a larger voice, is to utilize the data in the technologies used in BoP environments, such as the above mentioned mobile financial service, and connect it to technology used in more developed regions, such as blockchain technology. She further discusses that while blockchain technology has its limitations and might not be ready to scale up, it is one mechanism that can grant BoP actors the opportunity to voice their reality without the involvement of any intermediaries.

Schilling further mentions that information based solutions could be preferred over contract based solutions in the specific context of the BoP, since the latter are often used as a top down

approach, whereas information based solutions could allow for a more collaborative approach more aligned with the BoP context through the use of technologies.

4.5.1.3 Trust based solutions (S3)

With regards to trust based solutions between MNC:s and BoP actors, Schilling notes that it is challenging to start with since it is often built over time. The differing environments of the two parties and the power imbalances as well as the mistrust usually present initially in the relationship further creates aggravating circumstances with regards to trust building. Hence, trust based solutions could be utilized as a next step in the alignment process, and once the collaborative information structures are in place, as Schilling explains. Schilling further discusses that one way to create trust could be through the combination of contract based and information based solutions. She explains that when contracts are altered to become collaborative (i.e extends to more than only transactions) by allowing an increased amount of information flows from both parties, trust can slowly be built up.

Another opportunity of trust building mentioned by Schilling is through the involvement of trusted local actors or organizations such as NGO:s taking the role of the intermediary between MNC:s and BoP actors. Such intermediaries can help create a sense of trust in the relationship as well as ease information flows and allow a collaborative relationship to grow.

5 ANALYSIS

The following chapter outlines the analysis of the literature and the empirical data. Each of the eight areas of investigation (problem areas P1-P5 and solution areas S1-S3) is examined separately to identify and extract concepts from each of them. The emerging concepts will firstly be identified from the empirical data and secondly from the literature (theory). Appendix G presents summarized tables of the literature and empirical data for each investigation area visualized as categories (rows in the tables) to facilitate the creation of concepts. The corresponding concept to each category is also presented in Appendix G. Each concept will be given an identifier in the format X.Y, where X refers to the area of investigation and Y to the number of the concept within said area. It should be noted that in accordance with the chosen method, all found concepts will be covered, including contradictory concepts or those that are competing with each other. The result is 18 problem concepts from the problem areas (P1-P5) and 15 solution concepts identified from the solution areas (S1-S3). Chapter five corresponds to the third phase of the research method followed in this thesis.

5.1 Analysis of the Problem areas (P1-P5)

The analysis of the problem areas (P1-P5) has the aim of identifying concepts concerning the SC misalignment areas in the context of the BoP, such as factors that can aggravate the potential occurrence of the misalignments.

5.1.1 Hidden action (P1)

The first problem area is the SC misalignment area of *hidden action*, which as mentioned earlier, relates to the situation that occurs when a SC member cannot observe the actions of other partners and as a consequence struggles to persuade them to act in the best interest of the SC (Narayanan and Raman, 2004). The underlying cause is information asymmetry causing certain SC partners to have better access to specific information and potentially utilizing this in their benefit by either engaging in hidden actions or hidden information (Simatupang and Sridharan, 2005). A summary of the gathered empirical data (originally presented in chapter four) as well as the main identified theory (originally presented in chapter three) concerning the area is presented in table G.1 in Appendix G.

5.1.1.1 Emerging concepts from the empirical data

As depicted in table G.1, various topics are mentioned in the empirical data with regards to the area of hidden action. The main topic is the inadequate transparency between MNC:s and BoP actors (concept P1.1). Several identified factors appear to affect the transparency level, such as the vulnerability of the BoP population (concept P1.2) and unfavorable regulations in some BoP regions (concept P1.3). Therefore, three emerging concepts can be identified from the empirical data related to the area of hidden action and will be presented next.

Concept P1.1: Inadequate transparency between BoP actors and MNC:s

Lack of transparency appears to be common in the relationship between MNC:s and BoP actors, as observed in the interviews of TAREA, Social Enterprise Ghana, and ENSOL LTD. A specific observation is found in the ENSOL LTD. case, where breaches of exclusivity agreements by MNC:s have been observed. The TAREA interview further mentions that

mistrust could grow between MNC:s and BoP actors when the transparency is low. On the other hand, as observed from the IKEA of Sweden case, when relationships are based on collaboration and communication and are long term, they lead to higher transparency. The interview of Social Enterprise Ghana further emphasizes communication as important for transparency as it states that deficient information sharing is a potential cause for the inadequate transparency between MNC:s and BoP actors. Nonetheless, the mentioned type of relationship in the IKEA of Sweden interview might not be the most common type between MNC:s and BoP actors as the interview also states that it is not uncommon for MNC:s to enter a BoP region to procure a certain product and exit the area shortly after. Hence, the relational factors of collaboration, communication, information sharing and the length of the relationship appear to have an impact on the level of achieved transparency in the relationship between MNC:s and BoP actors. A final observation is that when MNC:s work with social enterprises with the aim of creating impact, the transparency level is high, as was described in the interview with IKEA of Sweden. The takeaway is that in relationships between MNC:s and BoP actors that entail both profit and impact creation, the parties should aim for a higher level of transparency.

Concept P1.2: Vulnerability of the BoP population and businesses

As observed in the SOS Children's Village Mozambique case, the BoP actors' potential lack of honesty and transparency could be due to them wanting to receive more resources. It should be noted that the mentioned example in the SOS Children's Village Mozambique could also be viewed as an example of an act of opportunism in the form of adverse selection (i.e. hidden information) which implies "concealing prior information of capabilities from parties with less accurate information" (Simatupang and Sridharan, 2002, pp.18). The vulnerability of the BoP population could be described in terms of lacking resources, which is connected to both low income and lack of goods and services that meet the basic human needs. The vulnerability could also relate to lack of resources, capabilities, expertise and skills for local businesses (Borchardt et al., 2020). Hence, the empirical data in this concept might be a symptom of the condition of lack of resources in BoP environments related to both individuals and businesses, which in turn might influence the BoP actor's honesty and willingness to be transparent with any partners. Narayanan and Raman (2004) also indirectly highlight the mentioned area by stating that western companies fear that the suppliers or manufacturers in developing countries will abandon agreements for higher paying customers. The vulnerability and desperate need for money encountered among some BoP actors also implies that exploitation is a risk to consider, as was observed in the interview with the Deputy Country Manager at One Acre Fund Zambia (section 4.3.1.3). Thus, the vulnerability of the BoP populations appears to have several implications such as potential dishonesty as well as the heightened risk of exploitation.

Concept P1.3: Potential presence of unfavorable regulations in some BoP regions

As mentioned earlier, the TAREA interview highlights the mistrust to MNC:s caused by their lack of transparency. However, the mistrust might not be one-sided as the TAREA interview also points out that local actors might not always be able to be transparent (e.g. by being hesitant or failing to disclose their real financial numbers) due to unfavorable regulations in Tanzania. The World Bank (2023b) provides a measure denominated *Ease of doing business rank* which ranks countries from 1-190, where 1 corresponds to the most business-friendly regulations. Tanzania ranks at 141 as of 2019 (The World Bank, 2023b), which could support the argument made in the TAREA interview that unfavorable regulations for businesses might be present in Tanzania. As further mentioned in the case, a consequence might be the uncertainty regarding the size of the local company in question. A takeaway could be that the MNC:s in turn could

have mistrust to the information shared by the local actors, since it is in fact a challenge when working with local actors. If the specific unfavorable regulations that affect the operations are not understood by the MNC, it can be argued to complicate the process of tackling hidden action or hidden information as the MNC does not know which areas to target with their incentives solution.

5.1.1.2 Emerging concepts from the literature

In addition to the above described emerging concepts found in the empirical data, the literature provides an additional concept related to hidden action, which is the potential presence of corruption in some BoP regions (concept P1.4), which will be further discussed below.

Concept P1.4: Potential presence of corruption in some BoP regions

The connection between the presence of corruption and hidden action could be argued to be the potential dishonesty and lack of transparency of the parties involved directly or indirectly. As mentioned in the literature, an area on the national/regional level that can aggravate the regulatory voids is corruption. One of the implications on MNC:s operation in BoP environments is the difficulty to address corruption especially within manufacturing and operations (Parmigiani and Rivera-Santos, 2015). Increased SC costs is a consequence of the presence of corruption, due to the organizational results and costs being unpredictable (Brix-Aslala and Seuring, 2020). Narayanan and Raman (2004) state that it is a fear of western companies that there is a presence of bribes when working with suppliers and manufacturers in developing countries. The level of control of corruption in the countries from which the empirical data is gathered is provided in Appendix H (for countries in Asia) and I (for countries in Africa). The World Bank utilizes a measure named *Control of corruption* with a scoring from -2.5 to 2.5. All countries connected to the empirical data in this study have a negative score as of 2021. The lowest score belongs to Nigeria (-1.1) and the highest score belongs to Ghana (-0.1) (The World Bank, 2023g).

5.1.1.3 List of all identified concepts

A summary of all identified problem concepts related to the problem area of hidden action is presented in table 5.1 below.

Table 5.1: Summary of all identified concepts related to the area of hidden action (P1).

Identified concepts related to the SC Misalignment area of Hidden action in BoP environments		
Concepts	Main sources	Description
Concept P1.1: Inadequate transparency between BoP actors and MNC:s	IKEA of Sweden, TAREA, Social Enterprise Ghana and ENSOL LTD.	Inadequate transparency appears to be present between BoP actors and MNC:s. Handling this issue is important in order to counteract the risk of mistrust. The factors of collaboration, communication, information sharing and the length of the relationship were highlighted to have an influence on the level of achieved transparency in the relationship between MNC:s and BoP actors.
Concept P1.2: Vulnerability of the BoP population and businesses	SOS Children’s Village Mozambique	The vulnerability of the BoP population and businesses could in some cases lead to BoP actors hoping to receive more resources through the use of dishonesty and insufficient transparency. The vulnerability was found in literature to be connected to both individuals and businesses due to the condition of lack of resources in BoP environments.
Concept P1.3: Potential presence of unfavorable regulations in some BoP regions	TAREA	Potential presence of unfavorable regulations in some BoP regions appears to have an influence on the level of transparency of BoP actors and the mistrust to the information shared. If the specific regulations that affect the operations are not understood by the MNC, it can be argued to complicate the process of tackling hidden action or hidden information as the MNC does not know which areas to target with their incentives solution.
Concept P1.4: Potential presence of corruption in some BoP regions	Parmigiani and Rivera-Santos (2015) and Brix-Aslala and Seuring (2020)	The potential presence of corruption in some BoP regions with its potential consequences of increased SC costs due to unpredictable results and costs in the SC, could affect the area of hidden action.

5.1.2 Hidden information (P2)

The second problem area is the SC misalignment area of *hidden information*. As mentioned earlier, information asymmetry can lead to hidden information, wherein one SC partner has access to information that other partners do not (Simatupang and Sridharan, 2005; Narayanan and Raman, 2004). A summary of the gathered empirical data (originally presented in chapter four) as well as the main identified theory (originally presented in chapter three) concerning the area of hidden information can be found in table G.2 in Appendix G.

5.1.2.1 Emerging concepts from the empirical data

The empirical data points at two general areas with respect to hidden information which includes the lower levels of literacy in some BoP regions (concept P2.1) and the differences in capacities and processes for evaluation between MNC:s and BoP (concept P2.2). The two mentioned emerging concepts will be elaborated on further below.

Concept P2.1: Lower levels of literacy in some BoP regions

The interview of SOS Children’s Village Mozambique highlights the level of literacy as a potential area affecting hidden information. As observed in the case, some farmers and local actors could react badly when faced with information that is difficult to understand, and some may even abandon the process. The underlying reason appears to be the literacy level that is a challenge in rural communities in Mozambique. The consequence of the low literacy level is the lack of understanding of some processes which can cause misunderstandings that can compromise the farmers’ participation in said processes.

The rate of the rural population in Mozambique is 62% as of 2021 (The World Bank, 2023f), while the literacy level of adults (age 15 years and above) in Mozambique is 63% as of 2021 (The World Bank, 2023c). The One Acre Fund Zambia interviewee (section 4.3.1.3) also highlights illiteracy as an issue among farmers. The literacy level of adults (age 15 years and above) in Zambia is 88% as of 2020 (The World Bank, 2023c), while the rate of the population living in rural areas is 55% as of 2021 (The World Bank, 2023f). With respect to the general level of education in the BoP, Parmigiani and Rivera-Santos (2015) explain that it is considered low. The segmentation based on living standards in section 3.2.1.2 (table 3.1) further shows that the extreme-poverty segment has limited education and lack of skills while the subsistence segment has low education and low skills (Rangan et al., 2011). Together, the two mentioned segments constitute 2.6 billion people, i.e the majority of the BoP population (according to Rangan et al. (2011) who define the BoP to constitute 4 billion people). As such, the level of literacy in BoP environments is likely to become an important factor to consider for MNC:s.

A final observation from the SOS Children's Village Mozambique is that in development projects, different interaction approaches are used by NGO:s to avoid misunderstandings, in order to achieve an active participation by the target group. While the interview does not specify the type of interaction approach used, a takeaway could still be that action is indeed needed to counteract the consequences of the literacy level as well as to consider altering the interaction approach with BoP actors with lower literacy levels.

Concept P2.2: Differences in capacities and processes for evaluation between MNC:s and BoP actors

Another observation from the empirical data is the contrast between the perceived challenge of revealing hidden information by a MNC and a BoP actor. In the IKEA of Sweden interview, it was mentioned that due to the complex process of becoming an IKEA supplier, it is not perceived as a challenge to disclose information that is otherwise hard to detect about the suppliers, as the process of becoming an IKEA supplier has a complex structure and takes around two years. ENSOL LTD. on the other hand perceived evaluating information about MNC:s that is hard to detect such as the technical and financial competence and capacity as one of the organization's most crucial challenges. The process of evaluation is furthermore distinctively simpler than the process of IKEA of Sweden, as it entails examining references and certifications as well as conducting an online investigation. However, it should be noted that IKEA of Sweden is a much larger corporation than ENSOL LTD., which can aggravate the contrast between the perceived challenge of revealing hidden information in the empirical data.

The literature however supports the argument that BoP actors might not have the same type of advanced processes found in MNC:s, due to the condition of lack of resources in the BoP that affects the business environment as well the population. As mentioned in literature, the scarcity of business resources often result in lack of capabilities, skills and expertise, affecting the productivity and operational efficiency of BoP actors (Borchardt et al., 2020). A further note is made by Schilling (section 4.5.1.1), who states that BoP actors often lack the power or possibility to disclose hidden actions or hidden information.

The IKEA of Sweden interview further points out that social businesses do not go through the same process as regular suppliers. Personnel in the field will instead assess the situation before starting a project and product designs are furthermore produced in close collaboration with the handicraft personnel. The takeaway from this observation could be for MNC:s that are looking

to create impact, to consider altering their evaluation process to adapt to their objectives and to work closer with the BoP actor when assessing their business.

5.1.2.2 Emerging concepts from the theory

In addition to the above described emerging concepts found through the empirical data, the literature further provides two concepts related to hidden information. The first concerns the difficulties of verifying quality as well as the skepticism towards standards and systems of BoP actors (concept P2.3). The second concept relates to the potential presence of ambiguous regulations in the BoP environment (concept P2.4). The two mentioned concepts are further discussed below.

Concept P2.3: Difficulties in verifying quality and skepticism towards standards and systems of BoP actors

This concept has its foundation in the product market voids that relate to the challenges of evaluating product characteristics such as quality (Parmigiani and Rivera-Santos, 2015), due to information asymmetries that in turn are caused by a deficient amount of intermediaries as well as standards in the BoP environment (Brix-Asala et al. 2021). The intermediaries and standards enable organizations to examine the quality of the suppliers products (Parmigiani and Rivera-Santos, 2015), hence the deficiency of intermediaries and standards results in the product markets being non-transparent in the BoP (Brix-Asala and Seuring, 2020). The literature further indicates that due to the product market voids, MNC:s can face difficulties when assessing and verifying quality in particular when procuring raw materials, with the underlying reason being the lack of certification and industry standards in the BoP environment (Parmigiani and Rivera-Santos, 2015). The interview of Social Enterprise Ghana (mentioned in section 4.2.3.7) further points out that MNC:s are skeptical towards the standards and systems of BoP actors.

Furthermore, the contrast between the simple and trust based approach used in the BoP of meeting product requirements and the more formal approach utilizing documentation and quality evaluation in formal SC:s (Brix-Asala et al., 2021), might also be a contributing factor to the skepticism and difficulty of evaluating quality in the way that MNC:s wish for. The mentioned contrast could lead to conflicts when a formal SC meets the informal BoP environment (Brix-Asala et al., 2021), i.e. such as when MNC:s work with BoP actors. Narayanan and Raman (2004) also highlight the skepticism towards quality and point out that western companies fear that the suppliers or manufacturers in developing countries will lack in producing timely as well as keeping a consistent quality.

The information asymmetry observed in this concept appears to be related to BoP actors having better access to accurate information regarding their own product quality and capabilities than their SC partners (e.g. MNC:s). The SC partners struggle to verify the quality and capabilities of the actor due to the lack of intermediaries and standards. As referenced in literature, one of the consequences when there is insufficient visibility to other partners' information, is the difficulties to assess trade-offs properly when making informed decisions and instead having to rely on estimation (Simatupang and Sridharan, 2002).

Concept P2.4: Potential presence of ambiguous regulations in some BoP regions

This concept has its foundation in the regulatory voids that lead to unreliable regulatory conditions in the BoP, making it challenging for organizations to predict future regulatory environments (Parmigiani and Rivera-Santos, 2015). A specific condition that is of interest in relation to the area of hidden information is the ambiguous regulations that are challenging to handle within manufacturing and operations (Parmigiani and Rivera-Santos, 2015). Such unclear regulations can potentially result in rules being open to various interpretations. Consequently, the MNC and the BoP actor could interpret the same regulation in two different ways, which could potentially lead to unintended lack of information sharing. As SC partners often do not prefer sharing personal information with the rest of the SC transparently (Simatupang and Sridharan, 2002). Thus, the two parties could have different understandings of what is considered necessary information to share.

5.2.2.3 List of all identified concepts

A summary of all identified problem concepts related to the problem area of hidden information is presented in table 5.2 below.

Table 5.2: Summary of all identified concepts related to the area of hidden information (P2).

<i>Identified concepts related to the SC Misalignment area of Hidden information in BoP environments</i>		
<i>Concepts</i>	<i>Main sources</i>	<i>Description</i>
Concept P2.1: Lower levels of literacy in some BoP regions	SOS Children’s Village Mozambique	The lower levels of literacy in some BoP regions (especially rural areas), might have implications on the area of hidden information, as some BoP actors could react poorly when faced with information that is difficult to understand and might even abandon the process.
Concept P2.2: Differences between MNC:s and BoP actors in capacities for evaluation	IKEA of Sweden and ENSOL LTD	There appears to be differences in capacities and processes for evaluation between MNC:s and BoP actors. Evaluating information that is hard to detect is a major challenge for BoP actors, which could be due to the lack of resource conditions affecting BoP businesses. BoP actors appear to also often lack the power or possibility to reveal hidden actions or hidden information.
Concept P2.3: Difficulties in verifying quality and skepticism towards standards and systems of BoP actors	Brix-Asala et al. (2021), Parmigiani and Rivera-Santos (2015) and Brix-Asala and Seuring (2020)	MNC:s could be skeptical towards the standards and systems of BoP actors. Information asymmetry is also present as BoP actors have better access to accurate information regarding their own product quality and capabilities than their SC partners (e.g. MNC:s), while the SC partners struggle to verify the quality and capabilities of the actor due to the lack of intermediaries and standards.
Concept P2.4: Potential presence of ambiguous regulations in some BoP regions	Parmigiani and Rivera-Santos (2015)	Potential presence of ambiguous regulations in some BoP regions, could lead to the two parties could have different understandings of what information is necessary to share with regards to the regulation at hand and in turn unintended lack of information sharing.

5.1.3 Incentive design (P3)

The third problem area is the SC misalignment area of *incentive design*. As explained before, the area of incentive design relates to assigning rewards and punishments in alignment with

what is best for the SC (Simatupang and Sridharan, 2005). Consequently, poorly designed incentives imply that the SC partners are induced to act in undesired ways (Narayanan and Raman, 2004). A summary of the gathered empirical data (originally presented in chapter four) as well as the main identified theory (originally presented in chapter three) concerning the area of incentive design can be found in table G.3 in Appendix G.

5.1.3.1 Emerging concepts from the empirical data

From the empirical data on the area of incentive design, several interesting observations can be made. First, two areas were found to contribute to unfulfilled incentives. The first area relates to unfulfilled incentives due to lack of understanding by the BoP actors (concept P3.1), while the second area relates to unfulfilled incentives due to imbalanced reward structures created by MNC:s (concept P3.1). Second, collaborative approaches (concept P3.3) appear to be valuable between BoP actors and MNC:s and benefit both parties. The three mentioned concepts will be further discussed below.

Concept P3.1: Unfulfilled incentives due to lack of understanding by the BoP actors

As observed in the interview of Social Enterprise Ghana, the lack of understanding of agreements by local actors leads to the unawareness of incentives structures. Consequently, the incentives remain unfulfilled, which in turn does not benefit either of the parties. The mentioned lack of understanding could be due to the low educational level in the BoP (Parmigiani and Rivera-Santos, 2015) discussed in P2.1, which will also be further discussed in concept S1.2 with a focus on the understanding of contracts.

As further stated in the interview of Social Enterprise Ghana, local actors would be motivated to work towards a reward if they are made aware of its existence. The interview of One Acre Fund Zambia (in section 4.3.1.1) further emphasizes the mentioned argument as the interview states that rewards create a motivation for farmers to work hard to reach a target in order to receive a reward. The literature appears to also be in agreement with the mentioned empirical data from both the Social Enterprise Ghana interview as well as the One Acre Fund Zambia interview. When the BoP population was segmented according to value-creation roles (table 3.2), monetary rewards were mentioned in connection to the co-producer segment (Rangan et al., 2011). The mentioned segment is best fitted for the subsistence segment (in the segmentation by living standard presented in table 3.1) who are eager to improve their incomes, which can be done by co-producing with organizations such as MNC:s. Furthermore, the idea behind the co-producer segment is that organizations can provide guidance and share knowledge with BoP actors with the aim of improving outcomes wherein BoP actors can receive a monetary reward for the improved results (Rangan et al., 2011). A takeaway from both the empirical data as well as literature is that BoP actors are likely to be motivated by rewards as they are most likely in need of an increased income. However, as mentioned in the interview of Social Enterprise Ghana, in order for the incentives to work well, they need to be communicated clearly.

Concept P3.2: Unfulfilled incentives due to imbalanced reward structures created by MNC:s

The second concept identified in relation to incentive design relates to imbalanced reward structures created by some MNC:s. The One Acre Fund Zambia interview highlights that the design of the reward structures used by some MNC:s can potentially exploit the BoP actors. It is mentioned that when rewards are involved, the agreed on price is usually low and the reward is put in place to compensate for it. The low price is accepted due to the ill condition of farmers, as explained in the case. Furthermore, the promised rewards are often connected to a target that is unrealistically high. As a result, the farmers work hard to reach such a target in hopes of obtaining the reward, leading to higher efficiency and better results for both parties, while the MNC more often than not gets away with the original low price without dispensing any reward, as mentioned in the case. As such, the vulnerability of the BoP population appears to play an important role in this area. As further discussed in concept P3.1, both the empirical data and the literature appear to agree that BoP actors are likely to be motivated by rewards. When reward structures such as the above mentioned one is in place, it can be argued to create an exploitation risk as the eagerness and vulnerability of the farmers is taken advantage of, resulting in an imbalanced sharing of the risks and rewards of the partnership.

A further interesting note is seen in the interview of IKEA of Sweden where the organization utilizes incentive structures that are focused on rewards for its regular suppliers (e.g. through supplier certifications). Furthermore, good performance and good contractual compliance are believed to lead to increased business and longer partnerships. Thus, creating incentive structures with reward targets that are set realistically to ensure continued improvement of performance as well as dispensing said reward when the target is met to ensure continued good contractual compliance could be beneficial to achieve longer partnerships and balance the sharing of risks and rewards.

It is further noted in the IKEA of Sweden interview that since the goal is to create job and development opportunities, only rewards rather than punishments are used when working with social businesses. The takeaway is that when impact creation is the objective, the sharing of rewards appears to be of importance and should be focused on rather than on punishments.

Concept P3.3: Collaborative and risk sharing approaches valuable between BoP actors and MNC:s

The third concept concerns the value of collaborative approaches between MNC:s and BoP actors. An interesting example found in the interview of TAREA is the arrangement of MNC:s taking on a liquidity risk by offering local distributors to procure products on credit and allowing them to sell the products before paying the remainder of the invoice. Such arrangement includes strong terms and conditions toward the local distributor in order to protect the MNC's capital. Both parties benefit from the arrangement as it allows the local distributors to sell much more than they could have afforded otherwise while the MNC benefits from the increased volumes sold. The arrangement is an example of an incentives structure that is adapted to the conditions of the BoP and has a balanced risk sharing between the partners since the MNC takes on the liquidity risk and the BoP actor takes on a risk due to the strong terms and conditions. The strong terms and conditions could also be viewed as a tool to counteract the commercial risk from the relationship, as this type of risk can be managed by utilizing incentives and penalties for performance levels above or below agreement (Van Weele, 2014). A further

takeaway is that well designed incentives could facilitate a collaborative relationship between the two parties as the reward of the incentive is shared by both parties.

The reason for the success of collaborative approaches including capital assistance could be due to the capital market voids and the relating substantial dearth of capital infusion in the BoP despite the development of microfinancing and the use of traditional financial solutions by the BoP population (Brix-Aslala and Seuring, 2020). The traditional financial solutions such as lending circles and local loan providers (Parmigiani and Rivera-Santos, 2015) could lead to an exploitation risk for the subsistence life-standard segment. The transaction behavior of this segment is informal, leading to moneylenders exploiting with great levels of rates (Rangan et al., 2011). Furthermore, the lack of capital infusion has the potential of leading to BoP actors being hindered from entering formal SC:s altogether (Brix-Asala et al., 2021). Moreover, while the example mentioned in the TAREA interview concerned local distributors, the literature appears to indicate that a similar logic can be applied for local suppliers. Brix-Asala and Seuring (2020) state that financial assistance as a direct supplier development practice can be utilized to bridge the capital market void and the product market void.

5.1.3.2 Emerging concepts from the theory

In addition to the above described emerging concepts found through the empirical data, the literature further provides a concept related to creating incentives involving education and training of BoP actors (concept P3.4).

Concept P3.4: Creating incentives involving education and training of BoP actors

This concept originates from the literature provided by Rangan et al. (2011), which suggests that organizations (e.g. MNC:s) can create value with the BoP population by providing guidance and knowledge to elevate the outcome of BoP actors' work in order to later offer a higher reward. When guidance and training is provided, the BoP population can participate in several parts of a SC such as production, distribution and retailing (Rangan et al. (2011).

The mentioned suggestion for value creation can be connected to several other observations from the literature related to among other things the labor market voids. For instance, lack of skilled labor is a problem in a majority of the emerging markets (Rehman et al., 2020) with the underlying reason being insufficient education (Parmigiani and Rivera-Santos, 2015; Brix-Aslala and Seuring, 2020). Specialized skills (e.g. educational skills), are often of extreme scarcity, while skills such as physical strength might be more available, meaning the impact of the labor market voids depends on the needed skills (Parmigiani and Rivera-Santos, 2015). Another type of skill that is lacking in the BoP is business skills, which is further argued to hamper the profitability of businesses operating in the BoP (Brix-Asala et al., 2021). However, even when the desired skills exist, it is difficult for companies to identify and reach them due to lack of channelization (Rehman et al., 2020). For SC:s, the labor market voids translate to challenges of finding adequate SC partners (Brix-Asala et al., 2021). Further SC implications occur due to the collision between the requirements of SC:s for formal training of labor and the informal type of training often encountered in the BoP (Brix-Asala et al., 2021). Furthermore, SC gaps and structural holes encountered in the BoP imply that MNC:s need to find ways to fill these gaps, since outsourcing is not always an option in the BoP context. One way to fill the mentioned gaps is to identify or help create an actor to fill such gaps (Rivera-Santos and Rufin, 2010). Finally, Brix-Asala and Seuring (2020) state that training and education, seen as direct

supplier development practice can help bridge the product market void as well as the labor market void.

The literature indicates that MNC:s as well as BoP actors could benefit from an arrangement where the MNC provides a training and educational opportunity for the BoP actor, in order to create an adequate SC partner who is trained formally and can simultaneously fill a needed SC gap, while the BoP actor receives a new skill and reward for their improved performance. An interesting note from the mentioned arrangement is that the training and education acquired by the BoP actor can lead to skills that benefit the actor in their work even after the work with the MNC is done, meaning that the MNC has helped create a solid growth opportunity for the BoP actor. As stated in the ENSOL LTD. interview (section 4.4.1.5), this type of growth opportunities is significant for the trust aspect between MNC:s and BoP actors, as there is often a fear that the MNC will conduct their operations and leave the area in its original state, or worse, without for instance allowing the local actor to grow from the partnership with the MNC.

Another potential advantage of such arrangements and its contribution to trust building is that the high density of networks on the local level can only be utilized by MNC:s to counteract the lack of institutions if they can be accepted by and take part of the local network (Rivera-Santos and Rufin, 2010). MNC:s can also be the link between the often isolated local BoP networks and networks outside of the BoP (Rivera-Santos and Rufin, 2010). Thus, the sharing of rewards could also be in terms of the BoP actors helping MNC:s to access the benefits of the high density of networks on the local level while the MNC could help connect the BoP actor to the outside of the BoP which in turn can open up opportunities of growth for the actor.

Another area where training and education can be connected to incentives and rewards is in the downstream flow. The information asymmetry of product market voids associated with the downstream economic interactions, i.e. between the company and the customer, relate to deficiencies in understanding the products as well as a lack of information about the products, which affects especially organizations working with complex products and services (Parmigiani and Rivera-Santos, 2015). For MNC:s working with complex offerings, an arrangement of educating the BoP distributors so that they can educate the customers in BoP regions about the products could be beneficial. The rewards will ideally be shared as the MNC achieves higher sold volumes while the BoP actor receives a higher reward and new knowledge. As the empirical data points out in the TAREA interview (section 4.2.2.6), MNC:s can reach certain BoP communities through collaborations with BoP actors as the trust is easier built if there is a familiar partner involved in the process. Such an arrangement could potentially counteract the difficulty for MNC:s to find, train and motivate eligible individuals to become distributors in the BoP due to the labor market voids (Parmigiani and Rivera-Santos, 2015). The involvement of local actors in the distribution process of the SC also showed promising potential (in relation to BoP 2.0) for the inclusion of the BoP into global SC:s (Borchardt et al., 2020).

A final note is that the subsistence life-standard segment is best suited for the role of co-producer related to the value creation idea of organizations providing guidance and knowledge, since as mentioned before, this segment seeks to improve their income (Rangan et al. (2011).

5.1.3.3 List of all identified concepts

A summary of all identified problem concepts related to the problem area of incentive design is presented in table 5.3 below.

Table 5.3: Summary of all identified concepts related to the area of incentive design (P3).

Identified concepts related to the SC Misalignment area of Incentive design in BoP environments		
Concepts	Main sources	Description
Concept P3.1: Unfulfilled incentives due to lack of understanding by the BoP actors	Social Enterprise Ghana	Lack of understanding of incentives in contracts by BoP actors, potentially caused by the lower level of education in the BoP, could lead to unfulfilled incentives. BoP actors are likely to be motivated by rewards, however, it was also found that in order for the incentives to work well, they need to be communicated clearly.
Concept P3.2: Unfulfilled incentives due to imbalanced reward structures created by MNC:s	IKEA of Sweden and One Acre Fund Zambia	The eagerness and vulnerability of the BoP farmers can be taken advantage of through promises of rewards connected to unrealistic targets. Incentive structures with reward targets that are set realistically to ensure continued improvement of performance, as well as dispensing said reward when the target is met to ensure continued contractual compliance could be of benefit to utilize for MNC:s that want to achieve longer partnerships and balance of the sharing of risks and rewards. When impact creation is the objective, the sharing of rewards appears to be of importance and should be focused on rather than on penalties.
Concept P3.3: Collaborative and risk sharing approaches valuable between BoP actors and MNC:s	TAREA	Incentive structures that are adapted to the conditions of the BoP and have a balanced risk sharing between the partners, appear to work well in BoP environments for both parties. Such structures facilitate a collaborative relationship between the two parties as the rewards are also shared by both parties
Concept P3.4: Creating incentives involving education and training of BoP actors	Parmigiani and Rivera-Santos (2015), Rangan et al. (2011) and Rivera-Santos and Rufin (2010)	MNC:s and BoP actors could benefit from an arrangement where the MNC provides a training and educational opportunity for the BoP actor, in order to create an adequate SC partner who is trained formally and can simultaneously fill a needed SC gap, while the BoP actor receives a new skill as well as a reward for their improved performance. Such an arrangement could also have a positive influence on the trust aspect of the relationship. Sharing of rewards could also be in terms of the BoP actors helping MNC:s to access the benefits of the local context of the BoP while the MNC could help connect the BoP actor to the outside of the BoP which in turn can open up opportunities of growth for the actor.

5.1.4 Goal conflicts (P4)

The fourth problem area is the SC misalignment area of *goal conflicts*, which relates to the situation that occurs when SC partners have differing goals with the consequence of a negative impact on the costs and efficiency of the SC (Lundin and Norrman, 2010). Before diving into the analysis and emerging concepts from the area of hidden goal conflicts, the reader can view a summary of the gathered empirical data (originally presented in chapter four) as well as the main identified theory (originally presented in chapter three) in table G.4 in Appendix G.

5.1.4.1 Emerging concepts of the empirical data

The empirical data regarding the area of goal conflicts provides several interesting emerging concepts. First, impact creation goals, such as social or environmental impact, can collide with profit creation goals in several ways in BoP environments (concept P4.1). A second area of interest is the observed limited power and control of BoP farmers in the relationship with MNC:s (concept P4.2). The two emerging concepts will be discussed below in relation to the area of goal conflicts.

Concept P4.1: Goal conflicts between profit creation and social/environmental impact

As noted in the Social Enterprise Ghana and TAREA cases, goal conflicts can occur when one party simultaneously values social and environmental impact and profit creation while the other party only prioritizes profit creation. The Social Enterprise Ghana interview highlights the environmental aspect, indicating that goal conflicts could occur between MNC:s who do not take into consideration the negative impact they are creating on the community, while their local partner cares about the community and its wellbeing. The TAREA interview further highlights the goal conflict between profit creation versus impact creation between MNC:s and social enterprises. In the IKEA of Sweden interview, it was also stated (section 4.1.2.5) that when working with a social business with the objective of solely creating impact, the goals will be shared and defined together. Hence, the goal conflict appears to be between impact and profit objectives. A further observation is that IKEA of Sweden operates significantly differently when working with profit creation objectives in comparison to impact creation objectives, as the organization has two separate lines of business for the different objectives.

The literature further highlights the importance of social and environmental aspects in BoP environments as it is indicated that MNC:s need to take into consideration more dimensions other than the commercial one, such as the social and environmental dimensions, when entering the BoP market (Rivera-Santos and Rufin, 2010). A further takeaway from the literature from BoP 1.0 that aligns with the empirical data is the criticism towards the neglect of the social and environmental aspect. For instance, the social impact was not addressed in BoP 1.0 but MNC:s simply assumed that by selling to the poor a positive social impact is created (Borchardt et al., 2020). The environmental aspect was also not addressed and even a negative environmental impact was observed (Chmielewski et al., 2020).

One area that aggravates the goal conflict of profit versus impact creation further is the unreliable regulatory environment often encountered in BoP regions. As mentioned in the literature connected to the regulatory voids, changing and unpredictable regulations and laws create challenges for organizations to operate in BoP environments (Parmigiani and Rivera-Santos, 2015). In the TAREA case, it was mentioned that change of policies after an agreement has been put in place is a major issue when local companies work with MNC:s, since it often entails that the local actors will have to carry the additional costs and consequences of the changed policies such as added tax on certain products. The reason as to why the local actor carries the consequences appears to often be the difficulty communicating with the MNC about the changes. The aggravated goal conflict of profit versus impact creation occurs when the goals of the two partners are different such as between a MNC focusing on profit and a social enterprise focusing on impact. As the social enterprise is procuring goods to sell to a vulnerable target group, the slightest raise in price could compromise the target group's entire purchase power. A note made by the One Acre Fund Zambia interviewee (section 4.3.1.2) further emphasizes the role of the target groups' fragile purchase power as it is mentioned that when for instance the purchase power of the farmers decreased, the social enterprise had to carry the consequences of high levels of stock as the farmers were no longer able to purchase the goods. Therefore, when some social enterprises and local actors have to carry the consequences of an unreliable regulatory environment alone, it could indicate that the risks are not shared properly between the partners. For MNC:s engaged in collaborations that take both profit and impact creation into account, this could be an important area to take into consideration in order to not compromise the objectives of the impact creation by either the BoP (as target for impact

creation) or the target group (of the impact creation) needing to carry the consequences of the change of policies alone.

A further interesting note was made in the IKEA of Sweden case, where in some cases, the company is willing to help the social businesses grow and become a regular supplier, however some social businesses have decided to only focus on creating social impact and are not interested in growing into a regular profit making supplier. The mentioned example could be viewed as a goal conflict between growth versus non-growth objectives. It can also indicate that growth could be interpreted differently between MNC:s and social enterprises. The growth that for instance IKEA of Sweden is willing to offer to the local social enterprises appears to be in some cases not the same type of growth that some social enterprises value.

Concept P4.2: Goal conflicts due to the BoP actor's limited control and power in the relationship with MNC:s

As mentioned in the interview of SOS Children's Village Mozambique, conflicts could arise due to the low prices paid by MNC:s to the farmers in Mozambique, with the underlying reason being the lack of control and power of the farmers in the relationship. The interviewee of One Acre Fund Zambia (section 4.3.1.3) also points towards power dynamic as it is mentioned that MNC:s do not negotiate prices with the farmers. As further noted in the SOS Children's Village Mozambique case, the lack of control and power of farmers is also present in the relationship between farmers and local buyers. The topic of fair prices is of importance as it was mentioned by the One Acre Fund Zambia interviewee (section 4.3.1.3) that fair prices is considered to be the most important factor for the growth of BoP farmers. Hence, the goal conflict appears to be between the MNC's goal of minimization of costs, and the BoP actor's need of making a proper profit.

The literature further points out that the mentioned dynamics where the larger organizations have more power in the SC are common in traditional global SC:s, and that it could lead to BoP actors being put at risk of exploitation (Gupta and Khilji, 2013). However, Rivera-Santos and Rufin (2010) state that MNC:s need to let go of some of the power and central roles they are used to be entitled to, and instead share it with other network members, due to the decentralization encountered in BoP networks. Concept S1.3 will further discuss the topic of power imbalance in the relationship between MNC:s and BoP actors.

5.1.4.2 Emerging concepts from the theory

In addition to the above described emerging concepts, the literature further provides a concept related to goal conflicts due to differing business environments between MNC:s and BoP actors (concept P4.3), which will be further discussed below.

Concept P4.3: Goal conflicts due to differing business environments between MNC:s and BoP actors

A first area to consider regarding the contrast between the business environments of MNC:s and BoP actors is the scarcity of resources for BoP businesses, in terms of capabilities, expertise and skills, consequently leading to limited productivity and operational efficiency (Borchardt et al., 2020). The labor market void also contributes to a lack of business skills in BoP environments, which as mentioned earlier, is argued to hamper the profitability of businesses operating in the BoP (Brix-Asala et al., 2021). As the mentioned conditions have a negative

impact on both profitability and efficiency, it could indicate that this area is of importance to consider when working on the SC misalignment area of goal conflicts. For instance, MNC:s might have expectations and goals that might not be fulfilled by the BoP actors due to the scarcity of resources in the BoP. On the other hand, BoP actors might in turn set up goals that compromise the profitability or efficiency of the SC due to the lack of business skills mentioned above.

An additional area of potential goal conflicts could be due to a mismatch between the formal SC:s' often constant requirement for investment and the scarcity of financial resources in the BoP due to the capital market voids (Brix-Asala et al., 2021). A takeaway could be that conflicts could occur when the goals of MNC:s involve heavy investments that BoP actor's might not be able to meet. Furthermore, the collision between the requirements of SC:s for formal training of labor and the informal type of training often encountered in the BoP (Brix-Asala et al., 2021), could indicate that conflicts could occur in connection to goals involving training requirements. Another area of potential goal conflicts is connected to the product market voids where, as mentioned earlier, the simple and trust based approach used in the BoP in meeting product requirements differs from the requirement for formal documentation and quality evaluation in formal SC:s, which causes conflict when a formal SC meets the informal BoP environment (Brix-Asala et al., 2021). Therefore, goals involving product requirements, formal documentation and quality evaluation might lead to conflict between MNC:s with formal SC:s and BoP actors in informal BoP environments.

The regulatory voids encountered in the BoP could further lead to goal conflicts, as was discussed in concept P4.2. Another area related to the regulatory environment that could imply potential goal conflicts is the collision between the regulations on the national/regional level and the regulations on the local/community level that can be especially salient in communities that are isolated, which is often the case for subsistence markets (Parmigiani and Rivera-Santos, 2015). As both the levels of regulations affect the rules under which a business is operating (Parmigiani and Rivera-Santos, 2015), the regulations might consequently have an influence on the goals set up by businesses. For instance, an organization located in an isolated community might have to obey both levels of regulations and consequently set up adapted goals accordingly. On the other hand, organizations outside of the community might set up goals solely adapted to the national/regional level that could be colliding with the goals adapted to local/community level regulations. Hence, goals that are connected to or influenced by any regulations of both MNC:s and BoP actors are of interest to examine to ensure their compatibility.

5.1.4.3 List of all identified concepts

A summary of all identified problem concepts related to the problem area of goal conflicts is presented in table 5.19 below.

Table 5.4: Summary of all identified concepts related to the area of goal conflicts (P4).

Identified concepts related to the SC Misalignment area of Goal conflicts in BoP environments		
Concepts	Main sources	Description
Concept P4.1: Goal conflicts between profit creation and social/environmental impact	IKEA of Sweden, TAREA and Social Enterprise Ghana	Social and environmental aspects are of importance to take into consideration especially in BoP environments. Unreliable regulatory environment in some BoP regions in terms of sudden changes of policies could aggravate the goal conflicts further especially when the BoP actor operates as a social enterprise as the target group is usually vulnerable with for instance a fragile purchasing power. Growth has the potential of being interpreted differently between MNC:s and social enterprises, as for instance a MNC might view increased profit creation as growth while the social enterprise only views increased social impact creation as growth.
Concept P4.2: Goal conflicts due to the BoP actor's limited control and power in the relationship with MNC:s	SOS Children's Village Mozambique	Goal conflicts that can arise due to the BoP actors' limited control and power in the relationship with MNC:s (and local buyers), such as conflicts with regards to the pricing process. The topic of fair prices was however found in the empirical data to be of great importance for the growth of BoP farmers especially.
Concept P4.3: Goal conflicts due to differing business environments between MNC:s and BoP actors	Borchardt et al. (2020), Brix-Asala et al. (2021) and Parmigiani and Rivera-Santos (2015)	Goal conflicts could occur when the goals of MNC:s involve heavy investments and in connection to goals involving training requirements, product requirements, formal documentation and quality evaluation. MNC:s might have expectations and goals that might not be able to be fulfilled by the BoP actors due to the scarcity of resources in the BoP, while BoP actors might in turn set up goals that compromise the profitability or efficiency of the SC due to lacking business skills. The regulatory voids and the isolation of BoP communities also indicates that goals connected to any regulations of both MNC:s and BoP actors are of interest to examine to ensure their compatibility. These areas could be argued to be of importance to be well defined in contracts to allow both partners to evaluate their compatibility prior to signing the contract.

5.1.5 Differing business logics (P5)

The fifth problem area is the SC misalignment area of *differing business logics*, which refers to the different ways of doing business according to different business models between SC partners, consequently leading to partners potentially ending up with colliding objectives (Lundin and Norrman, 2010). A summary of the gathered empirical data (originally presented in chapter four) as well as the main identified theory (originally presented in chapter three) concerning the area of differing business logics can be found in table G.5 in Appendix G.

5.1.5.1 Emerging concepts from the empirical data

With regard to the area of differing business logics, the empirical data points generally towards one main area, which is the challenges that occur when MNC:s work with social enterprises or indirectly with BoP actors through social enterprises (concept P5.1), which will be further elaborated on below.

Concept P5.1: Differing business logics between MNC:s and social enterprises targeting the BoP

The Social Enterprise Ghana interview points out that when MNC:s work with social enterprises that have impact creation as their priority, challenges can occur due to their differing business logics. Challenges also occur between MNC:s who solely prioritize profit making and local actors that prioritize both profit making as well as impact creation. However, as the interview of IKEA of Sweden shows, when MNC:s only have the aim of impact creation in the relationship with the social enterprise then challenges are unlikely to occur due to differing business logics.

Furthermore, a misalignment was observed in the interview with the Deputy Country Manager at One Acre Fund Zambia due to the differing business logics of the organization in comparison to MNC:s. The interviewee mentions that MNC:s often require purchase orders to be received well ahead of time, which can be problematic for social enterprises since the farmers' purchasing power fluctuates heavily. If purchase orders are placed based on historic data and the purchase power of the farmers is significantly decreased, the social enterprise ends up with a high level of stock and tied up capital as MNC:s usually do not accept returns. The literature points out how this example could be an indicator of misaligned incentives since when the incentives are not in alignment, it can lead to underperformance of SC:s through for instance incorrect inventory levels (Narayanan and Raman, 2004). Furthermore, misaligned incentives occur when organizations "lack the means to compel others to adjust their policies and priorities to align with the overall profit" (Simatupang and Sridharan, 2002, pp. 18), which was also observed in the above mentioned example where One Acre Fund Zambia had to obey the MNC's policies instead of altering them. While it might be cost efficient and optimal for the MNC (as a supplier) in the mentioned example to receive purchase orders well ahead of time, if the MNC is interested in creating impact (in addition to profit) with the social enterprise (One Acre Fund Zambia in this case), then it needs to consider the conditions of the targeted group that is aimed for impact creation. Hence, a takeaway is that processes and policies may need to be altered or reconsidered when there is an additional SC objective of creating impact from the partnership with the BoP actor, in particular if the BoP actor operates as a social enterprise.

5.1.5.2 Emerging concepts from the theory

Two further concepts can be identified from the literature concerning the area of differing business logics. The first concept relates to the differing business logics between MNC:s and nonprofit organizations targeting the BoP (concept P5.2). The second concept concerns the differing business logics due to the contrast between the formal and informal business environment of MNC:s and BoP actors (concept P5.3). The two mentioned concepts are further discussed below.

Concept P5.2: Differing business logics between MNC:s and nonprofit organizations targeting the BoP

As mentioned in the literature, MNC:s need to depend on non-market actors (such as NGO:s) in order to conduct their planned commercial activities in the BoP (Rivera-Santos and Rufin, 2010). For instance, both the agency-driven and corporate-driven SC approach traditionally have one common factor between them, and that is the partnership with NGO:s, which is needed regardless of the chosen approach (Brix-Asala and Seuring, 2020). This implies that it is of importance to consider the challenges of such partnerships, in terms of the differing business

logics, as MNC:s will need the partnership with the non-market actors regardless of their SC objective and chosen SC approach.

The literature appears to further support the argument that MNC:s and nonprofit organizations have differing business logics that should be considered. It is mentioned that MNC:s and agencies (such as large NGO:s and aid organizations) have significantly differing objectives and incentives, which can result in conflicts between the two parties (Parmigiani and Rivera-Santos, 2015). One difference that can lead to the partners having different objectives due to their differing business logics is that large nonprofit agencies might try to find solutions that work on the generic level to cover as many possible areas in need, which may create challenges for MNC:s when trying to create expansion or customization of the SC (Parmigiani and Rivera-Santos, 2015). Thus, it is important for MNC:s to pay attention to the consequences of the differing business logics between them and nonprofit organizations.

Concept P5.3: Differing business logics due to the contrast between the formal and informal business environment of MNC:s and BoP actors

The literature highlights the contrast between the environments of BoP actors and MNC:s from outside the BoP through the discussion of institutional voids, which started following the entry of MNC:s into the developing markets. However, as mentioned earlier, the institutional voids are not limited to SC:s containing MNC:s, but the voids are also present in SC:s containing other actors from both formal and informal markets (Brix-Asala and Seuring, 2020). The contrast between formal and informal environments appears to have an influence on the SC partners and their relationship. The contrast can be observed in the collision between the requirements for formal training of labor and the informal type of training often encountered in the BoP, the mismatch between the formal SC:s' often constant requirement for investment and the scarcity of financial resources in the BoP as well as the difference between the simple and trust based approach of meeting product requirements in the BoP and the requirement for formal documentation and quality evaluation in formal SC:s (Brix-Asala et al., 2021). Furthermore, there is a gap between the expectations of business partners from more formal environments and the BoP business environment due to the limited access to justice systems in the BoP (Brix-Aslala and Seuring, 2020). Lastly, the condition of lack of resources for BoP businesses (Borchardt et al., 2020), inadequate business skills (Brix-Asala et al., 2021), use of informal reporting of finances as well as the unusuality of formally written agreements in BoP environments (Brix-Aslala and Seuring, 2020) are factors that emphasize the contrast between the business environments of MNC:s and BoP actors.

The mentioned conditions of BoP businesses could be argued to lead to the development of business logics that might differ from ones developed in environments where all the above mentioned conditions are granted. The literature highlights limited productivity and operational efficiency (Borchardt et al., 2020) as well as hampered profitability (Brix-Asala et al., 2021) as consequences of the mentioned conditions, meaning that the conditions indeed have a substantial influence on BoP actors. The takeaway from the above observations is that MNC:s might need to be cautious when handling processes or operations involving the above-mentioned areas with their SC partners in the BoP, as these areas have the potential of contributing to misalignment caused by differing business logics.

The interview of IKEA of Sweden (section 4.1.2.5) also shows that when there is a shared belief in a business model and the relationship is evaluated thoroughly beforehand to ensure strategic fit, challenges are unlikely to occur due to differing business logics. The interview

further indicates that there are no differences between regular suppliers based in developed versus developing countries with regards to conflicts arising due to differing business logics. Hence, an indication from the interview could be to utilize the mentioned factors (evaluating the strategic fit prior to the partnership and ensuring a shared belief in a joint business model), in order to overcome the challenges of differing business logics arising from the different contexts of MNC:s from e.g. developed regions and BoP actors in developing countries.

5.1.5.3 List of all identified concepts

A summary of all identified problem concepts related to the problem area of differing business logics is presented in table 5.5 below.

Table 5.5: Summary of all identified concepts related to the area of differing business logics (P5).

<i>Identified concepts related to the SC Misalignment area of Differing business logics in BoP environments</i>		
<i>Concepts</i>	<i>Main sources</i>	<i>Description</i>
Concept P5.1: Differing business logics between MNC:s and social enterprises targeting the BoP	IKEA of Sweden, Social Enterprise Ghana and One Acre Fund Zambia	Processes and policies of MNC:s may need to be altered or reconsidered when there is an additional SC objective of creating impact from the partnership with the BoP actor, and especially if the BoP actor operates as a social enterprise. When MNC:s only have the aim of impact creation in the relationship with the social enterprise then challenges are unlikely to occur due to differing business logics.
Concept P5.2: Differing business logics between MNC:s and nonprofit organizations targeting the BoP	Brix-Asala and Seuring (2020), Parmigiani and Rivera-Santos (2015) and Rivera-Santos and Rufin (2010)	There appears to be a need for MNC:s to rely on non-market actors (such as NGO:s), regardless of their SC objective. The area of differing business logics appears to be of importance to consider as MNC:s and nonprofit organizations have differing business logics in terms of for instance objectives and incentives.
Concept P5.3: Differing business logics due to the contrast between the formal and informal business environment of MNC:s and BoP actors	Borchardt et al. (2020), Brix-Asala and Seuring (2020) and Brix-Asala et al. (2021)	Areas of potential influence are informal training, scarcity of financial resources, simple and trust based approach of meeting product requirements, inadequate business skills and informal reporting of finances, unusuality of formally written agreements, limited access to justice systems and lack of resources for BoP businesses. MNC:s might need to be cautious when handling processes or operations involving the mentioned areas with their SC partners in the BoP, as these areas have the potential of contributing to misalignment caused by differing business logics.

5.2 Analysis of the Solution areas (S1-S3)

The analysis of the solution areas (S1-S3) has the aim of identifying concepts concerning the general circumstances of each SCIA solution area, such as the opportunities and challenges of their application in BoP environments.

5.2.1 Contract based solutions (S1)

The first solution area is the SCIA area of *contract based solutions*. As mentioned earlier, redesigning contracts even in the slightest can lead to a significant impact on the behavior of the partners involved and the results can be seen on the SC performance relatively fast. By changing the way an organization pays their SC partners (rather than changing the amount paid), the SC performance can be improved, which benefits all partners (Narayanan and Raman,

2004). A summary of the gathered empirical data (originally presented in chapter four) as well as the main identified theory (originally presented in chapter three) concerning the area of contract based solutions can be found in table G.6 in Appendix G.

5.2.1.1 Emerging concepts from the empirical data

An overriding topic affecting the contractual mechanisms from different perspectives is the vulnerability of the BoP population as well as the informality of the BoP environment (concept S1.1). Another area emerging from the empirical data is the low level of education in the BoP environment causing insufficient understanding of contracts (concept S1.2). The role of cooperatives is further often brought up when the above mentioned challenges are discussed (concept S1.3). Furthermore, power dynamics between BoP actors and MNC:s (concept S1.4) as well as information asymmetries were pointed out to have an influence on the utilization of contracts in the BoP (concept S1.5). The five mentioned concepts will be discussed next.

Concept S1.1: Align payment type and time to the vulnerable and informal environment of the BoP population

The Arla Foods interview highlighted the major difficulty of contracting smallholder farmers in developing countries (e.g. through offtake agreements) due to the population living on a day to day basis, which results in challenges of achieving loyalty and commercialization of the SC in BoP environments. Furthermore, the interview highlights that the first implication from the mentioned way of living is that cash is preferred over bank transfers. This is an issue for Arla Foods as the organization aims for corruption free operations and prefers to operate with bank transfers and transparent bookkeeping standards. The literature further highlights the transactional behavior of the BoP population as both formal and informal for the low-income segment, informal with no bank accounts or credit for the subsistence segment and irregular patterns of transactions for the extreme poverty segment (Rangan et al., 2011). Therefore, the literature supports the argument made in the Arla Foods interview concerning cash being preferred over bank transfers, as a substantial part of the BoP population (according to Rangan et al. (2011), even lacks bank accounts. The interview of ENSOL LTD. further notes that BoP actors often suffer from cash flow issues and other financial challenges when working with MNC:s that for instance prefer longer payment times. The One Acre Fund interviewee (section 4.3.1) also mentioned this issue as it emphasizes that arrangements with long payment terms (e.g. several months) is problematic for farmers who are in need of the money in order to continue their farming operations and to provide for their households. A takeaway could hence be for MNC:s to try aligning the payment type and time with the conditions of the BoP partner in question.

The second implication of the way of living of the BoP smallholder farmers in developing countries and the preference for cash, is the risk of involvement of middlemen and corruption in the SC, as mentioned in the Arla Foods case. The IKEA of Sweden interview also mentions that the occurrence of middlemen as well as the informal environment in BoP regions have a tendency of complicating the business process. The involvement of middlemen as well as corruption in the BoP is also mentioned in literature. For instance, the ties within BoP networks are often direct and characterized by informality due to among other things corruption and haggling within the BoP (Rivera-Santos and Rufin, 2010). Furthermore, the interview of One Acre Fund Zambia points out that farmers' desperation leads to the farmers being an easy target for exploitation, especially when there is no regulation on minimum prices on crops. However, an interesting observation from the interview is that the risk of exploitation might be lower

when farmers work with MNC:s, as they usually offer their price without any negotiation in contrast to middlemen and local buyers who might use manipulation to drive the price down.

Narayanan and Raman (2004) further mentions that western companies fear that suppliers or manufacturers from developing countries are utilizing bribes to cut their costs. They also mention that there is a fear that the actors in the developing countries will fail at staying loyal to the contracts and instead take on orders from higher paying customers, which as mentioned earlier, in turn could be a symptom of the population's need for money. The interview of TAREA adds another area where MNC:s could be preferred over local actors as it is stated that MNC:s are more trustworthy with regards to contracts since they are more likely to have the opportunity to fulfill their agreement if something unexpected happens such as if costs increase, to protect their credibility. Local actors, who might not be as financially strong as MNC:s, might not be able to afford fulfilling their part of the agreement if unexpected increases of costs occur.

The takeaway from the above discussions could be that it appears that MNC:s could provide a business opportunity entailing less of an exploitation risk if they can utilize contracts and establish minimum prices in them that are fair for the BoP actor in order to counteract the risk of abandonment of agreements due to desperation for money.

However, another perspective of the informal environment is mentioned in the SOS Children's Village Mozambique interview that states that contractual mechanisms are not very efficient in BoP regions where the country's laws are not applied. While the interview did not state where the mentioned BoP regions are located, the literature points out that the BoP population living in the slums are the ones usually not following standard laws and rules, but instead they have their own logic (Casado Caneque and Hart, 2017). The rate of the population in Mozambique living in slums as of 2020 is 55% (The World Bank, 2023d), which could be considered high as it constitutes almost half of the country's population.

A final takeaway can be drawn from the interview of IKEA of Sweden who mention that the contracts are altered to protect the projects against market fluctuations when working with social businesses, which is uncommon when working with regular suppliers. The protection against fluctuations relates to for instance the demand levels, as IKEA of Sweden aims to keep them as stable as possible towards the social businesses. Hence, a potential takeaway for MNC:s trying to combine social impact and profit creation, is to consider ways to protect the impact creation from being compromised due to market fluctuation.

Concept S1.2: Create clearer contracts and educate BoP actors to understand its content and incentives

The One Acre Fund Zambia interviewee points out illiteracy as an issue in BoP environments. The interview of SOS Children's Village Mozambique (section 4.2.1.2) agrees on that note as it states that illiteracy is a challenge in rural communities. The literature also states that the general level of education in the BoP is low (Parmigiani and Rivera-Santos, 2015), as was discussed in concept P2.1. Many BoP actors lack the capacity internally to understand the content of the contracts and cannot acquire the capacity externally since they cannot afford it (as stated in the Social Enterprise Ghana case). The One Acre Fund Zambia interviewee also points out that farmers often do not understand the terms and conditions of contracts, even when they are a part of a cooperative. A further observation in the ENSOL LTD. interview is that contracts from MNC:s are often experienced to be unclear in comparison to contracts between local actors that often entail a higher amount of shared information.

The empirical data and literature further provide several areas of improvement that MNC:s could utilize to counteract the contracting issues connected to lack of understanding. The One Acre Fund Zambia interviewee suggests that it is of great importance for MNC:s to educate and communicate clearly the terms and conditions of the contracts. The SOS Children's Village Mozambique interview further suggests that MNC:s could help improve the contractual situation by offering a higher quality of assistance when establishing the contracts, creating reasonable agreements that are not only favorable for one party, and having qualified professionals in the field to oversee and assist in the process. As mentioned earlier, ENSOL LTD. also notes that a higher amount of shared information appears to provide the local actors with a clearer understanding of the contracts. With regards to the contracts created by MNC:s that are perceived as complicated by BoP actors, an idea could be to ensure that the roles, tasks and responsibilities are clearly defined in the relationship. The mentioned factors are mentioned by Lee (2004) to be of importance to define in order to align identities within the SC.

Furthermore, Van Weele (2014) suggests that performance based contracts can be beneficial to utilize in the relationship between agents and principals when contractual risks are present. However, a potential complication could occur if the agent (e.g. BoP actor) does not fully understand the precise terms and conditions of the requested work that is to be performed (as was observed in the examples mentioned in the empirical data above). Other types of risks mentioned by Van Weele (2014), such as the performance and technical risks in the relationship between agents and principals, could be affected by the same complication, as the lack of understanding of the agreements might lower the possibility of performing as agreed upon or delivering the requested functionality and performance. A takeaway could be to utilize the earlier mentioned suggestions of improvement also in regards to the contractual-, performance-, and technical risks, in order to counteract the risks of the lack of understanding of contracts.

Concept S1.3: Do not exploit power imbalance in contracts and relationships between MNC:s and BoP actors

This concept originates from a note made by Lara Schilling at the University of Kassel, regarding the power imbalance between MNC:s and BoP actors, which can complicate the use of contract based solutions. The reason for the complication is that BoP actors often do not have the power or possibility to tackle hidden actions or hidden information and similar issues through contractual solutions due to the power imbalance. As also observed in concept P4.2 power imbalance also appears to have an influence on the area of goal conflicts as it affects the pricing process between farmers and MNC:s.

The empirical data further highlights several areas on the topic of power imbalance. For instance, the interview of ENSOL LTD. mentions that MNC:s usually have much larger market power than local actors which for local actors translates to an eagerness to collaborate with the MNC, and for the MNC to have an even higher negotiation power. On the other hand, the One Acre Fund Zambia interviewee states that MNC:s usually offer their price without any negotiation to the farmers, in contrast to middlemen and local buyers who might use manipulation, which results in the risk of exploitation being lower when farmers work with MNC:s. Another observed indication of the power imbalance is found in the Social Enterprise Ghana case, as local actors in the construction industry in Ghana often start working before a contract is in place to prove their adequacy to MNC:s (who are often hesitant to contract the local actors in the first place). However, local actors would benefit from waiting for the contract to be in place since it allows them to receive different types of financial support from e.g. banks and suppliers. This observation is hence also an emphasize from the argument that the power

imbalance translates to an eagerness for BoP actors to collaborate with the MNC, as mentioned by the ENSOL LTD. case.

Furthermore, as highlighted in concept P4.2, the literature suggests that the power dynamics where the larger organizations have more power in the SC are common in traditional global SC:s, and that such power dynamics lead to BoP actors being at risk of exploitation (Gupta and Khilji, 2013). However, it is also suggested that MNC:s need to let go of some of the power and central roles they are used to be entitled to, and instead share it with other network members in the BoP, due to the decentralization in BoP networks (Rivera-Santos and Rufin, 2010). An additional suggestion for improved power dynamics in the SC is for MNC:s to engage in creating higher competitiveness by redesigning their role as leaders of the SC:s into taking the role of facilitating value-creation (Gupta and Khilji, 2013). Further suggestions found in literature concern CSR initiatives in the BoP context that relate to balancing the power dynamics as well as capabilities and knowledge in the SC through for instance involvement with other commercial organizations as well as non-commercial ones (Gupta and Khilji, 2013). Finally, trust-based partnerships are also mentioned to have the potential of tackling scalability problems as well as ensuring that the power dynamics are balanced in the SC (Borchardt et al., 2020).

Concept S1.4: Contract with cooperatives instead of disaggregate BoP actors

Cooperatives are mentioned several times in the empirical data to have a positive role in the relationship between MNC:s and BoP, and especially for the BoP actors' empowerment in the relationship. For instance, the One Acre Fund Zambia interviewee mentions that the farmer's negotiation power increases when they are included in cooperatives. The interview further highlights that there are usually contracts in place when organizations work with a farmers cooperative, in contrast to when working with disaggregated farmers. For MNC:s, this is a positive effect of cooperatives, as the interview of Arla Foods mentions that it is in fact a major challenge to contract the smallholder farmers in developing countries. This is also of significant importance for SCIA, as for instance altering contracts even in the slightest can lead to a significant impact on the behavior of the partners involved (Narayanan and Raman, 2004). The interview of Arla Foods further notes that when farmers are part of cooperatives, the magnitude of the issues related to the population living on a day to day basis as well as the risk of occurrence of middlemen and corruption in the SC (discussed in concept S1.1) is reduced. As the mentioned issues create difficulties of achieving loyalty and commercialization of SC:s in the BoP (according to the interview of Arla Foods), the use of cooperatives could be argued to help the creation of loyalty and commercialization. However, the challenge of understanding the agreements is still present even when working with cooperatives (according to the Deputy Country Manager at One Acre Fund Zambia). Thus, actively handling this issue (as discussed in concept S1.2) is of importance regardless of whether the MNC is working with disaggregated actors or with cooperatives.

Concept S1.5: Reduce information asymmetries prior to contracting and use own certifications as rewards for BoP actors to achieve

This concept has its origin from notes made by Lara Schilling at the University of Kassel, who states that information asymmetries, which are a central aspect of BoP markets, can complicate the use of contract based solutions. As BoP actors often lack access to information that is available to the MNC, such as information about market prices, the actors become heavily dependent on MNC:s. She further suggests that technology solutions that can decrease the

magnitude of the information asymmetries and allow a more collaborative approach, can help improve the use of contracts.

From the literature, it was observed that ICT:s can help create more efficient SC operations for BoP smallholder farmers. The reason for the improved operations when utilizing ICT:s is that ICT:s help the sharing of market- and agriculture related information (Schilling and Seuring, 2023). The increased access to information could be argued to lead to BoP actors making more informed decisions instead of depending on the MNC. With regards to the improvement of the use of contracts, the literature points out that ICT:s could decrease transaction costs related activities both prior to contract closing as well as activities conducted after the contract has been put in place. Such activities are for instance communication, negotiation, coordination, selection, screening and measurement (Schilling and Seuring, 2023). Thus, there appears to be a connection between the use of technology and the increase of access to information on the efficiency of utilizing contract based solutions.

Another perspective of the information asymmetries was observed in concept P2.3 regarding BoP actors having better access to accurate information regarding their own product quality and capabilities than their SC partners (e.g. MNC:s) due to lacking industry standards, certifications and intermediaries in the BoP, which in turn can cause MNC:s to have mistrust to the systems and standards of BoP actors. As certifications have been observed to be utilized as a type of incentive and viewed as rewards that suppliers can achieve when reaching certain targets (e.g. IKEA of Sweden case in section 4.1.2.3), a potential lesson could be for MNC:s to fill the perceived lack of industry standards and certifications by utilizing their own trusted ones and connect them to rewards to motivate the BoP actors to achieve them. The literature appears to support this argument as Brix-Asala and Seuring (2020) mention that the indirect supplier development areas of auditing and certification are examples of practices that help bridge the product market void (as well as labor market void and capital market void).

5.3.1.2 Emerging concepts from the theory

The literature provides an additional concept concerning the general challenges of contracting in BoP environments (concept S1.6) and will be further examined below.

Concept S1.6: Handle contractual challenges at each SC stage and counteract inadequate quality in contracts

As mentioned earlier by Parmigiani and Rivera-Santos (2015), the contracting voids relate to the difficulty of creating written and enforceable agreements. Inadequate contracts also encountered in the BoP can result in lack of legally binding contracts and property rights (Parmigiani and Rivera-Santos, 2015) as well as breaches of contracts (Rehman et al., 2020). Hence, the first takeaway is that the quality of contracts is subject to improvement as it has significant consequences. An idea to counteract the inadequate quality is to assess contracts according to the areas mentioned by Van Weele (2014) with regards to contractual risks that concern the risks related to the contract between principals and agents as they often entail much uncertainty. Such areas are for instance the level of detail of the performance specification, whether the performance indicators are sufficiently designed, whether penalties can be realized when needed without jeopardizing the relationship and the performance as well as whether agreements have been defined with regards to the scope of work and the resources to be utilized (Van Weele, 2014).

A second takeaway for MNC:s is that the significance of the contracting voids is determined by whether external parties are involved as well as if the type of activity established by the contract involves high financial investments (Brix-Aslala and Seuring, 2020). Further factors to be cautious of can be found from the implications of the contracting voids on the different SC stages. For instance, with regards to raw material procurement, long term material flows are challenging to guarantee in BoP environments. Furthermore, it is challenging to establish, enforce and conclude contracts within distribution and logistics. Marketing and sales can also be affected by the contracting voids as they cause a difficulty in working with retailers and ensuring reliable pricing, promotions and payment mechanisms (Parmigiani and Rivera-Santos, 2015). Thus, MNC:s might need to cautiously handle the contracting processes of each mentioned SC stage as they have been proven to be areas affected by the contracting voids.

5.2.1.3 List of all identified concepts

A summary of all identified solution concepts related to the solution area of contract based solutions is presented in table 5.6 below.

Table 5.6: Summary of all identified concepts related to the area of contract based solutions (S1).

Identified concepts related to the SCIA area of Contract based solutions in BoP environments		
Concepts	Main sources	Description
Concept S1.1: Align payment type and time to the vulnerable and informal environment of the BoP population	IKEA of Sweden, Arla Foods, TAREA, SOS Children's Village Mozambique, One Acre Fund Zambia and ENSOL LTD.	Due to the BoP population living on a day to day basis, the preference of cash over bank transfers, and the involvement of middlemen and corruption in the SC, it is challenging to contract the BoP smallholder farmers in developing countries.
Concept S1.2: Create clearer contracts and educate BoP actors to understand its content and incentives	SOS Children's Village Mozambique, Social Enterprise Ghana, One Acre Fund Zambia and ENSOL LTD	BoP actors were found to be experiencing the contracts to be unclear, as well as having difficulties understanding the terms and conditions of contracts and even when the actors are included in cooperatives. BoP actors could be lacking internal organizational capacity to understand the content of the contracts and on the other hand not being able to afford to acquire the capacity externally.
Concept S1.3: Do not exploit power imbalance in contracts and relationships between MNC:s and BoP actors	Social Enterprise Ghana, One Acre Fund Zambia, ENSOL LTD and Lara Schilling at the University of Kassel	MNC:s appear to usually have larger market power than local actors which for local actors translates to an eagerness to collaborate with the MNC, and for the MNC to have an even higher negotiation power. The power imbalance could complicate the use of contract based solutions, as the BoP actors often do not have the power or possibility to tackle hidden actions or hidden information through contracts.
Concept S1.4: Contact with cooperatives instead disaggregate BoP actors	Arla Foods and One Acre Fund Zambia	Cooperatives appear to have a positive role in the relationship between MNC:s and BoP, and especially for the BoP actors' empowerment in the relationship such as through increased negotiation power. It is also beneficial for MNC:s as for instance contracts are in place when working with farmers cooperatives.
Concept S1.5: Reduce information asymmetries before contracting in BoP environments and use own certifications as rewards for BoP actors to achieve	Lara Schilling at the University of Kassel	Information asymmetries, which are a central aspect of BoP markets, can complicate the use of contract based solutions. Utilizing technology (e.g. ICT:s) that can decrease the magnitude of information asymmetries in the BoP and allow a more collaborative approach, can help improve the use of contracts. MNC:s could fill the perceived lack of industry standards and certifications by utilizing their own trusted ones and connect them to rewards to motivate the BoP actors to achieve them.
Concept S1.6: Handle contractual challenges at each SC stage and counteract inadequate quality in contracts	Brix-Aslala and Seuring (2020), Parmigiani and Rivera-Santos (2015), Rehman et al. (2020) and Rivera-Santos and Rufin (2010)	The inadequate quality of contracts often encountered in the BoP is subject to improvement as it has significant consequences. MNC:s might need to cautiously handle the contracting processes of each SC stage as they can be affected by the contracting voids.

5.2.2 Information based solutions (S2)

The second solution area is the SCIA area of *information based solutions*. As mentioned earlier, the idea of this solution is to make business variables and information visible and shared in the SC, through for instance technology, mystery shoppers or information systems, and in that way revealing whether a desired action is accomplished or not (Narayanan and Raman, 2004). A summary of the gathered empirical data (originally presented in chapter four) as well as the main identified theory (originally presented in chapter three) concerning the area of information based solutions can be found in table G.7 in Appendix G.

5.2.2.1 Emerging concepts from the empirical data and literature

The first area that appears to have an influence on information based solutions is the differing contexts of MNC:s and BoP actors (concept S2.1). As the setup of information flows also appears to differ between MNC:s and BoP actors, it is further an area of interest to examine in order to understand how information based solutions can be utilized in BoP environments (concept S2.2). The empirical data further highlights the challenges of conducting performance measurement in BoP environments (concept S2.3) as well as the challenges and opportunities of the use of technology (S2.4). Hence, the four identified concepts will be discussed next.

Concept S2.1: Increase joint understanding of the different information related contexts between MNC:s and BoP actors

The interview of IKEA of Sweden highlights that information structures within organizations may differ based on the regional or cultural factors. The TAREA interview further emphasizes that the contrast between MNC:s and local actors' differing contexts implies that effort is needed to create an understanding for one another and to create well functioning information flows. Lara Schilling at the University of Kassel further emphasizes the importance of understanding the context and viewing information flows from the perspective of the BoP. The mentioned factors are argued to be of great importance when for instance identifying the correct indicators to measure and when identifying the types of information flows needed between the MNC:s and BoP actors. However, the Social Enterprise Ghana notes that there is lack of education and sensitization regarding the context by the local actors towards the MNC:s when they enter a new region. For instance, MNC:s and local actors seldom engage in workshops and events with the aim of educating each other on important topics. An interesting note from the literature is that direct supplier development practices involving MNC:s and BoP suppliers to familiarize themselves with each other's contexts, appear to have the potential of bridging the product market and labor market voids. Such practices involve for instance the MNC to engage in training and education of the BoP supplier, inviting the supplier's personnel, temporary personnel transfer and on-site consultation (Brix-Asala and Seuring, 2020). This in turn could emphasize the advantages of tackling the lack of education and sensitization regarding the context mentioned in the Social Enterprise Ghana case.

The takeaway from this concept is that the foundation for understanding information based solutions in the context of the BoP appears to start with understanding the context of the BoP actor and the implications it has on the information flows. The concepts below (S2.2, S2.3 and S2.4) will further elaborate on the mentioned contrast between MNC:s and BoP actors and the implications it entails.

Concept S2.2: Formalize and adapt communication of key information to share it transparently and frequently

The literature provides a general idea of the setup of information flows in BoP environments. For instance, it is mentioned that the BoP environment is characterized by a deficient communication infrastructure (Khalid and Seuring, 2019). The insufficient information flows in combination with informal transactions, corruption and haggling within the BoP, reinforces the need for direct and informal interaction and leads to a higher frequency of communication (Rivera-Santos and Rufin, 2010). However, the Arla Foods interview highlights that access to information as well as the efficiency of information flows depends on the context. For instance, working with farmers in cooperatives entails easier access to information and higher efficiency

of information flows in comparison to when working with scattered BoP smallholder farmers. This is also in line with what was mentioned earlier, regarding the importance of understanding the context and viewing information flows from the perspective of the BoP actor (as stated by Lara Schilling at the University of Kassel). A takeaway could be that it might be indicated from the empirical data that partnership with “centralized” BoP actors could be preferred from an information related perspective.

An example with regards to the challenges of information based mechanisms in the BoP, is brought up in the Arla Foods interview and is that BoP smallholder farmers might not have a business mindset and in turn do not operate like formal organizations with well established information flows and documentation. The TAREA interview also highlights that documentation is an uncommon practice in BoP environments, resulting in challenges when trying to utilize, introduce and gather performance indicators. The suggested solution for the well functioning of information flows found in the Arla Foods interview is the use of professionals in the field who speak the local language and can communicate freely with the farmers to advise them based on their specific needs and context.

Furthermore, the Social Enterprise Ghana interview emphasizes a second area which is the local actors’ lack of capacity, resources and skills to gather data and conduct performance measurement, which in turn hinders an efficient flow of information to be in place. The mentioned observation in the interview could be connected to the condition of lack of resources for BoP businesses that has been discussed several times, and is a lack in terms of e.g. capabilities, resources and expertise (Borchardt et al., 2020) as well as inadequate business skills (Brix-Asala et al., 2021). The ENSOL LTD. interview further adds another dimension as it mentions that MNC:s often have quick and efficient information flows in contrast to the local actor’s information flows, with the reason being the limited use of tracking systems and other types of information systems by local actors. The interview further mentions that for the MNC:s to access information more efficiently, it could be beneficial to define and communicate early in the relationship the type of information needed.

A final area of challenges identified in the empirical data relates to the inefficient sharing of important changes and information that should be communicated between the local actor and the MNC, as stated in the Social Enterprise Ghana case. The ENSOL LTD. interview adds a similar note and mentions that local actors could be hesitant to share information with MNC:s in fear of the MNC exploiting the information. As mentioned earlier, this behavior is not uncommon among SC partners, with the reason being the real or perceived economic value of the information shared or withhold (Simatupang and Sridharan, 2002). Another observation from literature can be found in Appendix J regarding the Triple-A SC where the first step for creating alignment in the SC is the alignment of information, meaning exchanging information and knowledge with all SC members in order to facilitate equal access to forecasts, sales data as well as plans (Lee, 2004). Another observation from the empirical data that emphasizes the importance of handling the lack of information sharing regardless of its origin, is found in the IKEA of Sweden interview as it is stated that if the transparency is high in the relationship, it is easier to access information.

Hence, the takeaways from this concept is that MNC:s could face a deficient communication infrastructure, insufficient information flows, direct and informal interactions as well as a high frequency of communication when operating in the BoP. Furthermore, the efficiency of information flows appears to be affected by the context of the BoP actor in question (e.g. if they are included in cooperatives or operating alone). Another area that affects the efficiency of

information flows appears to be the level of transparency in the relationship. Finally, the identified suggested solutions to improve the utilization of information based solutions are the use of professionals in the field who speak the local language and can communicate freely with the BoP actors to advise them based on their specific needs and context, and to define and communicate early in the relationship the type of information needed from the BoP actor. The essence of the suggested solution in this concept is to formalize and adapt communication of key information to share it transparently and frequently between MNC:s and BoP actors.

Concept S2.3: Develop value-oriented performance measurement aligned with the BoP environment as a basis for recognition and rewards

The lack of documentation practices in the BoP causes difficulties with utilizing, introducing and gathering performance indicators, as earlier stated in the TAREA case. As further stated in the ENSOL LTD. case, the limited use of tracking systems and other types of information systems by local actors causes slower and less efficient information flows in comparison to MNC:s as well as difficulties in conducting performance measurement and gathering data. The SOS Children's Village Mozambique interview agrees on that note as it mentions that conducting performance measurements as well as gathering data is not an easy task in BoP environments. A highlighted area with regards to performance measurement is the importance of adapting the operations to the BoP context at hand. For instance, the SOS Children's Village Mozambique interview mentions that conducting performance measurements requires proper preparation work and having a well organized performance measurement operation that is aligned with the BoP environment in question. The Arla Foods interview further emphasizes that professionals out in the field who speak the local language and can communicate freely with the smallholder farmers to advise them based on their specific needs and context, is an important factor for the functioning of information flows. Hence, two takeaways can be withdrawn. First, performance measurement operations could benefit from being adapted to the context of the BoP actor and the objectives of the performance measurement, as there exists a lack of documentation practices as well as limited use of tracking and information systems in BoP environments. The second takeaway is that the use of professionals out in the field to assist in the process could be beneficial for the well functioning of information flows.

However, the One Acre Fund Zambia interviewee mentions that in regions where rural villages are highly scattered and are not connected to for instance the internet, large monitoring teams in the field are needed to be able to access data. Real time data is especially challenging to access in such BoP environments. It should be mentioned that almost half the population (55%) in Zambia live in rural areas as of 2021 (The World Bank, 2023f). Casado Caneque and Hart (2017) further add a dimension and mentions that the rural BoP areas are hard to reach due to the population in them being scattered and due to lack of safety on certain routes leading to them. On the other hand, the urban BoP areas are also hard to reach, mainly since the neighborhoods in the slums are unsafe and not everyone from outside the slums is allowed to enter (Casado Caneque and Hart, 2017).

Furthermore, as stated in the Social Enterprise Ghana case, MNC:s need to also consider environmental and social impact when conducting performance measurement. The IKEA of Sweden interview further highlights the importance of this especially when working with a social enterprise, as the KPI:s are valued based on impact created, unlike when working with regular suppliers. As further mentioned in the literature and in relation to concept P5.1, due to the characteristics of the tie domains in BoP networks, MNC:s need to take into consideration dimensions such as the social and environmental ones when entering the BoP market (Rivera-

Santos and Rufin, 2010). Especially for MNC:s attempting to create profit and impact, it could be of importance to include performance indicators connected to social and environmental aspects to ensure that the SC objective of impact creation is truly being targeted.

A related area of challenges can be found in the literature in relation to the performance risks in the principal-agent relationship, that concern the capability of the agent to perform as agreed upon. Such risks are subject to among other things the principal's access to information as well as capacity to monitor the operational processes of the agent (Van Weele, 2014), which as observed throughout this concept, appears to be challenging in BoP environments. Hence, a takeaway could be for MNC:s to be aware of the performance risks that can accompany the relationship with the agent due to the difficulty of accessing information as well as monitoring the agent's performance in BoP environments. Another reason why MNC:s should be interested in creating easier access to information and monitoring is that it can facilitate the use of incentives mechanisms that can improve the relationship with BoP actors. For instance, an incentive alignment mechanism mentioned in Appendix J, is the pay-for-performance setup that implies defining performance indicators that act as the basis for evaluation for reward distribution and creates recognition of outstanding performance among SC partners, motivation for the desired behavior as well as control of costs (Simatupang and Sridharan, 2002). Furthermore, continuous supplier monitoring as a direct supplier development practice is mentioned in the literature to have a potential of bridging the product market and labor market voids (Brix-Asala and Seuring, 2020), which also indicates the need and motivation for MNC:s to tackle the challenges of monitoring in BoP environments.

Concept S2.4: Leverage (and expand) available IT in BoP environments to gather, observe and share information and reduce transactional costs

The information based incentives solution can be achieved through for instance the use of technology in order to gather and observe business variables and make business variables and information visible and shared in the SC (Narayanan and Raman, 2004). However, as mentioned earlier by ENSOL LTD., the use of tracking systems and other types of information systems is limited by local actors. The TAREA interview further notes that business management systems are only relevant for the bigger local companies since the smaller companies cannot afford to buy them. Furthermore, the SOS Children's Village Mozambique interview mentions that information systems of MNC:s are much more organized and advanced than the ones of most local actors. This could also be in line with the observation made in the ENSOL LTD. interview regarding MNC:s often having quick and efficient information flows in contrast to the local actor's information flows.

Furthermore, Lara Schilling at the University of Kassel mentions that in order to connect data and information from the BoP to the context of MNC:s, it is beneficial to understand the types of technology that are present in the BoP and to utilize these technologies and the data gathered through them, to connect with technologies present in the MNC's context. A related area of interest within this concept is the use of ICT:s. The SOS Children's Village Mozambique interview highlights that the majority of the rural communities in Mozambique lack access to modern ICT:s and that it is a great challenge to provide farmers and communities with communication via radio or other types of media in order to increase their access to information and knowledge. The One Acre Fund Zambia interview further states that greater access to information helps the farmers to make informed decisions and choices for themselves instead of having to obey the buyers demands due to desperation. The SOS Children's Village Mozambique interview further highlights that a possible solution for increasing the accessibility

to information for farmers is to expand the availability of ICT:s. As mentioned earlier, ICT:s have implications on the information, financial and material flows of the SC and can hence help create more efficient SC operations, and grant access to accurate information in time. SC improvements from ICT:s related to information based solutions include the reduction of transactional costs connected to communication and measurement activities (Schilling and Seuring, 2023).

Narayanan and Raman (2004) argue that contract based solutions should be the first priority since these can have a fast effect on the SC, while the second priority is information based solutions since they are becoming increasingly easier to adopt as the cost of gathering data is reduced due to technological advancements, and companies can even utilize real-time data. However, as was observed in the discussions above, gathering data in BoP environments especially in scattered areas could imply increased need of resources and costs due to the need for professionals out in the field, which in turn is due to the insufficient information flows and inefficient use of tracking and information systems. The use of real time data is furthermore troublesome in BoP environments as also observed in the empirical data. Nonetheless, Lara Schilling at the University of Kassel argues that information based solutions could be preferred over contract based solutions in the context of the BoP, since information based solutions could allow for a more collaborative approach through the use of technologies. Hence, there appears to be a contrast between the literature on SCIA and the empirical data on the perceived ease of utilizing contract based solutions in comparison to information based solutions, as information based solutions appear to be preferred in the BoP despite the challenges of utilizing technology in BoP environments.

5.2.2.2 List of all identified concepts

A summary of all identified solution concepts related to the solution area of information based solutions is presented in table 5.7 below.

Table 5.7: Summary of all identified concepts related to the area of information based solutions (S2).

<i>Identified concepts related to the SCIA area of Information based solutions in BoP environments</i>		
<i>Concepts</i>	<i>Main sources</i>	<i>Takeaways</i>
Concept S2.1: Increase joint understanding of the different information related contexts between MNC:s and BoP actors	IKEA of Sweden, TAREA, Social Enterprise Ghana and Lara Schilling at the University of Kassel	The foundation for understanding information based solutions in the context of the BoP appears to start with understanding the context of the BoP actor in question and the implications it has on the information flows. Contrast between MNC:s and local actors' differing contexts implies that effort is needed to create an understanding for one another and to create well functioning information flows. Understanding the context and viewing information flows from the perspective of the BoP appear to be of great importance
Concept S2.2: Formalize and adapt communication of key information to share it transparently and frequently	IKEA of Sweden, Arla Foods, Social Enterprise Ghana, TAREA and ENSOL LTD	MNC:s could face a deficient communication infrastructure, insufficient information flows, direct, informal and high frequency of interactions, limited use of information systems as well as documentation practices when operating in the BoP.
Concept S2.3: Develop value-oriented performance measurement aligned with the BoP environment as a basis for recognition and rewards	IKEA of Sweden, Arla Foods, TAREA, SOS Children's Village Mozambique, Social Enterprise Ghana, One Acre Fund Zambia, ENSOL LTD and Lara Schilling at the University of Kassel	Performance measurement operations could also benefit from being adapted to the context of the BoP actor. The use of professionals (especially ones who speak the local language and can communicate freely with the BoP actors and can advise them based on their specific needs and context) out in the field to assist in the process could be further beneficial for the well functioning of information flows. It could be of importance for MNC:s to include performance indicators connected to social and environmental aspects
Concept S2.4: Leverage (and expand) available IT in BoP environments to gather, observe and share information and reduce transactional costs	TAREA, SOS Children's Village Mozambique, One Acre Fund Zambia and Lara Schilling at the University of Kassel	In order to connect data and information from the BoP to the context of MNC:s, it is beneficial to understand the types of technology that are present in the BoP and to utilize these technologies and the data gathered through them, to connect with technologies present in the MNC's context. Information based solutions could be preferred over contract based solutions in the context of the BoP, since they could allow for a more collaborative approach through the use of technologies. As BoP actors often lack access to information that is available to the MNC, such as information about market prices, the actors become heavily dependent on MNC:s.

5.2.3 Trust based solutions (S3)

The third and final solution area is the SCIA area of *trust based solutions*. The idea behind this solution is using intermediaries and trust between individuals to ensure that partners are acting in the SC's best interest. This type of solution gained importance when organizations from the western market started to source supplies and outsource their production to manufacturers based in the developing countries (Narayanan and Raman, 2004). A summary of the gathered empirical data (originally presented in chapter four) as well as the main identified theory (originally presented in chapter three) concerning the area of trust based solutions can be found in table G.8 in Appendix G.

5.2.3.1 Emerging concepts from the empirical data

The empirical data regarding the area of trust based solutions contributes to several interesting emerging concepts. A first area to discuss is the skepticism and initial mistrust that appears to be present in the beginning of the relationship between MNC:s and BoP actors (concept S3.1). However, the importance of trust and its related opportunities appears to be emphasized in BoP environments (concept S3.2). Therefore, the role of intermediaries is further discussed as it appears to include several perspectives and functions in BoP environments (concept S3.3). Finally, the empirical data also highlights that loyalty is needed for commercialization of SC:s, albeit it being challenging to achieve in BoP environments (concept S3.4). Therefore, the four mentioned concepts will be discussed next.

Concept S3.1: Reduce initial mistrust between MNC:s and BoP actors by proving good and long term intentions

As mentioned earlier, suspicions between western companies and actors in developing countries is what caused the trust based solutions to gain increased importance. The suspicions from the western companies towards actors in developing countries relate to their ability of producing timely, keeping a consistent quality and staying loyal to the contracts as well as using child labor and bribes to cut costs. On the other hand, the suspicions towards MNC:s are related to incorrect forecasts and quantities and its consequences such as the MNC:s blaming insufficient product quality to lower the actual purchased quantities (Narayanan and Raman, 2004).

The empirical data (which is gathered almost 18 years after the publication of the report by Narayanan and Raman (2004) used above), appear to prove that the suspicions are present until this day. For instance, Lara Schilling at the University of Kassel mentions that there exists a mistrust initially in the relationship between MNC:s and BoP actors. The TAREA interview also mentions the initial mistrust and adds that it is targeted against MNC:s when they approach local actors and communities. The One Acre Fund Zambia interviewee further states that until the trust is built, BoP farmers are usually hesitant to engage in partnerships with MNC:s. However, the Social Enterprise Ghana interview highlights that the mistrust can also be two-sided. While local actors can be skeptical about MNC:s, MNC:s on the other hand are skeptical towards the standards and systems of the local actors. As the literature as well as empirical data from four different sources agree on the presence of initial mistrust between MNC:s and BoP actors, it can be considered an area of importance to handle for MNC:s entering the BoP.

One recurring area that is mentioned in the empirical data in connection to mistrust in the relationship between MNC:s and BoP actors, is the fear of exploitation. For instance, the TAREA interview specifically mentions that the mistrust is accompanied by a fear of exploitation, and that MNC:s need to prove good intentions as an essential part of building trust. The importance of proving the intentions is also emphasized by the Social Enterprise Ghana interview as it states that MNC:s need to prove that they are not operating in the BoP to exploit the communities, but that they also care about their wellbeing and aim for growth for all parties involved. The ENSOL LTD. interview further explains that for the local actor to gain trust in the MNC, it is important for the MNC to prove their good intentions by for instance proving that they are providing a fair and real opportunity of growth. The One Acre Fund Zambia interview further agrees on the above arguments and adds that trust is built up over time and with proven integrity. Hence, the observations indicate that one area of tackling the initial mistrust and fear of exploitation experienced by BoP actors is for MNC:s to prove their good

intentions to the BoP (and the community), by providing fair opportunities of growth, as well as allowing the trust to grow over time.

A second area related to the initial mistrust is connected to the exit strategy of MNC:s. The interview of TAREA mentions that there is a fear that the MNC:s will leave the area as soon as their business in the area is conducted. The ENSOL LTD. appears to agree on that note as it mentions that the exit strategy of the MNC is an important factor to consider since it can cause mistrust and skepticism towards the MNC. The fear relates to the MNC leaving the area in its original state, or worse, i.e. without for instance allowing the local actor to even grow from the partnership with the MNC or impacting the environment negatively. The interview further highlights that MNC:s could ease this type of mistrust by proving good intentions and engaging in growth activities with the local actor. Thus, the exit strategy appears to have a potential influence on the relationship between MNC:s and BoP actors and should hence be given consideration in order to counteract the mistrust that it can create.

Concept S3.2: Develop trust in BoP environments by keeping commitments and engaging in local development work

The IKEA of Sweden interview highlights that trust is especially important in BoP environments, due to the more unstable business environment as well as the occurrence of more actors operating unfairly. However, the interview highlights that both the supplier and the buyer are evaluated with regards to their trustworthiness. One area that is mentioned to affect the trustworthiness of the buyer's (MNC's) is their ability to keep commitments (especially when the market fluctuates such as when inflation rises). The SOS Children's Village Mozambique interview supports the argument above as it mentions that MNCs are considered to be more reliable buyers to the farmers than local buyers due to their stronger managerial and financial structures. MNC:s are also argued to be more trustworthy with regards to contracts since they have the opportunity to fulfill their agreement if something unexpected happens such as if costs increase, in comparison to local actors that on the other hand might not be able to afford fulfilling their part of the agreement if unexpected increases of costs occur (as was mentioned in the TAREA interview in section 4.2.2.4).

Another area that affects the trustworthiness of MNC:s is their engagement in development work, as mentioned in the IKEA of Sweden case. This area could be connected to the discussion in the previous concept, regarding the importance of proving good intentions as well as providing real growth opportunities for the BoP actors and communities. For instance, it is mentioned in ENSOL LTD. interview that MNC:s can help the growth of local actors by helping to create recognition and visibility in the local context (e.g. through assistance in advertising or inclusion in the MNC's local campaigns) since it will allow the local actors to attract further business opportunities as well as trust from the community. Local actors could also be considered for activities that are usually contracted to expatriates by MNC:s, since the local actors know the environment the best and have connections within the community and can hence guide the MNC on where to find the requested labor if they do not possess it themselves.

Furthermore, the One Acre Fund Zambia interviewee mentions how local buyers will have the upper hand until the farmers trust the MNC in question (since the farmers might already know the local buyers), albeit the higher risk of exploitation. The local buyers and middlemen understand the farmers' situation and context, and know how to manipulate the situation in their favor, hence there is much more negotiation involved and the offered prices tend to be

extremely low. The interview further mentions that it might be better for the farmers that operate alone to work with MNC:s since there is higher transparency in terms of what is being offered. Thus, if the trust is built, the MNC could acquire the needed goods from the farmers they are approaching as they will have the upper hand (in comparison to local buyers) while the BoP actors face a lower risk of exploitation.

The literature further highlights several areas where trust is utilized in the BoP environment. Examples include for instance the trust based approaches utilized in the BoP when meeting product requirements (Brix-Asala et al., 2021), the BoP networks that involve not only commercial transactions but also have much reliance on trust and political input (Rivera-Santos and Rufin, 2010) as well as the implications of contracting voids that decrease in magnitude when trust, embeddedness and recurring interactions are involved (Parmigiani and Rivera-Santos, 2015). Trust-based partnerships are also argued to contribute to the BoP 4.0 approach (which has the potential of achieving the objective of poverty alleviation), as they can e.g. be used to ensure the power dynamics are balanced in the SC (Borchardt et al., 2020). This is further an interesting observation as Lara Schilling at the University of Kassel earlier highlighted that the power imbalances between MNC:s and BoP actors is one of the factors that complicates the process of trust building.

A final note in this concept is contributed by Lara Schilling at the University of Kassel, who explains that trust can slowly be built up when contracts are altered to become collaborative by allowing an increased amount of information flows from both parties, i.e. MNC:s and BoP actors. Thus, there appears to be a correlation between the use of trust, contracts and information in BoP environments, which will be further discussed in section 5.4.4.

Concept S3.3: Involve NGO:s as intermediaries in the relationship between MNC:s and BoP actors to increase trust and collaboration

Due to the challenges of enforcing contracts in developing countries as well as the suspicions between partners, intermediaries can be a valuable tool in SC:s involving western companies and actors from the developing countries, in order to align the incentives and motivate partners to only engage in actions that benefit all parties (Narayanan and Raman, 2004).

The TAREA interview mentions that trust is easier built to the MNC if there is a familiar partner involved in the process such as a trusted and known local actor. The One Acre Fund Zambia interview further adds that MNC:s are able to penetrate markets that are hard to reach through collaboration with established and trusted local social businesses and nonprofit organizations, as there is a belief that these organizations are partnering up with MNC:s that trade fairly. Moreover, Lara Schilling at the University of Kassel mentions that the involvement of trusted local actors or organizations such as NGO:s taking the role of the intermediary between MNC:s and BoP actors, can help create a sense of trust in the relationship as well as ease information flows and allow a collaborative relationship to grow. Furthermore, it is mentioned that MNC:s need to depend on non-market actors (such as NGO:s) in order to conduct their planned commercial activities. MNC:s also need to take into consideration demands from e.g. NGO:s on for instance social and environmental aspects, in order to receive help from them to establish local contacts and presence (Rivera-Santos and Rufin, 2010). Another example is that both the agency-driven and corporate-driven SC approach include partnership with NGO:s due to their strong local embeddedness (Brix-Asala and Seuring, 2020). The use of intermediaries is also mentioned in connection to the solutions of tackling dyadic level voids (Parmigiani and Rivera-Santos, 2015). Therefore, the role of intermediaries in the relationship between MNC:s and BoP

actors and in the context of BoP appears to be valuable from several perspectives. However, as was observed in concept P5.2, MNC:s might need to be cautious of the risk of a SC misalignment occurring due to differing business logics when working with non profit organizations such as NGO:s (e.g. as intermediaries) and to handle the consequences accordingly.

The Social Enterprise Ghana agrees on the argument above regarding the importance of intermediaries as it mentions that working with nonprofits could help increase the trust to MNC:s as well as for instance educate and sensitize the MNC:s on the context they are trying to enter. For instance, the Arla Foods interview mentions that it is important to understand the BoP smallholder farmers and their reality, since they work in a completely different context than the farmers in for instance western Europe. Hence, understanding the context, through e.g, education and sensitization by intermediaries could be a beneficial tool for several purposes. A related area where intermediaries could be argued to be beneficial for MNC:s is in regards of understanding how the BoP communities and the knowledge systems that they form should be respected and valued properly as they are often undervalued by MNC:s (Borchardt et al., 2020).

Although the importance of intermediaries in the BoP is emphasized by both the empirical data and the literature, the literature on SCIA highlights that trust based incentive solutions should be explored as the last option of the three incentives solutions, as there is a need to find a trustworthy and secure intermediary, which is often hard to find (Narayanan and Raman, 2004). Brix-Asala et al. (2021) also mentions that there exists a deficient amount of intermediaries in the BoP environment. Rivera-Santos and Rufin (2010) further mention the limited access to specialized actors within the BoP. Furthermore, the labor market voids entails challenges of identifying the requested skills or that the requested skills are not present in the BoP market (Parmigiani and Rivera-Santos (2015)). However, even when the desired skills exist, it is difficult for companies to identify and reach them due to lack of channelization (Rehman et al., 2020). Hence, it could be argued that suitable intermediaries could be difficult to identify and reach in the BoP due to the lack of intermediaries, specialized skills and lack of channelization.

The IKEA of Sweden interview provides a different perspective as it mentions that while partnership with intermediaries and local organizations opens up opportunities of trust building, trust is to be built up over time as well as through operating with fairness and trustworthiness. The takeaway is that the use of intermediaries could be argued to not cancel out the need of considering factors mentioned in concept S3.1 and S3.2.

Concept S3.4: Achieve loyalty to a scalable SC in BoP environments by engaging in local CSR initiatives

This concept emerges from the Arla Foods interview that highlights the need for loyalty, beyond trust and contracts, to create a commercial SC with reliable flows or to scale up an existing one, which is considered a major challenge in BoP contexts to achieve. The interview further mentions that the reason for the difficulties of creating loyalty and commercialization of the SC is due to the factors mentioned in concept S1.1, regarding the BoP population's day to day basis living and the risk of occurrence of middlemen and corruption in the SC. As mentioned earlier, the issue of loyalty appears to also be known in literature, as Narayanan and Raman (2004) explain that western companies fear that the suppliers or manufacturers from developing countries will fail in staying loyal to the contracts and instead take on orders from higher paying customers. Another area that can indicate a low level of loyalty in BoP environments is

identified from concept P2.1 regarding the low level of literacy in BoP regions and the consequence of for instance some local actors abandoning processes when faced with information that is hard to understand. The vulnerability of the BoP population, the potential occurrence of middlemen and corruption and the low level of literacy are all factors that appear to have an influence on the level of loyalty achieved in the SC.

The empirical data and the literature contribute with ideas of how to counteract disloyalty. First, the SOS Children's Village Mozambique interview suggests that creating a trusting business environment can be utilized as an effective tool to counteract disloyalty as well as low engagement in BoP environments, and to ensure increased productivity and collaboration. Furthermore CSR initiatives in the BoP context that relate to balancing the power dynamics, capabilities and knowledge in the global SC (Gupta and Khilji, 2013), could have the potential of contributing to improved loyalty, as they are said to improve their chances of a long-term business commitment in the BoP (Gupta and Khilji, 2013).

5.2.3.2 Emerging concepts from the theory

An additional concept can be identified from the literature related to the area of trust based solutions which is the role of embeddedness in BoP environments (concept S3.5), and will be further examined below.

Concept S3.5: Develop embeddedness in BoP environments to get into dense and informal local networks and counteract the lack of institutions

The literature regarding the setup of BoP networks indicates the need for MNC:s to achieve embeddedness in order to access the advantages of it including its strong local context. For instance, embeddedness is an important factor for MNC:s to establish within the network in order to be able to carry out the needed interactions, due to the need for direct and informal communication within the BoP network. Furthermore, the high density of networks on the local level can be utilized by MNC:s to counteract the lack of institutions in the BoP environment, by creating acceptance and taking part of the local network. Furthermore, due to the populations being isolated, either in rural areas or slums, the local cultures developed in the areas become strong and important (Rivera-Santos and Rufin, 2010). The takeaway from the observations mentioned above is that embeddedness is of importance for MNC:s to achieve in order to conduct their operations smoothly in the BoP and to benefit from the advantages that the local BoP context entails.

Another area that emphasizes the importance of embeddedness is the resilient and stable informal ties (that are based on trust and social acceptance) within BoP networks that translate to MNC:s needing to be embedded in the local context in order to benefit from these ties and the advantage they entail of being resistant to external disturbance. The formal ties on the other hand, that are based on contracts and institutions, are often unstable and unpredictable (Rivera-Santos and Rufin, 2010). The literature also mentions that when the contracts are established between parties of the community and are based on trust, embeddedness and recurring interactions, they become less difficult to enforce (Parmigiani and Rivera-Santos, 2015). Thus, the takeaway from this discussion is that the factors of trust, social acceptance, embeddedness and in turn recurring interactions could be viewed as tools to utilize in order to counteract not only the unreliable formal ties (i.e. contractual mechanisms) and contracting voids but to also improve the use of contract based solutions.

5.2.3.3 List of all identified concepts

A summary of all identified solution concepts related to the solution area of trust based solutions is presented in table 5.8 below.

Table 5.8: Summary of all identified concepts related to the area of trust based solutions (S3).

<i>Identified concepts related to the SCIA area of Trust based solutions in BoP environments</i>		
<i>Concepts</i>	<i>Main sources</i>	<i>Takeaways</i>
Concept S3.1: Reduce initial mistrust between MNC:s and BoP actors by proving good and long term intentions	TAREA, Social Enterprise Ghana, One Acre Fund Zambia, ENSOL LTD and Lara Schilling at the University of Kassel	Initial mistrust appears to be present in the relationship between MNC:s and BoP actors. There appears to be a fear of MNC:s exploiting BoP actors as well as fear related to the MNC leaving the BoP area in its original state, or worse, i.e. without for instance allowing the local actor to grow from the partnership with the MNC or impacting the environment negatively.
Concept S3.2: Develop trust in BoP environments by keeping commitments and engaging in local development work	IKEA of Sweden, SOS Children's Village Mozambique, One Acre Fund Zambia, ENSOL LTD and Lara Schilling at the University of Kassel	Trust appears to be a highly valued factor in BoP environments. For instance, the factors of trust, embeddedness and in turn recurring interactions could be viewed as tools to utilize in order to counteract not only contracting voids but to also improve the use of contract based solutions.
Concept S3.3: Involve NGO:s as intermediaries in the relationship between MNC:s and BoP actors to increase trust and collaboration	IKEA of Sweden, Arla Foods, TAREA, Social Enterprise Ghana, One Acre Fund Zambia and Lara Schilling at the University of Kassel	Intermediaries appear to be valuable from several perspectives. For instance, trust appears to be easier built to the MNC if there is a familiar partner involved in the process and can also ease information flows and allow a collaborative relationship to grow. MNC:s are also likely to be able to penetrate markets that are hard to reach through collaboration with established and trusted local social businesses and nonprofit organizations. Working with nonprofits could help educate and sensitize the MNC:s on the context they are trying to enter. Intermediaries could be argued to be beneficial for MNC:s in regards to understanding how the BoP communities and the knowledge systems that they form.
Concept S3.4: Achieve loyalty to a scalable SC in BoP environments by engaging in local CSR initiatives	Arla Foods and SOS Children's Village Mozambique	There appears to exist a need for loyalty, beyond trust and contracts, to create a commercial SC with reliable flows or to scale up an existing one. However, this is considered a major challenge in BoP contexts to achieve. The vulnerability of the BoP population, occurrence of middlemen and corruption and the low level of literacy in the BoP appear to be factors of influence on the level of loyalty achieved in the SC.
Concept S3.5: Develop embeddedness in BoP environments to get into dense and informal local networks and counteract the lack of institutions	Rivera-Santos and Rufin (2010) and Parmigiani and Rivera-Santos (2015)	Embeddedness appears to be of importance for MNC:s to achieve in order to conduct their operations smoothly in the BoP and to benefit from the advantages that the local BoP context entails. This in turn could facilitate an easier trust building as embeddedness could entail that the local community and its actors become familiar with the MNC in question and have observed their proven intentions, which as mentioned earlier is an important factor to counteract mistrust.

5.3 List of identified concepts

Table 5.9 below shows a summarizing list of all identified concepts, presented as identifiers and the related concept names (which will later facilitate the understanding of figure 6.1 and 6.2).

Table 5.9: Summarizing list of all identified concepts, presented as identifiers and the related concept names

List of identifiers and their corresponding concept (to facilitate the understanding of figures 6.1 and 6.2)	
Identifier	Concepts within Hidden action (P1)
P1.1	Inadequate transparency between BoP actors and MNC:s
P1.2	Vulnerability of the BoP population and businesses
P1.3	Potential presence of unfavorable regulations in some BoP regions
P1.4	Potential presence of corruption in some BoP regions
Identifier	Concepts within Hidden information (P2)
P2.1	Lower levels of literacy in some BoP regions
P2.2	Differences in capacities and processes for evaluation between MNC:s and BoP actors
P2.3	Difficulties in verifying quality and skepticism towards standards and systems of BoP actors
P2.4	Potential presence of ambiguous regulations in some BoP regions
Identifier	Concept within Incentive design (P3)
P3.1	Unfulfilled incentives due to lack of understanding by the BoP actors
P3.2	Unfulfilled incentives due to imbalanced reward structures created by MNC:s
P3.3	Collaborative and risk sharing approaches valuable between BoP actors and MNC:s
P3.4	Creating incentives involving education and training of BoP actors
Identifier	Concepts within Goal conflicts (P4)
P4.1	Goal conflicts between profit creation and social/environmental impact
P4.2	Goal conflicts due to the BoP actor's limited control and power in the relationship with MNC:s
P4.3	Goal conflicts due to differing business environments between MNC:s and BoP actors
Identifier	Concepts within Differing business logics (P5)
P5.1	Differing business logics between MNC:s and social enterprises targeting the BoP
P5.2	Differing business logics between MNC:s and large nonprofit organizations targeting the BoP
P5.3	Differing business logics due to the contrast between the formal and informal business environment of MNC:s and BoP actors
Identifier	Concept within Contract based solutions (S1)
S1.1	Align payment type and time to the vulnerable and informal environment of the BoP population
S1.2	Create clearer contracts and educate BoP actors to understand its content and incentives

S1.3	Do not exploit power imbalance in contracts and relationships between MNC:s and BoP actors
S1.4	Contract with cooperatives instead of disaggregate BoP actors
S1.5	Reduce information asymmetries prior to contracting and use own certifications as rewards for BoP actors to achieve
S1.6	Handle contractual challenges at each SC stage and counteract inadequate quality in contracts
Identifier	Concepts within Information based solutions (S2)
S2.1	Increase joint understanding of the different information related contexts between MNC:s and BoP actors
S2.2	Formalize and adapt communication of key information to share it transparently and frequently
S2.3	Develop value-oriented performance measurement aligned with the BoP environment as a basis for recognition and rewards
S2.4	Leverage (and expand) available IT in BoP environments to gather, observe and share information and reduce transactional costs
Identifier	Concepts within Trust based solutions (S3)
S3.1	Reduce initial mistrust between MNC:s and BoP actors by proving good and long term intentions
S3.2	Develop trust in BoP environments by keeping commitments and engaging in local development work
S3.3	Involve NGO:s as intermediaries in the relationship between MNC:s and BoP actors to increase trust and collaboration
S3.4	Achieve loyalty to a scalable SC in BoP environments by engaging in local CSR initiatives
S3.5	Develop embeddedness in BoP environments to get into dense and informal local networks and counteract the lack of institutions

6 CREATION OF THE CONCEPTUAL FRAMEWORK

The sixth chapter provides the path of the creation of the final conceptual framework. In the first step, the concepts related to the problem areas (P1-P5) will be connected to the concepts related to the solution areas (S1-S3) to fill out the matrix of the eight areas of investigation (figure 3.4). Next, the concepts related to the problem areas will be integrated into problem dimensions that influence SCIA in BoP environments, to facilitate a broader discussion regarding the connection identified in the first step between the problems and solutions, and to help the creation of the final framework. The mentioned discussion will also highlight the main SCIA solutions that can target each problem dimension. The result is seven problem dimensions with several corresponding solutions to target them. The third step is to understand the connection between RQ1 and RQ2 by examining how the six categories of implications on SC:s from the BoP environment translates to the seven problem dimensions and related SCIA solutions. Finally, the final framework is presented which will include the mentioned seven problem dimensions and related SCIA solutions. The chapter is concluded by a discussion regarding the practical implication of the framework. Chapter six corresponds to the fourth, fifth, sixth and seventh phase of the research method followed in this thesis.

6.1 Connecting the problem areas (P1-P5) to the solution areas (S1-S3)

The analysis provided 18 concepts related to the problem areas and 15 concepts related to the solution areas. Interesting connections can be identified between the problem concepts and the solution concepts, meaning the identified SCIA solutions could help target the identified SC misalignment problems in the BoP environment. The connections are illustrated in figure 6.1 below, which is a filled out version of the matrix in figure 3.4. Table 5.9 presented a list of the concept identifiers and the related concept names that can facilitate the understanding of figure 6.1 below. The explanation and logic behind the connections in the figure will be further elaborated on in the following section.

			Solution areas SCIA solution areas															
			Contract based solutions (S1)						Information based solutions (S2)						Trust based solutions (S3)			
			S1.6	S2.1	S2.2	S1.6	S2.1	S2.2	S1.6	S2.1	S2.2	S1.6	S2.1	S2.2	S1.6	S2.1	S2.2	
Problem areas SC mis-alignment areas	Hidden action (P1)	P1.1								X				X		X		
		P1.2			X											X		
		P1.3							X									
		P1.4										X						
	Hidden information (P2)	P2.1		X												X		
		P2.2					X					X						
		P2.3					X		X									
		P2.4							X									
	Incentive design (P3)	P3.1		X														
		P3.2			X	X					X							
		P3.3	X												X			
		P3.4									X							
	Goal conflicts (P4)	P4.1												X		X		
		P4.2			X	X												
		P4.3						X		X					X		X	
Differing business logics (P5)	P5.1	X																
	P5.2						X											
	P5.3						X		X					X		X		

Figure 6.1: Connecting the problem concepts to the solution concepts identified in the analysis.

6.2 Integrating problem concepts into problem dimensions

From the five SC misalignment areas (problem areas) that were examined in the context of the BoP environment, 18 problem concepts emerged. The matrix in figure 6.1 thus shows the problem concepts grouped according to their SC misalignment root cause. However, to highlight the *BoP environment's influence* in the final framework, the problem concepts will be regrouped into problem dimensions with their cause from the BoP environment instead. This translates to the moving of the rows in figure 6.1 into groups without altering the columns. The result is seven aggregate problem dimensions that influence SCIA in BoP environments with their corresponding SCIA solutions that can be viewed in figure 6.2 below. As mentioned earlier an aggregation of the problem concepts in also done to create a more functional overview and facilitate the creation of the final framework.

			Solution areas SCIA solution areas															
			Contract based solutions (S1)						Information based solutions (S2)				Trust based solutions (S3)					
			S1.1	S1.2	S1.3	S1.4	S1.5	S1.6	S2.1	S2.2	S2.3	S2.4	S3.1	S3.2	S3.3	S3.4	S3.5	
Problem dimensions that influence SCIA in BoP environments	1) Unreliable and unpredictable business and regulatory environment in the BoP	P1.3							X									
		P1.4										X						
		P2.4							X									
		P3.3	X													X		
	2) Partnership with intermediaries and non-market actors in the BoP	P4.1												X			X	
		P5.1	X															
		P5.2						X										
	3) Importance of trust and transparency between MNC:s and BoP actors	P1.1								X			X			X		
		P1.2			X											X		
	4) Power imbalance between MNC:s and BoP actors	P3.2			X	X						X						
		P4.2			X	X												
	5) Differing contexts between MNC:s and BoP actors due to vulnerability and informality of BoP	P4.3						X		X						X		X
		P5.3						X		X						X		X
	6) Information asymmetries and inefficient information flows and technology in the BoP	P2.2					X					X						
		P2.3					X		X									
	7) Lower level of literacy, education and skills in the BoP	P2.1		X												X		
		P3.1		X														
		P3.4									X							

Figure 6.2: Grouping the problem concepts into problem dimensions.

The seven problem dimensions that influence SCIA in BoP environments will be discussed next including the connections between the included problem concepts and solution concepts, i.e. the identified SCIA solutions that can target each dimension. Each dimension will also be categorized into either an environmental problem dimension (light gray color in figures) or

relational problem dimension (dark gray color in figures). Furthermore, each dimension will be connected to one or several of the six identified *General categories of implications* from the BoP environment on the SC:s of MNC:s identified in RQ1 (table 3.11). Moving forward the denominations (C) for Contract based solutions, (I) for Information based solutions and (T) for Trust based solutions will be used in illustrations.

6.2.1 Problem dimension 1 (environmental): Unreliable and unpredictable business and regulatory environment in the BoP

The first problem dimension that influences SCIA in BoP environments is the *Unreliable and unpredictable business and regulatory environment in the BoP*. This dimension has its origin in the problem areas of hidden action, hidden information and incentive design. This dimension can be considered an environmental problem dimension as it is mainly caused by the BoP environment. Figure 6.3 below is a summarizing illustration of the problem dimension and its related SCIA solutions.

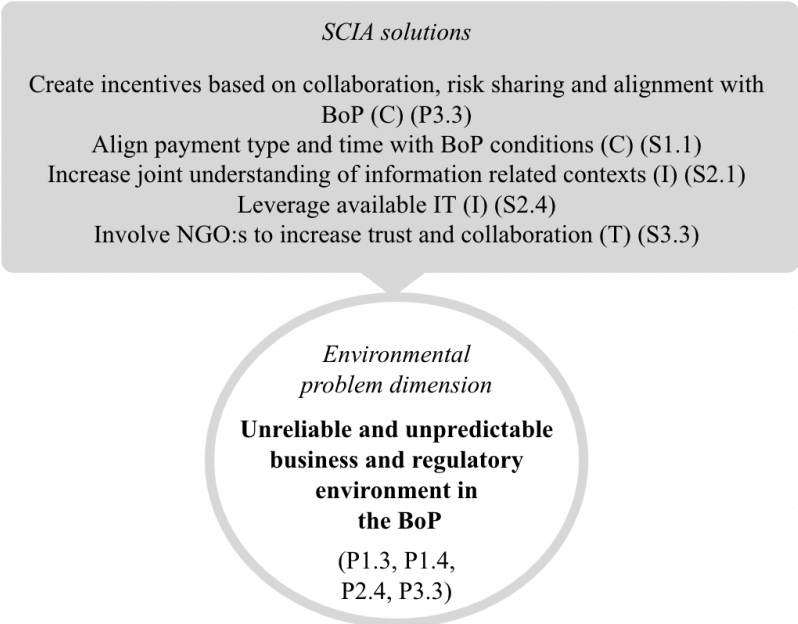


Figure 6.3: Problem dimension 1 of influence on SCIA in BoP environments and its related SCIA solutions.

With regards to the unreliable regulatory environment, solution S2.1 (Increase joint understanding of the different information related contexts between MNC:s and BoP actors) was connected to problem concept P1.3 (Potential presence of unfavorable regulations in some BoP regions) and P2.4 (Potential presence of ambiguous regulations in some BoP regions). The connection is made since the solution for the problem concepts should aim for increasing the MNC’s information about the context and regulations as well as increase the verification of information shared by BoP actors. Achieving a high level of communication could also be argued to be important in order to ensure that both parties are operating in alignment with the agreed on interpretation of the regulation at hand. In order to achieve this, MNC:s need to first understand the present information context of the BoP partner in order to adapt its communication strategy accordingly. Moreover, leveraging available IT (through solution S2.4 Leverage (and expand) available IT in BoP environments to gather, observe and share

information and reduce transactional costs), can help counteract the problem in concept P1.4 (Potential presence of corruption in some BoP regions) as it can help create increased visibility of variables and incentivize against unwanted activities such as engagement in corruption.

Furthermore, with regards to the unreliable business environment, concept P3.3 (Collaborative and risk sharing approaches valuable between BoP actors and MNC:s) was considered a problem concept, however, it can also be viewed as a solution that can be applied by MNC:s to counteract the unreliable business environment that BoP actors face (in terms of for instance scarcity of financial solutions). This translates for MNC:s to create contracts that include incentives based on collaboration, risk sharing and alignment with the BoP. Hence, moving forward, an additional SCIA solution that can be established in contracts will be added to the identified solutions and is to *Create incentives based on collaboration, risk sharing and alignment with the BoP*. Solutions S1.1 (Align payment type and time to the vulnerable and informal environment of the BoP population) and S3.3 (Involve NGO:s as intermediaries in the relationship between MNC:s and BoP actors to increase trust and collaboration) were also connected to problem concept P3.3 and the related added solution mentioned above. The two mentioned solutions could help realize the benefits of the collaborative and risk sharing approaches, by aligning the payment time and type with the BoP partners as well as utilizing NGO:s to increase the trust and collaboration that is needed for the functioning of the suggested added solution.

Problem dimension 1 can directly be connected to Category 5 (Unreliable and unpredictable business and regulatory environment) of general implications from the BoP environment on the SC:s of MNC:s identified in RQ1. Both the problem dimension and the category of implication have their foundation in the unreliable and unpredictable business and regulatory environment encountered in the BoP. The problem dimension can hence be viewed as an example of how SC implications from such BoP conditions can translate into incentives problems.

6.2.2 Problem dimension 2 (environmental): Partnership with intermediaries and non-market actors in the BoP

The second problem dimension that influences SCIA in BoP environments is the *Partnership with intermediaries and non-market actors in the BoP*. This dimension has its origin in the problem areas of goal conflicts and differing business logics. This dimension can be considered an environmental problem dimension as it is caused by the BoP environment that calls for the partnership with the mentioned nontraditional BoP partners. Figure 6.4 below is a summarizing illustration of the problem dimension and its related SCIA solutions.

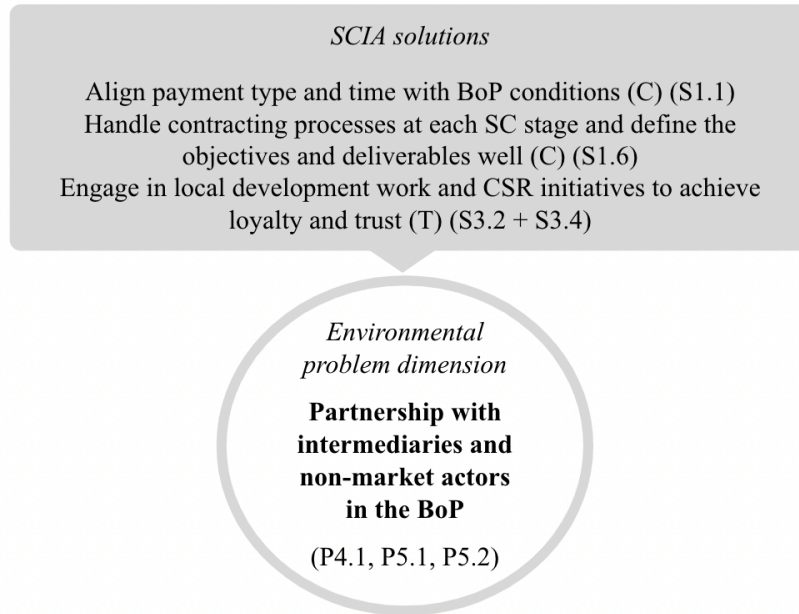


Figure 6.4: Problem dimension 2 of influence on SCIA in BoP environments and its related SCIA solutions.

The first problem concept included in this dimension is concept P4.1 (Goal conflicts between profit creation and social/environmental impact). The solution to this concept should aim for increasing the MNC's engagement in social and environmental impact creation as it is indeed needed in BoP environments, and could in turn ease the goal conflicts that can occur between profit and impact creation. The suggested solutions are therefore S3.2 (Develop trust in BoP environments by keeping commitments and engaging in local development work) and S3.4 (Achieve loyalty to a scalable SC in BoP environments by engaging in local CSR initiatives), with the focus being on engaging in local development work and CSR initiatives.

The area of differing business logics is of emphasized interest to consider in the BoP, as MNC:s will need to partner up with a variety of types of organizations due to the characteristics of the BoP environment and each type of organization in turn having their own business logic. Problem concept P5.1 (Differing business logics between MNC:s and social enterprises targeting the BoP) highlighted this issue with specific focus on the partnership with social enterprises. The suggested solution is S1.1 (Align payment type and time to the vulnerable and informal environment of the BoP population) as the social enterprise partner usually has a vulnerable target group (e.g. with a fragile purchase power). In order for the partnership to reach its potential of creating both profit and impact, MNC:s could consider aligning the payment type and time with the conditions that the social enterprise needs to take into consideration in their operations. Furthermore, this solution could be considered specifically relevant for MNC:s attempting both profit and impact creation as it suggests changing processes and policies which in turn could be argued to be a significant change in the SC. However, as observed in the empirical data, this could be of importance in order to protect the impact creation from being compromised.

The final problem concept in this dimension is P5.2 (Differing business logics between MNC:s and large nonprofit organizations targeting the BoP) which discussed the SC misalignment issues of differing business logics when working with for instance NGO:s. In order to have an aligned understanding of the goals and incentives in the relationship, well defined contracts

could be argued to be of importance. Solution S1.6 (Handle contractual challenges at each SC stage and counteract inadequate quality in contracts) discussed how defining performance specifications and indicators, penalties and rewards, and scope of work and resources in detail could help counteract the contractual risks between principals and agents. While the relationship between MNC:s and large nonprofit organizations might not represent a typical principal-agent relationship, lessons could still be learned, such as to define the mentioned areas well in contracts. It could also be argued to be of importance to establish in the contract the specific objectives and deliverables (e.g. the solutions that are to be produced by the collaboration) specifically for each SC stage. This is due the BoP environment affecting each SC stage differently and the large nonprofit organizations might want to handle said issues on a more generic level in contrast to the MNC.

Problem dimension 2 can be connected to Category 1 (Reliance on non-traditional partners) of general implications from the BoP environment on the SC:s of MNC:s identified in RQ1. As was observed in this problem dimension and in several other discussions related to the partnership with for instance intermediaries and nonprofit organizations, the needed reliance on such non-traditional partners entails many challenges including ones related to incentives and SCIA. Therefore, problem dimension 2 can be viewed as an example of the incentives problems that can occur due to the SC changes and implications in terms of relying on non-traditional partners.

6.2.3 Problem dimension 3 (relational): Importance of trust and transparency between MNC:s and BoP actors

The third problem dimension that influences SCIA in BoP environments is the *Importance of trust and transparency between MNC:s and BoP actors*. This dimension has its origin in the problem area of hidden action. This dimension can be considered a relational problem dimension as it concerns the relationship between MNC:s and BoP actors. Figure 6.5 below is a summarizing illustration of the problem dimension and its related SCIA solutions.

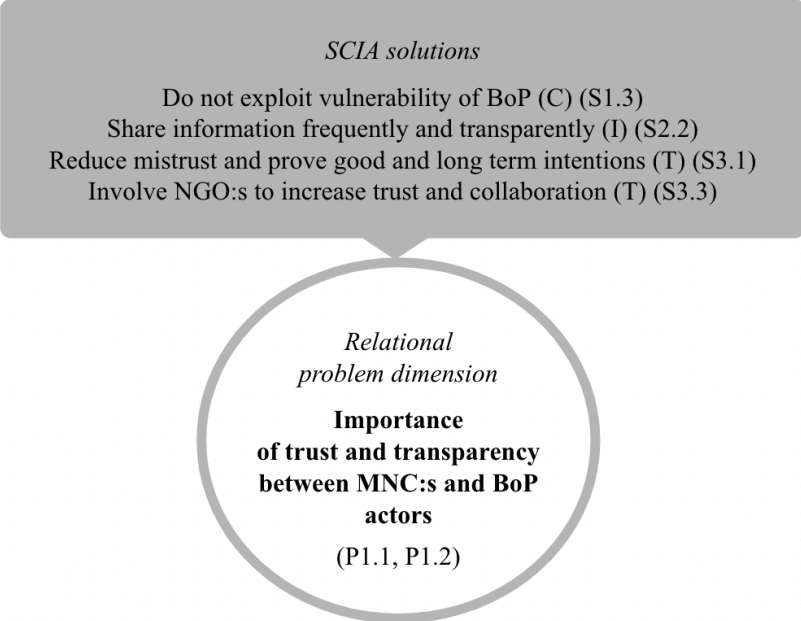


Figure 6.5: Problem dimension 3 of influence on SCIA in BoP environments and its related SCIA solutions.

The first problem concept relates to the Inadequate transparency between BoP actors and MNC:s (concept P1.1). The solution to this problem should aim for reducing the mistrust between the partners, increasing collaboration, communication and information sharing, as well as include long term commitments as there are the factors that were highlighted to cause the problem. Hence, sharing information transparently and frequently (solution S2.2 Formalize and adapt communication of key information to share it transparently and frequently), reducing the mistrust between MNC:s and BoP actors (solution S3.1 Reduce initial mistrust between MNC:s and BoP actors by proving good and long term intentions) and increasing collaboration and trust (solution S3.3 Involve NGO:s as intermediaries in the relationship between MNC:s and BoP actors to increase trust and collaboration) are three areas that can be argued to help counteract the inadequate transparency in the relationship. The utilization of several SCIA solutions could contribute to the factors of collaboration, communication, information sharing and creating trust, which in turn could help relationships to extend beyond the short-term transactional relationships that are common between MNC:s and BoP actors.

Problem concept P1.2 (Vulnerability of the BoP population and businesses) further highlighted several areas of improvement. However, while the concept discussed the dishonesty of BoP actors, fear of BoP actors abandoning agreements for higher paying customers and the risk of exploitation of BoP actors, the underlying issue is the vulnerability of the BoP population and actors. Hence, inspiration from solution S1.3 (Do not exploit power imbalance in contracts and relationships between MNC:s and BoP actors) could be taken to tackle this problem, meaning to not exploit the vulnerability of the BoP. The problem in concept P1.2 also highlights the importance of achieving loyalty as the vulnerability of the BoP actors can jeopardize agreements. It was observed in the SOS Children's Village Mozambique interview that even when farmers or local actors try to use dishonesty and lack of transparency to receive more resources, the rules of NGO:s always prevail and the activities and benefits are implemented according to the established rules. This could indicate that the local NGO:s are familiar with the local actors' context and vulnerability and could therefore both handle the local actors' behavior due to it and educate the MNC:s on their vulnerability. Hence, solution S3.3 (Involve NGO:s as intermediaries in the relationship between MNC:s and BoP actors to increase trust and collaboration) could also be suggested for problem concept P1.2.

Problem dimension 3 can be connected to Category 2 (Strong need for local embeddedness) of general implications from the BoP environment on the SC:s of MNC:s identified in RQ1. As mentioned earlier in concept S3.5, the factors of trust, social acceptance and embeddedness could be viewed as tools in the BoP. Problem dimension 3 can therefore be viewed as an example of how the SC changes and implications of the BoP in terms of the strong need for local embeddedness can translate to SCIA problems in the BoP.

6.2.4 Problem dimension 4 (relational): Power imbalance between MNC:s and BoP actors

The fourth problem dimension that influences SCIA in BoP environments is the *Power imbalance between MNC:s and BoP actors*. This dimension has its origin in the problem areas of incentive design and goal conflicts. This dimension can also be considered a relational problem dimension as it has its foundation in the characteristics of the relationship between MNC:s and BoP actors. Figure 6.6 below is a summarizing illustration of the problem dimension and its related SCIA solutions.

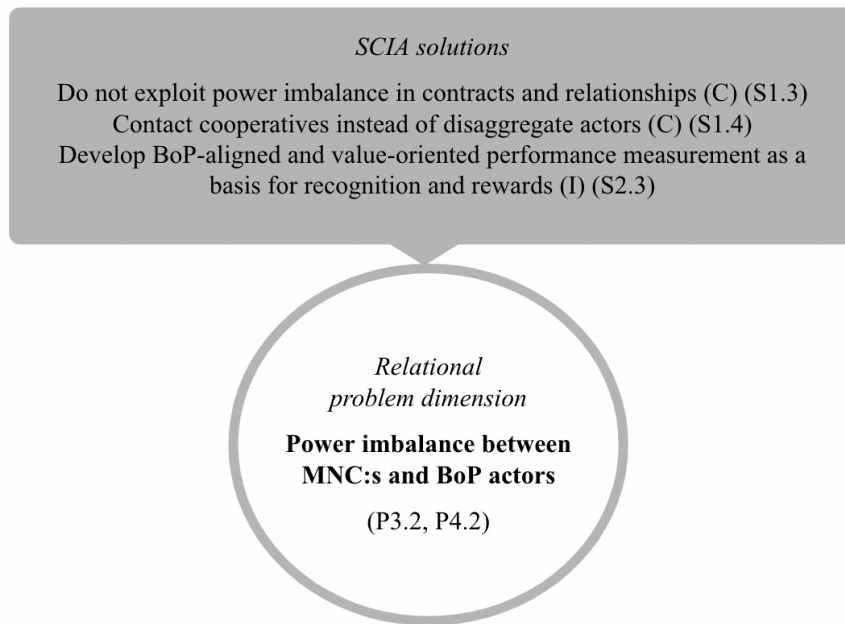


Figure 6.6: Problem dimension 4 of influence on SCIA in BoP environments and its related SCIA solutions.

This problem dimension can be connected to two main solutions that can target both problem concepts included in this dimension. The identified problems in this dimension relate to the Unfulfilled incentives due to imbalanced reward structures created by MNC:s (concept P3.2) and the Goal conflicts due to the BoP actor's limited control and power in the relationship with MNC:s (concept P4.2).

The first suggested solution for both problem concepts is S1.3 (Do not exploit power imbalance in contracts and relationships between MNC:s and BoP actors). The mentioned solution concept provides ideas for MNC to consider with regards to the power dynamics, such as sharing the power with other network members in the BoP (Rivera-Santos and Rufin, 2010), taking the role of facilitating value-creation in the network by linking and sharing power among all actors (Gupta and Khilji, 2013), as well as engaging in CSR initiatives in the BoP with the aim of balancing the power dynamics, capabilities and knowledge in the SC (Borchardt et al., 2020; Gupta and Khilji, 2013). However, the focus should first and foremost be on not exploiting the present power imbalance that appears to usually be existent in the relationship between MNC:s and BoP actors. Furthermore, the second suggested solution for both problem concepts in this dimension is S1.4 (Contact with cooperatives instead of disaggregate BoP actors), as it was observed in the mentioned concept that the negotiation power of for instance farmers is increased when they are part of cooperatives.

With regards to concept P3.2 specifically, the solutions should also aim for the balancing of the reward structures by creating contracts with more balanced incentives, such as by defining realistic targets for achieving rewards in order to compensate for the low paid price, and actually dispensing it when the target is met. Appendix J also provides an idea of how to tackle this issue, as Simatupang and Sridharan (2002) suggest an incentive alignment mechanism that entails rewarding the efforts towards achieving a defined target instead of only rewarding the achievement of said target. While the idea is to motivate the SC partners to continue to improve and work towards the holistic SC goal, it could also have the potential effect of reducing the risk of exploitation of BoP actors as they are receiving compensation along the way. Hence,

solution S2.3 (Develop value-oriented performance measurement aligned with the BoP environment as a basis for recognition and rewards) could be argued to be suitable to facilitate such an incentive alignment mechanism that is also aligned with the conditions of the BoP.

Problem dimension 4 can be directly connected to Category 4 (Revised power distribution) of general implications from the BoP environment on the SC:s of MNC:s identified in RQ1. Both the category and the dimension focus on the power distribution between SC partners, which implies that the problem dimension is an example of how the SC changes and implications in terms of revised power distribution can translate into SCIA problems in the BoP.

6.2.5 Problem dimension 5 (relational): Differing contexts due to vulnerability and informality of BoP

The fifth problem dimension that influences SCIA in BoP environments is the *Differing contexts due to vulnerability and informality of BoP*. This dimension has its origin in the problem areas of goal conflicts and differing business logics. This dimension can be considered a relational problem dimension as it concerns the relationship between MNC:s and BoP actor. Figure 6.7 below is a summarizing illustration of the problem dimension and its related SCIA solutions.

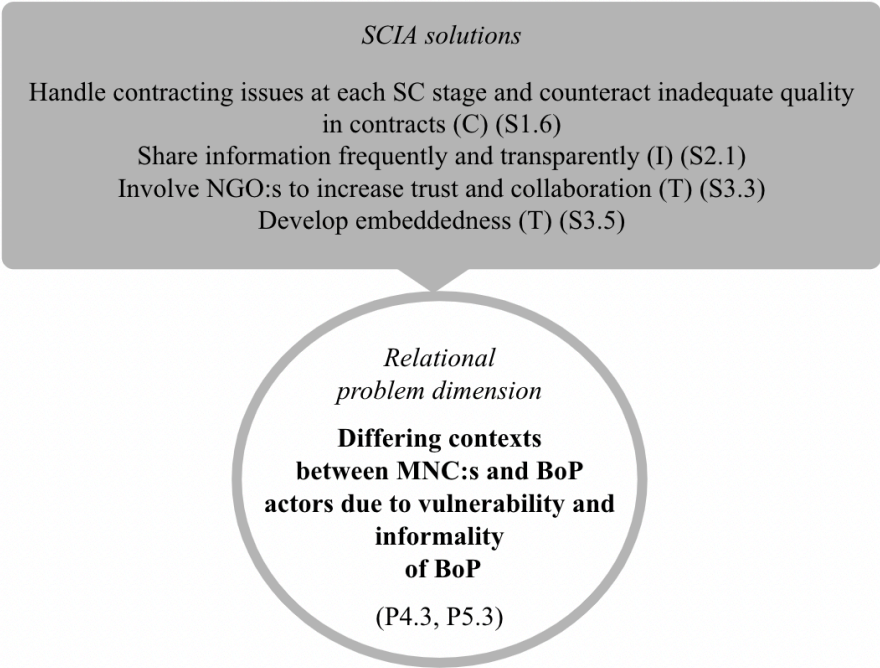


Figure 6.7: Problem dimension 5 of influence on SCIA in BoP environments and its related SCIA solutions.

The differing contexts between MNC:s and BoP actors was observed mainly in both concept P4.3 (Goal conflicts due to differing business environments between MNC:s and BoP actors) and P5.3 (Differing business logics due to the contrast between the formal and informal business environment of MNC:s and BoP actors). Solutions from all three SCIA areas could be argued to have a potential to tackle the many issues that accompany the differing contexts between the two parties.

As was observed in the mentioned problem concepts, the different contexts cause challenges at most SC stages. Many areas were identified to be at risk of creating SC misalignments in terms of goal conflicts and differing business logics. Such areas could be argued to be of emphasized importance to be well defined in contracts to allow both partners to evaluate their compatibility prior to signing the contract. This implies that solution S1.6 (Handle contractual challenges at each SC stage and counteract inadequate quality in contracts) could be of benefit to apply to ensure a well functioning use of contracts for instance by defining performance specification and indicators, penalties and rewards, and scope of work and resources in detail for each SC stage at risk of being affected by the differing contexts. Furthermore, solution S2.2 (Formalize and adapt communication of key information to share it transparently and frequently) could also be argued to contribute to alignment and joint understanding of the operations and areas that are at risk of creating SC misalignment, by helping to create an efficient flow of information between the two parties.

The contrast between the environments of the two parties and the many potential differences in how business is conducted between MNC:s and BoP actors could indicate that mistrust could grow between the partners. Hence, trust based SCIA solutions could also be of benefit to the mentioned problem concepts in this problem dimension. First, solution S3.3 (Involve NGO:s as intermediaries in the relationship between MNC:s and BoP actors to increase trust and collaboration) could be argued to be of benefit as a local intermediary could have a better understanding of the context and limitations of the BoP actor in terms of resources, skills and capabilities and could therefore help create agreements that are beneficial and realistic for both parties. Furthermore, the intermediary could also help the MNC identify areas of potential conflict that can then be addressed through for instance contract based and information based solutions when needed. The second suggested trust based solution is S3.5 (Develop embeddedness in BoP environments to get into dense and informal local networks and counteract the lack of institutions). Besides the advantages of getting closer to the local networks and counteracting institutional voids, creating embeddedness could also be argued to help the MNC get more familiar with the context of the BoP actor and in turn have a better understanding of where the two parties are at risk of falling into a collision due to differing business logics or goal conflicts.

Problem dimension 5 can be connected to Category 3 (Changes in SC flows and operations) of general implications from the BoP environment on the SC:s of MNC:s identified in RQ1. The many challenges at most SC stages and many areas of operations that were identified to be at risk of creating SC misalignments could be viewed as examples of how the changes in SC flows and operation could look like from a SCIA perspective. The types of SC changes that might need to be taken into consideration from a SCIA perspective are hence the ones suggested in the solutions such as adapting the information flow and partnering with intermediaries.

6.2.6 Problem dimension 6 (environmental): Information asymmetries and inefficient information flows and technology in the BoP

The sixth problem dimension that influences SCIA in BoP environments is the *Information asymmetries and inefficient information flows and technology in the BoP*. This dimension has its origin in the problem area of hidden information. This dimension can be considered an environmental problem dimension as it is caused by the characteristics of the BoP environment. Figure 6.8 below is a summarizing illustration of the problem dimension and its related SCIA solutions.

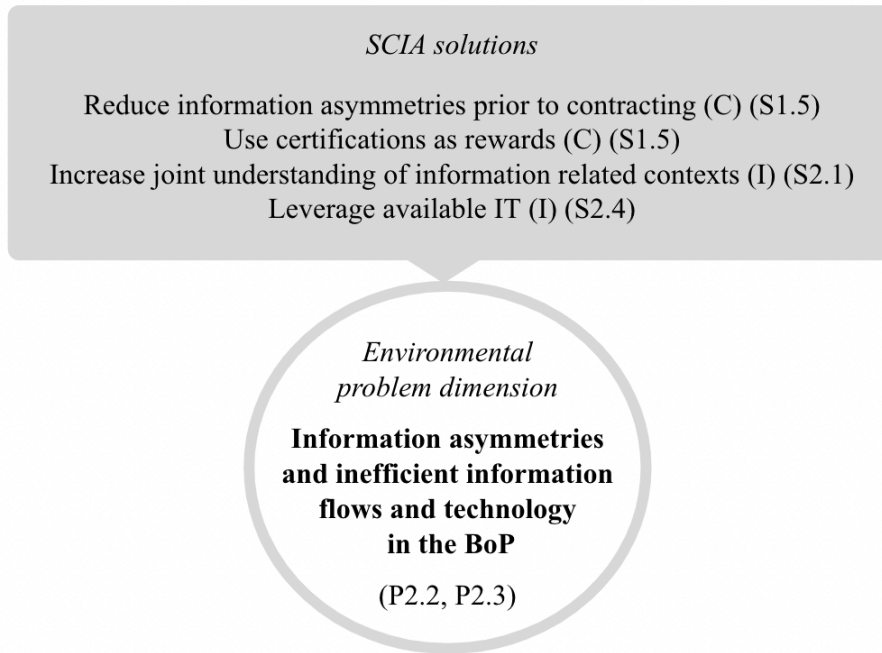


Figure 6.8: Problem dimension 6 of influence on SCIA in BoP environments and its related SCIA solutions.

The first problem concept in this dimension is P2.2 (Differences in capacities and processes for evaluation between MNC:s and BoP actors). This concept entails an information asymmetry as the MNC possess information that the BoP actor does not and cannot access through for instance complex evaluation processes. Hence, a solution that could be argued to balance the information asymmetry in the relationship is for MNC to improve the situation by granting a better flow of information and greater visibility towards the BoP actor. However, this solution could be considered tricky since as mentioned earlier, SC partners are often hesitant to share personal information with the rest of the SC transparently (Simatupang and Sridharan, 2002). Nonetheless, two solutions could be argued to reduce the magnitude of the differences in capacities and process for evaluation between the two parties. First, solution S1.5 (Reduce information asymmetries prior to contracting and use own certifications as rewards for BoP actors to achieve) could tackle the above mentioned information asymmetry. Second, solution S2.4 (Leverage (and expand) available IT in BoP environments to gather, observe and share information and reduce transactional costs) could also help decrease the magnitude of the information asymmetries as technology solutions could facilitate an easier handling of information.

The second problem concept in this dimension is P2.3 (Difficulties in verifying quality and skepticism towards standards and systems of BoP actors). The concept also touched upon the information asymmetries in BoP environments, however from another perspective as the BoP actors in this concept are the ones possessing information that the MNC:s cannot access due to limited intermediaries, standards and certifications in the BoP. The solution for this concept should hence aim for the reduction of said information asymmetry. For instance, an idea to counteract the mistrust to the systems and standards used in the BoP is to assess the systems and standards present despite them being insufficient as is. MNC:s could use the mentioned existing systems and standards, and utilize them to understand how they can be applied, complemented and improved to fit the standard and context of the MNC. Such a solution entails the use of solution S2.1 (Increase joint understanding of the different information related

contexts between MNC:s and BoP actors) to understand the existing and present standards and systems in the BoP. A second perspective is to counteract the limited amount of certifications in the BoP by utilizing own created and trusted certification as rewards for BoP actors to achieve, as suggested by solution S1.5 (Reduce information asymmetries prior to contracting and use own certifications as rewards for BoP actors to achieve).

Problem dimension 6 can be connected to Category 3 (Changes in SC flows and operations) of general implications from the BoP environment on the SC:s of MNC:s identified in RQ1. This dimension is an example of how the changes in SC information flows can translate to SCIA problems in BoP environments. The characteristics of the information flows in the BoP imply changes in the SC that in turn create the above discussed problem concepts that are mainly based on the information asymmetry that is created by the inefficient information flows in the BoP.

6.2.7 Problem dimension 7 (environmental): Lower level of literacy, education and skills in the BoP

The seventh and final problem dimension that influences SCIA in BoP environments is the *Lower level of literacy, education and skills in the BoP*. This dimension has its origin in the problem areas of hidden information and incentive design. This dimension can be considered an environmental problem dimension as it is based on the characteristics of the BoP environment. Figure 6.9 below is a summarizing illustration of the problem dimension and its related SCIA solutions.

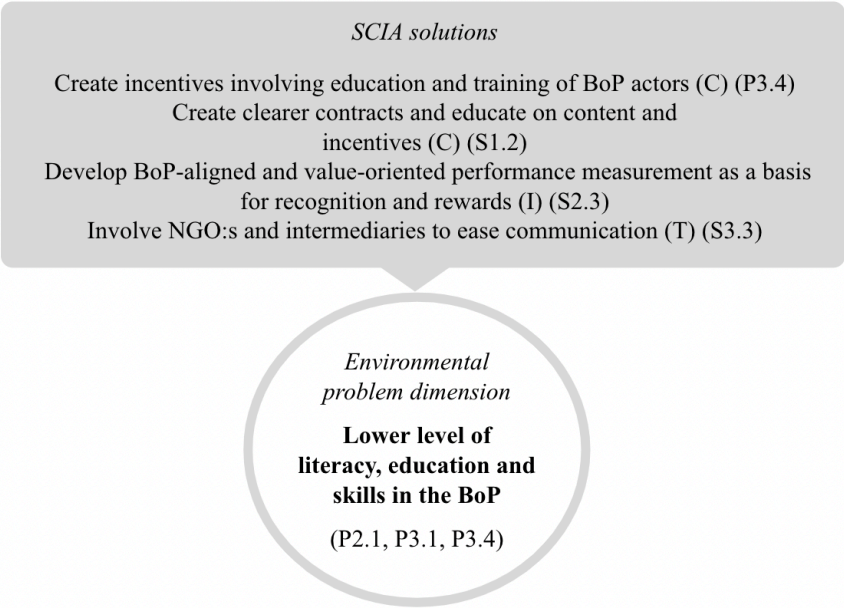


Figure 6.9: Problem dimension 7 of influence on SCIA in BoP environments and its related SCIA solutions.

The lower level of literacy was mainly observed in two problem concepts, which are P2.1 (Lower levels of literacy in some BoP regions) and P3.1 (Unfulfilled incentives due to lack of understanding by the BoP actors). Both concepts highlighted the challenges that the lower literacy level creates for the realization of incentives and fulfillment of collaborations. Hence, it appears that there is a need for a solution that ensures that the literacy level does not jeopardize

the established incentives in contracts. This in turn implies the use of solution S1.2 (Create clearer contracts and educate BoP actors to understand its content and incentives) that entails the MNC to engage in both creating clearer contracts and also educating the BoP actors on its contents.

Another perspective connected to problem concept P2.1 and the issues of lower literacy levels was also highlighted in the SOS Children's Village interview, that noted that in development projects, different interaction approaches are used by NGO:s to avoid misunderstandings and abandoning of processes, in order to achieve an active participation by the target group. Hence, an idea to counteract the risk of BoP actors (e.g. farmers with a lower literacy level) abandoning operations due to information that is hard to understand, is for MNC:s to also utilize solution S3.3 (Involve NGO:s as intermediaries in the relationship between MNC:s and BoP actors to increase trust and collaboration). This type of solution could allow an NGO or other local intermediaries to handle the interactions with the BoP actors through their different interaction approaches. The intermediary might also know the local language and can hence communicate with the BoP actors better.

Furthermore, concept P3.4 (Creating incentives involving education and training of BoP actors), highlighted the lower levels of education and skills in the BoP. The concept further suggested an arrangement where the MNC provides a training and educational opportunity for the BoP actor, in order to create an adequate SC partner who is trained formally and can simultaneously fill a needed SC gap, while the BoP actor receives a new skill and reward for their improved performance. The mentioned arrangement suggests an incentive arrangement that involves risks taken from both parties, in terms of the BoP actors presumably needing to sacrifice time and effort to learn a new skill while the MNC:s presumably needing to sacrifice monetary resources to provide the BoP actors with training. Although the mentioned concept is originally a concept related to a problem area, the solution it provides could be of benefit for MNC:s to take into consideration. Hence, moving forward, a SCIA solution that can be established in contracts is to *Create incentives involving education and training of BoP actors*. However, to ensure that the efforts of learning are not being cut, MNC:s could potentially utilize solution S2.3 (Develop value-oriented performance measurement aligned with the BoP environment as a basis for recognition and rewards) to track the performance of the BoP actor in a an efficient way adapted to the BoP environment.

Problem dimension 6 can be connected to Category 6 (Increased number of activities and dimensions) of general implications from the BoP environment on the SC:s of MNC:s identified in RQ1. The lower level of literacy, education and skills in the BoP translate to activities that might not be traditional outside of the BoP, such as for instance engaging in education of BoP SC partners regarding established contracts or providing training opportunities in order to help create an adequate SC partner. Hence this problem dimension could be considered an example of the type of additional activities connected to SCIA that MNC:s need to handle in their SC:s when operating in the BoP.

6.3 Connecting RQ1 to RQ2: Understanding how SC implications and changes from the BoP environment translate to SCIA areas

As can be understood from the discussions in the sections above, each solution can address more than one problem dimension and each problem dimension can also be addressed by more than one solution. A further interesting connection is found between RQ1 and RQ2 (which was discussed in the ending of each problem dimension description in section 6.2 above) and will be illustrated in figure 6.10 below. The identified connection between RQ1 and RQ2 is interesting as it is in line with the literature that states that changes in a SC's network structures, business processes or managerial components are argued to lead to SC misalignment (Lundin and Norrman, 2010) and that incentives problems are prone to arise each time a new change effort is in place (Narayanan and Raman, 2004). On the other hand, SCIA has the aim of realigning the risks and rewards in the SC when changes occur (Simatupang and Sridharan, 2002). In the middle column of figure 6.3 the incentive problems (problem dimensions that influence SCIA in BoP environments from RQ2) are presented, with their potential change effort cause (categories of implications/changes from the BoP environment on the SC:s of MNC:s from RQ1) to the left and their potential SCIA solutions (identified SCIA solutions from RQ2) to the right.

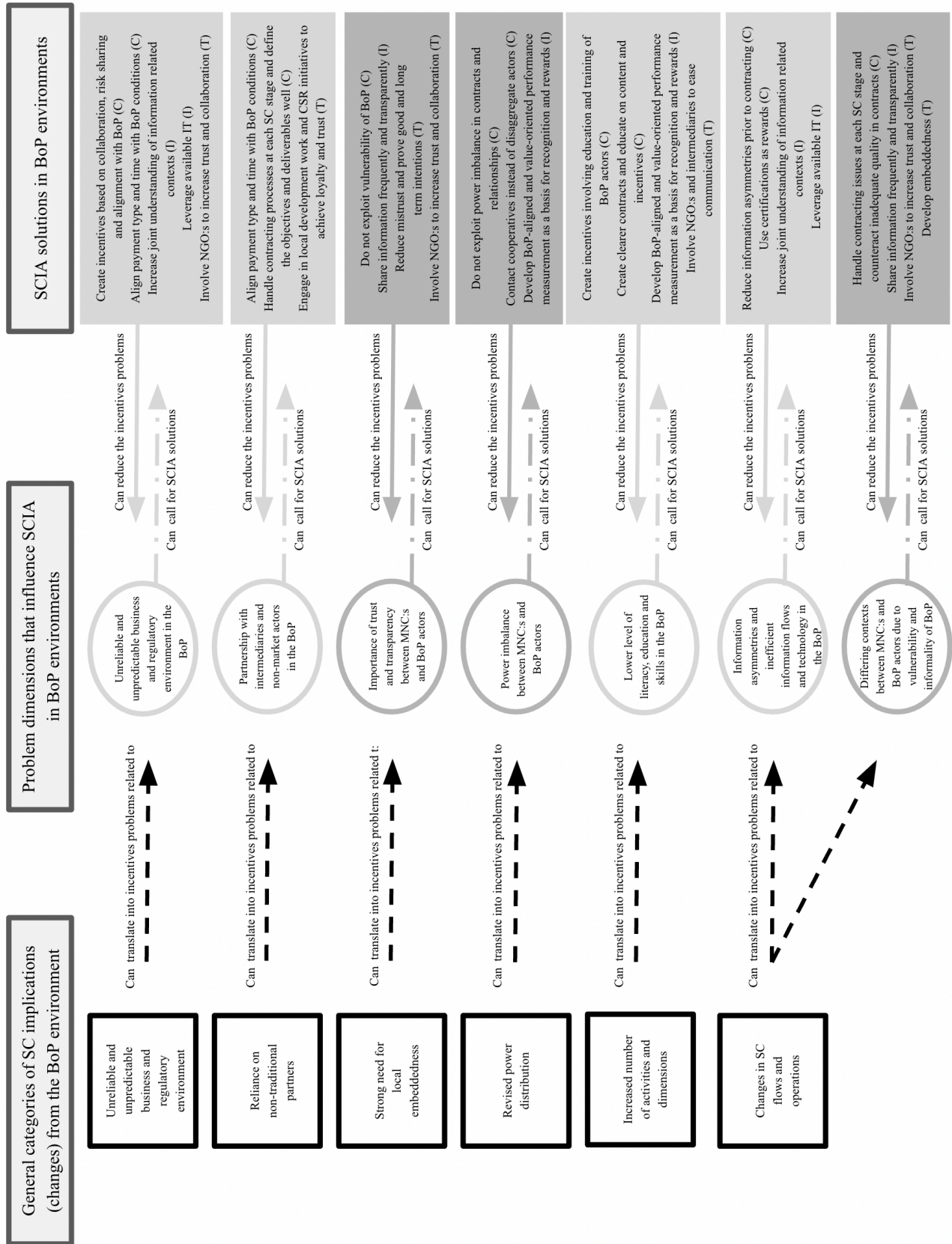


Figure 6.10: Connecting RQ1 to RQ2 - the connection between the BoP environments implications on the SC:s of MNC:s, incentives problems in the BoP as well as SCIA solutions in the BoP environment.

6.4 The final framework: Supply Chain Incentive Alignment in Bottom of the Pyramid environments

The final framework consists of the seven problem dimensions that influence SCIA in BoP environments, categorized into environmental and relational ones, and the corresponding SCIA solutions to each problem dimension. Together, the problem dimensions (circles in figure 6.11 below) and solutions (boxes in figure 6.11 below) help to create an overview of the phenomenon of SCIA in BoP environments. The final conceptual framework of this study is presented in figure 6.11 below.

SCIA in BoP environments - Problem dimensions of influence and corresponding Contract (C), Information (I) and Trust (T) based SCIA solutions

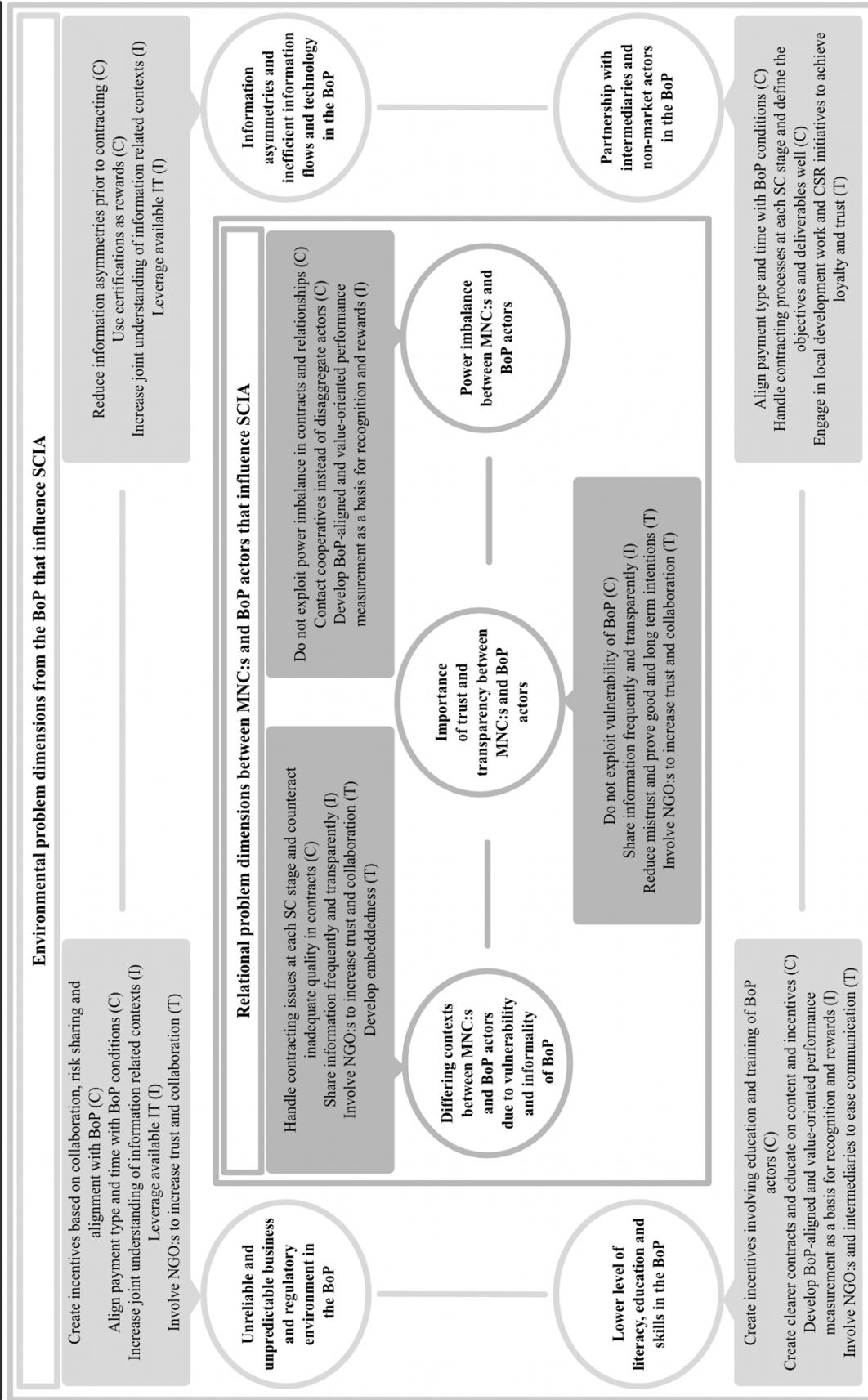


Figure 6.11: The final conceptual framework that presents the phenomenon of SCIA in the BoP environment.

6.4.1 Practical implications of the framework

Before discussing the practical implication of the framework itself for MNC:s, there are several practical reasons worth mentioning as to why SCIA should be of emphasized interest in the first place for MNC:s especially in the BoP. As not only the the organizational cultures are different between MNC:s and BoP actors but the entire context, it could be argued to aggravate the difficulties of identifying specific misalignments across SC:s involving partners from such differing contexts. Furthermore, as the process of solving incentive alignment problems differs from the often more structured processes of solving other SC problems, “only managers who understand the motivations of most companies in their SC can tackle incentive-related issues” (Narayanan and Raman, 2004, pp. 99). The motivation of BoP actors could differ from the motivation of actors outside of the BoP as their reality is substantially different, as has been observed several times throughout this study. Hence, understanding the motivation of BoP actors as well as their reality in the BoP environment could be argued to be of emphasized importance to tackle incentive-related issues. Another interesting observation from the literature can be found in relation to supplier development (SD) as a tool to bridge institutional voids. The parallels of the foundational ideas of the practice to SCIA could indicate a takeaway which is that SCIA might also have the potential to bridge the many challenges that MNC:s face when entering the BoP environment. Furthermore, it is mentioned that “the *incentive character* of indirect SD can stimulate the process of finding ways to develop capabilities and skills for the BoP itself” (Brix-Asala and Seuring, 2020, pp. 907). Hence, a potential parallel could be that the use of incentives and SCIA in the BoP could have the potential of also stimulating the process for BoP actors to find ways to develop their capabilities and skills, which in turn could be in line with a MNC:s impact creation objectives.

There are furthermore several practical implications of the framework itself. As was mentioned in the literature, there exists mental barriers that hinder discussions about the topic of incentives as well as difficulties in the beginning to understand how incentives relate to the problems observed in the SC (Narayanan and Raman, 2004). The framework could hence act as a motivation to get the discussions about the topic of incentives started when MNC:s plan on entering the BoP environment. The discussion on SCIA should shed light on how the sharing of costs, risks and rewards have been handled initially and how they could be handled onwards to ensure that the incentives are aligned and to ensure that both SC objectives of profit and impact creation are targeted. The discussions should also aim for understanding the SC misalignment areas in the SC and pinpointing the root cause with help from the seven problem dimensions.

The framework could further indicate the areas that need to be considered and planned well when designing the operations in BoP environments as well as the relationships with BoP actors, intermediaries and other partners. The framework could also assist in decision making processes regarding how the incentives should be designed towards BoP actors, how contracts and information flows should be designed and handled in the BoP, how to conduct performance measurement activities in BoP environments as well as how to build trust between the SC actors.

Furthermore, as mentioned earlier, Narayanan and Raman (2004) argue that a contract based incentives solution should be the first priority, information based solutions the second priority and trust based solutions the third priority. However, there appears to exist a correlation between the three SCIA solution areas as each area tackles a different part of the problems when entering the BoP, and they all help facilitate the use of the remaining solution areas. Thus, the

framework can provide guidance for MNC:s on which combinations of solutions that could work well and which types of solutions (i.e. contract-, information- or trust based) that might be needed in order to tackle each problem dimension.

The above discussions on the practical implications are mainly related to the internal use of the framework within the MNC to prepare, understand and implement SCIA efforts in the BoP. However, the framework could also be used by MNC:s together with BoP actors. As each BoP context is different from the other, the discussions motivated and guided by the framework with the BoP actors could provide better and more adapted insights to which areas to pay emphasized attention to. The discussion could also provide insights on which SCIA solutions to focus on as the BoP actors could provide feasibility insights to the suggested solutions in the framework (e.g. which information systems are available for them or which payment types and times that work efficiently in their context). A further potential benefit from utilizing the framework together with the BoP partners could be to induce a trust building opportunity as the MNC is proving its intentions of creating a business opportunity that benefits every partner and aims to share the risks and rewards fairly across the SC. This in turn could induce the BoP actor to also think, plan and operate accordingly.

7 CONCLUSION

The last chapter of this thesis concludes the study by revisiting the research questions and providing answers to them. Limitations of the study and the findings will also be discussed as well as suggestions for future research. Finally, the contribution of this study to both academia and industry is discussed.

7.1 Answering of the research questions

This qualitative and explorative study is based on the literature gap found in the intersection of SCIA literature and BoP literature, and has the purpose of examining the implications of the BoP environment on SCIA. An abductive research process was hence utilized to attempt theory elaboration on the topic of SCIA in the specific context of the BoP environment. Inspiration from the qualitative method to create a conceptual framework presented by Jabareen (2009) was utilized to create the desired outcome of this study which is a framework that explains the phenomenon of SCIA in BoP environments. The target group for the study was MNC:s operating in the BoP, and especially MNC:s interested in creating both profit and impact through the partnership with BoP actors. The purpose and outcome of the study was achieved by answering two research questions that will be summarized in the following sections.

7.1.1 RQ1: How does the BoP environment influence the supply chains of MNC:s operating in the BoP and is it likely that SC misalignments could occur due to its influence?

The first research question of this study asked *How does the BoP environment influence the supply chains of MNC:s operating in the BoP and is it likely that SC misalignments could occur due to its influence?*. This research question was answered by conducting a comprehensive literature study to create an understanding on the BoP environment and in turn its implication on the SC. The literature was categorized into four general areas: *the BoP approach*, followed by *the BoP environment* and *supply chain management in the BoP environment* and finally a *theoretical background to SCIA*. In total, 32 implications (shown in table 3.10) were found to have an influence on the SC. These implications were then categorized into six general categories of implications from the BoP environment on the SC:s of MNC:s: *Reliance on non-traditional partners* (Category 1), *Strong need for local embeddedness* (Category 2), *Changes in SC flows and operations* (Category 3), *Revised power distribution* (Category 4), *Unreliable and unpredictable business environment* (Category 5) and *Increased number of activities and dimensions* (Category 6). Table 7.1 below presents examples of SC implications from the BoP environment within each category.

Table 7.1: A summary of the general categorization of SC implications (changes) that MNC:s need to consider when entering or operating in BoP environments (the answer to RQ1).

How does the BoP environment influence the supply chains of MNC:s operating in the BoP?	
<i>General categories of implications</i>	<i>Main examples of implications</i>
<i>Category 1: Reliance on non traditional partners</i>	MNC:s need to depend on non-market actors such as NGO:s in order to conduct their planned commercial activities as well as interact and work with a more diverse but smaller set of partners (Rivera-Santos and Rufin, 2010).
<i>Category 2: Strong need for local embeddedness</i>	MNC:s need to establish embeddedness as well as take into consideration demands from for instance NGO:s and local organizations on for instance social and environmental aspects, in order to receive help from these organizations to establish local contacts and presence, which in turn is needed for MNC:s in order to be accepted by and take part of the local network to leverage the high density of networks on the local level (Rivera-Santos and Rufin, 2010).
<i>Category 3: Changes in SC flows and operations</i>	MNC:s need to have a higher frequency of interorganizational communication, and hence corresponding logistics to fulfill this need. The information flows in the BoP are insufficient which causes for instance a need for direct and informal communication between partners (Rivera-Santos and Rufin, 2010). MNC:s could face difficulty in ensuring a consistent material flow in the long term as well as identifying suppliers and assessing quality of materials. MNC:s could also face difficulty in identifying skilled labor and motivating skilled distributors (Parmigiani and Rivera-Santos, 2015). MNC:s also need to design the distribution networks to fit the local characteristics of the isolated BoP markets, the types of products needed as well as frequent purchases (Rivera-Santos and Rufin, 2010). MNC:s could face difficulty in working with retailers and ensuring reliable pricing, promotions and payment mechanisms as well as difficulty with their customer relations and creating a solid brand (Parmigiani and Rivera-Santos, 2015).
<i>Category 4: Revised power distribution</i>	MNC:s need to let go of some of the power and central roles they are used to be entitled to and instead share it with other members, including non-market actors (Rivera-Santos and Rufin, 2010).
<i>Category 5: Unreliable and unpredictable business environment</i>	MNC:s could face corruption and unreliable regulations and policies, as well as decision-makers on the national/regional level altering laws that affect the rules under which they operate while local decision-makers in communities such as elders or religious authorities, can impact the local/community-based level regulations (Parmigiani and Rivera-Santos, 2015). MNC:s need to manage risks of increased costs due to unstable and unpredictable formal ties based on contracts and institutions which are unreliable (Rivera-Santos and Rufin, 2010). MNC:s could face difficulty in financing investments especially if the investments are big (Parmigiani and Rivera-Santos, 2015).
<i>Category 6: Increased number of activities and dimensions</i>	SC gaps encountered in the BoP imply that MNC:s need to manage more types of activities as well as find ways to fill these gaps, since outsourcing is not always an option in the BoP context. MNC:s also need to consider social, environmental and political dimensions besides the commercial one in BoP contexts. (Rivera-Santos and Rufin, 2010)

The found literature proved that the BoP environment has significant influence on the SC:s of MNC:s, as the implications affect the SC structure, processes and managerial components of the SC. Changes in the mentioned SCM areas have the potential of leading to SC misalignment (Lundin and Norrman, 2010), which in turn implies that SC misalignment is likely to occur due to the influence of the BoP environment. Furthermore, as incentives problems are prone to arise each time a new change effort is in place (Narayanan and Raman, 2004) and SCIA has the aim of realigning the risks and rewards in the SC when changes occur (Simatupang and Sridharan, 2002), it can be argued that the findings of RQ1 calls for SCIA in BoP environments to be further examined.

7.1.2 RQ2: What implications does the BoP environment have on supply chain incentive alignment?

The second research question asked *What implications does the BoP environment have on supply chain incentive alignment?*. By answering RQ1 a foundation was created, as it produced the guiding framework and in turn the matrix of the eight areas of investigation. The areas consisted of five SC misalignment areas (hidden action, hidden information, incentive design, goal conflicts and differing business logics) as well as the three SCIA solution areas (contract based-, information based- and trust based solutions). The mentioned areas were investigated by conducting interviews to gather empirical data that complemented the literature study that was earlier done. Concepts were then identified (18 concepts related to the problem areas and 15 concepts related to the solution areas) by iterating between the theory and empirical data. Their interlinking relationship was also examined by connecting the problem concepts to the solution concepts as well as combining the problem concepts into aggregate problem dimensions. The aggregation of problem concepts resulted in seven problem dimensions that influence SCIA in BoP environments. Together, the problem dimensions and solution concepts helped create an overview of the phenomenon of SCIA in BoP environments and in turn the final framework. The final framework (presented originally in figure 6.11 and regiven in figure 7.1 below) consists of the seven aggregate problem dimensions (circles) and corresponding SCIA solutions (boxes) to each dimension.

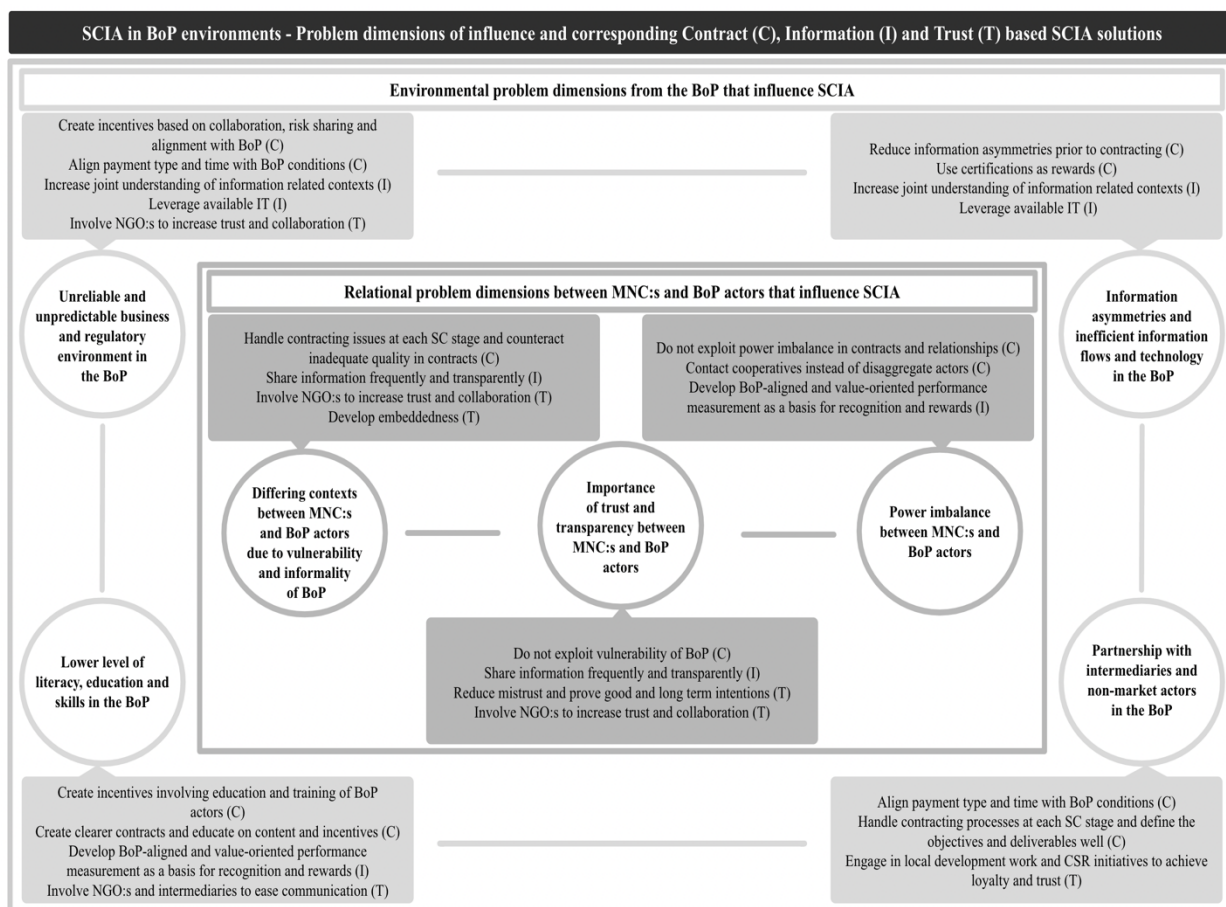


Figure 7.1: The final framework that describes the phenomenon of SCIA in BoP environments, especially for MNC:s targeting both profit and impact. creation.

A connection between RQ1 and RQ2 was also found and illustrated in figure 6.10. The figure showed the incentive problems (problem dimensions from RQ2) with their potential cause (general categories of implications/changes from RQ1) and their potential SCIA solutions (identified SCIA solutions from RQ2) in the BoP environment. This is in line with the literature mentioned earlier, meaning that when change efforts take place in the SC, incentives problems are prone to arise (Narayanan and Raman, 2004), and SCIA solutions in turn contributing with the realignment of the risks and rewards in the SC when the changes happen (Simatupang and Sridharan, 2002). Hence, the framework can also be utilized to understand how the BoP environment's implication on the SC translates into SCIA related problems and solutions. The framework can further be utilized to tackle the initial mental barriers that hinder discussions about the topic of incentives (Narayanan and Raman, 2004), by provoking and motivating the discussion when MNC:s plan on entering the BoP environment. The framework could further indicate the areas that need to be considered and planned well when designing the operations in BoP environments as well as the relationships with BoP actors, intermediaries and other partners. The framework could also assist in decision making processes regarding how the incentives should be designed towards BoP actors, how contracts and information flows should be designed and handled in the BoP, how to conduct performance measurement activities in BoP environments as well as how to build trust between the SC actors.

7.2 Limitations of the study

As this study is a master thesis as well as conducted alone, time limitations as well as resource limitations are evident. The limited number of interviews could also act as a limitation as it results in a higher dependency on individual interviewees in comparison to when the number of interviews is higher. As mentioned in the background chapter, no research specifically discussing the phenomenon of SCIA in BoP environments was found prior to this study, hence a limitation in terms of prior specific theoretical knowledge regarding the area could also be considered. Furthermore, this study focused on MNC:s and BoP actors that can take the role of either suppliers or distributors, however, many other roles can be taken by these two actors as was for instance illustrated in table 1.3. A further limitation is the target group being MNC:s as the findings might differ when taking the perspective of NGO:s or other agencies that often also are involved in the SC:s operating in the BoP as was observed in the literature. An automatic geographical and industry limitation was also in place due to the origin of the empirical data. However, due to the strong focus on generalization, a limitation could be that the findings are more on a holistic level, and might not be able to assist in answering specific geographically related or industry related SCIA questions. A final limitation is that the framework is purely conceptually developed and never presented to practitioners or researchers active in the specific field of the BoP.

7.3 Suggestions for future research

As mentioned in the method chapter, the eighth and last phase of the method followed in this study (by Jabareen (2009)) was to maintain the conceptual framework due to the dynamic nature of theory that targets multidisciplinary phenomena and to keep the framework open for new input. Hence, the hope is that this framework will reach several disciplines and stay dynamic by the input of practitioners and academics. As this study made a first attempt at addressing the research gap between SCIA literature and BoP literature, much further research on this area can be done. For instance, case studies could be conducted to test the framework and evaluate it. Furthermore, as the framework is not presented to practitioners or researchers actively working with the BoP, this could present a future research opportunity to test and evaluate whether the

framework captures all essential parts of the phenomenon of SCIA in BoP environments. Another interesting idea for future research is how an impact threshold can be utilized in relation to SC misalignment and SCIA efforts in the BoP. Future research could also focus more on examining and suggesting incentive designs that work well in BoP environments, as this study instead focused on the implications of the BoP environment on incentives. It was further highlighted in the study that creating loyalty in BoP environments is perceived as a challenge and that trust-based relations and CSR initiatives can contribute to easing the difficulties. Hence, it could be interesting to further examine deeper what factors that affect loyalty in the specific context of the BoP and how solutions including trust and CSR initiatives could be utilized in practice. Another interesting finding in this report that was observed in two of the cases, is the impact of the exit strategy of MNC:s on the relationship between them and BoP actors. It was shown in the empirical data that the exit strategy of MNC:s is one of the factors that affects the initial mistrust between the two parties, as there exists a fear that the MNC will leave the BoP area in its original state, or worse (e.g. without allowing the BoP actor to grow from the partnership or impacting the environment negatively). Hence, it could be of interest to further examine how the exit strategy affects the relationship between MNC:s/other organizations and BoP actors/communities. A final interesting perspective that was not covered in this study is the historic underlying factors for the structure and nature of relationships between BoP actors and organizations in western regions, as the history could provide education and sensitization when operating in specific BoP areas.

7.4 Contributions

7.4.1 Contribution to academia

As was seen in the background chapter of this study, research on the intersection of the areas SCIA and the BoP appears to be vacant. Hence, this study has the theoretical contribution of a first attempt to fill the research gap observed on the area of SCIA in BoP environments. As there was no literature precisely targeting the mentioned intersection, empirical data was needed to complement it in order to attempt understanding the phenomenon. Hence, a second contribution is the empirical data that was gathered in this study as it appears to be the first that targets SCIA in BoP environments. The third theoretical contribution concerns attempting to contribute to the perceived lack of theoretical generalization that appears to be common in BoP literature as stated by Basu et al. (2021) and mentioned in the background chapter. This study attempted to focus on generalization as it was done independently from a principal and attempted to utilize generalized BoP theory and SCIA theory as well as empirical data from several sources and places of origin. An additional contribution from this study is the contextualizing and operationalizing of SCIA solutions for the BoP context. A further interesting contribution from this study is how SCIA solutions should be prioritized as Narayanan and Raman (2004) argue that the first priority should be contract based solutions, secondly information based solutions and finally trust based solutions. This study however showed that the prioritizations might need to be altered when operating in BoP environments and might also differ from one BoP context to another.

7.4.2 Contribution to the industry

As mentioned in the background, SCIA is argued to be one of the success factors for SCM implementation (Norrman and Näslund, 2019), which indicates the importance of understanding and handling SCIA regardless of where the organization is operating. The contribution from this study to the industry is in terms of which areas to pay emphasized

attention to when operating specifically in the BoP context and handling SCIA efforts. This study highlighted the many areas where SC misalignment problems can occur as well as the many challenges that accompany the solution areas of SCIA. Organizations can utilize the framework in order to analyze and identify SC misalignment areas in the BoP and receive suggestions of SCIA solutions adapted to the BoP environment to counteract them. Furthermore, while this study had the target group of MNC:s, other types of organizations could also benefit from the findings and the framework as they can act as guidance on what areas of the BoP environment have an influence on SC misalignment (i.e. the problem dimensions) and SCIA (identified solutions to target each problem dimension).

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Appendix A - The initial categorization of the literature

Table A: An overview of the initial categorization of the literature when it was firstly gathered.

<i>Initial categorization of literature (Phase 1 of the chosen research method)</i>
BoP approaches 1.0 - 4.0
Barriers and successfactors of the BoP approach
BoP vs. ToP
Institutional voids
Poverty
SCM in the BoP
MNC:s in the BoP
Supplier development and Social issues
Intermediaries
Technology in the BoP
Value co-creation
SCIA
Supply chain misalignment
Agency theory and risk sharing

Appendix B - List of contacted organizations

Table B: Overview of all contacted organizations (excluding the ones included in this study).

<i>Overview of all contacted organizations (excluding the final organizations that are included in this study - see Appendix F)</i>
<i>MNC:s</i>
The Body Shop
Espresso House
Unilever
Cloetta
Nestlé
Sun King
<i>BoP actors</i>
MoringaConnect - Ghana
B-BOVID - Ghana
Optimum Renewable Energy - Tanzania
<i>NGO:s</i>
Build up Nepal
Solar Cookers International
Samoa WIBDI
Farm Africa - Kenya
Farm Africa - Ethiopia
Farm Africa - General
The Fairtrade Foundation
Cocoa Farmers Association of Nigeria
<i>Authorities</i>
The Swedish International Development Cooperation Agency
United Nations Development Programme - Istanbul International Center for Private Sector in Development

Appendix C - Interview guide: MNC:s

The following interview guide posed as the basis for the interviews with the MNC:s i.e. Arla Foods and IKEA of Sweden. The questions were however altered to fit the interview person and their organization in question. A powerpoint was used throughout the interview to present the interview questions and the guiding framework.

Introduction

- Thank the interviewee for taking the time to conduct the interview.
- Ask the interviewee if it is alright to record the interview to later transcribe it.
- Ask the interviewee to introduce themselves.
- Introduce the guiding framework and explain the different levels as well as the desired outcome of the project and the interview. Explain that the interview will focus on the eight areas of investigation (five supply chain misalignment areas and three SCIA areas) after going through the general work of the organization in BoP environments.

The general work in the BoP

- Please describe the organization's work in the BoP such as the work with the suppliers based in poor or undeveloped regions.

Actors

- What kind of actors do you work with in the BoP?
 - What do your partnerships with "non-traditional" actors such as NGO:s, public and governmental organizations, aid agencies etc look like?

Agency vs corporate driven supply chain approach

- How do you work with tackling the challenges of the BoP environment? Do you have partnerships with big NGO:s or aid organizations that help you with this? Or do you work with the challenges directly by for instance creating your own local network that can help you tackle the challenges?

Supplier development: a form of the corporate driven supply chain approach

- How do you work with supplier development in BoP environments? For what purpose? Direct and indirect supplier development?
- In which other ways do you work with tackling the challenges of the BoP environment? What do these approaches look like? Which actors are involved?

Types of supply chain misalignment

Hidden action

- How does the transparency between you and your suppliers (and distributors) in the BoP work? Have you faced issues or challenges due to lack of transparency? How have you handled this?
 - What are the differences in comparison to when you work with suppliers (and distributors) in more developed regions?

Hidden information

- How do you work with evaluating information that is hard to detect (such as the real competence or capacity) of your suppliers (and distributors) in the BoP? Have you faced challenges due to this issue? How have you handled this?
 - What are the differences in comparison to when you work with suppliers (and distributors) in more developed regions?

Incentive design

- How do you work with rewards and punishments to motivate your suppliers (and distributors) in the BoP to work in the desired way? How are these rewards and punishments designed? Do they benefit both parties?
 - What are the differences in comparison to when you work with suppliers (and distributors) in more developed regions?

Goal conflicts

- How do you work with goal conflicts between you and your suppliers (and distributors) in the BoP? Have you faced challenges due to this issue? How have you handled this?
 - What are the differences in comparison to when you work with suppliers (and distributors) in more developed regions?

Different business logics

- How do you work with differing business logics between you and your suppliers (and distributors) in the BoP? Have you faced challenges due to this issue? How have you handled this?
 - What are the differences in comparison to when you work with suppliers (and distributors) in more developed regions?

Supply chain incentive alignment solutions

Contract based

- What does the situation look like in the BoP with regards to contract mechanisms? Challenges and solutions?
 - What are the differences when you work with local suppliers/distributors in the BoP vs. suppliers/distributors in more developed regions with regards to contracts and contract mechanisms?

Information based

- What does the situation look like in the BoP with regards to information flows? Challenges and solutions?
 - What about performance measurement, is it easy to collect and introduce such data in the BoP?
 - What are the differences when you work with local suppliers/distributors in the BoP vs. suppliers/distributors in more developed regions with regards to information flows?

Trust based

- What does the situation look like in the BoP with regards to the importance of trust? Challenges and solutions?
 - Do you work with NGO:s and other local organizations to help you build trust within local communities?
 - What are the differences when you work with local suppliers/distributors in the BoP vs. suppliers/distributors in more developed regions with regards to trust?

Appendix D - Interview guide: BoP actors

The following interview guide posed as the basis for the interviews with the local actors i.e. ENSOL LTD., One Acre Fund Zambia, Social Enterprise Ghana, SOS Children's Village Mozambique and TAREA. The questions were however altered to fit the interview person and their organization in question. A powerpoint was used throughout the interview to present the interview questions and the guiding framework.

Introduction

- Thank the interviewee for taking the time to conduct the interview.
- Ask the interviewee if it is alright to record the interview to later transcribe it.
- Ask the interviewee to introduce themselves.
- Introduce the guiding framework and explain the different levels as well as the desired outcome of the project and the interview. Explain that the interview will focus on the eight areas of investigation (five supply chain misalignment areas and three supply chain incentive alignment areas) after going through the general work of the organization in BoP environments.

Introduction

- Please introduce your organization and your work.

The supply chain of the organization

- Please describe the setup of the supply chain of the organization.
- Which main actors are involved in the supply chain? Including local suppliers and distributors, international suppliers and distributors, governments, NGO:s, communities etc.

The role of intermediary

- Please describe the organization's role and work as an intermediary between the local actors and local communities and the global actors and supply chains.

Types of supply chain misalignment

Hidden action

- How do you experience the transparency between local actors and MNC:s? Are there issues and challenges due to lack of transparency? How are/should these challenges be handled?
 - Is it different when working with local companies?

Hidden information

- How do local actors work with evaluating information that is hard to detect (such as the real intention or capacity) of the MNC? Are there challenges due to this issue? How are/should these challenges be handled?
 - Is it different when working with local companies?

Incentive design

- What is your experience with rewards and punishment from MNC:s? Are these rewards and punishments in both the local actor's and MNC's interest? Are there challenges due to this issue? How are/should these challenges be handled?
 - Is it different when working with local companies?

Goal conflicts

- What is your experience of goal conflicts between local actors and MNC:s? Are there challenges due to this issue? How are/should these challenges be handled?
 - Is it different when working with local companies?

Different business logics

- What is your experience with differing business logics between local actors and MNC:s? Are there challenges due to this issue? How are/should these challenges be handled?
 - Is it different when working with local companies?

Supply chain incentive alignment solutions

Contract based

- What does the situation look like in the BoP with regards to contract mechanisms? Challenges and solutions?
 - What does the situation look like between local actors and MNC:s with regards to contracts?
 - What are the differences when local actors work with other local actors vs. MNC:s with regards to contracts?

Information based

- What does the situation look like in the BoP with regards to information flows? Challenges and solutions?
 - What about performance measurement, is it easy to collect and introduce such data?
 - What does the situation look like between local actors and MNC:s with regards to information flows?
 - What are the differences when local actors work with other local actors vs. MNC:s with regards to information flows?

Trust based

- What does the situation look like in the BoP with regards to the importance of trust? Challenges and solutions?
 - What does the situation look like between local actors and MNC:s with regards to trust?
 - How is the trust to MNC:s affected if they partner up with NGO:s and other local organizations?
 - What are the differences when local actors work with other local actors vs. MNC:s with regards to trust?

General questions

Important factors for the success of local actors

- Which factors do you believe are important for the local actors to be able to succeed and grow?

The inclusion of local actors into global supply chains

- How do you believe the local actors should be included in global supply chains in order to grow?

The relationship between MNC:s and local actors

- What factors are important in the relationship between MNC:s and local actors?

Appendix E - Interview guide: Expert input

The following interview guide was used in the interview with Lara Schilling. A powerpoint was used throughout the interview to present the interview questions and the guiding framework.

Introduction

- Thank the interviewee for taking the time to conduct the interview.
- Ask the interviewee if it is alright to record the interview to later transcribe it.
- Ask the interviewee to introduce themselves.
- Introduce the guiding framework and explain the different levels as well as the desired outcome of the project and the interview. Explain that the interview will focus on the eight areas of investigation (five supply chain misalignment areas and three supply chain incentive alignment areas) after going through the general work of the organization in BoP environments.

Supply chain incentive alignment solutions

Contract based solutions

- What does the situation look like in the BoP with regards to contract mechanisms? Challenges and solutions?
 - What does the situation look like between local actors and MNC:s with regards to contracts?

Information based solutions

- What does the situation look like in the BoP with regards to information flows? Challenges and solutions?
 - What about performance measurement, is it easy to collect and introduce such data?
 - What does the situation look like between local actors and MNC:s with regards to information flows?

Trust based solutions

- What does the situation look like in the BoP with regards to the importance of trust? Challenges and solutions?
 - What does the situation look like between local actors and MNC:s with regards to trust?

Appendix F - List of interview persons

Table F: The conducted interviews that the empirical data in chapter four refers to, including the names of the interview persons, their role, the related organization as well as the date for the interview.

<i>Interviews</i>			
<i>Name</i>	<i>Role</i>	<i>Organization/Institution</i>	<i>Date of interview</i>
Hamisi Mikate	Managing Director	ENSOL LTD.	2022-11-09
Patrik Wir	Partner Development Leader	IKEA of Sweden	2022-11-16
Matthew Matimbwi	Executive Secretary	Tanzania Renewable Energy Association	2022-11-19
Godfrey Mpala	Deputy Country Manager	One Acre Fund - Zambia	2022-11-24
Edwin Zu-Cudjoe	Executive Director	Social Enterprise Ghana	2022-11-30
Irene Quist Mortensen	International Head of Sustainability	Arla Foods	2022-12-09
Lara Schilling	Research Assistant	University of Kassel in Germany, Chair of Supply Chain Management	2022-12-22
<i>Written interviews</i>			
<i>Name</i>	<i>Role</i>	<i>Organization/Institution</i>	<i>Date of receipt</i>
Yolanda Neusia Matavele	Coordinator of the Kurima project	SOS Children's Village Mozambique	2022-12-10

Appendix G - Summarizing tables of literature and empirical data for each investigation area visualized as categories to facilitate the creation of concepts

Table G.1: Summary of the empirical data as well as the literature related to the problem area: hidden action (P1).

Hidden action (P1)		
Source	Summary of the empirical data related to hidden action	Concept
<i>IKEA of Sweden</i>	Long-term partnerships that prioritize collaboration and communication lead to higher transparency. It is not uncommon for MNC:s to enter a region in the BoP to procure a certain product, and exit shortly after. When working with social enterprises, the transparency is complete and higher than when working with regular suppliers in the BoP.	P1.1
<i>SOS Children's Village Mozambique</i>	Inadequate transparency can be observed by some farmers for wanting benefits above what they deserve, although the rules of NGO:s always prevail and the activities and benefits are implemented according to the established rules. This type of dishonesty can also be observed in some local companies, who use dishonesty to receive funds they are not eligible for.	P1.2
<i>TAREA</i>	When MNC:s work with smaller companies in Tanzania, it is common that there is a lack of transparency which oftentimes leads to mistrust to the MNC. However, due to unfair tax regulations in Tanzania, it is also common for local companies to be hesitant or avoid disclosing their real financial numbers to avoid being overtaxed. Hence, an issue when working with local companies, regardless if it is a MNC or another local company, is that there is uncertainty regarding the size of the company you are going into partnership with.	P1.1 P1.3
<i>Social Enterprise Ghana</i>	The transparency between MNC:s and local actors is experienced to be inadequate due to deficient information sharing between the two parties.	P1.1
<i>ENSOL LTD.</i>	Transparency is experienced to be challenging. Breaches in exclusivity agreements have been experienced from MNC:s such as for instance supplying several local companies while promising each of them that they are the exclusive distributors.	P1.1
Source	Summary of the theory related to hidden action	Concept
<i>Parmigiani and Rivera-Santos (2015)</i>	One area on the national/regional level that can aggravate the regulatory voids further is corruption.	P1.4
<i>Brix-Aslala and Seuring (2020)</i>	The result is increased SC costs for companies due to unpredictable results and costs.	
<i>Parmigiani and Rivera-Santos (2015)</i>	An implication of the regulatory voids on manufacturing and operations is the challenge of handling corruption, unclear regulations and changing governmental policies.	P1.4

Table G.2: Summary of the empirical data as well as the literature related to the problem area: hidden information (P2).

Hidden information (P2)		
Source	Summary of the empirical data related to hidden information	Concept
IKEA of Sweden	Since the process of becoming an IKEA supplier takes almost two years and is complex, not much information can be hidden. The process includes different types of professionals to visit the production plants and engage with the suppliers in person to understand their conditions.	P2.2
	Social businesses do not go through the same process. Personnel in the field will instead assess the situation before a project is started and product designs are produced in close collaboration with the handicraft personnel.	P2.2
SOS Children's Village Mozambique	Some farmers and local actors react badly when faced with information that is difficult to detect, and some may abandon the process. As literacy is a challenge in rural communities it can affect the understanding and participation in certain processes, which in turn can lead to misunderstandings. In development projects, different interaction approaches are used by NGO:s to avoid such misunderstandings in order to achieve an active participation by the target group.	P2.1
ENSOL LTD.	Evaluating information about MNC:s that is hard to detect, such as the real technical and financial competence and capacity, is considered to be one of the most crucial challenges for BoP actors.	P2.2
	References and certifications as well as an online investigation are often used by BoP actors to examine the MNC.	P2.2
Source	Summary of the theory related to hidden information	Concept
Brix-Asala et al. (2021)	The simple and trust based approach used in the BoP of meeting product requirements differs from the requirement for formal documentation and quality evaluation in formal SC:s, which causes conflict when a formal SC meets the informal BoP environment.	P2.3
Brix-Asala et al. (2021)	With regards to the product market voids, the deficient amount of intermediaries as well as standards in the BoP environment are the underlying reasons for the information asymmetry between suppliers and organizations.	P2.3
Parmigiani and Rivera-Santos (2015)	This type of deficiency causes issues in identifying suitable suppliers, since the intermediaries and standards enable the company to find potential suppliers as well as examine the quality of the suppliers products.	
Brix-Asala and Seuring (2020)	In turn, this contributes to product markets being non-transparent in the BoP.	
Parmigiani and Rivera-Santos (2015)	Regulatory voids refer to the unreliable regulatory conditions encountered in the BoP due to changing and unpredictable rules and decisions, making it challenging for organizations to predict the future regulatory environment.	P2.4
Parmigiani and Rivera-Santos (2015)	An implication of the regulatory voids on manufacturing and operations is the challenge of handling corruption, unclear regulations and changing governmental policies.	P2.4

<i>Parmigiani and Rivera-Santos (2015)</i>	Product market voids relate to the challenges of evaluating product characteristics such as quality, with the reason being the information asymmetries in the BoP connected to economic interactions between the buyer and the seller, i.e. between the supplier and the company or between the company and the customer.	P2.3
<i>Parmigiani and Rivera-Santos (2015)</i>	An implication of the product market voids on raw material procurement is the challenge of identifying a good source and verifying the quality, as there are no certifications or industry standards.	P2.3

Table G.3: Summary of the empirical data as well as the literature related to the problem area: incentive design (P3).

Incentive design (P3)		
<i>Source</i>	<i>Summary of the empirical data related to incentive design</i>	<i>Concept</i>
<i>IKEA of Sweden</i>	IKEA's incentives structures are focused on rewards, through for instance supplier certifications. Good performance as well as good contractual compliance are believed to lead to increased business and longer partnerships.	P3.2
	When working with social businesses, only reward structures are in place and not punishments, since the goal is to create job and development opportunities.	P3.2
<i>TAREA</i>	MNC:s can offer local distributors to buy products on credit, and allow them to sell the products before having to pay the rest of their bill. In this type of arrangement, the local distributors receive a type of capital investment, hence they can buy and distribute more, benefiting both parties. The MNC:s however have to protect their capital, which means that there will be strong terms and conditions that the distributors will need to follow.	P3.3
<i>Social Enterprise Ghana</i>	Local companies are often not aware of the reward and punishment structures since they have not understood the agreement that they have signed. Hence, for the incentives to work well, they need to be communicated clearly, since the local actors would be motivated to hit the desired target in order to receive the reward.	P3.1
<i>Godfrey Mpala - Deputy Country Manager at One Acre Fund Zambia</i>	Rewards create a motivation for the farmers to work more efficiently to reach the target and receive the reward. However, when rewards are involved it often implies that the agreed on price is low and that the reward is put in place to compensate for it. The promised reward in turn is connected to a target that is also often set unrealistically high. As a consequence, the farmers work hard to reach the unrealistic target in hopes of obtaining the reward, which results in higher efficiency and better results for both parties, while the MNC more often than not gets away with the original low price without dispensing any reward.	P3.2
<i>Source</i>	<i>Summary of the theory related to incentive design</i>	<i>Concept</i>
<i>Brix-Asala et al. (2021)</i>	The lack of capital infusion might lead to BoP actors being hindered from entering formal SC:s due to the unavailable but necessary investments.	P3.3
<i>Brix-Asala and Seuring (2020)</i>	Financial assistance as a direct supplier development practice can be utilized to bridge the capital market void as well as the product market void.	P3.3
<i>Parmigiani and Rivera-Santos (2015)</i>	The information asymmetry (of product market voids) associated with the downstream economic interactions, i.e. between the company and the customer, relate to deficiencies in understanding the products as well as a lack of information about the products. They further mention that these deficiencies could partly be due	P3.4

	to the low educational level in the BoP. Organizations working with complex products or services are more at risk of suffering the consequences of the product market voids than for instance organizations delivering simple and easily understood goods and services	
<i>Parmigiani and Rivera-Santos (2015)</i>	Capital market voids imply a scarcity of financial institutions that can facilitate the capital that organizations in the BoP need for their growth. Complex financial approaches involving both traditional (e.g. lending circles and local loan providers) and modern solutions (such as microfinance) are used by the poor population to overcome the lack of capital access. When the activity at hand requires a great amount of capital infusion, the capital market voids might impose a much bigger challenge compared to when an activity only requires traditional financing solutions, i.e. when no external financing is needed.	P3.3
<i>Brix-Aslala and Seuring (2020)</i>	There is a substantial dearth of capital infusion despite the development of microfinancing and the use of traditional financial solutions.	
<i>Rangan et al. (2011)</i>	Organizations (e.g. MNC:s) can provide guidance and knowledge to elevate the outcome of BoP actors' work in order to later hand out a higher reward. When guidance and training is provided, the BoP population can participate in several parts of a SC such as production, distribution and retailing. The subsistence segment is best suited for the described role of co-producer since this segment eagerly seeks to improve their income, hence increasing their work outcome and earnings through co-production makes this segment well fit for the role.	P3.4
<i>Rivera-Santos and Rufin (2010)</i>	SC gaps and structural holes encountered in the BoP imply that MNC:s need to find ways to fill these gaps, since outsourcing is not always an option in the BoP context. Two methods that MNC:s can consider for this purpose are to either identify an actor or help create an actor that can help fill the gap or to internalize the needed activity. As a consequence, MNC:s will need to face greater integration both horizontally and vertically.	P3.4

Table G.4: Summary of the empirical data as well as the literature related to the problem area: goal conflicts (P4).

Goal conflicts (P4)		
Source	Summary of the empirical data related to goal conflicts	Concept
<i>IKEA of Sweden</i>	When working with a social enterprise as the supplier (with the aim of making an impact only), the MNC might want to push the social enterprise to grow in order to potentially become a regular supplier. However, some social enterprises have decided beforehand that they are only interested in a certain amount of growth and are not interested in making a profit.	P4.1
<i>TAREA</i>	Change of policies after an agreement has been put in place is a major issue when local companies work with MNC:s. It is often experienced that the local actors cannot have a dialogue with the MNC about the changes, and instead they often carry the additional costs and consequences alone such as added tax on certain products.	P4.1
	When the goals of the two partners are different (e.g. profit vs. impact) such as between a MNC focusing on profit and a social business focusing on impact, the effects from the change of policies will magnify the conflict. The social business is procuring goods to sell to a vulnerable target group, meaning the slightest raise in price could compromise their entire purchase power.	P4.1

<i>SOS Children's Village Mozambique</i>	Goal conflicts between MNC:s and farmers tend to arise due to the low prices offered to the farmers by the MNC:s. The relationship between the two parties is often set up in the MNC's favor as the MNC is the one who promotes the specific type of crops to be grown by the farmer as well as sets the price for the requested crop, which is often very low. Hence, the farmers have very little control and power in the relationship with the MNC. This type of behavior can also be observed in the relationship between farmers and other local buyers.	P4.2
<i>Social Enterprise Ghana</i>	Goal conflicts could occur if MNC:s enter a region and do not take into consideration the environmental damage they are causing while working with a local company that cares for its community and its environment.	P4.1
	Goal conflicts also occur when profit and impact creation goals collide.	P4.1
<i>Source</i>	<i>Summary of the theory related to goal conflicts</i>	<i>Concept</i>
<i>Borchardt et al. (2020)</i>	With regards to the scarcity of resources for local businesses, it can present itself as having a lack of access to resources, capabilities, expertise and skills. The mentioned areas are all often hard to access in the BoP. Consequently, limited productivity and operational efficiency are often experienced by local businesses.	P4.3
<i>Brix-Asala et al. (2021)</i>	Business skills are lacking in BoP environments, which is argued to hamper the profitability of businesses operating in the BoP.	P4.3
<i>Brix-Asala et al. (2021)</i>	The simple and trust based approach used in the BoP of meeting product requirements differs from the requirement for formal documentation and quality evaluation in formal SC:s, which causes conflict when a formal SC meets the informal BoP environment.	P4.3
<i>Brix-Asala et al. (2021)</i>	The capital market voids translate to a mismatch between the formal SC:s' often constant requirement for investment and the scarcity of financial resources in the BoP.	P4.3
<i>Brix-Asala et al. (2021)</i>	SC implications due to the labor market voids occur (among other things) due to the collision between the requirements of SC:s for formal training of labor and the informal type of training often encountered in the BoP.	P4.3
<i>Parmigiani and Rivera-Santos (2015)</i>	Decision-makers on the national/regional level can alter laws and affect the rules under which a business is operating, and on the other hand, local decision-makers in communities such as elders or religious authorities, can impact the local/community-based level regulations. The regulatory voids can be especially salient in communities that are isolated which is often the case for subsistence markets.	P4.3
<i>Rivera-Santos and Rufin (2010)</i>	The decentralization encountered in BoP networks implies that MNC:s need to let go of some of the power and central roles they are used to be entitled to, and instead share it with other network members. This implies that the power is not only shared with market actors but also with non-market actors in the BoP.	P4.2
<i>Rivera-Santos and Rufin (2010)</i>	MNC:s need to take into consideration more dimensions beside the commercial one, such as the social and environmental dimensions, when entering the BoP market, due to the characteristics of the tie domains in BoP networks.	P4.1

Table G.5: Summary of the empirical data as well as the literature related to the problem area: differing business logics (P5).

Differing business logics (P5)		
<i>Source</i>	<i>Summary of the empirical data related to differing business logics</i>	<i>Concept</i>
<i>IKEA of Sweden</i>	When the strategic fit between a MNC and a BoP supplier is evaluated prior to the partnership and there is belief in a shared business model, differing business logics is not likely to become an issue.	P5.3
	When a MNC works with a social enterprise with only the aim of creating impact, goal conflicts are not likely to occur since the goals are set together, regardless of the parties having differing business logics.	P5.1
<i>Social Enterprise Ghana</i>	When MNC:s work with social enterprises with impact creation as their priority, challenges can occur due to their differing business logics. Challenges also occur between MNC:s who solely prioritize profit making and local actors who prioritize profit making as well as impact creation.	P5.1
<i>Godfrey Mpala - Deputy Country Manager at One Acre Fund Zambia</i>	A challenge due to differing business logics could occur when MNC:s (as suppliers) are collaborating indirectly with farmers through social enterprises. MNC:s often require purchase orders to be received well ahead of time, which can be problematic for social enterprises since the farmers' purchasing power fluctuates heavily. If purchase orders are placed based on historic data and the purchase power of the farmers is significantly decreased, the social enterprise ends up with a high level of stock and tied up capital as MNC:s usually do not accept returns.	P5.1
<i>Source</i>	<i>Summary of the theory related to differing business logics</i>	<i>Concept</i>
<i>Borchardt et al. (2020)</i>	With regards to the scarcity of resources for local businesses, it can present itself as having a lack of access to resources, capabilities, expertise and skills. The mentioned areas are all often hard to access in the BoP. Consequently, limited productivity and operational efficiency are often experienced by local businesses.	P5.3
<i>Brix-Asala et al. (2021)</i>	SC implications due to the labor market voids occur among other things due to the collision between the requirements of SC:s for formal training of labor and the informal type of training often encountered in the BoP.	P5.3
<i>Brix-Asala et al. (2021)</i>	Business skills are lacking in BoP environments, which is argued to hamper the profitability of businesses operating in the BoP.	P5.3
<i>Brix-Asala et al. (2021)</i>	The capital market voids translate to a mismatch between the formal SC:s' often constant requirement for investment and the scarcity of financial resources in the BoP.	P5.3
<i>Brix-Asala et al. (2021)</i>	The simple and trust based approach used in the BoP of meeting product requirements differs from the requirement for formal documentation and quality evaluation in formal SC:s, which causes conflict when a formal SC meets the informal BoP environment.	P5.3
<i>Brix-Asala and Seuring (2020)</i>	The institutional voids that are mentioned in BoP literature refer to the lack of institutional arrangements between SC:s originating in formal environments (such as the ToP) and SC:s originating in the informal environment of the BoP.	P5.3

<i>Brix-Aslala and Seuring (2020)</i>	The BoP is often characterized by an informal environment, where a characteristic of this type of environment is that formally written agreements are unusual to use.	P5.3
<i>Brix-Aslala and Seuring (2020)</i>	The limited access to justice systems (both formal and informal) in the BoP environment leads to a gap between the expectations of business partners from more formal environments and the BoP business environment.	P5.3
<i>Brix-Aslala and Seuring (2020)</i>	The informal environment of the BoP affects the external interest for investment negatively due to for instance the informal reporting of finances often encountered in the BoP environment.	P5.3
<i>Brix-Aslala and Seuring (2020)</i>	Both the agency-driven and corporate-driven SC approach traditionally have one common factor between them, and that is the partnership with NGO:s that is needed regardless of the chosen approach, with the reason being their strong local embeddedness.	P5.2
<i>Parmigiani and Rivera-Santos (2015)</i>	MNC:s and agencies (such as large NGO:s and aid organizations) have significantly differing objectives and incentives, resulting in conflicts between the two parties. An important difference is that large nonprofit agencies might try to find solutions that work on the generic level to try to cover as many areas in need as possible as well as to use its donations according to guidelines. Hence, one consequence from the relationship between MNC:s and agencies is that the MNC then faces challenges of creating expansion or a customized solution for its SC.	P5.2
<i>Rivera-Santos and Rufin (2010)</i>	MNC:s need to depend on non-market actors in order to conduct their planned commercial activities.	P5.2

Table G.6: Summary of the empirical data as well as the literature related to the solution area: contract based solutions (S1).

Contract based solutions (S1)		
<i>Source</i>	<i>Summary of the empirical data related to contract based solutions</i>	<i>Concept</i>
<i>IKEA of Sweden</i>	The contracting is standardized and used accordingly by IKEA of Sweden. The informal environment as well as the occurrence of middlemen in BoP regions could have the tendency of complicating the business process.	S1.1
	When working with social businesses the contracts are altered to protect the projects against market fluctuations, which is otherwise common when working with regular suppliers. The protection against fluctuations relate to for instance the demand levels, as IKEA aims to keep them as stable as possible towards the social businesses.	S1.1
<i>Arla Foods</i>	It is a major challenge to contract the smallholder farmers in developing countries, such as through offtake agreements, due to the population living on a day to day basis. This implies that cash is preferred over bank transfers, which in turn means that there is a risk that middlemen and corruption can get involved in the SC. Hence, loyalty and commercialization of the SC is hard to achieve in BoP regions. When farmers are part of cooperatives, the magnitude of the issues mentioned above is reduced.	S1.1 S1.4
<i>TAREA</i>	In comparison to local actors, MNC:s are more trustworthy with regards to contracts since they have the opportunity to fulfill their agreement if something unexpected happens such as if costs increase, to protect their credibility. Local actors, who might not be as financially strong as MNC:s, might not be able to afford fulfilling their part of the agreement if unexpected increases of costs occur.	S1.1

<i>SOS Children's Village Mozambique</i>	Contractual mechanisms are not very efficient in BoP regions where the country's laws are not applied.	S1.1
	MNC:s could help improve the contractual situation when they are involved, by offering a higher quality of assistance when establishing the contracts, creating reasonable agreements that are not only favorable for one party, and having qualified professionals in the field to oversee and assist in the process.	S1.2
<i>Social Enterprise Ghana</i>	Many organizations lack the capacity internally to understand the content of the contracts and cannot acquire the capacity externally since they cannot afford it.	S1.2
	In the construction industry, local actors often start working before a contract is in place to prove to MNC:s (who are often hesitant to contract the local actors) in order to prove their eligibility. However, local actors would benefit from waiting for the contract since it allows them to receive different types of financial support from e.g. banks and suppliers.	S1.3
<i>Godfrey Mpala - Deputy Country Manager at One Acre Fund Zambia</i>	No regulation on minimum price in combination with the farmers' desperation leads to the farmers being an easy target for exploitation. MNC:s usually offer their price without any negotiation in contrast to middlemen and local buyers who might use manipulation, hence the risk of exploitation might be lower when farmers work with MNC:s.	S1.1 S1.3
	The farmer's negotiation power increases when they are included in cooperatives.	S1.4
	When working with disaggregated farmers, more often than not, there is no contract in place. When working with a farmers cooperative, there are contracts in place, however the farmers often do not understand the terms and conditions.	S1.2 S1.4
	Illiteracy is an issue in BoP environments, hence MNC:s educating and communicating clearly the terms and conditions is of great importance.	S1.2
<i>ENSOL LTD.</i>	MNC:s usually have much larger market power than local actors which for local actors translates to an eagerness to collaborate with the MNC, and for the MNC to have an even higher negotiation power.	S1.3
	Contracts from MNC:s are often experienced to be unclear in comparison to contracts between local actors that often entail a higher amount of shared information.	S1.2
	MNC:s often have standards or requirements that are far above what the local actor can live up to, such as long payment terms which often create cash flow issues and other financial challenges for the local actors.	S1.1 S1.3
<i>Lara Schilling at the University of Kassel</i>	Information asymmetries can complicate the use of contract based solutions as they can lead to e.g. BoP actors to depend heavily on MNC:s.	S1.5
	Power imbalance can complicate the use of contract based solutions as it can create difficulties for BoP actors to tackle issues such as hidden actions and hidden information in the relationship.	S1.3
	Technology solutions that can decrease the magnitude of the information asymmetries and allow a more collaborative approach can help improve the use of contracts.	S1.5

<i>Source</i>	<i>Summary of the theory related to contract based solutions</i>	<i>Concept</i>
<i>Brix-Aslala and Seuring (2020)</i>	The level of significance of the contracting voids is affected by two factors. The first factor relates to whether external parties are involved, whereas the second factor becomes salient when there are high financial investments involved.	S1.6
<i>Casado Caneque and Hart (2017)</i>	The population in the slums do not usually follow standard laws and rules, but instead they have their own logic.	S1.1
<i>Parmigiani and Rivera-Santos (2015)</i>	An implication of the contracting voids on raw material procurement is that long term material flows are challenging to guarantee. An implication of the contracting voids on distribution and logistics is that it is challenging to establish, enforce and conclude contracts. An implication of the contracting voids on marketing and sales is a difficulty in working with retailers and ensuring reliable pricing, promotions and payment mechanisms	S1.6
<i>Parmigiani and Rivera-Santos (2015)</i> <i>Rehman et al. (2020)</i>	Contracting voids relate to the difficulty of creating written and enforceable agreements. The informal institutions that are often encountered in the BoP are the underlying reason for the contracting voids since they lead to an inadequate quality in contracts. Inadequate contracts can result in difficulty of enforcement and lack of legally binding contracts and property rights. Inadequate contracts can result in breaches of contracts.	S1.6
<i>Rangan et al. (2011)</i>	The transaction behavior of the BoP population is both formal and informal for the low-income segment, informal (both for consumers and producers) as well as no bank accounts or credit for the subsistence segment and irregular patterns of transactions even in comparison with informal markets for the extreme poverty segment.	S1.1
<i>Rivera-Santos and Ruffin (2010)</i>	The decentralization encountered in BoP networks implies that MNC:s need to let go of some of the power and central roles they are used to be entitled to, and instead share it with other network members. This implies that the power is not only shared with market actors but also with non-market actors in the BoP.	S1.3
<i>Rivera-Santos and Ruffin (2010)</i>	The ties within BoP networks are often direct and characterized by informality due to insufficient information flows, informal transactions, corruption and haggling within the BoP.	S1.1
<i>Rivera-Santos and Ruffin (2010)</i>	The stability of BoP networks is subject to the formal ties that are based on contracts and institutions (often unstable and unpredictable) as well as the informal ties that are based on trust and social acceptance (often more resilient and stable). The unstable and unpredictable formal ties pose risks of added costs for MNC:s.	S1.6
<i>Schilling and Seuring (2023)</i>	ICT:s have implications on the information, financial and material flows of the SC and can hence help create more efficient SC operations. ICT:s can furthermore help actors with payment mechanisms as well as access accurate information in time. By simplifying the mentioned processes “TCs incurred before the contract is closed, such as screening, selection, communication, negotiation, and coordination costs, as well as TCs incurred after the contract is closed, such as measurement, communication, negotiation, and coordination costs, can be reduced” (Schilling and Seuring (2023, pp. 1194). The reduction of transaction costs translates to improved operations for BoP smallholders as well as their SC partners as the ICT:s help the sharing of market information as well agriculture related information. Furthermore, Schilling and Seuring (2023, pp. 1194) explain that “ICTs allowing farmers to share risks and rewards help farmers to enhance their financial independence, which reduces their vulnerability to disruptions”.	S1.5

Table G.7: Summary of the empirical data as well as the literature related to the solution area: information based solutions (S2).

Information based solutions (S2)		
Source	Summary of the empirical data related to information based solutions	Concept
IKEA of Sweden	If the transparency is high it is easier to access information.	S2.2
	Information structures within organizations may differ based on the regional or cultural factors.	S2.1
	When working with a social enterprise, the KPI:s measures are valued based on impact created, unlike when working with regular suppliers.	S2.3
Arla Foods	BoP smallholder farmers might not have a business mindset and in turn do not operate like formal organizations with well established information flows and documentation.	S2.1 S2.2
	Access to information and the efficiency of information flows depends on the context. Working with farmers in cooperatives entails easier access to information and higher efficiency of information flows in comparison to working with scattered BoP smallholder farmers.	S2.2
	Professionals out in the field who speak the local language and can communicate freely with the farmers to advise them based on their specific needs and context, is an important factor for the functioning of information flows.	S2.2 S2.3
TAREA	Since documentation is not a common practice in the BoP, utilizing, introducing and gathering performance indicators is a hard task.	S2.1 S2.3
	Business management systems are only relevant for the bigger local companies since the smaller companies cannot afford to buy them.	S2.4
	The contrast between a MNC and a local actor's differing contexts implies that effort is needed to create an understanding for one another and to create well functioning information flows.	S2.1
SOS Children's Village Mozambique	Information systems of MNC:s are much more organized and advanced than the ones of most local actors.	S2.1 S2.4
	Conducting performance measurements as well as gathering data is not an easy task in BoP environments and requires proper preparation work and having a well organized performance measurement operation that is aligned with the BoP environment in question and the objectives of the performance measurement.	S2.3
	The majority of the rural communities in Mozambique lack access to modern information and communication technologies (ICT). It is a great challenge to provide farmers and communities with communication via radio or other types of media in order to increase their access to information and knowledge. A possible solution is to expand the availability of ICT:s.	S2.4

<i>Social Enterprise Ghana</i>	Important changes and information that should be communicated between the local actor and the MNC is often not shared.	S2.2
	There is lack of education and sensitization regarding the context by the local actors towards the MNC:s when they enter a new region. MNC:s and local actors seldom engage in workshops/events with the aim of educating each other on important topics.	S2.1
	The local actors' lack of capacity, resources and skills to gather data and conduct performance measurement hinders an efficient flow of information to be in place.	S2.1 S2.2
	MNC:s need to also consider environmental and social impact when conducting performance measurement.	S2.3
<i>Godfrey Mpala - Deputy Country Manager at One Acre Fund Zambia</i>	In regions where rural villages are highly scattered and are not connected to for instance the internet, large monitoring teams in the field are needed to be able to access data. Hence, it is very challenging to get real time data in such BoP environments.	S2.3
	Greater access to information for the farmers implies allowing the farmers to make informed decisions and choices for themselves instead of having to obey the buyers demands due to desperation, which is beneficial not only for the farmers but for the MNC:s buying from them as well.	S2.4
<i>ENSOL LTD.</i>	MNC:s often have quick and efficient information flows in contrast to the local actor's information flows. The contrast could be due to the limited use of tracking systems and other types of information systems, causing difficulties in conducting performance measurement and gathering data.	S2.2 S2.3
	For the MNC:s to access information more efficiently, it could be beneficial to define and communicate early (in the relationship) the type of information needed.	S2.2
	Local actors could be hesitant to share information with MNC:s in fear of the MNC exploiting the information.	S2.2
<i>Lara Schilling at the University of Kassel</i>	Understanding the context and viewing information flows from the perspective of the BoP are factors of great importance when identifying the correct indicators to measure and the type of information flows needed between MNC:s and BoP actors.	S2.2 S2.3
	To connect data and information from the BoP to the context of MNC:s, it is beneficial to understand the types of technology that are present in the BoP and to utilize these technologies and the data gathered through to connect with technologies present in the MNC's context.	S2.4
	Information based solutions could be preferred over contract based solutions in the context of the BoP, since information based solutions could allow for a more collaborative approach through the use of technologies.	S2.4
<i>Source</i>	<i>Summary of the theory related to information based solutions</i>	<i>Concept</i>

<i>Brix-Asala and Seuring (2020)</i>	Continuous supplier monitoring is an example of a direct supplier development practice that can help bridge the product market void as well as the labor market void.	S2.3
<i>Casado Caneque and Hart (2017)</i>	The rural BoP areas are hard to reach not only due to the population in them being scattered but also due to lack of safety on certain routes leading to them. The urban BoP areas are also hard to reach, mainly since the neighborhoods in the slums are unsafe and not everyone from outside the slums are allowed to enter.	S2.3
<i>Khalid and Seuring (2019)</i>	The BoP environment is characterized by a deficient communication infrastructure which causes an inefficient market structure.	S2.2
<i>Rivera-Santos and Rufin (2010)</i>	The ties within BoP networks are often direct and characterized by informality due to insufficient information flows, informal transactions, corruption and haggling within the BoP. The mentioned factors reinforce the need for direct and informal interaction and lead to a higher frequency of communication between network members.	S2.2
<i>Schilling and Seuring (2023)</i>	Lack of ICT availability can cause market and information access issues which in turn can result in potential isolation and poverty consequences on communities. The use of ICT:s seem to be growing rapidly in areas such as South Asia and Sub-Saharan Africa. However, in order for the ICT's potential positive impact to be captured and integrated into SC:s in the BoP, the ICT:s need to be accessible and affordable.	S2.4
<i>Schilling and Seuring (2023)</i>	<p>ICT:s have implications on the information, financial and material flows of the SC and can hence help create more efficient SC operations. ICT:s can furthermore help actors with payment mechanisms as well as access accurate information in time. By simplifying the mentioned processes “TCs incurred before the contract is closed, such as screening, selection, communication, negotiation, and coordination costs, as well as TCs incurred after the contract is closed, such as measurement, communication, negotiation, and coordination costs, can be reduced” (Schilling and Seuring (2023, pp. 1194).</p> <p>The reduction of transaction costs translates to improved operations for BoP smallholders as well as their SC partners as the ICT:s help the sharing of market information as well agriculture related information.</p> <p>Furthermore, Schilling and Seuring (2023, pp. 1194) explain that “ICTs allowing farmers to share risks and rewards help farmers to enhance their financial independence, which reduces their vulnerability to disruptions”.</p>	S2.4

Table G.8: Summary of the empirical data as well as the literature related to the solution area: trust based solutions (S3).

Trust based solutions (S3)		
<i>Source</i>	<i>Summary of the empirical data related to trust based solutions</i>	<i>Concept</i>
<i>IKEA of Sweden</i>	Trust is especially important in BoP environments, due to the more unstable business environment there as well as the occurrence of more actors operating unfairly.	S3.2
	Both the supplier and the buyer are evaluated with regards to their trustworthiness. The buyer's (MNC's) ability to keep commitments (especially when the market fluctuates such as when inflation rises) as well as engage in development work are examples of factors that affect the buyer's trustworthiness.	S3.2

	While partnership with intermediaries and local organizations opens up opportunities of trust building, trust is to be built up over time as well as through operating with fairness and trustworthiness.	S3.3
<i>Arla Foods</i>	It is important to understand the BoP smallholder farmers and their reality, since they work in a completely different context than the farmers in for instance western Europe.	S3.3
	Beyond trust and contracts, loyalty is needed to create a commercial SC with reliable flows or to scale up an existing one. Building loyalty is however considered a major challenge in BoP contexts.	S3.4
<i>TAREA</i>	Proving good intentions is an essential part of building trust since there is often initially a mistrust to MNC:s when they approach local actors/communities. The mistrust is accompanied by a fear of exploitation as well as fear of the MNC:s leaving whenever they are done conducting their business in the area.	S3.1
	Trust is easier built to the MNC if there is a familiar partner involved in the process such as a trusted and known local actor.	S3.3
<i>SOS Children's Village Mozambique</i>	Creating a trusting business environment can be utilized as an effective tool to counteract disloyalty as well as low engagement in BoP environments, and to ensure increased productivity and collaboration.	S3.4
	MNCs are considered to be more reliable buyers to the farmers than local buyers due to their stronger managerial and financial structures.	S3.2
<i>Social Enterprise Ghana</i>	It is important that MNC:s prove that they are not there to exploit the communities, but that they also care about their wellbeing and aim for growth for all parties involved.	S3.1
	Local actors are skeptical about MNC:s and MNC:s are skeptical towards the standards and systems of the local actors.	S3.1
	Working with nonprofits could help increase the trust to MNC:s as well as for instance educate and sensitize the MNC:s on the context they are trying to enter.	S3.3
<i>Godfrey Mpala - Deputy Country Manager at One Acre Fund Zambia</i>	Trust is built up over time and with proven integrity. Until the trust is built, BoP farmers are usually hesitant to engage in partnership with MNC:s.	S3.1
	Local buyers will have the upper hand until the farmers trust the MNC in question, since the farmers might already know the local buyers albeit the higher risk of exploitation.	S3.2
	MNC:s are able to penetrate markets that are hard to reach through collaboration with established and trusted local social businesses and nonprofits, since these organizations are familiar with the farmers and have proven to them that they work in their favor. Hence, the farmers trust that these organizations are partnering up with MNC:s that trade fairly.	S3.3
<i>ENSOL LTD.</i>	For the local actor to gain trust in the MNC, it is important for the MNC to prove their good intentions by for instance proving that they are providing a fair and real opportunity of growth.	S3.1 S3.2

	Local actors could be considered for activities that are usually contracted to expatriates by MNC:s, since they know the environment the best and have connections within the community and can hence guide the MNC on where to find the requested labor if they do not possess it themselves.	S3.2
	There is a fear that the MNC will conduct their operations and leave the area in its original state, or worse from for instance an environmental aspect. The exit strategy of the MNC is an important factor to consider since it can cause mistrust and skepticism to the MNC. Proving good intentions and engaging in growth activities with the local actor could help ease this type of mistrust.	S3.1
	MNC:s can help the growth of local actors by helping to create recognition and visibility in the local context (e.g. through assistance in advertising or inclusion in the MNC's local campaigns) since it will allow the local actors to attract further business opportunities as well as trust from its community.	S3.2
<i>Lara Schilling at the University of Kassel</i>	The differing environments of the two parties and the power imbalances as well as the mistrust usually present initially in the relationship between MNC:s and BoP actors creates aggravating circumstances with regards to trust building.	S3.1
	Trust can slowly be built up when contracts are altered to become collaborative by allowing an increased amount of information flows from both parties.	S3.2
	Involvement of trusted local actors or organizations such as NGO:s taking the role of the intermediary between MNC:s and BoP actors, can help create a sense of trust in the relationship as well as ease information flows and allow a collaborative relationship to grow.	S3.3
<i>Source</i>	<i>Summary of the theory related to trust based solutions</i>	<i>Concept</i>
<i>Borchardt et al., (2020)</i>	BoP communities and the knowledge systems that they form (including e.g. the spirituality aspect that might not be common in traditional SCM) are an invaluable resource that should be respected and valued properly as they are often undervalued by MNC:s.	S3.3
<i>Brix-Asala et al. (2021)</i>	The simple and trust based approach used in the BoP of meeting product requirements differs from the requirement for formal documentation and quality evaluation in formal SC:s, which causes conflict when a formal SC meets the informal BoP environment.	S3.2
<i>Brix-Asala et al. (2021)</i>	With regards to the product market voids, the deficient amount of intermediaries as well as standards in the BoP environment are the underlying reasons for the information asymmetry between suppliers and organizations.	S3.3
<i>Brix-Asala and Seuring (2020)</i>	Both the agency-driven and corporate-driven SC approach traditionally have one common factor between them, and that is the partnership with NGO:s that is needed regardless of the chosen approach, with the reason being their strong local embeddedness.	S3.3
<i>Parmigiani and Rivera-Santos (2015)</i>	The contracting voids do not always lead to problems, and they might even be unnoticed if the agreements or the contracts are established within the informal environment, meaning between parties of the community, as such agreements are based on trust, embeddedness and recurring interactions. The result is informal agreements being less difficult to enforce.	S3.2 S3.5
<i>Parmigiani and Rivera-Santos (2015)</i>	For the dyadic level voids, i.e. product market voids and contracting voids, MNC:s need to establish connections within the local context in order to utilize relational mechanisms to overcome these voids. This can be done with help from intermediaries or by the MNC itself. The intended relational mechanisms relate to	S3.3

	<p>assigning local organizations and individuals to educate customers and suppliers. The use of social norms and reputation in these relational mechanisms can be greatly efficient to establish local connections.</p>	
<p><i>Parmigiani and Rivera-Santos (2015)</i></p> <p><i>Rehman et al. (2020)</i></p>	<p>Labor market voids imply challenges for organizations to identify SC partners or individuals with the requested skills or that the requested skills are not present in the market, with the reason being the insufficient education in the emerging markets.</p> <p>The impact of the labor market voids depends on the needed skills, where e.g. specialized skills are often of extreme scarcity.</p> <p>However, even when the desired skills exist, it is difficult for companies to identify and reach them due to lack of channelization.</p>	S3.3
<p><i>Rivera-Santos and Rufin (2010)</i></p>	<p>Due to the BoP populations being isolated, either in rural areas or slums, the local cultures developed in the areas become strong and important.</p>	S3.5
<p><i>Rivera-Santos and Rufin (2010)</i></p>	<p>The networks in the BoP are not particularly linear (due to involvement of non-traditional actors) and involve not only commercial transactions but also have much reliance on trust and political input.</p>	S3.2
<p><i>Rivera-Santos and Rufin (2010)</i></p>	<p>Structural holes are common in BoP networks due to lack of intermediaries. The wide diversity encountered in BoP networks is due to the limited access to specialized actors within the BoP.</p>	S3.3
<p><i>Rivera-Santos and Rufin (2010)</i></p>	<p>MNC:s need to depend on non-market actors (such as NGOs:s) in order to conduct their planned commercial activities.</p> <p>MNC:s need to take into consideration demands from for instance NGO:s and local organizations on for instance social and environmental aspects, in order to receive help from these organizations to establish local contacts and presence.</p>	S3.3
<p><i>Rivera-Santos and Rufin (2010)</i></p>	<p>The high density of networks on the local level can be utilized by MNC:s to counteract the lack of institutions in the BoP environment. MNC:s can do so however, only if they can be accepted by and take part of the local network.</p> <p>Due to the need for direct and informal communication within the BoP network, embeddedness becomes an important factor for MNC:s to establish within the network in order to be able to carry out the needed interactions.</p> <p>The stability of BoP networks is subject to the formal ties that are based on contracts and institutions (often unstable and unpredictable) as well as the informal ties that are based on trust and social acceptance (often more resilient and stable). The resilient and more stable informal ties, imply that it is important for MNC:s to be embedded in the local context in order to benefit from these ties and the advantage they entail of being resistant to external disturbance.</p>	S3.5

Appendix H - Information related to the countries in Asia from which empirical data was gathered

Table H: Overview of some contextual factors for the countries in Asia in which the gathered data is collected from.

<i>Asia</i>				
	<i>Bangladesh</i>	<i>India</i>	<i>Indonesia</i>	<i>Source</i>
<i>Area</i>	South Asia	South Asia	East Asia and Pacific	The World Bank (2023a)
<i>Income group</i>	Lower middle income	Lower middle income	Lower middle income	The World Bank (2023a)
<i>Poverty ratio (\$2.15 a day)</i>	13.5% (2016)	10.0% (2019)	3.5% (2021)	The World Bank (2023e)
<i>Population living in slums (% of urban population)</i>	52% (2020)	49% (2020)	19% (2020)	The World Bank (2023d)
<i>Rural population (% of total population)</i>	61% (2021)	65% (2021)	43% (2021)	The World Bank (2023f)
<i>Literacy rate, adult total (% of people ages 15 and above)</i>	75% (2020)	74% (2018)	96% (2020)	The World Bank (2023c)
<i>Internet usage ratio</i>	25% (2021)	43% (2021)	62% (2021)	The World Bank (2023b)
<i>Ease of doing business rank (1-190, 1=most business-friendly regulations)</i>	168 (2019)	62 (2019)	73 (2019)	The World Bank (2023b)
<i>Control of corruption (from -2.5 to 2.5)</i>	-1.0 (2021)	-0.3 (2021)	-0.4 (2021)	The World Bank (2023g)

Appendix I - Information related to the countries in Africa from which empirical data was gathered

Table I: Overview of some contextual factors for the countries in Africa in which the gathered data is collected from.

<i>Africa</i>							
	<i>Nigeria</i>	<i>Mozambique</i>	<i>Ghana</i>	<i>Tanzania</i>	<i>Zambia</i>	<i>Ethiopia</i>	<i>Source</i>
<i>Area</i>	Sub-Saharan Africa	Sub-Saharan Africa	Sub-Saharan Africa	Sub-Saharan Africa	Sub-Saharan Africa	Sub-Saharan Africa	The World Bank (2023a)
<i>Income group</i>	Lower middle income	Low income	Lower middle income	Lower middle income	Low income	Low income	The World Bank (2023a)
<i>Poverty ratio (\$2.15 a day)</i>	30.9% (2018)	64.6% (2014)	25.3% (2016)	44.9% (2018)	61.4% (2015)	27.0% (2015)	The World Bank (2023e)
<i>Population living in slums (% of urban population)</i>	49% (2020)	55% (2020)	33% (2020)	41% (2020)	48% (2020)	64% (2020)	The World Bank (2023d)
<i>Rural population (% of total population)</i>	47% (2021)	62% (2021)	42% (2021)	64% (2021)	55% (2021)	78% (2021)	The World Bank (2023f)
<i>Literacy rate, adult total (% of people ages 15 and above)</i>	62% (2018)	63% (2021)	80% (2020)	82% (2021)	88% (2020)	52% (2017)	The World Bank (2023c)
<i>Internet usage ratio</i>	36% (2021)	17% (2021)	69% (2021)	22% (2021)	20% (2021)	17% (2021)	The World Bank (2023a)
<i>Ease of doing business rank (1-190, 1=most business-friendly regulations)</i>	131 (2019)	138 (2019)	118 (2019)	141 (2019)	85 (2019)	159 (2019)	The World Bank (2023b)
<i>Control of corruption (from -2.5 to 2.5)</i>	-1.1 (2021)	-0.8 (2021)	-0.1 (2021)	-0.4 (2021)	-0.8 (2021)	-0.4 (2021)	The World Bank (2023g)

Appendix J - Different incentive alignment mechanisms found in literature

Simatupang and Sridharan (2002, pp. 19) studied the elements of a collaborative supply chain (i.e. “two or more independent companies work jointly to plan and execute supply chain operations with greater success than when acting in isolation”) where one of the successfactors is a high level of commitment and priority of collaboration by the SC partners, and one way to achieve it is through incentive alignment. The authors explain that incentive alignment “aims to provide a mechanism for realignment of the benefits and burdens that are incurred when process changes occur within the supply chain” (Simatupang and Sridharan (2002, pp. 26). They further mention three types of incentive alignment mechanisms that can be utilized for aligning the behavior of SC partners to match the holistic SC objectives, and these three mechanisms will be described below.

- 1. Productive-behavior:** The first incentive alignment mechanism is based on productive behavior, meaning rewarding the efforts towards achieving a defined target instead of only rewarding the achievement of said target, which in turn leads to the motivation of SC partners to continue to improve and work towards the holistic SC goal (Simatupang and Sridharan, 2002).
- 2. Pay-for-performance:** Pay-for-performance is the second type of incentive alignment mechanism presented by Simatupang and Sridharan (2002), and implies defining performance indicators that act as the basis for evaluation for reward distribution. This type of incentive alignment mechanism creates recognition of outstanding performance among SC partners, motivation for the desired behavior as well as control of costs.
- 3. Equitable compensation:** The third type of incentive alignment mechanism presented by Simatupang and Sridharan (2002) is equitable compensation which in turn implies that the SC partners jointly define a set of performance indicators and decide on a “gain sharing formula universally perceived as equitable”. The mentioned mechanism entails open book practices including the costs and benefits in order to evaluate the performance of the SC and in turn decide on a fair risk and reward sharing.

Incentive Alignment as part of the The Triple-A Supply Chain

Lee (2004, pp.104) studied more than 60 leading organizations for over 15 years and found that “only supply chains that are agile, adaptable, and aligned provide companies with sustainable competitive advantage”, and refers to such supply chains as the Triple-A SC. The author explains that the objective of agility in the SC refers to achieving a high level of responsiveness to sudden changes in demand and supply levels as well as managing external disruptions efficiently. Furthermore, the adaptability of the SC relates to adapting the SC design to fit the structural changes in the markets as well as adjusting the “supply network to strategies, products, and technologies” (Lee, 2004, pp.105). Finally, the objective of alignment is to create incentives that can generate an improved SC performance, and can be achieved through the following three steps as presented by Lee (2004):

- 1. Aligning information:** The first step is the alignment of information, meaning exchanging information and knowledge with all SC members in order to facilitate equal access to forecasts, sales data as well as plans.

2. **Aligning identities:** The second step relates to aligning the identities within the SC, meaning that roles, tasks and responsibilities are to be clearly defined in order to avoid conflicts.
3. **Aligning incentives:** The third step is concerned with aligning the incentives of the SC partners, meaning redesigning incentives in a way that facilitates SC partners to optimize their own outcomes and simultaneously contribute to the optimization of the SC performance.

Incentive Alignment as part of the Antidotes of Supply Chain Discontent

Simatupang and Sridharan (2005) studied supply chain discontent⁴ and identified six sources for it: incongruent objectives, disintegrated measures, information asymmetry, unsynchronized decisions, misaligned incentives as well as fragmented processes. The corresponding antidotes were found by the authors to be mutual objectives, appropriate measures, information sharing, decision synchronization, incentive alignment and streamlined processes.

With regards to incentive alignment, Simatupang and Sridharan (2005) explain its underlying assumption as below:

Incentive alignment assumes that the individual member bases decision-making on the compensation it receives from others. This compensation depends on the actions of the various decision makers, either directly (e.g. actions may be audited to see if they are correct, and incorrect actions may lead to penalty), or indirectly (e.g. profit sharing, bonuses based on sales, splitting the savings, and so forth).
- Simatupang and Sridharan (2005, pp. 361)

Incentive alignment hence concerns the reward and punishment systems applied by the SC members, with regards to sharing the costs, benefits and risks of the partnership. An important note is that optimizing SC performance does not automatically imply minimized individual costs for the SC partners. Hence incentive alignment has the aim to properly incentivize the SC partners to base their decisions in more alignment with the SC objectives, in order to avoid SC partners making decisions that maximize their own profits at the expense of the overall SC performance. (Simatupang and Sridharan, 2005)

Simatupang and Sridharan (2005) further mention that there are three levels of intensity of schemes for incentive alignment: elementary, professional and sophisticated. The three mentioned schemes will be briefly explained below:

1. **Elementary incentive alignment scheme:** The lowest intensity level includes primarily working with transfer payments needed for the material flows to reach the end customer smoothly. The transfers are based on market mechanisms such as for instance quantity discounts and quota. (Simatupang and Sridharan, 2005)
2. **Professional incentive alignment scheme:** The second intensity level entails sharing the costs and benefits connected to the joint objectives of the partnership. The utilization

⁴ As was mentioned in the background chapter, supply chain discontent is when SC partners perceive organizational differences impacting their capability to operate in a profit maximization manner, as Simatupang and Sridharan (2005) explain.

of forecasts, higher responsiveness and shared savings and profits can induce partners to act in the desired manner, in return for improved performance. (Simatupang and Sridharan, 2005)

3. **Sophisticated incentive alignment scheme:** The highest intensity level includes a risk sharing scheme that could often require the utilization of algorithms to achieve and includes agreements such as flexible quantities, return policies and dynamic pricing. The scheme defines the responsibilities, expectations and solutions included in the partnership and entails an alteration of the priorities within the SC partner's decision making system with regards to risk sharing. (Simatupang and Sridharan, 2005)