

Electronic Thesis and Dissertation Repository

6-22-2021 2:30 PM

Effectiveness of Social Enterprises: Aligning Strategies and Supply Chains for Impact

Kelsey M. Taylor, *The University of Western Ontario*

Supervisor: Vachon, Stephan, *The University of Western Ontario*

A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in Business

© Kelsey M. Taylor 2021

Follow this and additional works at: <https://ir.lib.uwo.ca/etd>



Part of the [Operations and Supply Chain Management Commons](#)

Recommended Citation

Taylor, Kelsey M., "Effectiveness of Social Enterprises: Aligning Strategies and Supply Chains for Impact" (2021). *Electronic Thesis and Dissertation Repository*. 7850.

<https://ir.lib.uwo.ca/etd/7850>

This Dissertation/Thesis is brought to you for free and open access by Scholarship@Western. It has been accepted for inclusion in Electronic Thesis and Dissertation Repository by an authorized administrator of Scholarship@Western. For more information, please contact wlsadmin@uwo.ca.

Abstract

Social enterprises use market mechanisms to address social issues that are undesirable targets for intervention by conventional businesses. The pursuit of these goals comes with inherent operational constraints that must be mitigated for the organization to survive, but that are unavoidable without compromising the organization's social mission. However, the assumption embedded in much of the SCM literature, that profit maximization is the ultimate goal, may lead to the implementation of practices that are inappropriate or even detrimental for social enterprises. This dissertation aims to address this issue through an investigation into how a social enterprise's *social value creation strategy* (SVCS) affects its supply chain structure and management, and how supply chain social capital can help organizations overcome operational constraints to achieve effectiveness.

This dissertation contains three components. First, a conceptual framework is developed that identifies the core components of an organization's SVCS: its activity link, financial model and beneficiary characteristics. This framework is used to develop a set of propositions regarding how supply chain constraints associated with these strategies can be addressed through the development of different dimensions of social capital. Second, an fsQCA study is conducted to validate the propositions put forth from the conceptual framework and identify configurations of SVCSs and social capital that are necessary or sufficient for effectiveness. Finally, a multiple case study is presented to validate the suggested supply chain constraints presented in the conceptual framework (e.g., cost or design constraints, competitive constraints) and presents a more nuanced look at the underlying mechanisms through which social capital contributes to social enterprise effectiveness.

The findings of this dissertation suggest that different dimensions of social capital make crucial contributions to the effectiveness of social enterprises, and that the nature of these contributions varies based on the organization's SVCS. This dissertation also identifies underlying mechanisms through which social capital contributes to social enterprise effectiveness. This work contributes to the SCM literature by highlighting the unique constraints faced by social enterprises and the supply chain adaptations implemented to mitigate them, highlighting the ways in which conventional SCM intuition is insufficient to appropriately guide the behaviour of social entrepreneurs.

Keywords

Supply Chain Management, Social Entrepreneurship, Sustainability, Social Impact, Social Capital, Mixed-Method Research, Qualitative Comparative Analysis, Fuzzy Methods, Set Theoretic Methods, Multiple Case Study

Summary for Lay Audience

Social entrepreneurship refers to the use of standard business practices to address a social problem. Social enterprises have emerged, in part, as a result of difficulties non-profit organizations face in funding their work over the long-term. Social enterprises can take a number of different forms, from providing job training to people with barriers to employment to creating innovative products that help improve the quality of life of their customers, like developing low-cost solar energy devices for people who live in areas without consistent access to power. Although these organizations may look like normal businesses, often their desire to create a social impact leads to the use of unconventional business practices. Included in these unconventional business practices may be ways of purchasing, manufacturing or distributing their products (also known as supply chain management) that differ from what is done by conventional for-profit businesses and may actually work against the typical business goal of maximizing profits. As a result, existing supply chain research and theory is not necessarily suitable for application by social enterprises.

This dissertation aims to address this gap through an in-depth examination of the supply chains of social enterprises to understand if and how they manage their supply chains differently from conventional businesses, and to highlight the contributions that other organizations across the entire supply chain make to a social enterprise's ability to achieve its desired social impact while still remaining financially self-sustaining. The research finds clear patterns in the benefits of different types of supply chain relationships (e.g., relationships based on personal friendship vs. relationships based on shared values) based on the types of practices used by a social enterprise. It also indicates that these supply chain relationships are crucial to the survival and impact of social enterprises.

Dedication

*For my grandparents,
Jan & Wally Taylor and Margaret & Donald Burnet*

Acknowledgments

I have so many people to thank who helped make this dissertation possible. First, I need to thank my advisor, Stephan Vachon, who encouraged me to get on this path in the first place after first meeting me during my Master's. Stephan was a constant source of encouragement over the last six years, always giving me the direction I needed when it was time to stop spinning my wheels over an idea, and reassurance when I was worried I dug myself into a hole I wouldn't be able to get out of. Thank you for letting me steer my own ship, and always encouraging me to pursue the ideas that I was most excited about, even if it meant sailing "into the fog". I also want to thank my committee members, Rob Klassen and Jury Gualandris, who provided valuable insight through the whole process. My dissertation is much stronger because of your involvement.

I also want to thank all of my fellow PhD students at Ivey. I'll always remember walking up the stairs in the Ivey building a few days into our stats bootcamp, feeling like Ivey made a mistake letting me in the door and then having all those feelings disappear when I heard other people joking about feeling as lost as I felt. This whole experience was a lot less scary with such an incredible group of people to share it with. Thank you especially to Fernando and Christine for your friendship and encouragement over the last five years. Fernando, your positive attitude was a huge source of comfort, especially while we were preparing for our comprehensive exams together. I'm so excited for all that the future has in store for you and your wonderful family. Christine, I couldn't have made it through my PhD without you. Truly. Without all of the homemade kimchi and the halves of your smores brownies that you never seemed to finish I would've starved. Thank you for being an amazing study buddy and always keeping me in the loop about all the hot gossip. I'm so lucky to call you a friend.

Finally, I have to thank my family and friends! Thank you to Alexis, Liv, Evan, Katie and Kendra for turning London into a real home. I'll always treasure our Bachelorette nights and Hub dinners. Thank you to Alex for being the person I can always count on when a new terrible horror movie comes out and for keeping me humble for the last 20 years. Thank you to my angels: Tori, Megan, Sara, Dani, Abi, Ann-Marie and Allison. There's a joke that "behind every strong woman is 5 other strong women who proofread her email real quick when they had a second" and that is definitely true for me. Thank you for being my sounding board and cheer squad. Thank you to my parents who supported me every step of the way during this process, even when it took me to another province. I couldn't have made it through this without your constant encouragement. Last but definitely not least, I have to thank my amazing partner, Evan. Thank you for always believing in me, for always bringing me snacks, and for always making sure Salsa and Scout were getting enough pats and kisses when I was too busy to help. May you never have to hear the term "social value creation strategy" ever again.

Table of Contents

<i>Abstract</i>	<i>ii</i>
<i>Summary for Lay Audience</i>	<i>iv</i>
<i>Dedication</i>	<i>v</i>
<i>Acknowledgments</i>	<i>vi</i>
<i>Figures</i>	<i>xi</i>
<i>Tables</i>	<i>xii</i>
1. Introduction	1
1.1 Key Concepts	3
1.1.1 Social Value Creation Strategies	3
1.1.2 Social Impact Supply Chains	4
1.1.3 Social Capital.....	7
1.1.4 Tension and Hybridity in Social Entrepreneurship	8
1.2 Objectives and Research Question	9
1.3 Contributions	10
1.4 Overview of the Dissertation	11
2. Literature Review	13
2.1 Social Value Creation in the OSCM Literature	13
2.1.1 Base of the Pyramid Supply Chains.....	13
2.1.2 Non-Profit Organizations.....	15
2.2 Social Entrepreneurship	16
2.2.1 Tension and Hybridity in Social Entrepreneurship	18
2.3 Social Capital Theory	24
2.3.1 Cognitive Capital	24
2.3.2 Relational Capital	26
2.3.3 Structural Capital	27
2.3.4 Costs of Social Capital.....	29
2.3.5 Measuring Social Capital.....	30
2.3.6 Applications of Social Capital Theory.....	33
2.4 Effectiveness in OSCM	35
3. Social Value Creation Strategies	38
3.1 Financial Model	40
3.2 Activity Link	43
3.2.1 Provision SVCSs	45
3.2.2 Inclusion SVCSs.....	50
3.2.3 Paired SVCSs.....	54
3.3 Beneficiary Selection	56
3.4 Synthesis	59
4. Prologue to Empirical Studies	61

4.1	Why Qualitative Methods?	61
4.2	Outlines - QCA Study & Multiple Case Study	63
5.	QCA Study	67
5.1	Introduction	67
5.2	Methodology	67
5.2.1	QCA Overview	68
5.2.2	Data Collection	70
5.2.3	Instrument Development.....	74
5.2.4	Measure Validation.....	79
5.2.5	Calibration	83
5.2.6	Analysis Procedure	85
5.2.7	Truth Tables.....	89
5.3	Findings - Necessity Analysis	91
5.4	Findings - Sufficiency Analysis	92
5.4.1	Effectiveness – Upstream Social Capital	95
5.4.2	Effectiveness – Downstream Social Capital	99
5.4.3	Acceptability – Upstream Social Capital	102
5.4.4	Acceptability – Downstream Social Capital	104
5.4.5	Viability – Upstream Social Capital	107
5.4.6	Viability – Downstream Social Capital	109
5.4.7	Absence of Outcomes of Interest.....	111
5.5	Summary – Alignment with Chapter 3	112
5.6	Conclusion	116
6.	Multiple Case Study	118
6.1	Introduction	118
6.2	Methodology	118
6.2.1	Case selection procedure and criteria.....	118
6.2.2	Data sources and methods.....	120
6.2.3	Coding procedure.....	123
6.3	Findings - Constraints & Opportunities	124
6.3.1	Provision	125
6.3.2	Inclusion	130
6.4	Findings - Supply Chain Social Capital	137
6.5	Structural Capital	139
6.5.1	Provision	140
6.5.2	Inclusion	146
6.6	Relational Capital	148
6.6.1	Provision	149
6.6.2	Inclusion	152
6.7	Cognitive Capital	160
6.7.1	Provision	161
6.7.2	Inclusion	163
6.8	Conclusion	168
7.	Discussion & Conclusions	170

7.1	Summary of Findings	171
7.2	Contributions	177
7.2.1	Conceptual	177
7.2.2	Theoretical	180
7.2.3	Managerial	182
7.3	Limitations	184
7.4	Future Research.....	187
7.4.1	Supply chain constraints and financial models	187
7.4.2	Co-occurrence of social capital dimensions in mission driven organizations.....	188
7.4.3	Supply chain conditions contributing to social enterprise failure	189
7.4.4	Social enterprise effectiveness, beneficiary perspective	190
7.4.5	Application of SVCS framework to service-based social enterprises.....	190
8.	<i>References & Appendices</i>	<i>192</i>
A.	<i>Hybridity, Tensions & Practices, Summary of Selected Literature</i>	<i>204</i>
B.	<i>QCA Instrument.....</i>	<i>206</i>
C.	<i>Results of Necessity Analysis.....</i>	<i>211</i>
D.	<i>Research Protocol.....</i>	<i>214</i>
E.	<i>Multiple case study – Case Summaries.....</i>	<i>216</i>
9.	<i>CV.....</i>	<i>224</i>

Figures

<i>Figure 1. Key decisions in social value creation strategy formation</i>	<i>39</i>
<i>Figure 2. Financial model</i>	<i>41</i>
<i>Figure 3. Activity Link</i>	<i>44</i>
<i>Figure 4. Beneficiary Selection.....</i>	<i>57</i>
<i>Figure 5. Social value creation strategy framework</i>	<i>59</i>
<i>Figure 6. Social capital development in SISCs.....</i>	<i>139</i>

Tables

Table 1. OSCM application of tie strength by social capital dimensions.....	31
Table 2. Case descriptions, products, SVCSs	72
Table 3. Summary, included cases, SVCS characteristics	73
Table 4. Relational and cognitive capital, measurement items	75
Table 5. Structural capital, measurement items	77
Table 6. Acceptability and viability, measurement items	79
Table 7. Cronbach's alpha, social capital constructs	80
Table 8. Correlation matrix, social capital measures	82
Table 9. Calibration anchors	84
Table 10. Summary of conditions and outcomes	87
Table 11. Analyses conducted for each outcome	89
Table 12. Truth table, effectiveness, upstream beneficiaries, upstream social capital	90
Table 13. Sufficiency analysis, Effectiveness, Upstream social capital	96
Table 14. Sufficiency analysis, Effectiveness, Downstream social capital.....	100
Table 15. Sufficiency analysis, Acceptability, Upstream social capital	103
Table 16. Sufficiency analysis, Acceptability, Downstream social capital.....	105
Table 17. Sufficiency analysis, Viability, Upstream capital	108
Table 18. Sufficiency analysis, Viability, Downstream social capital.....	110
Table 19. Sufficiency Analysis, Negations of Effectiveness & Viability	112
Table 20. Summary, Propositions and QCA results	113
Table 21. Summary, social value creation strategies of participating organizations	120
Table 22. Summary, interviews conducted for participating organizations	122
Table 23. Practices to improve validity and reliability	124
Table 24. Interview quotations describing downstream value alignment	165
Table 25. Summary of findings, conceptual propositions and fsQCA study.....	172
Table 26. Summary of findings, multiple case study.....	173
Table 27. Sampling frame characteristics, QCA and case study.....	206
Table 28. Necessity analysis, effectiveness	211
Table 29. Necessity analysis, Negation of effectiveness	211
Table 30. Necessity analysis, Negation of conditions - Effectiveness.....	211
Table 31. Necessity analysis, Acceptability	212
Table 32. Necessity analysis, Negation of acceptability.....	212
Table 33. Necessity analysis, Negation of conditions - Acceptability	212
Table 34. Necessity analysis, Viability	213
Table 35. Necessity analysis, Negation of viability	213
Table 36. Necessity analysis, Negation of conditions - Viability.....	213

1. Introduction

As global populations continue to grow, ‘wicked problems’ like poverty, food security, and climate change (Dorado and Ventresca 2013) demand creative solutions and a variety of organizations are stepping in to accept this challenge. Social enterprises are one organizational form that has arisen to contribute to solutions by applying the principles of commercial businesses to the creation of social value for a particular group of beneficiaries¹ (Haigh and Hoffman 2012).

Although social enterprises have existed around the world since the early 1900s (Bacq and Janssen 2011), the supply chains of social enterprises have been understudied and largely overlooked until quite recently. The only published research to explicitly discuss the supply chains of social enterprises at length were released within the last few years. In one paper, Bals and Tate (2018) investigated how social businesses design their supply chains to achieve triple bottom line objectives, rather than retrofitting existing supply chain designs to fit sustainability objectives (Bals and Tate 2018:58). In another paper, Pullman, Longoni and Luzzini (2018:4) coined the term *social impact supply chain* (SISC) management, referring specifically to the way organizations manage their supply chains to address a particular social mission while maintaining economic viability. They described how the unique character of SISCs necessitates a departure from some of the supply chain management practices employed in both commercial supply chains and non-profit supply chains.

The supply chain management (SCM) literature recognizes that supply chain effectiveness depends on the careful application of supply chain structures, strategies and practices that are specifically tailored to their competitive priorities (Qi, Zhao, and Sheu 2011). The social

¹ ‘Beneficiaries’ refers to the individuals or communities who are the target recipients of the social value generated by the focal organization.

entrepreneurship literature lags behind the management literature in recognizing the importance of a carefully structured and managed supply chain in a social enterprise's effectiveness², encompassing both its ability to financially sustain its operations, and its capacity to achieve its desired social outcomes. Social enterprises exist to use market mechanisms to address social issues that are undesirable targets for intervention by conventional commercial businesses. As such, the pursuit of these goals comes with inherent operational constraints that must be overcome for the organization to survive, but that are unavoidable without compromising on the organization's social mission. However, the assumption embedded in the majority of the SCM literature, that profit maximization is the ultimate goal, may lead to the implementation of strategies or practices that are inappropriate or even detrimental in the context of social enterprises, where financial outcomes are balanced with or even subordinated to social outcomes. This dissertation aims to address this issue through an in-depth investigation of how a social enterprise's *social value creation strategy* (SVCS) affects its supply chain management and overall effectiveness.

Within the SCM field, little is known about the requirements, constraints and tensions that social enterprises experience in the management of their supply chains (MacCarthy et al. 2016). As such, SCM scholars have overlooked opportunities to unpack the consequences of the prevailing prioritization of financial objectives embedded in the supply chain literature and examine its fit in organizational contexts that prioritize social objectives. This oversight can lead to the inappropriate application of commercial managerial intuition to social impact-oriented contexts. Finally, investigating the supply chain operations of social enterprises will provide insight for unique theorization about the navigation of tensions and trade-offs that exist in the

² The definition of effectiveness used in this dissertation is adapted from the work of Sydow and Windeler (1998:274) and comprises the viability and acceptability of organizational practices and outcomes. Effectiveness is defined and discussed further in Chapter 2.

management of supply chains that are designed for the financially viable pursuit of social objectives.

1.1 Key Concepts

To examine the problem described in the previous section, two primary concepts will be used throughout this dissertation: social value creation strategies (SVCSs) and social impact supply chains (SISCs). Using Social Capital Theory as a lens, this dissertation will investigate the relationship between SVCSs, SISCs and organizational effectiveness. This section will briefly describe these concepts, with a more detailed examination of social capital theory and hybridity to follow in Chapter 2.

1.1.1 Social Value Creation Strategies

A 2006 collaboration between Group Danone and Grameen Bank sought to improve food security and nutrition outcomes for extremely low-income consumers in Bangladesh through the provision of low-cost yogurt containers. To generate employment, local women were employed to sell the yogurt (Sardana 2013) which was produced using milk sourced from local farmers (Danone Communities 2019). Another food security-oriented social enterprise, FINNEGANS Brew Co., located in Minneapolis, MN, was created explicitly to provide funding for local food security organizations. To serve their mission of “turning beer into food”, FINNEGANS donates 100% of their profits to their local non-profit partners (FINNEGANS 2019). The examples of Grameen Danone Foods and FINNEGANS Brew Co. highlight the diverse approaches organizations can take to address the same broad social issue, and therefore, the diversity that exists among social enterprises. Grameen Danone Foods created a product that itself addresses the issue of childhood malnutrition and employs women from the same communities that benefit from their product as distributors. Meanwhile, the products created by FINNEGANS do not themselves alleviate food

insecurity but are a means to generate revenues to support the work of local food organizations. Though they share the same goal, these organizations differ significantly in the strategy they apply to generate social value.

The social enterprise sector encompasses a diverse population of non-profit and for-profit organizations of various sizes. The diversity of social enterprises is a function of the variety of means used by these organizations to pursue their social mission, referred to throughout this dissertation as the organization's *social value creation strategy* (SVCS). For some social enterprises, the SVCS focuses on the creation of a particular product or service to address a previously unmet need, like in the case of Grameen Danone Foods. Grameen Danone Foods' products make a tangible contribution to addressing food insecurity. This SVCS was pursued because Grameen Danone Food's founding organizations possessed valuable knowledge and capabilities suited to food production in base-of-the-pyramid contexts (Sardana 2013). Grameen Danone Foods also demonstrates an additional method of social value creation pursued by social enterprises, which is using the organization to create gainful employment for a particular group of beneficiaries. For other social enterprises, the product or service is simply a means of generating revenues to fund other social value-oriented activities; this is the SVCS employed by FINNEGANS. As the initial founders of FINNEGANS were the founder and director of marketing at a growing chain of pubs (Schwartz 2014), they were able to apply their existing capabilities, which are not intuitively connected to fundraising and emergency food services, to generate revenues to help fund social activities by non-profit partners.

1.1.2 Social Impact Supply Chains

Pullman, Longoni and Luzzini (2018) define *social impact supply chain management* (SISCM) as the tools and strategies used by social enterprises in the management of their supply chains.

Generally, social value can be generated through the creation of a particular product or service, through the relationships that form the supply chain, or through the reallocation of profits from commercial activity towards the pursuit of distinct social outcomes. However, the method chosen has important implications for the constraints social enterprises may experience in the course of their day-to-day operations.

The above definition of SISCs includes the supply chains of for-profit social enterprises, as well as those where all profits are reinvested solely in the pursuit of social outcomes. As will be described in Chapter 2, the role of profits in social enterprises is hotly debated. For the purposes of this dissertation, whether an organization is for-profit, or non-profit is not treated as a determining factor in whether or not an organization qualifies as a social enterprise. Thus, this broad definition of what constitutes a SISC includes supply chains of both for-profit and non-profit organizations, as long as the supply chain in question was created explicitly for the purpose of achieving social outcomes. Similarly, it includes commercial activities undertaken by non-profit organizations that have not traditionally self-identified as social enterprises, as long as the commercial activities facilitated by the supply chain support some form of social value creation.

In the examples of Grameen Danone Foods and FINNEGANS, the focal organization's chosen SVCS addresses the issue of food security, and its associated supply chain relationships were tailored to the requirements imposed by their different SVCSs. Thus, an organization's SVCS impacts the formation and management of its supply chain. Grameen Danone's strategy of providing food through an agent-based distribution network was an appropriate response to the limitations of their beneficiary market, which was low-income consumers in rural Bangladesh. They were particularly challenged by cost-sensitivity and geographic decentralization (Sardana 2013), and thus their supply chain needed to be structured appropriately to deal with those

conditions. To address these constraints, they relied on the social capital and networks of their local distributors in order to reach their end customers.

FINNEGANS' decision to trust non-profit partners to carry out the social value-generating activities acknowledged the presence of capable but under-resourced social actors (i.e., grassroots community organizations, large NGOs) with substantial existing ties within the community (FINNEGANS 2019). This profit reallocation allowed both FINNEGANS and these social partners to make the best use of their existing capabilities and networks to serve their shared mission to alleviate food insecurity.

At their core, SISCs integrate revenue generating activities with a clearly articulated social mission. While the existing work undertaken by Sodhi and Tang (2016, 2014, 2011), Bals and Tate (2018) and Pullman et al. (2018) have made important contributions towards the recognition of the importance of supply chains in the simultaneous creation of social and economic value, this area of research is in immediate need of further development. The literature on sustainable and socially responsible supply chain management is quite developed, however much of this work focuses on reducing harm while maximizing profits, rather than maximizing the creation of social impact. The sustainable supply chain management literature is instructive for conventional commercial organizations who are looking to improve their social and environmental performance. However, unless a social enterprise creates impact exclusively by redirecting their profits to social causes, consistent prioritization of profit maximization may lead social enterprises to actions that are inconsistent with their social mission. More research on SISCs is needed to help social enterprises survive in contexts where a profit-oriented business model may be untenable.

1.1.3 Social Capital

Supply chain management has long been acknowledged as a means for individual firms to access additional material, financial, intellectual and social resources possessed by partner organizations. The idea of relationships and networks as resources is captured in the concept of social capital, which refers to resources that are embedded in relational ties between actors or entities (Tsai and Ghoshal 1998). Social capital theory was originally developed in the 1960s and 1970s to understand the relational resources possessed by individuals in the context of community-based organizations. Since then, it has been widely applied to understand topics like public health, community development, and family and individual wellbeing (Adler and Kwon 2002). By virtue of their commitment to their social mission, many social enterprises face additional resource constraints beyond what is experienced by conventional organizations. Thus, where social capital creates opportunities for supplemental gains in conventional organizations, it may be necessary for the survival of a social enterprise.

Social enterprises may lean on goodwill and relationships as important resources they can access to initiate and manage their supply chains in order to achieve favourable outcomes for their organization. For example, social enterprises may be offered discounts from suppliers who want to support their social mission. In other cases, social enterprises may intentionally seek out relationships with other organizations that share similar values and may therefore be more willing to collaborate to advance shared goals. Sometimes, partnerships may be initiated with organizations who are already known and connected to a social enterprise's beneficiaries to overcome gaps in their own networks. These examples can each be associated with a different dimension of social capital as proposed by Nahapiet and Ghoshal (1998): cognitive, relational and structural. Cognitive capital refers to the development of shared goals, norms, language and processes. Relational capital refers to the personal character of relationships, including the

development of trust and familiarity. Finally, structural capital refers to the objective characteristics of the network that may facilitate flows of resources and information.

The distinctions between the SVCS applied by a social enterprise will affect what operational constraints the organization is exposed to and what types of supply chain resources may be most useful in mitigating those constraints. The development of an inappropriate dimension of social capital may not only be a waste of time and resources for an organization, but may be actively harmful (Coleman 1988). Thus, social capital development in SISCs must be strategically managed by the focal organization in order to achieve their desired outcomes.

1.1.4 Tension and Hybridity in Social Entrepreneurship

Existing literature on corporate sustainability and social entrepreneurship indicates that the simultaneous pursuit of social objectives and financial objectives, also described as the simultaneous presence of both commercial and social-welfare institutional logics (Pullman et al. 2018), creates intra- (Battilana and Dorado 2010) and inter-organizational (Klitsie, Ansari, and Volberda 2018; Longoni et al. 2019) tension. Similarly, the OSCM literature has revealed that some practices that are created to optimize financial outcomes for focal organizations in supply chains can have unintended consequences for social objectives and can actually create social harm. For example, the implementation of JIT without integration of appropriate human resources and prevention practices has been linked to poor safety outcomes for workers (Longoni et al. 2013): a financially beneficial practice with a socially detrimental outcome. Together, these literatures suggest that the implementation of conventional supply chain management practices and strategies in the context of a SISCs will require careful translation, rather than simply transplanting them into this context. The SCM literature already offers a wealth of prescriptions regarding the impact of different supply chain management practices on organizational performance. What remains to

be seen is if these prescriptions are appropriate for the SISC context, and if not, how do focal organizations and their supply chain partners manage and respond to these tensions when they emerge.

1.2 Objectives and Research Question

The social enterprise sector encompasses a diverse population of non-profit and for-profit organizations of various sizes. The diversity of social enterprises is a function of the variety of means used by these organizations to pursue their social mission. Given the importance of social value creation strategies (SVCSs) in determining appropriate supply chain structures and practices, the focal organization's SVCS will be used as the primary distinguishing characteristic between different types of SISCs throughout this dissertation.

The SCM literature suggests that the performance of social enterprises will be impacted by their ability to align their SVCSs and their supply chain management practices (Drazin and Van de Ven 1985; Ketokivi and Schroeder 2004). This dissertation seeks to understand: the variety of SVCSs employed by social enterprises, how SVCSs impact the requirements, constraints and tensions in SISCs, and how social enterprises can leverage their supply chain relationships to enhance their effectiveness. In doing so, these findings can help social entrepreneurs deliberately cultivate a supply chain strategy uniquely suited to the type of social value they intend to create. Additionally, this research can help supply chain management scholars identify where guidance drawn from commercial supply chain management literature may lead to misfit between strategy and practices in SISCs, ultimately leading to diminished organizational effectiveness. Thus, the goal of this dissertation is to answer the following broad research questions:

1. What is the range of social value creation strategies (SVCSs) available to social enterprises? How do various components of these strategies affect the supply chain requirements, constraints and tensions experienced by social enterprises?

2. How do different upstream and downstream actors within social impact supply chains (SISCs) contribute to the overall effectiveness of the focal organization? How are the nature and extent of these contributions affected by the focal organization's SVCS?

1.3 Contributions

This dissertation aims to make several contributions to the existing work on social impact supply chains and supply chain management more generally.

First, this dissertation will build on existing work by Bals and Tate (2018), and Pullman, Longoni and Luzzini (2018) to support conceptualization of the important differences between SISCs and conventional supply chains. Focussing on readily observable characteristics of social enterprises, the conceptual framework developed through this dissertation will serve a simple tool that prospective social entrepreneurs can use to understand the immediate operational and supply chain constraints embedded in their planned social value creation strategy. Understanding these constraints may help social entrepreneurs develop supply chain structures and relationships that are aligned with their desired social impact and the need for financial survival.

By focusing on mission-driven rather than profit-driven organizations, this work creates an opportunity to identify areas where mainstream OSCM theory may exacerbate tensions social enterprises experience between financial survival and social impact. Within the existing OSCM literature, supply chain performance is often measured in terms of cost efficiency, customer service and flexibility (Um et al. 2017), or relative performance measures like reductions in operating costs (Mani, Gunasekaran, and Delgado 2018). While these measures may be useful indicators of a social enterprise's viability, prioritization of these outcomes during the development and on-going management of the supply chain may encourage organizations to implement practices that are counter to their social mission. This work may illuminate areas where supply chain management practice and evaluation in SISCs deviates from what is done by conventional

commercial organizations as a result of the trade-off between financial viability and social impact. In doing so, it may identify required adaptations to conventional OSCM theory and practice to suit this unique empirical context.

Finally, this dissertation will support the advancement of social capital theory in supply chain management research. Currently, most applications of social capital theory within supply chain management research focus only on buyer-supplier dyads, and primarily focus on buyer-oriented outcomes. In contrast, this dissertation will examine social capital in both the upstream and downstream supply chains simultaneously to identify how the different types of inputs and outputs required by upstream vs. downstream supply chain partners impact the development and usefulness of different dimensions of social capital. Furthermore, this dissertation will examine whether or not the benefits associated with particular dimensions of social capital are contingent on the SVCS employed by the focal organization. As a result, this dissertation may help social entrepreneurs understand the trade-offs associated with the prioritization of one dimension of social capital over others, and/or prioritizing the development of social capital in one supply chain segment over another.

1.4 Overview of the Dissertation

This dissertation will proceed as follows. First, Chapter 2 presents a literature review of the OSCM literature on social value creation, focusing on base-of-the-pyramid supply chains and non-profit supply chains. Next, existing work regarding the definition and differentiation of social enterprises relative to other concepts within the sustainable management literature like responsible businesses. Chapter 2 also reviews existing work about social capital theory, as that theoretical lens will be used to understand how supply chain relationships can be utilized to enhance focal organizations'

effectiveness. Finally, Chapter 2 briefly outlines how the concept of effectiveness has been applied within the OSCM literature, and its relevance to the SISC context.

Next, the first research question presented above will be addressed primarily through Chapter 3. Chapter 3 presents a framework to conceptualize the various SVCSs used by social enterprises and presents a set of propositions regarding how these strategies impact their supply chain requirements and constraints via the development of different dimensions of social capital.

Chapter 4 presents a brief methodological introduction to the two studies that accompany this dissertation: an fsQCA study and a multiple case study. This chapter will also briefly explain why qualitative methods are an appropriate fit for this area of research.

Chapter 5 presents the methodology and results of the fsQCA study which will primarily address Research Question 2 from section 1.2. This study will examine how different configurations of SVCS components and upstream and downstream social capital contribute to organizational acceptability, viability and effectiveness. The results of this study will be compared against the initial set of propositions generated in Chapter 3.

Chapter 6 then provides additional depth to the theoretical development undertaken in Chapter 3 through a multiple case study involving ten diverse social enterprises. The results of this study will be primarily used to address Research Question 1 to understand what unique challenges and constraints social enterprises face in their supply chains. The results of this study will also support further evaluation of the propositions generated in Chapter 3.

Finally, Chapter 7 will compare the findings from the two studies alongside the initial conceptual framework developed in Chapter 3 to highlight insights that are consistent across all components of the dissertation. This chapter will also discuss potential areas for future research related to the dissertation topic and discuss limitations associated with this dissertation.

2. Literature Review

To provide foundation for this dissertation, this chapter presents a review of the select areas of the literature on social impact in OSCM, social entrepreneurship and social capital theory. First, this chapter briefly reviews areas of OSCM scholarship that address social value creation, including base of the pyramid supply chains and non-profit supply chains. Second, social entrepreneurship will be defined with reference to existing body of literature. This section will also review research conducted on institutional conflict and hybridity in social enterprises. Third, this chapter will present a review existing work on social capital theory and how it has been applied to the evaluation of supply chain relationships and organizational effectiveness, as this theory will be used to inform the discussion of the differences between SVCS types presented in Chapter 3. Finally, this chapter briefly reviews applications of the concept of effectiveness within the OSCM literature to highlight its relevance to the social enterprise and SISC contexts.

2.1 Social Value Creation in the OSCM Literature

Although research on sustainable operations and supply chain management has been growing in popularity over recent decades, to date there has been limited research specifically focusing on social value creation and social entrepreneurship within the field (see Bals and Tate 2018; Longoni et al. 2019; Pullman et al. 2018). However, two areas of research within OSCM, base of the pyramid supply chains and non-profit supply chains, provide useful insight to support the study of SISCs.

2.1.1 Base of the Pyramid Supply Chains

One area of OSCM research that captures a subset of social enterprises, even when not explicitly analyzed as such, is work on base of the pyramid (BoP) supply chains. The BoP includes the majority of the world's population, all living with a per capita income of less than \$2 per day

(Prahalad and Hart 2002). In its infancy, the BoP literature, referred to now as BoP 1.0 (Schrader, Freimann, and Seuring 2012), sought to engage with the BoP as consumers, believing that choice and market access could lead to poverty alleviation while still being profitable for businesses (Prahalad, 2004). In the OSCM context, this research examined how organizations could structure and manage their supply chains or services to reach BoP consumers (Fisk et al. 2016; Gebauer et al. 2013; Ben Letaifa and Reynoso 2015; Nakata and Weidner 2012; Parmigiani and Rivera-Santos 2015; Reynoso et al. 2015), or how to develop products and services for BoP markets (Berger and Nakata 2013; Dietrich et al. 2017; Prahalad 2012; Sanchez-Barrios et al. 2015; Viswanathan and Sridharan 2012).

Critiques of BoP 1.0 (see Karnani 2007) led to the development of BoP 2.0, which focused on creating value *with* the BoP (Sanchez & Ricart, 2010) rather than capturing value *from* the BoP. This stream of BoP research includes a body of OSCM work on inclusive business models (Mason and Chakrabarti 2017; Matos and Silvestre 2013), as well as work on how to effectively include BoP producers and distributors in supply chains to support economic empowerment (Bendul, Rosca, and Pivovarova 2016; Hall and Matos 2010; Khalid and Seuring 2017; Reiner, Gold, and Hahn 2015; Rosca et al. 2019; Rosca and Bendul 2018; Sameer et al. 2017; Sodhi and Tang 2014, 2011; Zylberberg and Ezequiel 2013).

Provided that their engagement with the BoP, either as customers or supply chain partners, is driven by a desire to create some sort of social value for that population, many organizations operating in BoP markets could be considered social enterprises. However, these organizations represent a small subset of the larger social enterprise populations. Building on this body of research, this dissertation differentiates between key characteristics of the SVCSs underlying BoP

business models to highlight their supply chain consequences. In doing so, it identifies situations where insights from BoP supply chains can be applied in the context of other social enterprises.

2.1.2 Non-Profit Organizations

Despite the lack of OSCM research on social enterprises as a population, non-profit organizations have been included in several OSCM studies. One stream examines non-profits as focal organizations (see Gualandris and Klassen 2018; LeMay, Dwyer, and M. Helms 2018; Pagell, Fugate, and Flynn 2018). Some of this work is also situated in the sub-field of transformative service research, which bridges service management and marketing, and examines how organizations can co-create “uplifting changes and improvements in the well-being of consumer entities” (Anderson et al. 2013:1204). Though transformative service organizations are not always non-profits, many non-profits seek transformative change as their key mission, either at a systemic level (Gualandris and Klassen 2018) or individual level (Dietrich et al. 2017; Sanchez-Barrios et al. 2015). While this research may be useful in understanding social flows in SISCs, they lack the commercial dimension of social entrepreneurship, and may not reflect the tensions expected in SISCs.

A second stream of research examines the role non-profit organizations play as collaborators in commercial supply chains (Alvarez, Pilbeam, and Wilding 2010; Johnson et al. 2018; Rodriguez et al. 2016; Rodríguez, Giménez, and Arenas 2016). Here, non-profits are not the focal actor, but instead support a commercial organization in achieving a particular sustainability goal within their supply chain. While this work is helpful in understanding the presence of institutional tension within a single supply chain, these supply chains are not purpose-built for social impact, and may instead be managed to reduce harm rather than maximize social value creation.

Finally, non-profit organizations are well represented within the humanitarian logistics stream, however these activities still lack the commercial dimension of social entrepreneurship and are often project-based and short-term, rather than durable supply chains with on-going interactions.

2.2 Social Entrepreneurship

The definition of SISCAM coined by Pullman et al. (2018) specifies that SISCAM refers to the supply chain management practices employed by social enterprises. For this reason, it is important to clearly define the concept of social enterprises and social entrepreneurship.

Social enterprises have long existed in practice and as a concept in the management literature, yet the definition of what constitutes a social enterprise is contested (Galera and Borzaga 2009; Saebi, Foss, and Linder 2019). A common characteristic in all definitions is the pursuit of social value creation as a core goal of the organization (Galera and Borzaga 2009; Haigh and Hoffman 2012; Saebi et al. 2019). Where these definitions vary is in the role of profit. Some social entrepreneurship scholars use a narrow definition that limits the field only to organizations that do not distribute profits (Peredo and McLean 2006), while others allow profit distribution as long as the organization presses a transformative social ambition (Mair, Battilana, and Cardenas 2012:353). Additionally, Galera and Borgaza (2009) have identified regional differences in the conceptualization of social enterprises and social entrepreneurship. The European perspective generally considers social and commercial activities to occur simultaneously and within the same organizational setting. In contrast, the North American perspective suggests a greater distinction between the social and commercial activities.

Sodhi and Tang (2014) contributed to the social entrepreneurship literature in part through their differentiation of 'social enterprises' from 'social businesses'. 'Social enterprises' are defined

as organizations where the joint pursuit of profits and social benefits are included in all activities of the firm. In contrast, ‘social businesses’ are the result of established companies marginally integrating some dimensions of social business models into their existing work, akin to conventional corporate social responsibility. The distinction made by Sodhi and Tang (2014), which rests on the extent of the integration of social goals into the organization as a whole, is also a way to understand how social enterprises differ from even the most socially responsible conventional commercial organizations. Broadly, social responsibility reflects the integration of a social consciousness into conventional commercial activities, whereas social enterprises take this integration further, as they are explicitly created with a social mission at their core and simply use commercial activities as a means to achieve that mission. A socially responsible supply chain is not an SISC unless the creation of a particular type of social value is the underlying goal of the supply chain. For example, a supply chain that uses only Fair-Trade Certified goods may be a socially responsible supply chain but is not an SISC without a clearly articulated social mission that the supply chain is facilitating. Thus, this dissertation does not supply chains where conventional commercial organizations are the focal organization, even if they are considered socially responsible and may create positive externalities.

Based on all of the above conceptions of social entrepreneurship drawn from the literature, it is important to clarify the role that social value creation plays in the organization. To distinguish between purely for-profit commercial activities that are undertaken in a socially responsible way from mission-driven social entrepreneurship, social entrepreneurship is defined in this dissertation as processes *explicitly initiated* to pursue a particular social outcome through the application of commercial activities. With regard to the conflicts within the literature over the role of profits in

social enterprises, the definition applied here intentionally avoids excluding organizations on the basis of whether they distribute, donate or re-invest their profits.

2.2.1 Tension and Hybridity in Social Entrepreneurship

Social enterprises notably share characteristics with both commercial and non-profit organizations and are often referred to as hybrid organizations (Battilana and Lee 2014; Doherty, Haugh, and Lyon 2014; Haigh and Hoffman 2012) due to the presence of multiple institutional logics within the same organization. Institutional logics refer to the taken-for-granted assumptions and norms regarding what organizational objectives are legitimate and how they should be pursued (Battilana and Dorado 2010:1420). What this means for social enterprises is that the presence of multiple institutional logics, which has been strongly linked to the types of practices organizations choose to employ (Greenwood et al. 2009), can lead to conflicting norms and expectations that create tension within the organization. This is in addition to tension the organization may experience from the multiplicity of institutional logics that already exist within a field or geographic region (Greenwood et al. 2009). The existing literature on hybridity in social enterprises indicates several dimensions of organizational life where hybridity is expected to create tensions, as well as how these tensions can be mitigated through managerial practice (see Appendix A for summary table).

This section will briefly summarize the challenges faced by hybrids, as well as the practices hybrid organizations can employ to mitigate their effects.

INTERNAL TENSIONS — The existing literature on challenges and tensions faced by hybrid organizations distinguishes between internal tensions and external tensions. Among internal tensions are issues like difficulty maintaining hybridity over time through both a failure to cultivate a coherent organizational identity (Battilana and Dorado 2010; Battilana and Lee 2014), difficulty pursuing dual objectives (Ebrahim, Battilana, and Mair 2014), or through mission

drift (Battilana and Lee 2014; Ebrahim et al. 2014; Haigh and Hoffman 2012). Hockerts (2015) presents the metaphor of antagonistic assets, meaning assets that reduce performance when combined, to better understand how tensions in hybrids emerge and how they can be managed. Smith, Gonin and Besharov (2013) present a categorization of some of the challenges and tensions hybrid organizations like social enterprises face. They suggest four main types of tension: performing, organizing, belonging and learning. These tensions emerge from conflicting outcomes, conflicting internal dynamics, conflicting identities and conflicting trajectories, respectively. Although some of these tensions, like performing tensions due to conflicting goals, may be related to external factors, the types of tension they describe are primarily felt within the organization itself.

The importance of the link between individual and organizational identities was highlighted in past work by Battilana, Dorado and Lee (2010; 2014). In social enterprises, employees may be joining the organization from backgrounds that may be more closely linked to either commercial or social logics (Battilana and Lee 2014). This can create conflict between employees as well as a lack of organizational commitment. Social enterprises can foster commitment to their social mission through early emphasis on the organization's social mission, also called "social imprinting" (Battilana et al. 2015). However, the tension that emerges as a result of social imprinting is that increased emphasis on the organization's social mission contributed to diminished financial performance, which in turn decreased social value creation (Battilana et al. 2015).

EXTERNAL TENSIONS — Social enterprises' experiences of external tension are often related to difficulty achieving legitimacy within their field due to their failure to conform to institutional norms in legal structure, operations or objectives (Battilana and Lee 2014; Pache and

Santos 2013). These tensions can put social enterprises at odds with their customers, who may heavily scrutinize their work and integrity, with stakeholders (Ebrahim et al. 2014) other institutional gatekeepers or competitors (Battilana and Lee 2014; Haigh and Hoffman 2012).

In a broad presentation of the nature and characteristics of hybrid organizations, Haigh and Hoffman (2012) outlined five major challenges that hybrid organizations face, three of which were related to external factors. The first challenge results from the desire of hybrid organizations to engage in institutional entrepreneurship to promote their methods and mission. In seeking institutional change within a field, these organizations may decrease their competitiveness through openly sharing their practices. While this behaviour serves their social mission, it may undermine their financial sustainability. Their second challenge, competing with dominant market players, arises naturally from the former challenge. As hybrid organizations become more successful, their transparency allows their competitors, including large market leaders, to mimic some of their practices and offerings without requiring a full change to their business model to be more socially minded over the long term. Third, successful hybrid organizations, they argue, are at a high risk for acquisition. While joining with a large company may encourage the parent company to change their practices for the better, it may threaten the hybrid's autonomy. In expanding the unit of analysis from a single organization to their relationships across their supply chain, investigating SISCs will reveal the ways that these challenges can be exacerbated or mitigated through careful supply chain relationship management.

HYBRIDITY-SUPPORTING PRACTICES — Battilana and Dorado (2010:1420) assessed how 'new hybrid' organizations (meaning those with a combination of institutional logics that have not been applied together by other organizations) have difficulty maintaining their hybridity over time. The loss of hybridity may in turn lead to a weakening of the centrality of one

institutional logic relative to another. For social enterprises their ability to maintain logics that support their financial sustainability and social mission is paramount. Battilana and Dorado's research investigated how organizations can increase their likelihood of surviving and maintaining hybridity through appropriate employee hiring practices. Using two in-depth case studies, they found that an important determinant of an organization's ability to maintain its hybridity over time was the socializability of their employees. Socializability refers to their employees' ability to collectively form an institutional identity based on the means the organization would use to achieve its objectives (Battilana and Dorado 2010). By hiring employees without significant experience in either finance or development (two institutional logics applied in one of their cases), the organization was better able to create a new shared identity that prevented institutional conflict within the organization.

Pullman et al. (2018) discussed this socializability in the context of SISCs, highlighting the practice observed in some SISCs of initiating relationships with supply chain partners based on shared commitment to their social mission. The literature also supports selective and strategic partnering as a way to manage tension in social enterprises. Pache and Santos (2013) found that social enterprises with a commercial background managed legitimacy threats through strategic partnering with high-reputation social organizations. Therefore, evaluation of partner socializability may be an important process in early stages of supply chain formation as the presence of a shared supply chain identity has been linked to competitive advantage via trust and power (Ireland and Webb 2007).

The literature on institutional theory predicts that either decoupling or compromise should be the primary organizational response to conflicting institutional logics (Pache and Santos 2013). Decoupling social responsibilities from economic responsibilities was suggested by Battilana et

al. (2015) as a way to prevent diminished financial performance resulting from social imprinting in social enterprises. However, while they suggested decoupling of action, decision-making was to be integrated through the use of “spaces of negotiation” where organization members could meet and discuss the tensions they faced and come to an agreement about major decisions. Hockerts (2015) takes this decoupling recommendation even further, suggesting that commercial organizations may be better off partnering with hybrid organizations and fully decoupling social and commercial activities as a way to prevent tension arising from antagonistic assets. Mair, Mayer and Lutz (2015) also found that decoupling was a common practice, noting that many social enterprises demonstrate a clear orientation towards social or commercial logics in their structures and practices, complying with only a subset of elements of the remaining logic.

Pache & Santos (2013) found evidence that successful social enterprises actually engage in selective coupling of practices sanctioned by multiple institutional logics to mitigate the effects of conflict. Selective coupling refers to the organization’s decision to strategically balance elements of both commercial demands and social demands across both their formal and operational structures (Pache and Santos 2013:986). Mair et al. (2015) also identified this pattern of selective coupling in their “dissenting hybrids”, who use innovation to create a balanced organizational structure drawing from commercial and social logics. Battilana and Lee (2014) similarly found that organizations whose core activities closely integrated elements of commercial and social welfare logics were better able to have their legitimacy recognized across multiple institutional audiences. They note that organizational design affects where within the organization tensions between institutions are experienced and resolved. In the context of SISCs, this suggests that supply chain design may affect how the focal organization and their partners experience the tension

between their social goals and financial goals. For this reason, it is important to understand how SISCs should be structured to mitigate the effects of institutional tensions.

Social entrepreneurship researchers have also examined the fluidity of the legal structure of hybrid organizations. Haigh, Kennedy and Walker (2015) studied how social enterprises determine their initial legal structure and what drives changes to legal structures over time. They found that two of the most frequently cited drivers for legal structure changes were related to flexibility. Social enterprises may alter their legal structure in order to adapt to changing funding circumstances, partnership opportunities or reorient themselves to prevent mission drift. This dynamic perspective for social enterprise structure suggests that changing external circumstances (i.e., funding and partnership opportunities) and changing internal characteristics (i.e., orientation towards social mission) may affect the structure and management of SISCs across the life cycle of the supply chain.

The significance of the fluidity of social enterprise legal structures is made more interesting in light of Pache and Santos' (2013) research on strategic coupling. They found, surprisingly, that organizations who had their origins in the commercial sector incorporated more demands from the social sector into their structures than those originating from the social sector, which tended to use a more balanced approach. How do organizations apply selective coupling in light of changing legal structures based on their original institutional foundation?

Together, all of the above literature highlights the ways in which the presence of both social and commercial logics within an organization creates tensions and opportunities. The studies discussed in this chapter have focused their attention largely on social enterprises as the primary unit of analysis. This dissertation aims to build on this body of literature by extending the analysis outwards to understand how hybridity in a focal organization affects the structure of its supply

chain, the nature and management of their supply chain relationships. In doing so, these findings will reveal how supply chain management decisions can be strategically made in light of institutional hybridity to support the focal organization's social and financial performance.

2.3 Social Capital Theory

Social capital theory emphasizes the benefits that can be accrued using resources accessed through relationships (Nahapiet and Ghoshal 1998). Specifically, social capital is defined as the goodwill available to an actor in the form of information, influence and solidarity made available to the actor through the structure and content of their social relationships (Adler and Kwon 2002). Social capital, like other forms of capital is appropriable and convertible, allowing it to be used for other purposes beyond the initial goals of the relationship in which the capital is generated (Adler and Kwon 2002). Additionally, social capital is not capable of being singularly owned by one actor in a partnership and instead inherent to the relationship between the actors, and thus accessible to all actors (Nahapiet and Ghoshal 1998). In the supply chain context, social identification with the supply chain itself was suggested to contribute to increased social capital within the supply chain, supporting increased information and resource sharing, as well as collaboration (Min, Kim, and Chen 2008).

Social capital was posited by Nahapiet and Ghoshal (1998) as a multi-dimensional construct, consisting of three elements: cognitive capital, relational capital and structural capital. Each of these three elements are presented in detail in the subsequent sections.

2.3.1 Cognitive Capital

Cognitive capital includes elements like shared norms and goals, which support the integration of new information within supply chain relationship by facilitating the development of shared frames (Cai and Yang 2008). It also captures the extent to which shared norms are used to govern the

relationship (Inkpen and Tsang 2005). Cognitive capital can increase the efficiency of supply chain interactions, as it builds a common understanding of expectations of key outcomes and patterns of interaction that become self-reinforcing (Krause, Handfield, and Tyler 2007). When partners have more similar business goals, culture and strategy, they may be better able to maintain long-term partnerships (Fang et al. 2008). This compatibility can then support the development of relational capital in the future (Min et al. 2008). Together, this can improve the cost, quality, delivery and flexibility performance of the supply chain (Krause et al. 2007).

One element of cognitive capital is the development of a shared understanding of what parties can expect when working together. Hughes and Perrons (2011) suggest that development of shared expectations can help to buffer the negative consequences that can arise when a relationship is terminated, preserving social capital. Cognitive capital, in the form of shared expectations, is positively associated with relationships that are longer and involve more frequent transactions (Cai and Yang 2008). These cooperative norms are also more likely to emerge where supply relationships are more important and there are few alternatives, as well as when there is more uncertainty within the wider environment (Cai and Yang 2008).

In the social entrepreneurship context, cognitive capital can play an important role in enhancing the efficiency and cooperation of fair-trade organizations, as an example. A key element to the successful functioning of the fair-trade movement is cooperation across the entire supply chain to ensure that ultimately farmers and agricultural workers involved in the production of certified products receive appropriate compensation for their work. To accomplish this goal, all supply chain actors including consumers, wholesalers and distributors must understand how their actions and financial decisions within the supply chain contribute to the compensation and work conditions of farmers and agricultural workers. This can be achieved through the development of

shared frames and narratives about the fair-trade movement and how that particular supply chain operates within the larger social movement.

An example of cognitive capital in action is Coop Coffees, a green coffee importing cooperative. Their membership comprises 23 coffee roasters and 24 coffee producer partners, most of which are cooperatives themselves. (Coop Coffees 2020). The organization was created to help values-based roasters achieve economies of scale in the importation of fairly traded coffee beans into North America, and thus all members share a commitment to the values associated with the fair-trade movement. The cooperative has clearly defined and documented practices and procedures so all members, both roasters and producers, understand the routines of interaction and the goals of the organization (Coop Coffees 2020). This shared understanding represents a form of cognitive capital which helps the cooperative function efficiently and ensure consistent application of practices that support their mission.

2.3.2 Relational Capital

Relational capital is present when parties experience trust, familiarity and identification with each other, meaning that the values and standards of one party are taken on as the frame of reference by the other (Ataseven, Nair, and Ferguson 2018; Nahapiet and Ghoshal 1998). This form of capital at the organizational level is often thought of as a representation of the trust built between individual members of each organization involved in the partnership (Kale, Singh, and Perlmutter 2000). Often, relational capital is simplified to be understood as the history of interaction between organizational partners within a relationship in the form of repeated ties (Krause et al. 2007). Relational capital has been shown to be increased by supplier integration and closeness in the form of repeated interactions at multiple level of the organizations (Lawson, Tyler, and Cousins 2008).

One way that relational capital benefits organizations is that trust, understanding and extensive knowledge of partner activities allows an organization to recognize where within the partner organization potentially useful information may reside, and increase their ability to access that information (Kale et al. 2000). Furthermore, repeated interactions can help improve the problem-solving abilities within the partnerships and ultimately lead to cost reductions (Krause et al. 2007). Finally, trust has also been shown to support innovation within partnerships (Uzzi 1997).

Relational capital has been described by Tsai and Ghoshal (1998) in terms of the trust present in a relationship between actors, as well as the trustworthiness of each individual actor. For social enterprises supporting underserved communities, the trustworthiness of the organization will play a significant role in their ability to achieve their social mission. These organizations may be working within a social and historical context where beneficiaries have been systematically excluded or exploited in ways that may make them hesitant to engage with businesses, particularly those from outside of their immediate community. Through the development of relational capital with beneficiaries, social enterprises can increase their trustworthiness which will enable them to achieve their social mission more efficiently and may support future improvements to their business model through increased information access (Kale et al. 2000).

2.3.3 Structural Capital

Structural capital is represented in the architecture of the supply chain, including the strength and density of ties between the various actors in the network (Nahapiet and Ghoshal 1998). Granovetter suggests that strong ties are necessary for social cohesion, whereas weak ties, which connect diverse networks, support mobility and integration into a community. Within the structural capital literature, a similar distinction has arisen between bonding ties and bridging ties, meaning repeated ties within the same network compared to those connecting actors from outside the network (Adler

and Kwon 2002). Bridging ties, which work to increase the compositional diversity of the network, are also associated with success in social movements and coalitions (Katz and Anheier 2006). Furthermore, an awareness of a supplier's structural embeddedness within their own network may improve a buyer's operational, financial and supply management performance (Choi and Kim 2008).

Various measures of structural capital have been examined in the context of conventional commercial supply chains. Bellamy, Ghosh and Hora (2014) found that accessibility, referring to the speed and effectiveness of knowledge transfer, was significantly related to the focal firm's innovation output. They found some evidence that this relationship is strengthened by the interconnectedness of various actors within the network. Alternatively, some suggest that structural capital may have negative consequences, like increasing an organization's resistance to change due to the presence of embedded relationships (Geels 2004).

In addition to increased access to information and material or financial resources, structural capital is also suggested to support an organization's socio-political legitimacy through linkages to accepted actors within their field, signaling conformity to institutional norms (Hager, Galaskiewicz, and Larson 2004). The sociological and social movement literature recognizes the importance of network structure in the development of social movements (Katz and Anheier 2006). For social enterprises then, network structure may be an important determinant of their ability to build social, as well as financial support for their operations. For example, social enterprises trying to serve unfamiliar beneficiary communities may build relationships with organizations that have existing service relationships with this population, who may be able to lend legitimacy to the focal social enterprise to increase the willingness of beneficiaries to engage with their services.

Structural capital is treated by some as a foundation for cognitive and relational capital, as the ties must first be present in order to facilitate the development of other benefits (Collins and Hitt 2006). For example, much of the social capital literature suggests that social capital increases in a linear fashion as the strength of a tie increases. However, Hughes and Perrons (2011) found that tie strength must be considered alongside time and investments firms make in achieving a certain return over that time period. They suggest that ties are not static but are instead iterated over repeated periods of strong or weak interactions. They also find that different types of relationships (e.g., R&D, suppliers of key components, supplier of more commoditized components) will also have differing social capital properties that vary over time.

2.3.4 Costs of Social Capital

As described in the preceding sections, different dimensions or forms of social capital can be fostered within inter-organizational relationships to serve particular purposes for one or more partners. However, dimensions of capital that are beneficial for one purpose may have a negative impact on other desired outcomes (Nahapiet and Ghoshal 1998). This consideration is important, as the development of social capital is resource intensive, and thus actors must consider the opportunity costs associated with social capital development investments relative to other types of investments into their operations (Adler and Kwon 2002).

An additional risk associated with social capital is related to how the value of particular ties may change over time as the needs of an organization evolve. Hughes and Perrons (2011) work examined how social capital within a specific supply chain evolved as the focal organization was undergoing significant product innovation. One of their key findings was that investments in social capital are risky because that capital is only valuable in the context of the technology the

relationship provides. As the product technological requirements evolve, the focal organization needs to form entirely new ties and sacrifice old ties.

Although relational capital has been shown to benefit strategic and operational performance, beyond certain levels, relational capital can decrease performance due to increased risks of opportunism and a loss of objectivity regarding relationships (Villena, Revilla, and Choi 2011), an over-embedding in the relationship (Adler and Kwon 2002). Networks characterized by strong ties may also become overly insular, reducing the ability of member organizations to collaborate with new partners or adapt to changing market conditions (Capaldo 2007).

Through the development of shared norm and expectations, investments in cognitive capital may have the unintended consequences of creating obligations and dependence within the relationship that may work against the interests of the actors within the relationship (Inkpen and Tsang 2005). This can take the form of opportunism or a willingness of one or more actors in the relationship to avoid experimentation outside the network that may yield new benefits within the network (Inkpen and Tsang 2005). Furthermore, norm violation in the context of deeply embedded relationships within a larger network may present additional risk to violating organizations in the form of collective sanctions applied by multiple actors in the network (Lin 2006).

2.3.5 Measuring Social Capital

Despite social capital theory's widespread use over the last 20 years, the measurement of its dimensions is not entirely consistent. One obvious area of inconsistency within the social capital literature is the application of tie strength as a reflection of some dimension of social capital. An oft-cited work in the discussion of social capital is Granovetter's (1973) work on strong and weak ties within networks. In this work, tie strength is defined in terms of the duration, intensity, intimacy and reciprocity within a certain relationship. The positive value that strong ties can have

in connecting organizations with resources is an accepted fact in the literature. What is less obvious, given the multiple adoptions of tie strength in OSCM studies, is under which dimension of social capital does it belong — structural or relational capital. In reality the central question becomes *does tie strength tell us something about the configuration of a network, or the quality of relationships within a network?*

Although the definition of structural capital proposed by Nahapiet and Ghoshal (1998) emphasizes objective characteristics of the network, its operationalization varies widely (Table 1). In some work, structural capital is used to emphasize the depth of integration or embeddedness within the relationship, in the form of the frequency of communication or shared activities between partners (Lawson et al. 2008), referred to as the “social interaction ties” (Carey, Lawson, and Krause 2011; Tsai and Ghoshal 1998). Some studies investigating structural capital focus predominately on the frequency of information exchange as an indicator of structural social capital within a relationship (Krause et al. 2007). Yet, relational capital is also sometimes defined in terms of the frequency and intensity of interactions within a particular network (e.g. Carey et al. 2011; Zhu and Lai 2019).

Table 1. OSCM application of tie strength by social capital dimensions

Structural Capital	Relational Capital
<ul style="list-style-type: none"> • Carey, Lawson, Krause (2011) • Krause, Handfield & Tyler (2007) • Lee (2015) • Matthews & Marzec (2012) • Roden & Lawson (2014) • Son, Kocabasoglu-Hillmer, Rodan (2016) • Villena, Revilla & Choi (2011) 	<ul style="list-style-type: none"> • Autry & Griffis (2008) • Fan & Stevenson (2018) • Johnson, Dooley, Hyatt and Hutson (2018) • Kim (2014) • Lawson, Tyler, Cousins (2008) • Polyviou, Croxton & Knemeyer (2019) • Swierczek (2019) • Zhu & Lai (2019)

In this dissertation, the adopted operationalization of structural capital emphasizes objective characteristics of network, independent of the actual interactions between network

members. This excludes measures like interaction frequency, which are usually associated with the concept of relational capital. This distinction is important because of the need to avoid conflating structural and relational dimensions of social capital by overemphasizing tie strength as a universally positive structural characteristic of networks, while also de-emphasizing the objective structural characteristics of the network that enable or inhibit the development of certain types of ties.

As described above, tie strength was initially defined by Granovetter (1973) in predominately relational terms: duration, intimacy, reciprocity, intensity. All of these characteristics can be intuitively related to trust, which is itself a signal of relational capital. As this operationalization of tie strength persisted, it is then unsurprising to see later work identifying structural capital as a driver of relational capital (e.g. Tsai and Ghoshal 1998). For example, Roden and Lawson (2014) measure structural capital with items including whether or not organizational partners conduct joint events, workshops and team-building exercises with their partners. Given that team-building exercises, as an example, are often conducted explicitly to build trust and friendship, it is unsurprising that this measure of structural capital is positively related to relational capital, although this particular relationship was not in and of itself a topic of interest within their study. If structural capital continues to be measured in terms of behaviours like joint social events (Roden and Lawson 2014), engagement in supplier development activities (Krause et al. 2007), it may become more difficult to see what objective network features enhance focal organization performance, beyond simply enabling or encouraging the development of strong ties associated with relational capital. A risk of continuing this operationalization of structural capital as strong ties is obscuring network structures that in and of themselves constitute a source of a capital for an organization, regardless of the nature of the relationships embedded within those networks.

2.3.6 Applications of Social Capital Theory

Given social capital theory's emphasis on networks, ties and relationships, supply chain management is a very relevant context for its application. At their core, supply chains are networks made of a series of ties of varying strengths and configurations, requiring some degree of interaction between two or more organizations, and by extension, the individual employees that these organizations. In the development and management of supply chains, managers make a number of decisions regarding the network layout, the importance of one supply chain partner relative to another and determinations about the procedure and tone underlying communication and collaboration with partners. Each of these decisions should be made strategically with an understanding of how they will affect the social capital contained within the supply chain as a whole.

Examination of social capital in the supply chain context was predominately limited to buyer-supplier trust until the mid-2000s (Lawson et al. 2008). For example, Cousins et al. (2006) use social capital interchangeably with relational capital. The SCM literature had long recognized the potential for unique resources embedded in supply chain relationships, but questions related to relational resources were typically examined using the relational view of the firm (Dyer and Singh 1998). Where the relational view focuses on the characteristics of relational resources that can lead to competitive advantage, social capital theory attempts to identify relationship characteristics that make them more conducive to the development of unique relational resources. Eventually, the multidimensional perspective of social capital made its way into SCM research. In 2007, Krause, Handfield and Tyler examine all three dimensions of social capital explicitly, recognizing that a significant body of empirical SCM work had previously looked at individual outcomes associated with social capital (e.g., trust, information sharing, shared norms) without considering their co-occurrence or how these desirable outcomes can be achieved simultaneously.

As was the case with the SCM literature, individual indicators of social capital (e.g., structural embeddedness, network centrality, opportunities for collaboration) were examined in the NGO literature without being contextualized alongside other dimensions of social capital. For example, characteristics of network structures like density and centrality have long been used in the context of global NGOs and humanitarian operations (e.g. Moore, Daniel, and Eng 2003). Trust, often treated as analogous to relational capital, has also been identified as an important determinant of success for NGOs and social enterprises, particularly those operating in base of the pyramid communities (Esposito, Kapoor, and Goyal 2012; Pervez et al. 2013; Singh, Bakshi, and Mishra 2015). The usefulness of repeated interactions in cross-sectoral collaborations as a way to facilitate trust has also been discussed (Gazley 2010). Finally, some work on the charitable sector has discussed the importance of shared norms (cognitive capital) in facilitating or hindering collaborations between charitable organizations (Jones et al. 2017; Romzek et al. 2014). Explicit references to social capital in the NGO or charitable sector often emphasizes the role non-profits play in increasing the social capital of their beneficiaries (Buckland 1998) or enhance the social capital of corporate partners (Rodríguez et al. 2016), rather than how NGOs themselves can accrue benefits from social capital.

Supply chain development requires that social enterprises undertake a wide range of activities from identifying and evaluating potential suppliers to initiating, formalizing and maintaining their interactions. The way that they undertake these activities will both affect and be affected by different dimensions of social capital possessed by the organization, as identified by the task contingencies perspective of social capital (Adler and Kwon 2002). In turn, these dimensions of social capital will impact a social enterprise's ability to successfully implement its planned social value creation strategy.

2.4 Effectiveness in OSCM

Organizational effectiveness is the primary outcome of interest for the second research question of this dissertation. Effectiveness is a common outcome of interest in OSCM studies; however, its definition and operationalization vary in the literature. The challenge of measuring effectiveness has long been recognized, as the specific criteria best used to measure effectiveness is contextual, and driven by the preferences and goals of individuals (Cameron 1986).

Cameron (1986) summarizes eight models of effectiveness, differentiated based on contexts where they would be most useful and the basis of effectiveness evaluations used in each. The goal model, for example, understands effectiveness generally as the organization's ability to achieve its stated goals, whereas the legitimacy model understands an organization to be effective when it is able to survive as a result of engaging in legitimate activity. Unsurprisingly, these models have different thresholds for what constitutes effectiveness (e.g., survival, absence of obvious faults, excellence relative to competitors) and differ in which stakeholder perspective (e.g., resource providers, internal perspective, customer perspective) is prioritized as the key unit of analysis. More recently, Upadhaya, Munir and Blount (2014) provide an excellent summary of organizational effectiveness conceptualizations and various measures used to capture it when introducing their study on the relationship between performance measurement systems and organizational effectiveness.

Based on a review of the literature, one common operationalization of organizational effectiveness is based on an organization's ability to excel in terms of competitive priorities of cost, quality, delivery and flexibility (Pagell et al. 2015). Other operationalizations link effectiveness to specific desired performance outcomes, like productivity, customer satisfaction and market performance (Elmuti 2002). In other research, effectiveness is understood broadly as whether a specific practice, policy or set of activities lead to the desired outcome (e.g. Petersen,

Ragatz, and Monczka 2005; Tucker and Singer 2015). Although this operationalization is intuitive, it does not lend itself to the development of indicators that facilitate easy comparison between organizations, as the scope is limited to desired outcomes that may be unique to that organization. Finally, effectiveness is often conflated with efficiency in the OSCM context, as noted by Zelbst et al. (2012).

While some of the effectiveness measures from the OSCM literature described are still relevant in the social entrepreneurship context, indicators that are overly focused on operational or financial performance only provide part of the picture. This is because social enterprises by nature pursue specific social outcomes alongside running a viable or profitable commercial operation. A degree of profitability is a necessary condition for a social enterprise to operate long-term, and thus is undoubtedly a part of effectiveness. However, for non-profit social enterprises, the financial goal may be simply to break even, rather than maximize profit. Thus, financial measures of effectiveness like market share and revenue growth may not be relevant to their continued operations. Similarly, social enterprises cannot truly consider themselves effective if there is no evidence that indicates they are creating social value for their intended beneficiaries. Thus, effectiveness measures for social enterprises must reflect both their financial viability as well as their societal impact.

As stated in Chapter 1, the definition of effectiveness used in this dissertation is adapted from the work of Sydow and Windeler (1998). By this definition, effectiveness refers to the *viability* and *acceptability* of organizational practices and outcomes in the light of system requirements and powerful stakeholders. Their work emphasizes effectiveness as a social construct and investigates how the concept of effectiveness is created through the meaning ascribed to the various economic criteria used to evaluate effectiveness. Like Cameron (1986), they highlight how

selection and interpretation of effectiveness criteria is not objective, but instead reflect particular interests and values that are then reproduced by individuals and organizations (Sydow and Windeler 1998:272). As networks like supply chains are made up of multiple organizations and actors with differing, or perhaps even competing interests, establishing effectiveness criteria that is mutually agreed upon is a difficult endeavor. This definition of effectiveness recognizes that for the supply chain to operate successfully, its outcomes and processes must be managed in a way secures the support or at least compliance of all actors in the chain. Importantly, it also recognizes that actors within the supply chain may differ in their ability to influence how effectiveness is evaluated.

3. Social Value Creation Strategies

To address this dissertation's first research question, this chapter presents a comprehensive framework of social value creation strategies (SVCSs) that supports the development of a SVCS typology and describes the supply chain management constraints and opportunities social enterprises may encounter based on the strategy they employ. Typologies are a useful way to clarify the theoretically significant differences between structures of organizations, strategies, or in this case, supply chains. At their best, typologies support the development of theoretically relevant distinctions between different structures that are empirically testable and based on criteria that are conceptually related (Lejeune and Yakova 2005). Within this chapter, the typology is applied to develop a set of propositions regarding social capital, supply chain management practices and effectiveness in social impact supply chains (SISCs) based on the focal organization's SVCS.

The goals embedded in the focal organization's SVCS are executed through the SISC operations. Thus, the effectiveness of the focal organization is dependent on its ability to align the structure and management of the SISC with its SVCS. Recognizing that focal organization effectiveness is determined by both the viability of the SISC processes and outcomes, as well as their acceptability in the eyes of stakeholders internal and external to the SISC (Sydow and Windeler 1998), these propositions differentiate between ways that various social capital dimensions may contribute to focal organization effectiveness. These propositions will be refined through the empirical studies described in Chapter 4 (Prologue to Empirical Studies), the findings of which are presented in Chapter 5 (Qualitative Comparative Analysis) and Chapter 6 (Multiple Case Study).

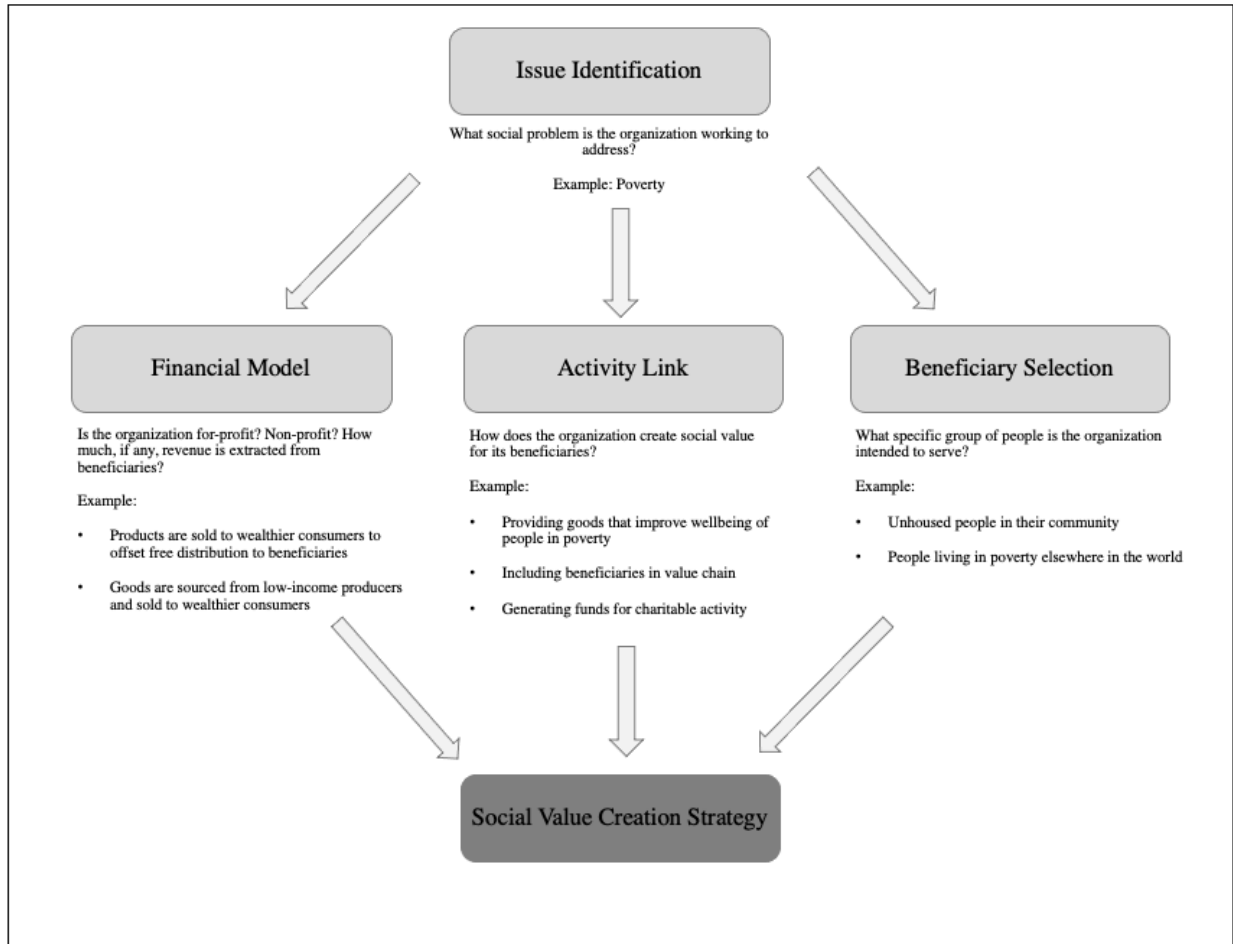


Figure 1. Key decisions in social value creation strategy formation

There are several key decisions underlying an organization’s SVCS (see Figure 1). One of these is the determination of what primary social issue the organization intends to address (e.g., food security, poverty, education, health). This initial decision will guide the organization’s SVCS development. They also have to determine who they are trying to create social value for (i.e., their beneficiaries). Additionally, they must decide what operational, design or financial mechanisms they will use to generate their desired social value. Finally, they must decide what their formal organizational and legal structure will be (e.g., for-profit, non-profit, registered charity) and to what degree revenues will be extracted from their chosen beneficiaries. Based on the above

considerations, an organization's social value creation strategy is defined as the combination of who it was designed to serve and how it supports value creation for that target beneficiary group using both its profits and/or day-to-day activities. The interaction of these three components of the SVCS will not only determine how the organization goes about achieving its social mission, but also what challenges and constraints the organization may face in its supply chain. Importantly, these components may lead to conflicting needs and opportunities within the supply chain that social enterprises will need to navigate in order to achieve viability and maintain their acceptability.

3.1 Financial Model

When considering the relationship between an organization's profits and its potential for social value creation, it is important to understand not only how much of that organization's profits are reallocated to social value creation, but also how the reallocated funds are used to support social value creation. In the context of non-profit organizations, 'profits' will be understood to mean the degree to which revenues from all sources exceed costs. For the purposes of this dissertation, an organization's financial model is understood as how, if at all, an organization primarily uses its profits to increase its impact. The financial model has three forms: external distribution, internal impact investment and philanthropy (see Figure 2). While many social enterprises may use a combination of these three practices, it is expected that one of these practices will be predominant for each organization, even if they choose to apply multiple practices to enhance their social value creation.

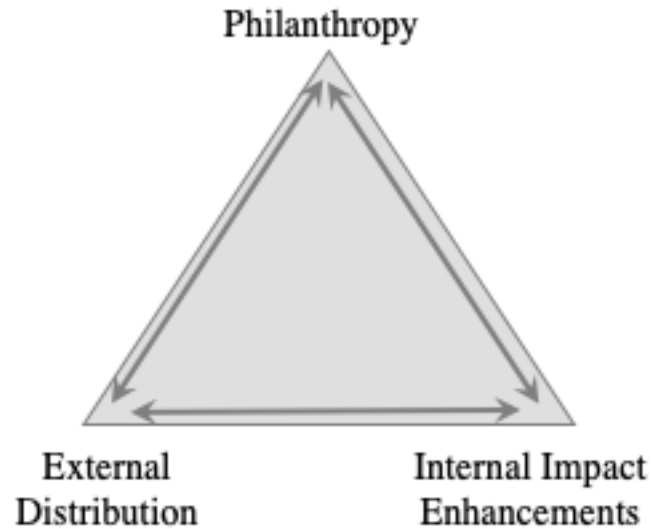


Figure 2. Financial model

Organizations with an ‘external distribution’ financial model are those who do not strategically use their profits to increase their impact. While corporate donations are a common element of most corporate social responsibility programs (von Schnurbein, Seele, and Lock 2016), social enterprises with an external distribution financial model typically distribute the vast majority of their profits once the organization has been successfully established. For these organizations, increased profitability does not inherently mean that the organization’s impact will increase.

The second model, ‘internal investment’, captures organizations whose profits are largely reinvested into the organization to enhance its capacity for social value creation. Non-profit social enterprises often have an internal investment financial model. Importantly, internal capacity investments only indirectly support social value creation, as the desired social value creation will only be realized if the investments lead to noticeable improvement in the organization’s capacity to achieve its social mission. For example, if an organization invests a portion of their profits in research and development to enhance the usefulness of a beneficiary-oriented product, additional social value will only be realized if those enhancements are implemented, and they create the

intended social benefits. One example of an organization putting this financial model into practice is D-Rev. D-Rev has a mission to “close the quality healthcare gap for underserved populations” (D-Rev, 2019) and this mission is pursued using a market-based approach. One of their products, the Brilliance LED light, is sold at cost through a partner, Phoenix Medical Systems, to critical healthcare centers as a simple and cost-effective method to treat jaundice in newborn infants. Though D-Rev sells the products to hospitals rather than donating them, they do not distribute any profits from their commercial operations. Formally, D-Rev operates as a non-profit entity and any surplus revenues are reinvested in research and development to help with the development of future products.

Finally, ‘philanthropy’ refers to whether or not revenues are extracted from beneficiaries. FINNEGANS financial model would be located towards the apex of the diagram presented in Figure 2, as the ultimate beneficiaries of their work are not the customers they sell their products to and instead, revenues generated from sales to non-beneficiary customers are redirected to their food security partners. Bals and Tate (2018:67) would describe many of the organizations in the apex as employing an ‘auxiliary financial chain model’, where a business is established for the purpose of providing funds to serve the organization’s social mission, or in the case of FINNEGANS, the social mission of another organization. This model is also commonly applied through the use of thrift stores run by non-profit organizations, which generate funds for the focal organization’s social activities. Another example of a philanthropy financial model are organizations that use one-to-one giving models, like TOMS Shoes, where a product is sold to non-beneficiary consumers and a portion of the revenues generated are used to fund either the free or subsidized distribution of the product to the end beneficiaries.

All three financial models represent ideal types. Most social enterprises will apply a combination of the above practices. However, this dissertation will focus on the primary method an organization applies its profits to increase its social impact. What is important to note about the financial model is that considered alone, it does not make any particular demands regarding the nature or management of the organization's day-to-day commercial activities. For example, FINNEGANS' founders chose to use a brewery to generate profits for social value creation based on the capabilities they already possessed, however as long as their profits remain consistent, the means used to generate those profits have no bearing on their ability to create social value and achieve their social mission. Thus, the financial model alone does not inherently affect the management of a social enterprise's supply chain. Instead, the financial model must be understood in the context of the SVCS as a whole as it affects how the organization's activity link is carried out.

3.2 Activity Link

The connection between an organization's supply chain activities and social value creation ('activity link', hereafter) can take three forms (see Figure 3). First, organizations can link their activities to social value creation by providing a product that in its use creates social value for a particular group of beneficiaries (Bals and Tate 2018). They will be referred to in this dissertation as employing a 'Provision SVCS'. Second, organizations can create social value through the meaningful inclusion of beneficiaries into their operations and/or supply chain to create positive externalities for the community (Bals and Tate 2018). They will be referred to in this dissertation as employing an 'Inclusion SVCS'. Expanding on the typology presented by Bals and Tate (2018), the SVCS framework put forward in this dissertation recognizes that some organizations will apply Provision or Inclusion activity links simultaneously, engaging beneficiary supply chain partners

to produce an offering for beneficiary customers. This will be referred to as a ‘Paired SVCS’. Finally, some organizations create social value only through the reallocation of profits (e.g., a Philanthropy financial model). Although these organizations demonstrate a commitment to social value creation through philanthropy, their behaviour will ultimately resemble a conventional commercial organization, as they experience no tension between their social mission and profitability. As this model requires no unique theorization to understand their supply chains, they are excluded from further discussion in this work.

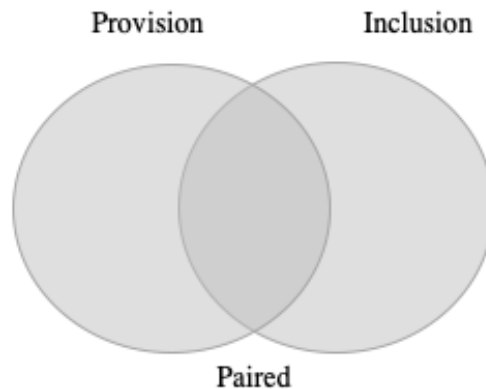


Figure 3. Activity Link

Organizations sharing the same activity link are expected to have supply chains that are more similar than organizations sharing the same beneficiary population or financial model. In fact, this dissertation will argue that organizations sharing the same activity link will have supply chains that are more similar to each other than even organizations who may work on the same issue area or with the same group of beneficiaries who have a different activity link. Thus, activity links will be treated through the remainder of this dissertation as the primary differentiator between different SVCSs. These activity links imply particular determinants of social value creation, which in turn, influence all supply chain decisions. Decisions made in the context of Provision links will be oriented towards increasing the suitability of that product for their beneficiaries, either by

improving product functionality or decreasing costs, thereby increasing its accessibility. For organizations employing Inclusion links, their supply chains will be structured to maintain or enhance core relationships with beneficiary supply chain partners and increase the extent of their inclusion, in terms of the number of beneficiaries involved or the depth of their involvement. Organizations employing Paired links will need to balance both objectives and may also need to balance value creation for multiple distinct groups of beneficiaries.

The following section of this chapter present a detailed description of each activity link using existing social enterprises as illustrations, as well as a series of accompanying propositions regarding their implications for supply chain social capital and organizational effectiveness. Financial models and beneficiary characteristics can be best understood as modifiers that will impact how an organization's activity link is carried out, and what opportunities or constraints they may face in their SISC. Additional propositions are included that describe how the effectiveness of organizations employing various activity links can be enhanced by the application of particular financial models. Subsequently, the independent effects of beneficiary selection will be evaluated in section 3.3

3.2.1 Provision SVCSs

For some theorists, social entrepreneurship *always* involves the creation of social value through the provision of a beneficial product or service (Defourny and Nyssens 2010), rather than any other means. A popular arena for innovative impact-oriented product or service design is in the provision of basic needs like energy, clean water, healthcare, and education to underserved populations. These types of activities are undertaken in both developed economies and developing economies. Organizations who create social value by providing a product or service to a particular beneficiary population and will hereafter be referred to as having a 'Provision SVCS'.

UPSTREAM SUPPLY CHAIN - Provision SVCS activities are frequently needed in regions where large-scale underdevelopment and lack of infrastructure compound failures of governments to provide these basic goods (Alvarez, Barney, and Newman 2015). Oftentimes, there is a clear reason the target market for these impact-oriented products has not been reached by conventional commercial organizations, likely related to the poor profitability of these endeavors (Battilana and Lee 2014). For this reason, organizations employing Provision SVCSs face operational constraints related to the cost-sensitivity of their customers. Therefore, to ensure their offering is financially accessible to their target beneficiaries, they must maximize the efficiency of their supply chain operations in order to reduce the price of their product as much as possible.

Another major challenge faced by organizations employing Provision SVCSs is that the unique characteristics of their target markets impose stringent requirements on product design. Organizations that serve low-income customers and operate within resource-poor environments often apply the principles of frugal innovation in their product and service design. Frugal innovation aims to produce low-cost goods by reducing complexity, removing nonessential features and using simpler materials (Zeschky, Widenmayer, and Gassmann 2011). Regardless of whether focal organizations employing Provision SVCSs produce an offering for low-income markets or more developed markets, their offering must be uniquely tailored to the social value they are trying to create and the true needs of their target beneficiaries (Tucker and Croom 2021). Organizations are required to not only fully understand the needs of their customers but be willing and able to engage in frequent prototyping, testing and product reconfiguration to develop a product that would fully serve its intended purpose and be useful and practical for its intended beneficiaries. Short design-to-manufacture cycles are a key indicator of an organization's new product flexibility (Ling-yee and Ogunmokun 2008) and predictor of their ability to perform in

turbulent environments, like rapidly-changing base of the pyramid markets (Kumar et al. 2006). These iterative design processes require responsiveness across the upstream supply chain.

The efficiency and responsiveness needed by these supply chains can be cultivated through the development of cognitive capital. Creating a shared understanding of the supply chain goals, clarifying each actor's role in achieving those goals, and developing a shared language to communicate has been shown to reduce monitoring costs and increase flexibility and agility within supply chains (Johnson, Elliott, and Drake 2013). Krause, Handfield and Tyler (2007) also identified a positive relationship between cognitive capital and buyer performance in cost, quality, delivery and flexibility. While these benefits would serve all organizations, those with Provision SVCSs may be more sensitive to cost and flexibility constraints than conventional organizations, and thus may experience a greater benefit from cognitive capital development in their upstream supply chains.

***Proposition 1.** For social enterprises employing a Provision SVCS, prioritizing the development of upstream cognitive capital will be particularly useful in achieving organizational effectiveness.*

DOWNSTREAM SUPPLY CHAIN - Many social enterprises were created to fill gaps in service provision that were created or exacerbated by the geographic isolation of their target beneficiaries. For example, most of the BoP population in Asia and Africa live in rural areas (Alur and Schoormans 2011), and are therefore geographically dispersed. While these difficulties are understood to be common in BoP markets, they also persist in isolated regions in developed economies, like in Canada's far north. Combined with poor infrastructure, like a lack of all-season roads or consistent electricity, organizations employing Provision SVCSs may experience severe difficulty distributing their products to their target beneficiaries. To reduce the strain associated with developing new logistics networks in challenging areas, focal organizations can organize their

downstream supply chains around any existing distribution networks that may exist in the area. Sodhi and Tang (2014:1489) refer to this practice as a ‘piggy-back strategy’, describing a charity that distributed their products through Coca Cola’s existing network by designing their product to fit between the bottles in shipping crates. Here, Coca Cola distributors are acting as intermediaries for the charity, by facilitating the transaction between the charity and its beneficiaries (Kistruck et al. 2013). In doing so, they are reducing the distribution costs and increasing market access for this charity, thereby increasing their viability. Another reason organizations employing a Provision SVCS may engage intermediaries as partners their distribution networks is because they lack the necessary social capital needed to gain access to their target beneficiaries (Hahn and Gold 2014). By partnering with organizations that are already active and accepted in their target beneficiary community, focal organizations can benefit from the partner’s unique connections and knowledge of the beneficiary community, as well as any trust and legitimacy that they have with the beneficiaries (Hahn and Gold 2014).

Developing these types of distribution partnerships with a broad range of organizations can also help the focal organization reach a diverse group of beneficiaries that would be difficult to efficiently engage on their own. For example, VisionSpring, a company that sells low-cost eyeglasses to beneficiaries in base of the pyramid communities, sought out distribution partnerships a range of conventional organizations already frequented by their beneficiaries, like microfinance institutions and low-cost healthcare providers. However, they also partnered with unconventional distribution partners like mining companies as a way to connect with beneficiaries who may be more likely to experience vision problems (VisionSpring, 2013). Their strategy relied on developing partnerships with organizations that were well-connected but had distinct networks to maximize their reach.

Based on the above considerations, downstream partner selection by organizations with Provision SVCSs should take into account the ways a potential partner's network may complement that of the focal organization. Structural capital, when taken in the impersonal sense to refer to the objective network structure, can include factors like the density of the network, the diversity of actors, and the connections actors have outside the network. The value of strong and weak ties has been described in depth within the network literature (e.g., Capaldo, 2007; Granovetter, 1973; Song, Yu, Ganguly, & Turson, 2016). Where strong ties may facilitate a greater volume of information exchange, weaker ties increase the uniqueness of the knowledge exchanged (Granovetter 1973), or provide bridging opportunities that increase the reach of each organization (Song et al. 2016).

***Proposition 2.** For social enterprises employing a Provision SVCS, prioritizing the development of downstream structural capital will be particularly useful in achieving organizational effectiveness.*

Literature in humanitarian operations has already noted the impact that network centrality has on organizations' abilities to reach their intended beneficiaries (Moore et al. 2003). Thus, organizations employing a Provision activity link may find connections to downstream supply chain partners with high levels of structural social capital even more beneficial than organizations with other SVCSs.

FINANCIAL MODEL - The efficiency pressure described above is strongest where beneficiary customers are themselves responsible for purchasing the focal organization's offering. Some organizations reduce the salience of these efficiency pressures in their supply chain operations by creating alternative markets for their products, beyond their intended beneficiary customers, and using a philanthropy financial model to give their target beneficiaries access to their products at a reduced cost.

One organization that implements this strategy successfully is LifeStraw. LifeStraw produces portable water filtration devices that can remove up to 99.999% of waterborne bacteria (Smurthwaite 2017). LifeStraw pursues its mission by using profits from its retail operations, largely selling their water filtration devices to outdoor-enthusiasts and travelers in the developed world, to fund social projects and provide their water filtration devices at no-cost to beneficiary consumers in underdeveloped regions. In addition to the donations they collect from customers to fund water-related disaster response projects, they also promise to provide safe drinking water for a school-aged child for each of their products purchased. This is done through the donation of community-sized water filtration devices, as well as five years of water and sanitation education and on-going training and support to the receiving community. By using a philanthropy model, LifeStraw is able to alleviate some of the cost constraints most organizations employing Provision SVCSs face, enhancing their viability.

***Proposition 3.** The overall effectiveness of focal organizations employing Provision SVCSs is enhanced by implementation of a philanthropy financial model.*

3.2.2 Inclusion SVCSs

Organizations employing Inclusion SVCSs pursue their desired social value creation through meaningful inclusion of their beneficiaries in the supply chain, rather than purely engaging them as customers. This can be done in any segment of the supply chain, upstream or downstream or within the focal organization. In many cases, creating sustainable employment for beneficiary supply chain partners may in fact be the focal organization's primary mission and reason for existence. Extending beyond simply responsible supply chain management, which aims to prevent harm and provide broad social benefits within the context of a company's existing operations (Awaysheh and Klassen 2010; Sancha, Gimenez, and Sierra 2016), organizations employing

Inclusion SVCSs are purpose-built to create sustained social value through direct involvement with a specific group of beneficiaries.

UPSTREAM SUPPLY CHAIN - Organizations employing Inclusion SVCSs may have a variety of goals for social value creation. For organizations like World Tailors, which offers sewing training and casual employment for immigrant and refugee women, one of the important goals is to provide the participants an opportunity to connect with people with shared experiences and build relationships with the larger community. Other organizations like Empowerment Plan and Greyston Bakery were created to provide employment training to people with various barriers to employment to help create pathways out of poverty. Finally, organizations like Ten Thousand Villages or other Fair-Trade distributors operate to connect artisans and small-scale producers in the developing world to international markets. In all cases, these social enterprises invest significant time, effort and resources in developing their relationships with beneficiary supply chain partners.

One of the key beneficiary outcomes pursued by many organizations employing Inclusion SVCSs is skill development for their beneficiary supply chain partners. For focal organizations employing Inclusion SVCSs to work effectively with beneficiary suppliers, they must be able to accommodate variability in supplier performance without severe limitations to their overall operational performance. Many of these organizations exist to provide a means for economically marginalized populations to receive valuable training and skill development, which inherently entails a learning curve that may affect multiple dimensions of supplier performance including quality and delivery. This operational constraint will be especially salient where a beneficiary supplier focuses on temporary training and employment as a bridge to permanent employment as there will be a cyclical pattern of beneficiary on-boarding and training that may lead to persistent

quality and conformance issues. The effectiveness of these organizations is determined by their ability to support valuable learning and skill development in their beneficiary supply chain partners.

The OSCM literature emphasizes the importance of strong buyer-supplier relationships in the success of supplier development initiatives. Narasimhan, Mahapatra and Albjørn (2009) indicated this relationship clearly in studying the impacts of relational norms, trust and supplier development initiatives on supplier performance. Previously, it was suggested that supplier development programs build trust, however their findings suggest that the establishment of relational norms should precede the implementation of supplier development initiatives (Narasimhan et al. 2009). Interestingly, they found a negative relationship between supplier development and trust but a positive relationship between relational norms and trust. Additionally, trust has been identified as an important factor in knowledge transfer and learning between supply chain partners (Bönte 2008; Ojha, Shockley, and Acharya 2016; Squire et al. 2009), which is an important component of supplier capacity development. The relationship between relational capital and knowledge transfer has been noted as a way to overcome barriers to tacit knowledge transfer in relationships involving cultural distance between partners (Collins and Hitt 2006). Together, these findings suggest that social enterprises employing Inclusion SVCSs should prioritize developing relational capital in their relationships with beneficiary supply chain partners, prior to shifting the focus to beneficiary capacity development.

***Proposition 4.** For social enterprises employing an Inclusion SVCS, prioritizing the development of upstream relational capital will be particularly useful in achieving organizational effectiveness.*

DOWNSTREAM SUPPLY CHAIN - Implementing activities like beneficiary capacity development initiatives or engaging with fair-trade suppliers can increase the operational costs

borne by social enterprises with Inclusion SVCSs. Additionally, some of these organizations works to reduce their environmental impacts in addition to social value creation. Moyaa Shea Butter, for example, sources only certified organic ingredients and uses environmentally friendly packaging (Moyaa Shea Butter, 2020), increasing the cost of their product further relative to conventional organizations.

Regardless of their social impact, the viability of these organizations is dependent on their ability to compete in the marketplace against conventional commercial organizations whose product costs do not reflect the negative externalities associated with their production (Clyde and Karnani 2015). While many of these organizations offer direct-to-consumer online sales, they also rely heavily on retail partners to distribute their products to their customers. In these cases, the viability of these organizations is dependent on the ability of their retail partners to communicate their mission and impact appropriately, in order to accurately position them in relation to their competitors.

One of the ways that organizations can accomplish this is by ensuring that distribution partners share the focal organization's understanding of the mission and recognize the role they play in supporting the sustainability of the venture and its social impact through revenue generation. By framing impact creation as a shared endeavour with distribution partners, these partners are able to capture value by highlighting their contribution to the focal organization's social impact. Focal organizations can accomplish these objectives by developing cognitive capital with downstream supply chain partners.

Proposition 5. *For social enterprises employing an Inclusion SVCS, prioritizing the development of downstream cognitive capital will be particularly useful in achieving organizational effectiveness.*

FINANCIAL MODEL - One way that many organizations employing Inclusion SVCSs mitigate the effects of beneficiary-related variability on their supply chain operations is by reallocating some of their profits towards beneficiary capacity development. Ten Thousand Villages, a North American non-profit that sources handicrafts from artisans in the developing world, supports beneficiary capacity development in two ways (Ten Thousand Villages 2019). First, they pay 50% of the cost of their orders upfront to give their beneficiary supply chain partners access to the capital needed to purchase materials to produce their goods. Second, they allocate additional surplus revenues into a microfinancing program that can further support beneficiary partner capacity development. Through these initiatives, Ten Thousand Villages can reduce the severity of beneficiary related variability by supporting on-going skill and capability development for their beneficiary partners, which in turn can improve their quality and delivery performance and their overall organizational effectiveness.

***Proposition 6.** The overall effectiveness of focal organizations employing Inclusions SVCSs is supported by the implementation of an internal investment financial model.*

3.2.3 Paired SVCSs

As described in the preceding sections, different social value creation strategies are associated with different constraints for supply chain architecture, operations and effectiveness. However, many organizations choose to incorporate multiple activity links into their SVCSs. This section provides examples of organizations employing Paired SVCSs and describe the synergistic effects that emerge through the application of multiple social value creation strategies and how these effects can mitigate operational and value creation constraints.

Organizations employing Paired SVCSs are commonly, though not exclusively, found in BoP markets. In their earliest forms, business models at the BoP were focused on increasing the availability of products in the lowest-income markets as a means to access a large untapped

consumer base (Prahalad and Hart 2002). As this area of scholarship and practice has developed, the emphasis have shifted from solely selling to BoP consumers to business models that incorporate people in BoP communities into supply chains as producers or distributors in addition to consumers (Karnani 2007). A successful example is Husk Power Systems. Operating in India and Tanzania, Husk Power Systems operates power plants and energy distribution networks that allow customers to access pay-per-use electricity without expensive investments in solar panels or diesel generators (Husk Power Systems 2019). In addition to their energy provision services, Husk also sells electrical appliances, solar power units, provides gasification plants and maintenance services for agribusiness and turns their gasification waste products to incense to create employment for women living in the communities near their gasification plants. Beyond the incense-making arm of their business, local community members are trained and employed as machine operators, fee collectors and auditors, and they even allow other companies to tap into their distribution networks and pay to have Husk distributors sell their products (Bornstein 2011).

Through this supply chain structure, Husk is able to generate social benefits for the communities they serve not only through their energy provision services, but also through gainful employment. Additionally, meaningful inclusion of their beneficiaries within the supply chain can help focal organizations overcome criticism about profiting off of poverty, rather than supporting sustainable economic empowerment (Dees 2012). However, their desire to maintain the accessibility of the product, as well as provide beneficial training and employment to low-income communities may limit their ability to replicate many of the profit maximization practices employed in commercial supply chains, both upstream and downstream. For example, their hiring or sourcing decisions may be based on their ability to create value for that beneficiary supply chain partner, rather than based on the value that partner can provide for them. Similarly, some

organizations that implement fair trade sourcing practices may maintain viability by increasing prices for the end consumer.

Though there are benefits to the simultaneous application of multiple activity links, there are also challenges. Pursuing a Paired social value creation strategy may involve serving multiple groups of beneficiaries with diverse needs. For example, if an organization is attempting to support the empowerment of people in emerging economies through well-paid work making a product that is also beneficial in low-income communities, the focal organization needs to balance their desire to pay high wages or invest in the development of their beneficiary supply chain partners while also keeping costs low to maintain accessibility to beneficiary customers. As a result, they simultaneously face the upstream challenges of Inclusion SVCSs and the downstream challenges of Provision SVCSs.

***Proposition 7.** For social enterprises employing a Paired SVCS, prioritizing the development of upstream relational capital will be particularly useful in achieving organizational effectiveness.*

***Proposition 8.** For social enterprises employing a Paired SVCS, prioritizing the development of downstream structural capital will be particularly useful in achieving organizational effectiveness.*

3.3 Beneficiary Selection

Social enterprises are generally created after a founder identifies a particular social need either in their own community, or anywhere else in the world. With this need comes a group of target beneficiaries around whom the organization's SVCS will be designed, and whose characteristics may create additional operational constraints. Two broad categories to evaluate potential constraints posed by a group of beneficiaries are their cultural and geographic distance or proximity relative to the focal organization. These categories allow useful empirical generalizations to be made on the basis of very broad information about the target beneficiaries as the mainstream OSCM literature provides ample evidence that these two types of distance have

important implications for the functioning of supply chains (e.g. Bönnte 2008; Choi and Contractor 2016).

Beyond the generalizations that can be made about potential impacts of different beneficiary characteristics on operational constraints in the supply chain, cultural and geographic distance may also indirectly affect organizational effectiveness via the development of different dimensions of social capital. Specifically, cultural and geographic distance may make it more difficult for an organization to develop dimensions of social capital that may otherwise be particularly useful for that organization based on the other components of their SVCS. Thus, different parts of an organization's SVCS may be in tension with one-another with regards to the ease of development vs. the utility of different dimensions of social capital within the supply chain.

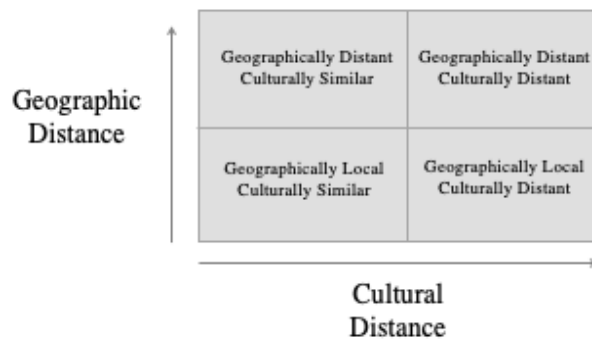


Figure 4. Beneficiary Selection

For social enterprises, geographically distant beneficiaries are often underserved or underemployed precisely because of their inaccessibility, leaving a gap in the market that is not profitable for conventional commercial organization to address, but which social enterprises may make it their mission to fill. These complications can pose a significant threat to the viability of social enterprises if not managed with caution.

Geographic distance can reduce information flows within the supply chain (Awaysheh and Klassen 2010), though there are benefits associated with increased knowledge diversity in

geographically dispersed networks (Todo, Matous, and Inoue 2016). Another important consequence of the decision to serve distant beneficiaries is the impact that distance has on the organization's ability to build relationships with their beneficiaries. Geographic distance has already been shown to negatively affect the development of trust and the ease of information exchange within supply chains (Bönte 2008; Parmigiani, Klassen, and Russo 2011), as well as responsiveness and customer service (Narasimhan and Nair 2005). Consistent face-to-face contact can help build trusting, friendly supply chain relationships, but those types of activities are more costly and difficult in geographically dispersed supply chains.

Proposition 9. *Serving geographically distant beneficiaries increases the difficulty of developing relational capital.*

Although geographic distance is often correlated with cultural distance, some work recognizes important variations in culture within a particular state, for example, between Anglophone and Francophone Canadians (Cannon et al. 2010). Cultural distance between supply chain partners is associated with higher levels of behavioural uncertainty (Handley and Benton 2013). Cultural distance can also hinder knowledge transfer and increase conflict (Choi and Contractor 2016). In the context of multi-national enterprises entering BoP markets, where social enterprise are often active, the cultural distance between the MNE's domestic markets and the BoP markets lead to gaps in what focal organizations know about the daily norms, values and beliefs of beneficiary customers (Webb et al. 2010). Cultural distance also increases the difficulty of identifying and interpreting signals, hinders interactions and contributes to prejudice (Sousa and Bradley 2008). Together, these factors can increase the difficulty associated with establishing shared meaning, norms and expectations between supply chain partners.

Proposition 10. *Serving culturally distant beneficiaries increases the difficulty of developing cognitive capital.*

3.4 Synthesis

The conceptual framework presented in this chapter identified three key components of an organization’s SVCS: their activity link, financial model and beneficiary characteristics. As previously stated, the three components of an organization’s social value creation will interact to affect how the organization operates on a day-to-day basis to achieve its social mission. Thus, the social value creation strategy represents the combination and interaction of these three components. A visual representation can be found in Figure 5.

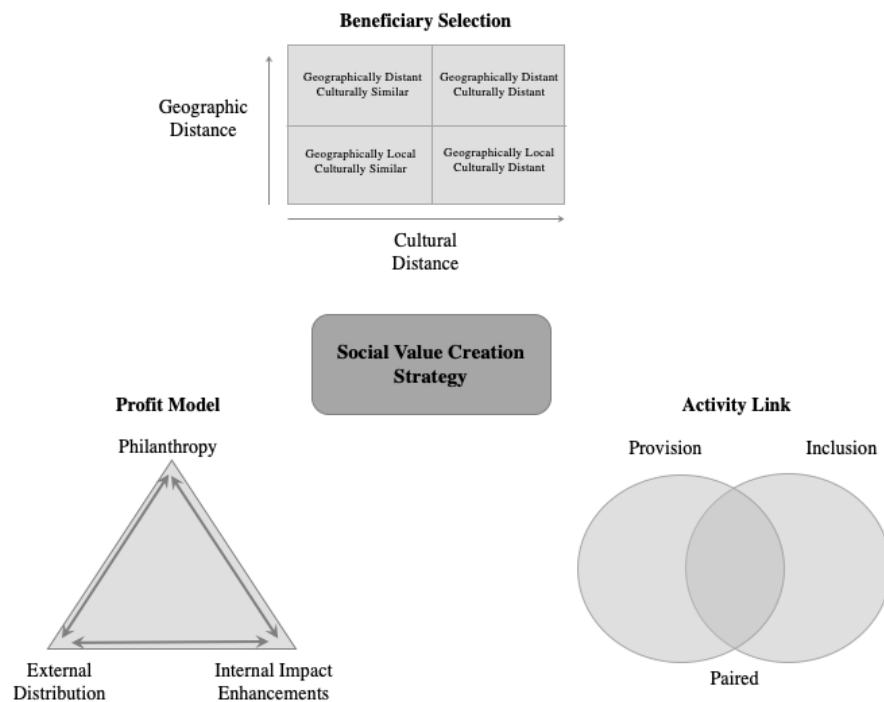


Figure 5. Social value creation strategy framework

Different SVCS components, as outlined in this chapter, are expected to affect the constraints that social enterprises are predicted to face in the management of their supply chains and day-to-day operations. This chapter presented a series of propositions indicating how the development of certain dimensions of upstream or downstream social capital may help

organizations alleviate some of these constraints to achieve effectiveness via the subdimensions of acceptability and viability.

The remainder of this dissertation will involve the development and presentation of two studies that will be used to validate the conceptual framework proposed in Chapter 3, examine some of the assertions made about the constraints that organizations may experience as a result of their SVCS, and investigate the propositions regarding the impact of upstream and downstream supply chain social capital on social enterprise effectiveness. First, Chapter 4 will introduce the overarching methodologies of these studies. Chapter 5 presents the fsQCA study, and subsequently, Chapter 6 presents the multiple case study.

4. Prologue to Empirical Studies

This chapter presents a methodological outline of two studies that will be undertaken to refine the propositions put forth in Chapter 3. Using qualitative comparative analysis (QCA) and multiple case studies, this dissertation investigates the on-going management of SISCs focusing on the cultivation and application of social capital within supply chain relationships and the association between different configurations of upstream and downstream social capital and focal organization effectiveness.

4.1 Why Qualitative Methods?

Although empirically validated measures of social capital already exist, given the unique context of social impact supply chains (SISCs), this research is still largely exploratory in nature. Exploratory case research is often used to address not only gaps in literature, but also emerging topics. For example, the existing social entrepreneurship literature reveals little about how social entrepreneurs understand the role of supply chain management in value creation. Within popular media, much of the discussion around social enterprises and supply chain management frames social enterprises as entities that should be included in supply chains (Barrett 2011; Saade 2018), not entities that have supply chains of their own.

Currently, little is known about the characteristics of SISCs and what they may share in common with commercial and non-profit supply chains, as well as where they might diverge. For this reason, the type of hypothesis testing that is undertaken using survey or experimental methods may be premature without a clear understanding of the research context. For example, faced with only theoretical work on supply chain flexibility, Tachizawa and Thomsen (2007) conducted an exploratory multiple case study to begin to build an empirical foundation for the construct of supply chain flexibility. Similarly, Goffin, Lemke and Szwejczewski (2006) noticed

inconsistencies regarding the definition and understanding of “partnerships” in a supply chain context within and between academia and the practitioners. To rectify this, they undertook an exploratory interpretive study to understand how managers, in their own words, define and evaluate different types of relationships that exist across their supply chain. Just as their exploratory study helped clarify what qualities and behaviours separate “close” supplier relationships from “distant” supplier relationships, the study undertaken in this dissertation may reveal how social entrepreneurs conceptualize their supply chain relationships in the context of their broader social network. Thorough description and proposition-building on this topic will serve as a useful guide for future theory testing regarding SISCs (Stuart et al. 2002).

Second, the characteristics of the population that will be studied in this research, focal organizations in SISCs, make it difficult to find useful secondary data or even build useful quantitative datasets for statistical analysis. This is due to the small size of the social enterprise population, particularly those that include product supply chains, as well as the small size of the focal organizations themselves. Social enterprises, as a whole, are generally very small organizations. The 2016 Canadian Social Enterprise Sector Report states that the average number of full-time equivalent employees in Canadian social enterprises was 12.6, and of the 1,350 social enterprises surveyed, 76% had 10 or fewer full-time employees (Elson, Hall, and Wamucii 2016). Unlike large publicly traded organizations, this is not a population for which abundant secondary data is available, and the small size of the social enterprise population in particular is not conducive to large scale data collection. While there are some secondary data sources related to responsible and sustainable business models, like impact data for certified B Corps (B Lab 2019), not all certified B Corps fit the definition of social enterprises used in this dissertation. Furthermore, the subset of the B Corp population that overlaps with the target population for this research (focal

social enterprises in product oriented SISCs) is too small for any analysis to be able to draw statistically meaningful conclusions.

Finally, qualitative research has been shown to be especially useful to better understand relationships in highly complex environments (Gummeson 2006). Supply chain management is inherently complex, requiring the successful integration of multiple organizations with different priorities and needs. In SISCs, the level of complexity is increased further by the presence of competing institutional logics (Pullman et al. 2018). As SISCs involves actors that operate based on social welfare logics and actors that operate based on commercial logics, these supply chains may also include conflicts regarding trade-offs between economic and social value creation. This complexity would be difficult to adequately capture using rigid data collection methods, as SISCs may differ from each other in ways that are not theoretically obvious given the currently limited understanding of the population. Compared to methodologies that lend themselves more easily to quantitative analysis, qualitative data collection can be structured so as to not rely on presuppositions about relationships between different supply chain constructs. Doing so may allow the study to be more readily adapted when new themes or relationships emerge and remain open to unexpected findings (Ketokivi and Choi 2014).

4.2 Outlines - QCA Study & Multiple Case Study

Chapter 3 presents specific propositions related to the impact of various dimensions of upstream and downstream social capital on the viability, acceptability and ultimately, effectiveness of social enterprises. The two empirical studies described next will adopt different approaches to validate both the propositions and underlying intuition regarding social capital development and application in SISCs.

The first study, which employs qualitative comparative analysis (QCA) will be used to validate the propositions developed in Chapter 3 by explicitly examining how different dimensions of upstream and downstream social capital impact the acceptability, viability and overall effectiveness of a sample of social enterprises. The QCA study will integrate quantitative data regarding the presence or absence of different dimensions of social capital in the upstream and downstream supply chains of different types of social enterprises, as well as the acceptability, viability and effectiveness of these organizations. Using a set theoretic approach, this study will identify specific configurations of social capital and SVCS components that may facilitate effectiveness.

The QCA study will be geared primarily towards addressing the second overarching research question of this dissertation³. The QCA aims to validate or corroborate the propositions presented in Chapter 3, in addition to addressing the specific research sub-question below:

1. How does the development of different dimensions of social capital in the supply chain impact the effectiveness of the focal organization?

The multiple case study will use in-depth interviews to accomplish two goals. First, interviews will be used to validate the propositions presented in Chapter 3 regarding the constraints embedded in various components of an organization's social value creation strategy. Second, this data will be used to build a more nuanced understanding the different ways that dimensions of social capital may be developed or situated within different kinds of SISCs. For example, where propositions in Chapter 3 might suggest a certain dimension of social capital will increase acceptability of certain types of social enterprises, the multiple case study will work to validate or

³ Research Question 2: How do different upstream and downstream actors within social impact supply chains (SISCs) contribute to the overall effectiveness of the focal organization? How are the nature and extent of these contributions affected by the focal organization's SVCS?

refute that assertion and identify the underlying mechanisms through which a certain dimension of social capital is developed or deployed within the supply chain.

Combined with Chapter 3, the multiple case study focuses on addressing the first overarching research question of this dissertation, as presented in Chapter 1, section 1.2⁴. More specifically, it aims to answer the following three research sub-questions:

- 1. If and how do focal organizations engage with beneficiaries in different ways than conventional organizations would engage their supply chain partners or customers?*
- 2. Do the development and benefits associated with different dimensions of social capital differ based on the SVCS employed by the focal organization?*
- 3. If and how do the development and impact of social capital differ between upstream and downstream supply chain segments?*

As the development of social capital entails investments of both time and resources from focal organizations and their supply chain partners, these findings may help focal organizations tailor their investments to suit their SVCS. By reducing investments in practices that do not support organizational effectiveness, resources and effort will be freed up to support the focal organization's mission of creating social value. Additionally, this study can highlight the conditions that must be present to create a financially viable SISC to provide a template for the future formation of commercially viable and socially impactful SISCs. Additionally, it can support theorization about how social capital is systematically developed or deployed by focal organizations in response to operational constraints resulting from different SVCSs.

The subsequent chapters will proceed as follows. First, Chapter 5 will detail the methodology, analysis and findings of the QCA study. This study will be used explicitly to

⁴ Research Question 1: What is the range of social value creation strategies (SVCSs) available to social enterprises? How do various components of these strategies affect the supply chain requirements, constraints and tensions experienced by social enterprises?

validate, refute and modify the propositions originally presented in Chapter 3. Subsequently, chapter 6 will outline the methodology, analysis and findings of the multiple case study. This chapter will present additional propositions outlining how specific dimensions of social capital are manifest in different segments of the supply chain, and how social capital may alleviate operational constraints inherent to various SVCS.

5. QCA Study

5.1 Introduction

Chapter 5 presents the methodology, analysis and findings of an exploratory fuzzy-set qualitative comparative analysis (fsQCA). This study employs a configurational approach to integrate quantitative data regarding the levels of upstream and downstream social capital with social value creation strategy (SVCS) characteristics, and perceptual measures of organizational acceptability, viability and effectiveness. This study aims to address the following research question:

- 1. How does the development of different dimensions of social capital in the supply chain impact the effectiveness of the focal organization?*

Additionally, this study will be used to validate the propositions put forth in Chapter 3. First, this chapter presents a detailed description of the methodology used in this study, including case selection, data sources, data collection procedures and the calibration procedure applied prior to conducting the analysis. Subsequently, the chapter presents the results of the fsQCA outlining configurations of SVCSs and supply chain social capital that are necessary and/or sufficient for organizational acceptability, viability and organizational effectiveness. Finally, these findings are compared against the propositions presented in Chapter 3.

5.2 Methodology

By integrating the findings from the QCA study with those from the multiple case study (Chapter 6), this dissertation adopts a mixed method approach to help support the robustness of the findings and to facilitate a more comprehensive analysis of the presented research questions (Davis, Golobic, and Boerstler 2010). Supply chain research is overwhelmingly conducted using quantitative research methods, however, there have been calls for more mixed method work in this field, specifically for research on sustainability (Flint et al. 2012). The research questions described above correspond to complex relationships between multiple intra- and inter-firm conditions. To

ensure this complexity is adequately captured by the analysis, this study will employ Qualitative Comparative Analysis (QCA), and the robustness of these findings will be further enhanced through the multiple case study (Grofman and Schneider 2009).

5.2.1 QCA Overview

QCA is a set theoretic method commonly applied in both sociology and political science (Marx, Rihoux, and Ragin 2014). Recently, this method has begun to gain recognition in management research, and was the subject of a special issue in the *Journal of Business Research* in 2018 (Huarng, Rey-Martí, and Miquel-Romero 2018). Although this method is still most popular in general management and marketing research (Seny Kan et al. 2016), its use in operations and supply chain management is growing, as indicated by several recent OSCM publications using and/or advocating for this method (Bakker et al. 2011; Bouncken et al. 2018; Chappin et al. 2015; Reimann, Kosmol, and Kaufmann 2017; Russo et al. 2019; Timmer and Kaufmann 2017; Tóth et al. 2015; Tuo, Feng, and Sarpong 2019).

One of the foundational assumptions of QCA is that there can be multiple paths that cases can take to achieve the same outcome. This is called the equifinality principle (Schneider and Wagemann 2012a). By evaluating relationships between outcomes and different configurations of conditions, rather than single conditions in isolation, QCA acknowledges the existence of conjunctural causation, which is when an outcome is caused by the presence of a particular set of conditions, each of which is insufficient to cause the outcome on its own (Schneider and Wagemann 2012a). Generally, QCA is recognized as being an appropriate methodology to use for research contexts where causal complexity is expected (Huarng et al. 2018).

Using this method allows the identification of ways in which the necessary and sufficient conditions for organizational effectiveness vary between different types of SISCs, and how the

synergies between these conditions may impact effectiveness. Conducting a similar study using correlational methods would identify the individual conditions that are most likely to lead to the outcome and could be used to identify some contingent factors. However, correlational methods do not adequately capture the complexity of asymmetric causality (when the absence of causal conditions for an outcome do not lead to the absence of the outcome) as they effectively erase valuable information from cases that do not conform with the identified relationships (Rihoux et al. 2013). QCA methods ensure that researchers can learn from the relationships present in counterfactual or unlikely cases, rather than only the cases where statistically significant relationships exist.

QCA can be conducted using data from a variety of sources, both qualitative and quantitative. What makes data useable for QCA is the translation of all of these different sources of information into a series of membership scores, each reflecting the degree to which each case belongs in a particular set, where the set represents all cases that exhibits that condition or characteristic. In crisp-set QCA (csQCA), these membership scores are binary, where a value of 1 represents complete membership in the condition and 0 represents the complete absence of the condition. In fuzzy-set QCA (fsQCA), which will be used in this study, membership scores can be any value between 0 and 1 and will be assigned based on a consistent calibration scale identified by the researcher, or through direct translation of continuous variables into set membership scores for a particular condition.

Once membership scores are calculated for all relevant conditions, as well as the outcome of interest, these scores can be used to examine relationships between different sets. Set relations are determined using truth tables (Schneider and Wagemann 2012b). By comparing the membership scores for the variables of interest, supply chain management practice implementation

in this study, across conditions in cases where the outcome occurs and cases where the outcome is absent, QCA allows the determination of what conditions must be present in order to observe the outcome (necessary conditions), as well as those which are associated with the outcome whenever they are observed (sufficient conditions).

5.2.2 Data Collection

To facilitate objective comparisons of the level of different dimensions of social capital across cases, data for this study were collected using a survey instrument. This instrument asked social enterprises to evaluate the social capital embedded in their upstream and downstream supply chains using existing measures drawn from the OSCM literature. Measures were also included to evaluate the perceived acceptability and viability of each case, which was later used to generate a measure of effectiveness. This instrument will be described in more detail in the subsequent section.

To generate a sample of social enterprises to include in this study, searches for organizations were completed using a variety of web sources. Examples include the websites of reputable international social entrepreneurship organizations like the Ashoka Foundation, Schwab Foundation, and the Skoll Foundation for lists of organizational fellows, award winners or success stories. Similar searches were conducted using national or regional social entrepreneurship incubators, accelerators or hubs from Canada and the United States like the Roberts Enterprise Development Fund (REDF) in California, MaRS Discovery District and the Centre for Social Innovation, both based in Toronto, as well as social entrepreneurship hubs and support centers at universities.

The primary inclusion criteria used in this study was the presence of a clearly articulated social mission which was directly tied in some way to the production of a particular product. Social

enterprises that were solely service-based or provided software or other intangible products were excluded to ensure the findings would provide a meaningful comparison to mainstream product-based supply chain research. While many social enterprises operate service only supply chains, product and service supply chains tend to have different structures (Wang et al. 2015), and different efficiency pressures (Sengupta, Heiser, and Cook 2006). As a consequence, the SVCS-related constraints identified in Chapter 3 may not translate to service contexts.

In total, these searches yielded a sampling frame of 139 organizations. Each of these 139 organizations was invited to participate in the survey via email between November 2020 and February 2021. Each organization was sent at least two follow-up messages at two-week intervals requesting their participation. SVCS characteristics for this sampling frame is presented in Appendix B. From this sampling frame, 22 responses were collected, which formed the final sample of cases⁵ for the QCA study. A description of these organizations in terms of their product and SVCS is available in **Error! Reference source not found.** and is summarized in Table 3. It is important to note that invitations were sent in multiple waves in an effort to ensure a diverse range of SVCS configurations were included. Thus, more invitations were sent to organizations with SVCS components that had less representation among early respondents. By prioritizing diversity rather than representativeness, this sampling strategy makes it possible to identify a wide range of theoretically interesting configurations, even a particular configuration may be less empirically relevant in terms of its representation within the wider population of social enterprises.

Usefully, seven of the ten organizations who participated in the multiple case study (Chapter 6) also agreed to participate in the QCA study. These cases are indicated in **Error! Reference source not found.** with an asterisk. QCA is primarily a descriptive rather than

⁵ Following QCA convention, a “case” refers to a single organization or observation in the study. This should not be taken to mean that the organization being described necessarily participated in the multiple case study.

inferential technique (Rubinson, Rutten, and Greckhamer 2019), however the presence of several organizations from whom in-depth information is known may illuminate the causal mechanisms underlying the observed configurations.

Table 2. Case descriptions, products, SVCSs

Number	Product(s)	Activity Link	Financial model	Revenue Source	Beneficiary Location
1*	Jewelry, handicrafts	Inclusion	Non-profit	Non-beneficiaries	Distant
2*	Soup	Inclusion	Non-profit	Non-beneficiaries	Local
3*	Hydroponic system	Provision	For-profit	Beneficiaries	Distant
4	Snacks, cereals, grains	Paired	Non-profit	Non-beneficiaries	Local
5	Shoes	Paired	Non-profit	Non-beneficiaries	Distant
6*	Skincare products	Inclusion	For-profit	Non-beneficiaries	Distant
7	Fine jewelry	Inclusion	For-profit	Non-beneficiaries	Distant
8	Jam, home goods	Inclusion	Non-profit	Non-beneficiaries	Local
9	Solar energy systems	Provision	For-profit	Beneficiaries	Local
10	Jewelry, clothing	Inclusion	Non-profit	Non-beneficiaries	Distant
11*	Jam	Inclusion	Non-profit	Non-beneficiaries	Local
12	Hydroponic system	Paired	For-profit	Beneficiaries	Local
13*	Hydroponic system	Provision	Non-profit	Beneficiaries	Local
14*	Clothing	Paired	Non-profit	Non-beneficiaries	Local
15	Menstrual products	Paired	Non-profit	Non-beneficiaries	Local
16	Assistive device	Provision	For-profit	Beneficiaries	Distant
17	Skincare products	Inclusion	For-profit	Non-beneficiaries	Local
18	Biofuel	Paired	For-profit	Beneficiaries	Local
19	Moss	Inclusion	For-profit	Non-beneficiaries	Local
20	Biofuel, cookstoves	Paired	For-profit	Beneficiaries	Local
21	Assistive device	Provision	For-profit	Non-beneficiaries	Distant
22	Menstrual products	Provision	For-profit	Non-beneficiaries	Distant

Minor changes were made to the classification of cases relative to the SVCS model presented in Chapter 3. As none of the organizations who participated in this study specifically target beneficiaries that are simultaneously geographically local and culturally distant or simultaneously geographically distant and culturally proximate, the classification of beneficiary distance has been simplified in this study⁶. Additionally, further investigation into the empirical context prompted a revision to the financial model classification. Where financial models were previously classified as either *internal investment*, *external distribution* or *philanthropy*, they are

⁶ See the original classification of beneficiary distance in section 3.3.3.

now classified along two dimensions: their financial model (for-profit or non-profit) and whether or not the organization extracts revenues from their target beneficiaries. Under the previous classification scheme, Provision organizations who sell their product to wealthier customers to subsidize distribution to their beneficiaries would be classified as having a *philanthropy* financial model. These organizations will now be separated on the basis of their legal profit structure but will still be indicated as not extracting revenues from their beneficiaries.

Table 3. Summary, included cases, SVCS characteristics

Activity Link	# of Cases	Financial model	# of Cases	Beneficiary Location	# of Cases
Provision	6	Non-profit	10	Local	12
Inclusion	9	For-profit	12	Distant	10
Paired	7				

Revenue Source	# of Cases
Beneficiaries	7
Non-beneficiaries	15

Based on the number of cases being used, this study can be best categorized as a small-N QCA study. Small-N QCA has been recognized as an appropriate methodology for inductive, theory-building research (Greckhamer, Misangyi, and Fiss 2013). Given the exploratory nature of this study and the goal of hypothesis development, rather than hypothesis testing, small-N QCA is acceptable (Greckhamer et al. 2013).

The number of cases for which survey data was returned has important implications for the number of conditions that could be included in the analysis without a substantial risk of generating a model that cannot be meaningfully distinguished from randomly generated data (Marx 2010). This consideration will be discussed further in section 5.2.4.

5.2.3 Instrument Development

As stated in the research questions outlined in section 5.1, this study aims to understand what configurations of social value creation strategies and social capital, both in the upstream and downstream supply chain, are associated with focal organization effectiveness. To this end, a survey instrument was developed to capture each dimension of social capital for upstream and downstream supply chain segments, overall acceptability and viability, and organizational characteristics related to the SVCS. All items were measured based on a seven-point likert scale.

COGNITIVE CAPITAL – Cognitive capital reflects the extent to which two organizations share similar values, meaning systems and goals (Nahapiet and Ghoshal 1998). The level of cognitive capital in each organization’s upstream and downstream supply chain was measured using reflective construct comprising a series of items that have been widely used in the supply chain management literature (Carey et al. 2011; Krause et al. 2007; Preston et al. 2017; Son et al. 2016; Villena et al. 2011), as well as one item drawn from the work of Cao, Vonderembse, Zhang and Ragu-Nathan (2010) related to goal congruence within relationships. The same items were used for both the upstream and downstream supply chain.

RELATIONAL CAPITAL – Relational capital refers to the extent to which a relationship between organizations is characterized by the presence of trust, familiarity and mutual identification (Nahapiet and Ghoshal 1998). Items for this reflective construct were drawn from the work of Kale, Singh and Perlmutter (2000). These items have been used consistently and with limited modification in the OSCM literature (e.g. Carey et al. 2011; Roden and Lawson 2014; Son et al. 2016; Villena et al. 2011). The same items were used for both the upstream and downstream supply chain. The items used to measure cognitive and relational capital are presented in Table 4.

Table 4. Relational and cognitive capital, measurement items

Social Capital Dimension	Item
	<i>Please indicate the extent to which the relationship between your organizations and your [upstream/downstream] partners is characterized by:</i>
<i>Relational 1</i>	A close personal interaction between parties.
<i>Relational 2</i>	Mutual respect between parties.
<i>Relational 3</i>	Personal friendship between parties.
<i>Relational 4</i>	Reciprocity between parties.
	<i>Please indicate the extent to which your organization and your [upstream/downstream] supply chains partners:</i>
<i>Cognitive 1</i>	Similar organizational culture and values.
<i>Cognitive 2</i>	The same vision of how to manage the relationship.
<i>Cognitive 3</i>	Agreement on the importance of improvements that benefit the supply chain as a whole
<i>Cognitive 4</i>	The same ambitions and overarching vision

STRUCTURAL CAPITAL – Chapter 2 of this dissertation outlines several of the existing applications of social capital theory within the OSCM literature. As noted in section 2.3.5, the structural dimension of social capital, referring to the configuration of linkages between nodes within a network (Nahapiet and Ghoshal 1998), has been operationalized in diverse ways. Primarily, these operationalizations have equated structural capital with tie strength, reflected by the presence of shared social or training activities, frequent contact and information sharing, knowledge transfer and joint problem-solving (e.g. Lee 2015; Roden and Lawson 2014). However, we know from the network literature that weak ties may also be beneficial to organizations by increasing the diversity of knowledge and resources that are integrated into the network, or enhancing the efficiency of activities within the networks by enabling independent action by network members (Inkpen and Tsang 2005). The potential value of weaker ties is also supported by the findings of the multiple case study, described in Chapter 6. As a result, this study does not assume strong ties to be a source of structural capital, but instead endeavors to identify whether

strong or weak tie configurations in the upstream or downstream supply chain as a whole contribute to the effectiveness of different types of social enterprises. Thus, for this study, two formative constructs related to structural capital are proposed examining the extent to which the upstream/downstream supply chain can be characterized as having a strongly tied structure vs. weakly tied structure. These measures will be included in the analysis separately in the hopes of identifying configurations where each type of structure may be necessary or sufficient for effectiveness.

In keeping with the concern raised about the correlation between tie strength and relational capital described in section 2.3.5, care was taken to develop items that were conceptually distinct from relational capital. To further differentiate between the presence of strong ties and relational capital, participants were asked to reflect on the characteristics of their entire upstream or downstream network in its entirety, rather than its relationships with individual upstream or downstream partners. Based on the work of Inkpen and Tsang (2005), six items were developed. Three items, capturing the density and stability of ties, and the geographic proximity of actors within the network are intended to indicate the presence of a strongly tied network configuration. Three other items, capturing decentralization, diversity and the involvement of bridging actors within the network are intended to reflect the presence of a weakly tied network configuration. The developed items are presented in

Table 5.

Table 5. Structural capital, measurement items

Tie Configuration	Characteristic	Item
<i>Strong</i>	Density	My organization's [upstream/downstream] supply chain involves organizations that interact amongst each other, independent of their relationship with my organization.
<i>Strong</i>	Stability	My organization's [upstream/downstream] supply chain involves a consistent set of organizations. Organizations do not enter or leave the supply chain frequently.
<i>Strong</i>	Proximity	My organization's [upstream/downstream] supply chain involves organizations that are located geographically close to my organization.
<i>Weak</i>	Decentralization	My organization's [upstream/downstream] supply chain allows all organizations to act independently without requiring approval from other members of the supply chain.
<i>Weak</i>	Diversity	My organization's [upstream/downstream] supply chain involves organizations from multiple different sectors or fields.
<i>Weak</i>	Bridging Ties	My organization's [upstream/downstream] supply chain relies on a small number of well-connected organizations to filter external information and material flows into and out of the network.

ACCEPTABILITY – To adequately measure organizational effectiveness in a way that as aligned with the definition of effectiveness used throughout this dissertation (Sydow and Windeler 1998), separate composite indicators (Bollen and Bauldry 2011) were created for acceptability and viability. Composite indicators are created based on a linear combination of the included indicators, and are used as a proxy of the concept being measured, rather than assuming a causal relationship between the indicators and the concept (Kianto, Sáenz, and Aramburu 2017).

Acceptability, in this context, refers to the evaluations of external stakeholders and should account for the relative power or importance of various stakeholders (Sydow and Windeler 1998). To ensure that multiple facets of the organizational acceptability were included, participants were asked to reflect on the extent to which various stakeholders “express strong approval” of the organization’s day-to-day operations, product and social impact. These stakeholders included:

beneficiaries, non-beneficiary customers, funders, and upstream and downstream non-beneficiary supply chain partners. Participants were also asked to assign a weight to each of the stakeholder groups under consideration to reflect the relative importance of each of these stakeholder groups to the organization's overall success. These weights were then used to calculate the weighted average acceptability score for each organization across all relevant stakeholders.

VIABILITY – To capture organizational viability, five items are used that are meant to capture the organization's ability to operate in a financially self-sustaining way into the future. Participants are asked to consider their organization's financial performance prior to the COVID-19 pandemic, as the data were collected in late 2020 and early 2021. To better reflect that newer organizations may reasonably foresee viability in their near future, even if they are not currently financially self-sustaining, an indicator was included asking participants the extent to which they believe their organization will be operating in three to five years in the future. Separate items were included to capture whether or not the organization's revenues, either including or excluding donations, are sufficient to cover their monthly expenses. This distinction reflects the fact that some non-profit social enterprises may never aspire to entirely cover their operating expenses through product sales. When calculating the organization's overall viability score, averages were taken across indicators, with two separate viability scores calculated for each organization: one with and one without the inclusion of donations. The items used to capture acceptability and viability are included in

Table 6.

Table 6. Acceptability and viability, measurement items

Effectiveness Dimension	Item
<i>Acceptability 1</i>	My organization's [stakeholder group] express strong approval of how our organization operates on a day-to-day basis.
<i>Acceptability 2</i>	My organization's [stakeholder group] express strong approval of the product my organization produces.
<i>Acceptability 3</i>	My organization's [stakeholder group] express strong approval of the social impact of my organization.
<i>Viability 1a</i>	Most months, my organization's monthly revenues from product sales exceed monthly expenses (including salaries).
<i>Viability 1b</i>	Most months, my organization's monthly revenues from all sources including grants and donations exceed monthly expenses (including salaries).
<i>Viability 2</i>	My organization has successfully reduced our per-unit operating costs over time.
<i>Viability 3</i>	My organization consistently hits our target number of beneficiaries served.
<i>Viability 4</i>	I feel confident that my organization will still be operating in three to five years.

5.2.4 Measure Validation

Prior to the distribution of the survey instrument to participants, all of the items described in the previous section were reviewed by three supply chain researchers to assess face validity. One important limitation to this study arises in the validation of the measures presented in the previous section, given the small sample size (n=22). Even past work that was conducted explicitly to evaluate the effect of small sample size on factor analysis results use n=60 as the small sample value (MacCallum et al. 1999). For this reason, CFA results for the social capital constructs described in the previous section (cognitive capital, relational capital, strong tie configuration, weak tie configuration) may be difficult to meaningfully interpret. As an alternative to conducting

CFA with an insufficient sample size, this section presents the inter-item correlations, internal reliability and discriminant validity of the constructs of interest.

As a first step in measure validation, Spearman correlations of items within and across constructs were calculated and are presented in Table 8. As indicated in this table, the items used to measure cognitive and relational capital are significantly correlated within each construct. The items used to measure strong and weak structural tie configurations, however, do not demonstrate consistent significant correlations between items within the same construct. However, because these measures are formative, rather than reflective, this is not necessarily a concern (MacKenzie, Podsakoff, and Jarvis 2005).

To examine whether or not the reflective social capital constructs had sufficient internal consistency, the 95% confidence interval of their Cronbach’s alphas were calculated to assess the precision of the α estimate given the limited sample size (Bonett and Wright 2015). Confidence intervals were calculated using the R package ‘cocron’ (Diedenhofen and Musch 2016). These values are given in Table 7. For cognitive capital and relational capital, the calculated value of Cronbach’s alpha exceeds the recommended cut-off of .7 (Fornell and Larcker 1981), though the cognitive capital construct’s 95% CI extends slightly below that cut-off. The measures of tie configuration strength and weakness, however, do not demonstrate satisfactory internal reliability, with values well below the recommended cut-off.

Table 7. Cronbach's alpha, social capital constructs

Construct	Cronbach’s alpha (95% CI)
Cognitive Capital	.839 (.692, .926)
Relational Capital	.884 (.777, .947)

Table 8 also indicates some significant correlations between items in different constructs. To examine discriminant validity between the reflective constructs (relational and cognitive social

capital) constructs, their AVEs were compared to the squared correlations between factors (Fornell and Larcker 1981). This calculation suggests sufficient discriminant validity between the relational and cognitive capital measures. The satisfactory performance of the relational and cognitive capital measures is unsurprising given the extensive historical use of these constructs in the OSCM literature. To examine the discriminant validity between the formative constructs measuring strong and weak tie configurations, construct intercorrelations were calculated and found to be greater than the recommended cut-off of .71 (MacKenzie et al. 2005) (.949, 95% CI: .593, 1.305). This finding indicates insufficient discriminant validity between these two constructs. Consequently, the strong and weak tie configuration measures were dropped from the analysis, and the QCA will be carried out only examining upstream and downstream cognitive and relational capital.

Table 8. Correlation matrix, social capital measures

	Cog1	Cog2	Cog3	Cog4	Relat1	Relat2	Relat3	Relat4	Strong1	Strong2	Strong3	Weak1	Weak2	Weak3
Cog1	1.000													
Cog2	0.549**	1.000												
Cog3	0.568**	0.655**	1.000											
Cog4	0.430*	0.516*	0.766**	1.000										
Relat1	0.155	0.459*	0.572**	0.378†	1.000									
Relat2	0.339	0.648**	0.727**	0.655**	0.834**	1.000								
Relat3	0.436*	0.571**	0.644**	0.563**	0.617**	0.630**	1.000							
Relat4	0.261	0.810**	0.585**	0.502*	0.491*	0.593**	0.699**	1.000						
Strong1	0.198	0.251	0.168	0.205	0.405†	0.312	0.532*	0.399†	1.000					
Strong2	0.200	0.160	0.276	0.049	0.325	0.133	0.321	0.194	0.355	1.000				
Strong3	0.211	0.006	0.098	0.343	-0.279	-0.198	0.020	0.033	0.204	0.416*	1.000			
Weak1	0.141	0.390†	0.406†	0.517*	0.533*	0.520*	0.537*	0.532*	0.645**	0.265	0.293	1.000		
Weak2	-0.053	0.070	0.081	0.319	0.164	0.224	0.150	0.104	-0.009	0.203	0.163	0.088	1.000	
Weak3	0.329	0.496*	0.509*	0.329*	0.718**	0.587**	0.600**	0.461*	0.565**	0.445*	0.061	0.656**	-0.210	1.000

p < .10 †; *p* < .05 *; *p* < .01 **; Spearman's Rank Order correlations

5.2.5 Calibration

In QCA, calibration refers to the process of assigning each case a series of membership scores ranging between 0 and 1 for each of the conditions under investigation in the study (Ragin 2008). The key decision made during calibration is the establishment of anchor points determining full membership and full non-membership, and for fuzzy data, a crossover point that establishes differences in kind, rather than differences in degree between cases (Schneider and Wagemann 2012b). This crossover point determines whether a case is more in than out of a particular set, while the specific set membership score reflects the degree of membership. With fuzzy data, all cases with membership in a particular set that is not 0 or 1 would be said to have partial membership in both the set of members and non-members, but classification is ultimately based on the case's location on a particular side of the crossover point (Ragin 2008).

To capture each case's SVCS, five crisp conditions were used representing the following SVCS components: presence/absence of upstream beneficiaries, presence/absence of downstream beneficiaries, beneficiary location (1=local, 0=distant), financial model (1=for-profit, 0= non-profit) and whether or not the organization extracts revenues from the beneficiaries (1=yes, 0=no). For conditions measured using crisp measures, a value of 1 in a particular set indicates the case has full membership in the set, whereas a value of 0 indicates full non-membership.

Fuzzy measures were used to reflect the level of upstream and downstream relational and cognitive capital of each organization, as well as acceptability, viability and effectiveness. To preserve as much of the information collected as possible, continuous calibration was used for all fuzzy conditions using the direct, log-odds method described by Ragin (2008). To carry out calibration, anchor points were set which define full membership and full non-membership in each set. Additionally, a crossover point was established that represents the "point of maximum

ambiguity” related to each condition (Schneider and Wagemann 2012b:28). This crossover point differentiates between cases that are more in vs. more out of a particular set. Thus, cases on opposite sides of the crossover point represent differences in kind, whereas cases that are on the same side of the crossover point but with different set membership scores represent a difference in degree. All calibration anchors for this study are presented in Table 9.

Table 9. Calibration anchors

Set	Full Non-Membership	Crossover Point	Full Membership
Acceptable Organizations	< 3 (3 = Somewhat disagree)	> = 4.5 (4 = neither agree nor disagree)	6 (6 = Agree)
Viable Organizations	< 3	> = 4.5	6
Organizations with High Relational Capital	< 4	> = 5 (Somewhat agree)	7 (7 = Strongly Agree)
Organizations with High Cognitive Capital	< 4	> = 5	7
Organizations with Upstream Beneficiaries	0	N/A	1
Organizations with Downstream Beneficiaries	0	N/A	1
Organizations with Local Beneficiaries	0	N/A	1
For-Profit Organizations	0	N/A	1
Organizations who Extract Revenues from Beneficiaries	0	N/A	1

As stated in section 5.2.3, all items related to the fuzzy conditions and outcomes were measured using a 7-point likert scale. As both upstream and downstream cognitive and relational capital were under investigation in this study, upstream and downstream cognitive and relational capital were represented by four distinct set membership scores. Slightly higher crossover points were set for cognitive and relational capital relative to acceptability and viability to delineate between organizations who are more-or-less neutral in the level of cognitive or relational capital and those who recognize the presence of indicators of these dimensions of social capital within

their supply chain relationships (Rubinson et al. 2019). The threshold for full membership is lower for the sets of acceptable and viable organizations than it is for the set of organizations with high cognitive and relational capital. Thus, membership scores are calculated for the set of acceptable or viable organizations, compared to the set of organizations with *high* relational or *high* cognitive capital.

The final measure used to represent each case's effectiveness was created using Boolean logic. As stated in the definition of effectiveness used throughout this dissertation, effectiveness is a combination of the acceptability and viability of the organization (Sydow and Windeler 1998). Thus, the set of effective organizations represents a *logical AND conjunction* in Boolean logic of the sets of organizations that are acceptable and organizations that are viable. In Boolean algebra, a case's membership within a conjunction is equal to the minimum value of the case's membership across sets that are combined (Schneider and Wagemann 2012b). Therefore, in this study a case's membership score in the set of effective organizations is equal to the lowest of its membership scores in the sets of acceptable and viable organizations.

It is important to note that the calibration anchors are developed based on the meaning of the scales in relation to underlying theory and are not developed to distinguish cases in relation to each other on the basis of what is observed within this particular sample. This study faces limitations related to survivor bias, as organizations that for example, are seen as unacceptable by their key stakeholders, are unlikely to survive. This and other limitations will be discussed further in Chapter 7.

5.2.6 Analysis Procedure

The goal of fsQCA is to identify configurations of conditions that are necessary and/or sufficient for the observation of the outcome. A necessary condition is any condition that is required in order

for the outcome to occur (Schneider and Wagemann 2012b). In other words, the necessary condition is a superset of the outcome, and is present anytime the outcome is present. Sufficient conditions are those that are always associated with the outcome but are not themselves required in order for the outcome to occur. Sufficient conditions can be best understood as a subset of the outcome, where the outcome is always present where the conditions occur, but the outcome can still occur when those conditions are not present (Schneider and Wagemann 2012b). All analyses were conducted in R using the package ‘QCA’ (Dusa 2019).

A list and brief description of all conditions examined in this study and how their values will be represented in the truth tables and results can be found in Table 10. It is important to note that while calibration for social capital variables and the outcomes of interest was conducted as described in Table 9, the presentation of the set membership scores for these variables is by default simplified to crisp values of 1 or 0 in the creation of truth tables and in the presentation of results. These crisp values indicate whether the case is more in or more out of the set, based on whether it is above or below the designated crossover point. However, the true fuzzy set membership scores are the inputs used when carrying out the logical minimization needed to generate the study findings (Schneider and Wagemann 2012b).

The most significant constraint faced while carrying out this analysis is the need to balance the number of conditions under investigation with the number of cases available to ensure the validity of the results. Using simulations, Marx (2010) created a series of benchmarks for how many conditions can be included in crisp-set QCA based on the number of cases. These simulations highlighted the threat of overinterpreting QCA models⁷ with an inappropriate ratio of conditions to cases, where a ‘valid’ model may be generated on the basis of even random data.

⁷ In the QCA context, ‘model’ is used to refer to the group of configurations that arise from a particular analysis.

Table 10. Summary of conditions and outcomes

Condition	Description
Upstream Beneficiaries	1 = upstream beneficiaries are present (Inclusion or Paired SVCS) 0 = upstream beneficiaries are absent (Provision SVCS)
Downstream Beneficiaries	1 = downstream beneficiaries are present (Provision or Paired SVCS) 0 = downstream beneficiaries are absent (Inclusion SVCS)
Local Beneficiaries	1 = Local beneficiaries 0 = Distant beneficiaries
For-profit Org.	1 = For profit 0 = Non-profit
Revenues Extracted from Beneficiaries	1 = Yes 0 = No
High Upstream Cognitive Capital	1 = Organization has high upstream cognitive capital 0 = Organization does not have high upstream cognitive capital
High Upstream Relational Capital	1 = Organization has high upstream relational capital 0 = Organization does not have high relational cognitive capital
High Downstream Cognitive Capital	1 = Organization has high downstream cognitive capital 0 = Organization does not have high downstream cognitive capital
High Downstream Relational Capital	1 = Organization has high downstream relational capital 0 = Organization does not have high relational cognitive capital
Outcome	Description
Acceptability	1 = Organization is acceptable 0 = Organization is not acceptable
Viability	1 = Organization is financially viable 0 = Organization is not financially viable
Effectiveness	1 = Organization is both acceptable and financially viable 0 = Organization is not both acceptable and financially viable

The number of conditions included in the analysis is directly related to the number of possible configurations, such that the number of possible configurations in the data is equal to 2^k . Thus, if all nine conditions of interest were included in the same analysis (see Table 10), there would be 512 possible configurations in the truth table, of which a maximum of 22 would be empirically observed based on the study data. Marx's (2010) simulation only captures the case sizes needed to conduct valid crisp-set QCA studies of up to eight conditions and indicates that for eight conditions a minimum of 36 cases should be used to ensure a less than 10% chance of generating a valid model based on random data. Thus, it can be assumed that for nine conditions even more cases would be required. As only 22 cases were used for this analysis, this constraint

required adjustments to the structure of the analysis. There are several potential approaches that can be used to reduce the number of conditions within a QCA model. In addition to combining conditions into higher-order constructs to reduce the number of conditions, analyzing different sets of conditions separately is one acceptable approach for addressing this constraint (Avdagic 2010; Rihoux et al. 2013).

Based on Marx's (2010) simulations and the number of cases available, all analyses were limited to six conditions, to ensure that the likelihood of accepting a model on randomly generated data with the available sample size was less than 10%. While decreasing this limit to five conditions would have virtually removed the threat of accepting a random model, this would have forced the exclusion of theoretically relevant conditions and limited the usefulness of the results. Although the simulation was carried out using crisp, rather than fuzzy data, the guidelines generated by Marx (2010) were still applied in the present study. This approach is conservative, as fsQCA is considered to be slightly more robust than csQCA (Skaaning 2011).

Four separate analyses including all 22 cases were conducted for each of the three outcomes of interest (effectiveness, acceptability, viability). These analyses differed only in the conditions included, not the set of cases included. Each analysis examined one of either the presence/absence upstream or downstream beneficiaries and one of either the presence/absence of upstream or downstream social capital (both cognitive and relational). For example, one analysis of acceptability would group cases based on the presence/absence of upstream beneficiaries and only examine upstream social capital. The analyses conducted for each outcome are represented in Table 11.

Table 11. Analyses conducted for each outcome

Analysis 1	Analysis 2	Analysis 3	Analysis 4
<u>Upstream</u> Beneficiaries	<i>Downstream</i> Beneficiaries	<u>Upstream</u> Beneficiaries	<i>Downstream</i> Beneficiaries
Local Beneficiaries	Local Beneficiaries	Local Beneficiaries	Local Beneficiaries
For-profit Org.	For-profit Org.	For-profit Org.	For-profit Org.
Revenues Extracted from Beneficiaries	Revenues Extracted from Beneficiaries	Revenues Extracted from Beneficiaries	Revenues Extracted from Beneficiaries
High <u>Upstream</u> Cognitive Capital	High <u>Upstream</u> Cognitive Capital	High <i>Downstream</i> Cognitive Capital	High <i>Downstream</i> Cognitive Capital
High <u>Upstream</u> Relational Capital	High <u>Upstream</u> Relational Capital	High <i>Downstream</i> Relational Capital	High <i>Downstream</i> Relational Capital

5.2.7 Truth Tables

Prior to conducting the necessity and sufficiency analysis, truth tables must be constructed and refined to represent the various configurations of conditions covered within the study data. A truth table is a simplified representation of all possible configurations of conditions used in the analysis that also reflects the extent to which a particular configuration is associated with the outcome of interest, and the extent to which that configuration is present in the observed data. These truth tables are then used as the key input in the necessity and sufficiency analysis.

An example of one of the truth tables generated for the effectiveness analysis is presented in Table 12. Each row in the table indicates a configuration observed in the data involving the presence/absence of an included conditions. For example, row 1 indicates that there are two cases in the data that have upstream, local beneficiaries, a for-profit financial model in which revenues are not extracted from beneficiaries, who also have high levels of upstream relational and cognitive capital and finally, who are considered effective based on the calibration criteria.

Table 12. Truth table, effectiveness, upstream beneficiaries, upstream social capital

Row #	Upstream Benef.	Local Benef.	For-profit Org.	Rev. Benef	Cog. Cap.	Relat Cap.	Effect.	# of Cases	Consist.	PRI
1	1	1	1	0	1	1	1	2	0.93	0.92
2	0	0	0	1	1	1	1	1	1.00	1.00
3	0	0	1	0	0	0	1	1	1.00	1.00
4	1	0	1	0	0	1	1	1	1.00	1.00
5	1	0	1	0	1	1	1	1	0.95	0.93
6	1	1	1	1	0	0	1	1	1.00	1.00
7	1	1	1	1	0	1	1	1	1.00	1.00
8	1	1	1	1	1	1	1	1	1.00	1.00
9	1	1	0	0	0	0	0	5	0.67	0.50
10	0	0	1	1	0	1	0	2	0.70	0.54
11	1	0	0	0	1	1	0	2	0.73	0.68
12	0	0	1	0	1	1	0	1	0.76	0.15
13	0	1	1	1	0	0	0	1	0.81	0.74
14	1	0	0	0	0	1	0	1	0.74	0.66
15	1	1	0	0	0	1	0	1	0.74	0.61

Part of this stage of the analysis requires establishing the thresholds for consistency that will be used to evaluate the extent to which a particular configuration is a reliable predictor of the outcome of interest. In QCA, consistency refers to how often the presence of a configuration of conditions agree on their relationship to the outcome of interest (Ragin 2006). While convention suggests a consistency threshold of at least .75 (Ragin 2006), a more stringent threshold of .90 was used in this study to align with Schneider and Wagemann’s (2012c) recommendation that studies with a smaller number of cases use a higher consistency threshold. As shown in Table 12, using a consistency threshold of .75 would have left very few configurations that would not be linked to the outcome of interest. Additionally, any configurations with a proportional reduction in inconstancy (PRI) value less than .70 were eliminated (Greckhamer et al. 2018). This PRI threshold ensures that none of the retained configurations display simultaneous subset relations, where they are indicated as predictors of both the outcome and the absence of the outcome.

These truth tables are then subject to logical minimization using the Quine-McCluskey algorithm, which identifies the minimal combination of conditions that are expected to be associated with the outcome (Duşa 2019). The minimization process removes conditions whose presence and absence are both associated with outcome of interest in the presence of the same set of conditions. An example of configurations minimized is present in Table 12, rows 4 and 5. These two rows share the presence of the outcome and differ only in the presence/absence of high levels of upstream cognitive capital. Thus, it can be concluded that upstream cognitive capital is irrelevant to the outcome in the presence of all other conditions in the configuration. The minimization process involves comparing all truth table rows and removing any irrelevant conditions to generate a simpler solution.

To ensure that findings were not driven by differences in the size or age of organizations, supplementary analyses were conducted examining if the relative age of the organization (above or below the median age of the sample) or the number of employees (< 10 employees vs. > 10 employees) were either necessary or sufficient conditions for any of the outcomes of interest. This analysis did not reveal any consistent impacts of organization age or size on the outcomes of interest.

5.3 Findings - Necessity Analysis

The subsequent section of this chapter presents the results of the necessity and sufficiency analyses conducted for three outcomes of interest: acceptability, viability and effectiveness. As mentioned in section 5.2.3, two viability measures were calculated for each case: one including donations and one excluding donations. The analyses presented in this section were conducted using the viability measure that excluded donations to generate a more conservative solution.

As stated in the previous section, the goal of necessity analysis is to identify conditions or their negation that are a superset of the outcome, meaning that wherever the outcome is present, the condition is present (Schneider and Wagemann 2012b). Necessity analyses were also conducted for the negation of each of the outcomes of interest. To deem a condition as necessary for a particular outcome, the conventional threshold applied is consistency of at least .90 (Schneider and Wagemann 2012b). The consistency of necessary conditions must also be balanced with the relevance or triviality of these necessity conditions (Thomann and Maggetti 2020).

The results of all necessity analyses are presented in Appendix D. None of the necessity analysis revealed any conditions that were necessary for effectiveness, acceptability or viability. When examining the negation of those outcomes, only the analyses of the negation of acceptability revealed any necessary conditions (see Appendix D, Table 32): downstream cognitive capital and downstream relational capital. However, both of these conditions have low relevance of necessity (RoN) (.374 and .419 respectively). While there is no agreed-upon cut-off for the relevance of necessity, a suggested measure of a “decent” relevance threshold is at .60 (Duşa 2019:134). Given the substantial difference between this threshold of RoN and what was observed for the negation of acceptability, this study fails to find strong evidence of the presence of any empirically relevant necessary conditions for the outcomes of interest or their negations.

5.4 Findings - Sufficiency Analysis

Following the convention of QCA studies in the management literature (e.g. Reimann et al. 2017), the results of all analyses will be presented with both the parsimonious solution (core conditions only) and intermediate solution (core and peripheral conditions) (Greckhamer 2016), however insights will be drawn primarily from the core conditions. Core conditions are those with strong evidence connecting them to the outcome of interest and are present in the parsimonious solution,

whereas peripheral conditions have a weaker connection to the outcome of interest and are only present in the intermediate solution (Fiss 2011). Presentation of core and peripheral conditions highlights examples of within-type equifinality, where a core condition may be surrounded by different configurations of peripheral conditions, each representing a different neutral permutation that is associated with the outcome of interest (Fiss 2011).

The calculation of the parsimonious and intermediate solutions differ based on their use of easy vs. difficult counterfactuals, which make use of rows in the truth table (meaning potential configurations of conditions) for which no empirical data is present (Fiss 2011). Analysis of counterfactuals in the intermediate solution is conducted based on directional expectations regarding the predicted impact of various conditions on the outcomes of interest (Schneider and Wagemann 2012c). For the purposes of this study, none of the SVCS components (e.g., financial model, beneficiary distance, beneficiary location within the supply chain) are assumed to have any particular effect on acceptability, viability or effectiveness, while relational and cognitive capital is expected to be positively related to all three outcomes of interest.

All the results tables presented in this section of the chapter will also include presentation of the extent of ambiguity for both the parsimonious and intermediate solutions. Model ambiguity refers to the extent to which multiple models (referring to the entire set of parsimonious or intermediate solutions generated from a particular analysis) fit the data (Baumgartner and Thiem 2017; Thiem 2014). Through an examination of 28 published QCA studies in sociology, Baumgartner and Thiem (2017) found that 64% of the parsimonious solutions calculated had some sort of ambiguity, with an average of 20 alternative models and a maximum of over 200 alternative models that fit the data equally well. Following this analysis, Baumgartner and Thiem (2017)

called for greater transparency around the extent of ambiguity for a particular model, noting that the ambiguity cannot necessarily be resolved through data improvements or recalibration.

Where multiple models with appropriate fit with the data were available, models were selected so as to draw attention to solutions that were common across multiple models. Further, selection between ambiguous models sought to highlight solutions that were common across viability, acceptability and effectiveness analyses given the conceptual relationship between those outcomes. This process allows more meaningful comparisons of the solutions between outcomes and draws attention to configurations that are sufficient for acceptability or viability, but not sufficient for effectiveness. Where model ambiguity existed within the intermediate solution, all possible models are presented in the tables and labelled (M1, M2, etc.) to highlight where a particular configuration was present across multiple models, and which configurations are unique to a particular model.

All results were grouped and labelled based on the presence of shared core conditions, following convention in QCA studies (e.g. Greckhamer 2016). Full circles indicate the presence of that condition within the solution, crossed-out circles indicate the absence of a particular condition and the size of the circle indicates whether the condition is core or peripheral where large circles are core conditions and smaller circles are peripheral conditions. The absence of any symbol associated with a condition in a particular configuration indicates that the condition is irrelevant. As stated in section 5.2.6, separate analyses were conducted grouping cases on the presence of upstream beneficiaries vs. downstream beneficiaries as a way to limit the number of conditions in each analysis. The results of both analyses will be presented side-by-side for each outcome of interest. Where multiple models are presented, overall model fit indices (consistency, coverage) for each model are the same across models unless otherwise noted.

Presentation of the results will proceed as follows. First, the results of the analysis examining effectiveness will be presented, followed by acceptability and viability will be presented. Attention will be drawn to configurations that are associated with either acceptability or viability but not effectiveness. Next, the results of analyses on the negation of the outcomes of interest will be presented. Finally, these results will be contrasted with the propositions presented in Chapter 3.

5.4.1 Effectiveness – Upstream Social Capital

The primary focus on this dissertation as a whole is understanding how different elements of a social enterprise's SVCS interact with different types of upstream and downstream supply chain relationships to enhance or impede the organization's effectiveness. When considering SVCSs and upstream social capital, Table 13 presents the configurations that are consistently linked with effectiveness. Separate analyses were conducted grouping organizations on the presence of either upstream or downstream beneficiaries, and each yielded six relevant configurations. These 12 total configurations share five parsimonious solutions. These configurations demonstrate equifinality, both between-type (e.g. S1 vs. S2) and within-type (e.g. S1a vs S1b) (Fiss 2011).

INTERPRETING QCA RESULTS TABLES:

- Each column in the table represents a *configuration* (meaning a set of conditions) that is consistently linked to the outcome of interest
- Circles are used to indicate whether the presence (filled-in circle) or absence (crossed-out circle) of each condition is linked to the outcome of interest in the presence of the other conditions within the configuration
- Case(s) indicates which organizations are covered in the solution (see Table 2)
- *Raw coverage* reflects the proportion of cases displaying the outcome that are captured by that configuration. Note: Cases captured in this raw coverage score may be captured by multiple configurations. (Example: Case 18 is covered by in S1a and S1c)
- *Unique coverage* indicates the proportion of cases displaying the outcome that are only captured by that configuration (Example: Cases 12 and 20 are only captured by S1a)
- Where multiple models were generated that fit the data, the configurations that are included within each model or across multiple models are indicated by M1, M2, etc.

Table 13. Sufficiency analysis, Effectiveness, Upstream social capital

	Upstream Beneficiaries						Downstream Beneficiaries					
	M1 & M2				M1	M2	M1					
	S1a	S1b	S2	S3	S1c	S1d	S1b	S1d	S2	S4	S5a	S5b
Beneficiary Segment	●	●	⊗	⊗	●	●	⊗	⊗	●	●	●	●
Local Beneficiaries	●	⊗	⊗	⊗	●		⊗		⊗	●		⊗
For-profit Org.	●	●	●	⊗	●	●	●	●	●	●	⊗	⊗
Rev. from Beneficiaries	●	⊗	⊗	●		⊗	⊗	⊗	●	⊗		
Cog. Capital				●	●	●		●				●
Relat. Capital		●	⊗	●	●	●	●	●	⊗		●	●
Consistency	0.878	0.972	0.967	1.000	0.959	0.938	0.972	0.938	0.967	0.842	1.000	1.000
Raw Cov.	0.166	0.099	0.072	0.043	0.166	0.150	0.099	0.150	0.072	0.212	0.089	0.069
Unique Cov.	0.096	0.046	0.072	0.043	0.096	0.096	0.046	0.096	0.072	0.212	0.064	0.043
Case(s)	12; 20; 18	7;6	22	13	17,19; 18	6; 17, 19	7;6	6; 17, 19	22	9,12; 20;18	5;14	13
Overall Consistency			.931						.921			
Overall Coverage			.476						.611			
# Intermed. Models:			2						1			
# Pars. Models:			15						10			

● = condition is present; ⊗ = condition is absent; larger circle = core condition; smaller circle = peripheral condition

EXAMPLE:

- S1a indicates that the joint presence of local beneficiaries in the upstream supply chain, and a for-profit business model where revenues are extracted from beneficiaries is associated with the presence of focal organization effectiveness. Upstream cognitive and relational capital are irrelevant for in the presence of the previously listed conditions. This column indicates via circle sizes that there is stronger evidence for the link between the presence of upstream beneficiaries and a for-profit business model and effectiveness than there is for the presence of local beneficiaries and revenue extraction from beneficiaries.
- S1b shares the same parsimonious solution (larger circles) as S1a but has a different configuration of peripheral conditions (smaller circles). The crossed-out circles in S1b indicate that the absence of local beneficiaries and the absence of revenue extraction from beneficiaries are associated with organizational effectiveness jointly with upstream relational capital, upstream beneficiaries and a for-profit business model.

The decision whether or not to extract revenues from beneficiaries is an important consideration for organizations with Provision and Paired SVCSs. This assertion is supported by this analysis as the decision whether or not to extract revenues from beneficiaries is a core condition in one solution (S3) in the above analysis. This solution also suggests strong empirical evidence supporting the relationship between high levels of upstream cognitive capital alongside extraction of revenues from beneficiaries and organizational effectiveness. As discussed in Chapter 3, organizations who extract revenues from beneficiaries can benefit from efficiency and product-related improvements that can result from collaboration with suppliers. These collaborative initiatives may be facilitated and enhanced by the development of upstream cognitive capital (Johnson et al. 2013; Krause et al. 2007). The relationship between upstream cognitive capital and effectiveness for Provision organizations will be discussed further in Chapter 6.

When grouped based on the presence/absence of downstream beneficiaries, the presence of local beneficiaries becomes a core condition alongside a for-profit business model (S4). Chapter 3 identifies responsiveness, and a strong understanding of beneficiary needs as important challenges faced by organizations with downstream beneficiaries. Compared to organizations with Provision or Paired SVCSs working to serve distant beneficiaries, cultural and geographic proximity to beneficiaries may alleviate both of these challenges as focal organizations may already have a clear understanding of beneficiary needs and may have existing connections in the community to support effective product design. Thus, they may see less benefit from the development of cognitive and relational capital in their upstream supply chains if those collaborations will not be needed for product design enhancements. Furthermore, these organizations may be less vulnerable to the scrutiny that may otherwise encourage the adoption of a non-profit model to assuage fears that they will exploit the beneficiary community. As a

consequence, they may be better positioned to survive and retain their acceptability even with a for-profit financial model.

S2 indicates that the presence of distant beneficiaries is a core condition alongside the absence of upstream relational capital. This configuration is an interesting contrast to S5a and S5b, where the presence of downstream beneficiaries (Provision or Paired SVCS) is a core condition alongside a non-profit business model and the presence of upstream relational capital. Case 14, one of the two cases associated with configuration S5a, can provide a potential explanation for the difference in the importance of upstream relational capital between these configurations. As a non-profit organization, Case 14 benefits from friendly and trusting relationships with donor-suppliers, who provide them with in-kind donations of key materials used in their product. The development of relational capital with these donor suppliers is one way that Case 14 can try to secure consistent access to these inputs and reduce the frequency with which they have to purchase these inputs from other paid suppliers. By minimizing production costs through the development of consistent supplier relationships, Case 14 is able to redirect more revenues to their workforce development program, which is a key part of their social mission. In contrast, Case 22 (S2) is a for-profit organization and may not have access to the same goodwill and associated discounts as non-profit organization. Instead, they may need to frequently reconfigure their upstream supply chain to minimize costs, and this reconfiguration may be hindered by the presence of strong personal ties with a particular supplier.

Finally, in all but one configuration involving upstream beneficiaries, the presence of upstream relational capital is a peripheral condition. This finding is quite intuitive. Compared to organizations with downstream beneficiaries, these organizations face far fewer constraints in their downstream supply chains. If they can connect with the right customers, they are able to price their

products appropriately to cover the internalized costs associated with their social mission. Their primary constraint is their ability to maintain mutually beneficial relationships with the beneficiary supply chain partners, and this effort is supported by the development of relational capital with these beneficiary supply chain partners. The development of upstream relational capital by organizations with upstream beneficiaries will be discussed in further detail in Chapter 6.

5.4.2 Effectiveness – Downstream Social Capital

Table 14 presents the results of the analysis of the configurations of SVCS components and downstream social capital associated with effectiveness. When organizations are grouped on the basis of the presence of beneficiaries in their upstream supply chains (Inclusion or Paired SVCSs), eight configurations emerge that are consistently linked with effectiveness. When organizations are grouped based on the presence of downstream beneficiaries, this number drops to five configurations. However, save one unique configuration associated with the upstream beneficiary grouping, all configurations across both groupings share the same four parsimonious solutions.

Across all four shared solutions, the organization's financial model was a core condition, and three of the four solutions indicate that a for-profit business model is a core condition, with only two configurations that consistently leads to effectiveness if the organization is a non-profit. This finding may be an artefact of the viability measure used in this analysis, which excludes donations in an organization's evaluation of their financial sustainability. However, given this conservative evaluation of viability, the presence of any non-profit configuration (S4) within the solutions suggests that this may be quite a robust configuration. In this configuration, the presence of distant beneficiaries and downstream cognitive capital are also core conditions. This configuration suggests that the partnerships with distributors who share the focal organization's

social mission play a consistent and empirically important role in these organizations' effectiveness.

Table 14. Sufficiency analysis, Effectiveness, Downstream social capital

	Upstream Beneficiaries							Downstream Beneficiaries					
	Model 1 & Model 2						M1	M2	Model 1				
	S1a	S1b	S2a	S3	S4a	S5	S1c	S1d	S1a	S1b	S2b	S3	S4b
Beneficiary Segment	●	●			⊗	●	●	●	⊗	⊗	●		●
Local Beneficiaries	⊗	●	●	⊗	⊗	⊗	●		⊗		●	⊗	⊗
For-profit Org.	●	●	●	●	⊗		●	●	●	●	●	●	⊗
Rev. from Beneficiaries	⊗	●	●	⊗	●	⊗		⊗	⊗	⊗	●	⊗	
Cog. Capital			●	●	●	●	●	●		●		●	●
Relat. Capital		●	●	⊗	●	●	●	●		●	●	⊗	●
Consistency	0.876	0.953	1.000	1.000	1.000	0.954	1.000	1.000	0.876	1.000	0.961	1.000	1.000
Raw Cov.	0.110	0.163	0.158	0.073	0.052	0.115	0.209	0.144	0.110	0.144	0.201	0.073	0.103
Unique Cov.	0.047	0.043	0.038	0.038	0.052	0.061	0.089	0.089	0.047	0.089	0.201	0.038	0.103
Case(s)	7;6	20; 12,18	9; 12,18	22	13	5;6	17,19; 12,18	6; 17,19	7;6	6; 17,19	20; 9; 12,18	22	5;13
Overall Consistency					.950						.958		
Overall Coverage					.550						.541		
# Intermed. Models:					2						1		
# Pars. Models:					26						30		

● = condition is present; ⊗ = condition is absent; larger circle = core condition; smaller circle = peripheral condition

Another interesting configuration present in Table 14 is S3, which indicates the absence of downstream relational capital and a for-profit financial model are core conditions. S3 treats the location of beneficiaries within the supply chain as irrelevant, however if beneficiaries are located in the upstream supply chain, those organizations would also be covered by S1a. For this reason,

substantive interpretation of S3 will focus on for-profit Provision organizations who do not extract revenues from beneficiaries, as those organizations are uniquely covered by this configuration. The difference in financial structure (core condition) and revenue source (peripheral condition) between S3 and S4 provides a useful comparison. One potential rationale for the usefulness of the absence of relational capital may be that when an organization is trying to maximize profits, the trade-offs between the development of different dimensions of social capital become more salient, and certain dimensions must be prioritized over others. As S3 incorporates models that involve providing the product to beneficiaries for free and extract revenues elsewhere, building downstream trust via relational capital may be less important because downstream partners are not being asked to bear financial risk in the exchange. In contrast, cognitive capital is still very useful in these supply chains as partnerships with likeminded downstream partners may ensure these partners share their commitment to serving their intended beneficiaries.

Combining the results of Table 13 and Table 14 reveals if there are any SVCS configurations that are associated with effectiveness independent of the presence or absence of any dimension of social capital within the upstream or downstream supply chain. Each analysis presents configurations that treat social capital as irrelevant: S1a and S4 in the upstream social capital analysis, and S1a in the downstream social capital analysis. However, none of these three configurations maintain the irrelevance of social capital across both analyses. Together, these findings suggest that none of the SVCS configurations alone are sufficient to consistently lead to organizational effectiveness without contributions by supply chain partners via upstream or downstream social capital. This indicates that supply chain social capital plays a crucial role in a social enterprise's ability to operate effectively.

5.4.3 Acceptability – Upstream Social Capital

The results of the sufficiency analysis for acceptability are presented in Table 15. Across the two methods of grouping cases (presence of upstream beneficiaries vs. presence of downstream beneficiaries), a total of six parsimonious solutions were generated with 16 different configurations.

S1a-3e indicates that the presence of upstream beneficiaries alone (and/or absence of downstream beneficiaries) is a core condition associated with acceptability. It is important to note that this core condition has range of neutral permutations involving various peripheral conditions that are all associated with acceptability (Fiss 2011). Organizations with upstream beneficiaries, particularly organizations with Inclusion SVCSs who sell their products to non-beneficiary customers, can use the inclusion of beneficiaries in their supply chain as an important source of differentiation and competitiveness. Compared to conventional organizations, the creation of social value through production is unique and could be an important driver of stakeholder approval, regardless of the organization's financial model or the characteristics of the beneficiaries.

S2a-c identify upstream cognitive capital as a core condition associated with acceptability alongside a range of other SVCS and social capital dimensions as peripheral conditions. For example, the absence of local beneficiaries is a consistent peripheral condition. Two of the three configurations using this solution apply only to organizations with Provision SVCSs. This finding may be explained in part through the potential product or affordability improvements that can result from collaborations with likeminded suppliers. The benefits associated with partnerships with likeminded suppliers are described further in Chapter 6.

Table 15. Sufficiency analysis, Acceptability, Upstream social capital

	Upstream Beneficiaries									Downstream Beneficiaries						
	M1, M2, M3, M4					M1, M2	M3, M4	M1, M3	M2, M4	M1						
	S1a	S1b	S1c	S2a	S3	S1d	S1e	S2b	S2c	S1b	S1d	S4a	S4b	S5	S6a	S6b
Beneficiary Segment	●	●	●	⊗	⊗	●	●	⊗		⊗	⊗	●	●	●	●	
Local Beneficiaries	⊗	●	●	⊗	⊗		●	⊗	⊗	●			⊗	●	⊗	⊗
For-profit Org.		⊗	●	⊗	●		●	●	●	⊗		⊗	⊗	●	●	●
Rev. from Beneficiaries	⊗	⊗	●	●	⊗	⊗		⊗	⊗	⊗	⊗	⊗		●	⊗	⊗
Cog. Capital				●		●	●	●	●		●		●			
Relat. Capital	●			●	⊗	●	●		●		●	●	●			●
Consistency	1.000	0.880	0.961	1.000	0.967	0.977	0.959	1.000	1.000	0.913	0.975	1.000	1.000	0.904	0.972	1.000
Raw Coverage	0.214	0.270	0.147	0.035	0.058	0.246	0.135	0.044	0.081	0.140	0.219	0.073	0.056	0.185	0.099	0.125
Unique Coverage	0.075	0.241	0.090	0.035	0.039	0.078	0.078	0.026	0.026	0.117	0.150	0.052	0.035	0.185	0.057	0.037
Case(s)	5;1,10 ;7;6	2,4,8,11 ,15;14	12;20; 18	13	22	1,10;6 ;17,19	17,19; 18	21	21;6	2,8,11	1,10;6 ;17,19	5; 14	13	9,12; 20; 18	22;21	7;6;21
Overall Solution Consistency					0.943								0.948			
Overall Solution Coverage					0.828								0.765			
# Intermed. Models Generated:					4								1			
# Pars. Models Generated:					3								4			

● = condition is present; ⊗ = condition is absent; larger circle = core condition; smaller circle = peripheral condition

S4 indicates that a non-profit business model and upstream relational capital are core conditions. This configuration can apply to organizations with either Provision or Paired SVCSs. One explanation for this finding is that non-profit organizations may be more reliant than for-profit organizations on goodwill from upstream supply chain partners in order to carry out their mission through the receipt of preferential pricing. Developing strong interpersonal relationships with their suppliers may be one route to developing this goodwill, which may increase their suppliers' approval of their work, in addition to beneficiary approval which may result from increased access to the product through price reductions.

S6 include the only configurations presented in the above results that are uniquely associated with acceptability and not effectiveness. In this configuration, presence of a for-profit business model and the absence of revenue extraction from beneficiaries are core conditions with a strong association with acceptability. For organizations with downstream beneficiaries, the absence of beneficiary revenue extraction alongside a for-profit business model may support acceptability by shielding organizations from criticism that they are profiting off of the struggles experienced by the target beneficiaries (Borchardt et al. 2020). However, the absence of this configuration from the viability analysis indicates that neutralizing that reputational threat is not sufficient for viability.

5.4.4 Acceptability – Downstream Social Capital

The results of the sufficiency analysis for acceptability based on downstream social capital are presented in Table 16. Across the two groupings, a total of 15 sufficient configurations are presented based on three parsimonious solutions, and one intermediate configuration that is a potential subset of all three parsimonious solutions.

Table 16. Sufficiency analysis, Acceptability, Downstream social capital

Beneficiary Segment	Upstream Beneficiaries								Downstream Beneficiaries						
	M1 & M2				M1		M2		M1						
	S1a	S1b	S2a	S2b	S3a	S3b	S4	S3c	S1a	S1b	S2a	S2c	S2d	S3	S4
Local Beneficiaries	●		●	⊗	●		●	●	⊗		⊗		●	●	⊗
For-profit Org.	⊗	⊗		⊗	●	●		●	⊗	⊗			⊗	●	
Rev. from Beneficiaries	⊗	⊗	⊗	●	●	●	⊗		⊗	⊗	⊗	⊗		●	⊗
Cog. Capital		●	●	●		●	●	●		●	●	●	●		●
Relat. Capital				●	●	●	●	●				●	●	●	●
Consistency	0.943	1.000	0.982	1.000	1.000	1.000	0.990	1.000	0.970	1.000	0.968	0.984	1.000	1.000	0.985
Raw Coverage	0.231	0.119	0.263	0.042	0.139	0.128	0.334	0.17	0.198	0.119	0.146	0.217	0.084	0.170	0.223
Unique Coverage	0.115	0.068	0.025	0.042	0.042	0.03	0.072	0.072	0.114	0.068	0.018	0.069	0.042	0.170	0.072
Case(s)	1,10; 5,7;6	22;21; 6	5;2;8,11, 14,15	13	20; 12,18	9; 12,18	5;6;8,11, 14,15;17 ,19	17,19 ;12,1 8	1,10;7;6	6; 22;21	2; 8,11	8,11;5 ;14,15	5; 13	20;9,12, 18	6;8,11 ;17,19
Overall Solution Consistency	0.976								0.986						
Overall Solution Coverage	0.781								0.773						
# Intermed. Models Generated:	2								1						
# Pars. Models Generated:	2								2						

● = condition is present; ⊗ = condition is absent; larger circle = core condition; smaller circle = peripheral condition

In all configurations where revenues are being extracted from beneficiaries (S2b, S3a-b), downstream relational capital is a peripheral condition. This condition becomes irrelevant where the absence of revenue extraction from beneficiaries is a core condition. This finding suggests that when a social enterprise is selling a product to an in-need population, whether in a for-profit organization or non-profit organization, there is a greater need to build trust in the downstream supply chain, which is an outcome commonly associated with the development of relational capital (Tsai and Ghoshal 1998). In contrast, S1, which treats distant beneficiaries and the absence of beneficiary revenue extraction as core conditions, downstream relational capital is irrelevant.

According to S2, the presence of non-profit business model and downstream cognitive capital are core conditions for acceptability. Non-profit social enterprises face greater regulatory pressure than for-profit social enterprises to align their activities with their stated social mission. As a result, partnering with downstream partners who share their goals and mission may help them communicate that mission to non-beneficiary customers (Inclusion SVCSs) to build stakeholder approval, or demonstrate accountability to their social mission through distribution partnerships (Provision & Paired SVCSs) with likeminded downstream organizations.

S4 indicates that both downstream relational and cognitive capital are peripheral conditions, alongside the presence of only upstream beneficiaries (Inclusion SVCS) and the absence of beneficiary revenue extraction. This suggests that if an organization is able to build relational and cognitive capital in their downstream supply chain, there is more flexibility in the SVCS configurations they are able to adopt and still achieve stakeholder acceptance, as their financial model and the location of their beneficiaries are irrelevant conditions within the configuration.

Table 15 (S1b) and Table 16 (S1a) each present one configuration that treat upstream/downstream social capital as irrelevant for acceptability. However, combining the results from Table 15 and Table 16 reveals that neither configuration is sufficient for acceptability without requiring upstream or downstream social capital. Once again, this finding indicates that the nature of a social enterprise's supply chain relationships plays a key role in their ability to secure stakeholder acceptance of their work.

Finally, S1a and S1b are both configurations that are sufficient for acceptability, but not effectiveness, meaning that they are not sufficient for viability. This configuration treats the absence of local beneficiaries and the absence of beneficiary revenue extraction as core conditions. Supporting distant beneficiaries can enhance an organization's image as a strong global corporate citizen (Moosmayer and Davis 2016), and as previously mentioned, the absence of revenue extraction from beneficiaries can help shield organizations from criticism that they are profiting off of the need of their beneficiaries. While these conditions may be present in a viable organization, there is insufficient evidence of a strong causal relationship between these two conditions and viability.

5.4.5 Viability – Upstream Social Capital

The results for the sufficiency analysis for viability including downstream social capital are presented in Table 17. This analysis yielded 13 configurations from six parsimonious solutions.

Among the six configurations resulting from this analysis that can apply to organizations with Provision SVCSs, upstream cognitive capital is core in one configuration. The configuration where upstream cognitive capital is a core condition occurs alongside revenue extraction from beneficiaries as a peripheral condition. This indicates that while upstream cognitive capital may not be an important determinant of viability for Provision organizations as a whole, it is an

important condition contributing to viability for Provision organizations who do not employ a Philanthropy financial model. Potential justifications for this finding are evaluated in Chapter 6.

Table 17. Sufficiency analysis, Viability, Upstream capital

	Upstream							Downstream					
	M1 & M2					M1	M2	M1					
	S1a	S1b	S2a	S2b	S3	S1c	S1d	S1e	S1f	S4	S5	S6a	S6b
Beneficiary Segment	●	●		⊗	⊗	●	●	⊗	⊗	●	●	●	●
Local Beneficiaries	●	⊗	●	⊗	⊗	●				⊗	●		⊗
For-profit Org.	●	●	●	●	⊗	●	●	●	●	●	●	⊗	⊗
Rev. from Beneficiaries	●	⊗	●	⊗	●		⊗	⊗	⊗	⊗	●	⊗	
Cog. Capital					●	●	●		●				●
Relat. Capital		●	⊗	⊗	●	●	●	●	●	⊗		●	●
Consistency	0.881	0.972	0.924	0.995	1.000	1.000	0.982	0.972	0.982	0.995	0.899	1.000	1.000
Raw Coverage	0.155	0.092	0.127	0.069	0.040	0.161	0.146	0.092	0.146	0.069	0.211	0.083	0.064
Unique Coverage	0.032	0.042	0.053	0.069	0.040	0.096	0.096	0.042	0.096	0.069	0.211	0.059	0.04
Case(s)	12;20; 18	7;6	9;12	22	13	17,19;18	19	7;6	6; 17, 19	22	9,12; 20;18	5;14	13
Overall Consistency				0.955						0.957			
Overall Coverage				0.504						0.590			
# Intermed. Models				2						1			
# Pars. Models				6						10			

● = condition is present; ⊗ = condition is absent; larger circle = core condition; smaller circle = peripheral condition

For configurations requiring the presence of upstream beneficiaries (or absence of downstream beneficiaries), upstream relational capital is a peripheral condition in all except one. As the continued engagement of beneficiaries in supply chain activities is key to the operational viability of organizations with Inclusion or Paired SVCSs, this finding is unsurprising. Developing relational capital with upstream beneficiary supply chain partners can help to enhance all parties’

commitment to the relationship and build trust and reciprocity within the relationship (Zhu and Lai 2019). These relationship characteristics can help the focal organization sustain production via long-term relationships with beneficiary supply chain partners.

S2 indicates that the presence of a for-profit business model and the absence of upstream relational capital are core conditions associated with organizational viability. While these conditions may be peripheral in acceptable organizations, they are not core conditions, indicating that there is not a strong causal association between that combination of conditions and acceptability.

5.4.6 Viability – Downstream Social Capital

The results for the sufficiency analysis for viability including downstream social capital are presented in Table 18. This analysis yielded 14 configurations from five parsimonious solutions.

S1 to S4 are all indicated as being sufficient for effectiveness, meaning that those solutions are also sufficient for acceptability. The only solution that has not already been discussed with reference to effectiveness is S6, which is insufficient for acceptability. This configuration positions the presence of downstream beneficiaries and the absence of downstream relational capital as core to viability. As previously described, downstream relational capital is present as a peripheral or core condition for all acceptable configurations involving a non-profit business model. The development of downstream relational capital may support the development of goodwill for non-profit organizations, which may be particularly valuable in organizations who do not extract revenues from their beneficiaries. Without goodwill downstream, organizations may be unable to secure acceptance from downstream supply chain partners or non-beneficiary customers.

Table 18. Sufficiency analysis, Viability, Downstream social capital

	Upstream Beneficiaries								Downstream Beneficiaries					
	M1 & M2						M1	M2	M1					
	S1a	S1b	S2	S3	S4	S5	S1c	S1d	S1a	S1d	S2	S4	S6	S7
Beneficiary Segment	●	●			⊗	●	●	●	⊗	⊗	●	●	●	
Local Beneficiaries	⊗	●	●	⊗	⊗	⊗	●		⊗		●	⊗	●	⊗
For-profit Org.	●	●	●	●	⊗		●	●	●	●	●	⊗	⊗	●
Rev. from Beneficiaries	⊗	●	●	⊗	●	⊗		⊗	⊗	⊗	●		⊗	⊗
Cog. Capital			●	●	●	●	●	●		●		●		●
Relat. Capital		●	●	⊗	●	●	●	●		●	●	●	⊗	⊗
Consistency Raw	0.911	0.953	1.000	1.000	1.000	0.954	1.000	1.000	0.911	1.000	0.961	1.000	1.000	1.000
Coverage Unique	0.107	0.152	0.147	0.068	0.048	0.107	0.195	0.134	0.107	0.134	0.187	0.096	0.086	0.068
Coverage Case(s)	0.048 7;6	0.040 20; 12,18	0.035 9; 12, 18	0.035 22	0.048 13	0.057 5;6	0.083 17,19; 12, 18	0.083 6; 17, 19	0.048 7;6	0.083 6; 17, 19	0.187 20; 9, 12, 18	0.096 5;13	0.086 4	0.035 22
Overall Consistency	0.957								0.971					
Overall Coverage	0.516								0.593					
# Intermed. Models:	2								1					
# Pars. Models:	26								6					

● = condition is present; ⊗ = condition is absent; larger circle = core condition; smaller circle = peripheral condition

5.4.7 Absence of Outcomes of Interest

An important element of QCA is the recognition of asymmetric causality, which suggests that the absence of conditions associated with an outcome will not necessarily lead to the outcome's non-occurrence (Grofman and Schneider 2009). Separate analyses must be conducted to examine the conditions that lead to the absence of an outcome, in addition to its presence.

To examine the negations of all outcomes of interest, analyses were carried out using the same process for the occurrence of the outcomes of interest. Separate analyses were carried out grouping organizations based on the presence of upstream vs. downstream beneficiaries and upstream vs. downstream social capital. However, several of these analyses failed to yield any configurations that were sufficient for the negation of each specific outcome.

The results of these analyses are presented in Table 19. The two configurations presented were identified when cases were grouped based on the presence/absence of downstream beneficiaries and downstream social capital. None of the parsimonious solutions for either analysis had a sufficient PRI value ($> .70$), suggesting there are no configurations with a clear causal link to the outcome of interest. Additionally, the overall coverage of this model is very low, suggesting that there are other instances of the outcomes of interest that are not explained by the above configurations.

Most notable about the presented configurations is the absence of downstream relational capital alongside a non-profit organization. As previously described, non-profit organizations may rely more heavily on the goodwill of their supply chain partners. Unless an organization is able to manage its own retail channels independently, an inability to build trusting and committed relationships with downstream supply chain partners may lead to missed opportunities that can negatively affect an organization's viability and effectiveness.

Table 19. Sufficiency Analysis, Negations of Effectiveness & Viability

Condition	~Effectiveness	~Viability
	S1	S2
Downstream Beneficiaries	⊗	⊗
Local Beneficiaries	●	●
For-profit Org.	⊗	⊗
Revenues Extracted from Beneficiaries	⊗	⊗
Downstream Cognitive Capital	●	●
Downstream Relational Capital	⊗	⊗
Case(s)	2	2
Overall Consistency	1.000	0.947
Overall Coverage	0.147	0.173
# Intermed. Models Generated:	1	1
# Pars. Models Generated:	4	4
● = condition is present; ⊗ = condition is absent; larger circle = core condition; smaller circle = peripheral condition		

5.5 Summary – Alignment with Chapter 3

Chapter 3 presented a series of 10 propositions regarding how different configurations of SVCS components, upstream social capital and downstream social capital may impact an organization’s effectiveness, acceptability and viability. The evaluation of propositions will focus on core conditions, as they have the strongest empirical evidence connecting them to the outcome. Unfortunately, due to the unreliability of the proposed measures of strong tie configurations vs. weak tie configurations, the propositions related to structural capital could not be evaluated using the QCA study. Additionally, this instrument did not capture the difficulty associated with the development of different dimensions of social capital, preventing investigation of Proposition 9

and Proposition 10. A summary of all propositions presented in Chapter 3 and their alignment with the findings from the QCA study is presented in Table 20.

Table 20. Summary, Propositions and QCA results

Proposition	Alignment with QCA Findings
P1: For social enterprises employing a Provision SVCS, prioritizing the development of upstream cognitive capital will be particularly useful in achieving organizational effectiveness.	Supported
P2: For social enterprises employing a Provision SVCS, prioritizing the development of downstream structural capital will be particularly useful in achieving organizational effectiveness.	Not Evaluated
P3: The overall effectiveness of focal organizations employing Provision SVCSs is enhanced by implementation of a philanthropy financial model.	Not Supported
P4: For social enterprises employing an Inclusion SVCS, prioritizing the development of upstream relational capital will be particularly useful in achieving organizational effectiveness.	Not Supported
P5: For social enterprises employing an Inclusion SVCS, prioritizing the development of downstream cognitive capital will be particularly useful in achieving organizational effectiveness.	Not Supported
P6: The overall effectiveness of focal organizations employing Inclusions SVCSs is supported by the implementation of an internal investment financial model.	Not Supported
P7: For social enterprises employing a Paired SVCS, prioritizing the development of upstream relational capital will be particularly useful in achieving organizational effectiveness.	Not Evaluated
P8: For social enterprises employing a Paired SVCS, prioritizing the development of downstream structural capital will be particularly useful in achieving organizational effectiveness.	Not Evaluated
P9: Serving geographically distant beneficiaries increases the difficulty of developing relational capital.	Not Evaluated
P10: Serving culturally distant beneficiaries increases the difficulty of developing cognitive capital.	Not Evaluated

Proposition 1 links upstream cognitive capital with the effectiveness of organizations with Provision SVCSs, indicating that it should have a strong relationship. This finding is weakly supported by the presence of configuration S3 in Table 13, which presents upstream cognitive capital as a core condition associated with effectiveness. This configuration is the only result in this effectiveness analysis that presents upstream cognitive capital as a core condition, suggesting that upstream cognitive capital may have a stronger association with effectiveness for organizations with Provision SVCSs than Paired or Inclusion SVCSs. Additionally, the only other configuration limited to Provision SVCSs that had any form of social capital as a core condition associated with effectiveness referred to the absence, rather than presence of relational capital. While structural capital was not evaluated in this analysis, these findings do provide support for the suggestion that upstream cognitive capital is particularly useful for organizations with Provision SVCSs.

Proposition 3 suggests that organizations with a Provision SVCS would be more effective if they employed a philanthropy financial model, in which revenues are not extracted from their beneficiaries. The results of analyses on organizational effectiveness identified a configuration where revenue extraction from beneficiaries was a core condition for effectiveness in organizations with Provision SVCSs. Thus, this analysis does not support Proposition 3.

Proposition 4 indicates that the development of upstream relational capital would have a strong association with effectiveness for organizations with an Inclusion SVCS. Table 13 does not indicate that any configurations that link the presence of upstream relational capital and upstream beneficiaries with effectiveness. Thus, this study does not provide support for Proposition 4.

Proposition 5 suggests that downstream cognitive capital has a strong association with organizational effectiveness for organizations with Inclusion SVCSs. As demonstrated by the

results presented in Table 14, this proposition is not supported by the findings of the QCA study. While there are solutions that present downstream cognitive capital as a peripheral condition, the only configuration that indicates a strong empirical link between cognitive capital and effectiveness applies only to organizations with a Provision SVCS.

Proposition 6 suggests that organizations employing an Inclusion SVCS may have greater effectiveness if they adopt an internal investment financial model. Examining the results in both Table 13 and Table 14 indicates that there are several configurations where the absence of downstream beneficiaries (Inclusion SVCS) is a core condition alongside the presence of a for-profit financial model. In contrast, the only configuration where a non-profit financial model is core applies only to organizations with a Provision SVCS. Thus, this analysis does not support proposition 6, instead suggesting that a for-profit model may be more fruitful for organizations with Inclusion SVCS.

Proposition 7 suggests that organizations with a Paired SVCS would share the same constraints in their upstream supply chains as an organization with an Inclusion SVCS. Thus, it was expected that these organizations would see greater effectiveness if they had high upstream relational capital. As separate analyses had to be run based on the presence of upstream and downstream beneficiaries, a configuration indicating the presence of upstream beneficiaries may apply to Inclusion or Paired SVCSs. However, as Inclusion SVCSs do not have downstream beneficiaries, they do not extract revenues from their beneficiaries. Therefore, any configuration that indicates the presence of upstream beneficiaries alongside the revenue extraction from beneficiaries indicates a Paired SVCS. In Table 13, which captures effectiveness using upstream social capital, S1a applies to organizations with a Paired SVCS. However, this configuration does

not include the presence of upstream relational capital as either a core or peripheral condition. Therefore, the QCA analysis does not provide support for this proposition.

5.6 Conclusion

This chapter described the development and execution of a small-N study, using fsQCA to examine how different configurations of SVCS components, upstream social capital and downstream social capital contribute to organizational acceptability, viability and effectiveness.

This study provided three contributions to this dissertation. First, it was a useful exercise to validate and refine the conceptual framework put forth in Chapter 3. For example, it provided evidence for the empirical usefulness of the philanthropy financial model (in which revenues are not extracted from beneficiaries) in addition to a simple delineation of organizations into the categories of for-profit and non-profit. Second, it demonstrated that no SVCS configuration in and of itself is sufficient for an organization to achieve acceptability, viability or effectiveness. This finding provides further support to this dissertation's assertion that supply chain management plays a crucial role in the effectiveness of social enterprises, and that overlooking the structure and management of social enterprise supply chains can have negative consequences for the effectiveness of social enterprises. Finally, this study provided an initial opportunity to evaluate the propositions initially put forth in Chapter 3 and build new insight into the impact of supply chain social capital on social enterprise effectiveness. The limitations of this study will be described in detail in Chapter 7.

The next chapter presents the findings of a multiple case study involving ten diverse social enterprises. Combining insights from the multiple case studies with the results of the QCA will help to enhance the robustness of the study's conclusions. The multiple case study allows an investigation into the managerial rationale for particular SVCS and SISC decisions and practices

from the perspective of those involved in the SISC activities. Where QCA on its own may provide interesting insight into how different configurations of practice contribute to or detract from SISC effectiveness, the addition of the multiple case study component presented in the subsequent chapter helps to contextualize the QCA results in real-world practice. By using the multiple data sources and methods of analysis, these studies will present a fuller picture of the relationship between SISC social capital and the effectiveness of social enterprises, including what configurations of upstream and downstream social capital contribute to SISC effectiveness, and in the presence of which additional causal conditions.

6. Multiple Case Study

6.1 Introduction

This chapter outlines the methodology, analysis and findings of a multiple case study, identifying patterns of social capital development across ten social enterprises with diverse social value creation strategies (SVCSs). This study addresses the following three specific research questions presented in Chapter 4:

- 1. If and how do focal organizations engage with beneficiaries in different ways than conventional organizations would engage their supply chain partners or customers?*
- 2. Do the development and benefits associated with different dimensions of social capital differ based on the SVCS employed by the focal organization?*
- 3. If and how do the development and impact of social capital differ between upstream and downstream supply chain segments?*

First, this chapter presents a detailed description of the methodology used in this study, including case selection criteria, data sources, data collection procedures and the coding procedure applied to conduct the analysis. Subsequently, the chapter presents insights from the case studies regarding the key supply chain constraints inherent to different SVCSs. Finally, the chapter proposes a theoretical model and a series of propositions regarding the development and prioritization of social capital development within the supply chains of social enterprises, highlighting the impact of SVCSs on the location and development of different dimensions of social capital within the supply chain.

6.2 Methodology

6.2.1 Case selection procedure and criteria

As described in Section 4.1, one difficulty present in this study is the unique characteristics of the population under evaluation; primarily, that the population of social enterprises with product-based supply chains is quite small. Although this study involved cases selected on the basis of

theoretically relevant similarities and differences, ultimately the final sample was determined in part by the visibility, proximity and cooperativeness of the organizations approached. The SVCS components among all organizations invited to participate in the study (20 organizations total) is presented in Appendix B. As with the QCA study, invitations were sent in multiple waves and the organizations invited to participate reflect an attempt to construct a diverse pool of participating organizations, rather than reflecting the balance of these SVCS components in the social enterprise population.

Case selection for the multiple case study utilized a diverse case selection strategy (Seawright and Gerring 2008), involving representation of cases in each category of the variable of interest, in this case, SVCSs. Additionally, case selection was also supported by a “most different” approach, where certain cases were selected because they closely resembled another selected case in many ways but differed in terms of one theoretically relevant variable (Seawright and Gerring 2008). In this context, several sets of cases are retained where the activity link is similar, but other characteristics vary, like the financial model of the focal organization (for-profit or non-profit) or the geographic proximity of their beneficiaries (local vs. distant). This case selection process may help reveal how different components of SVCSs interact to impact supply chain management and effectiveness and how different components, either individually or in combination, impact the usefulness of different dimensions of upstream and downstream social capital.

The goal of this study is theoretical elaboration via horizontal contrasting of cases (Fisher and Aguinis 2017), and this case selection approach provides an opportunity to compare multiple SVCS configurations. In addition to theoretical considerations, cases were selected on the basis of their proximity to the author in order to enable in-person interviews. Based on the above

considerations, a total of 10 cases were examined. The characteristics of these cases are summarized in Table 21 below. Additionally, brief summaries of each case describing the organization’s value design, value delivery and value capture as it relates to each organization’s SVCS and supply chain structure is provided in Appendix F.

Table 21. Summary, social value creation strategies of participating organizations

Name	Founded	Products/ Services	Paid Staff	Activity Link	Financial Model	Beneficiary Geographic Distance	Beneficiary Cultural Distance
<i>Agriculture 1</i>	2015	<ul style="list-style-type: none"> • Small-scale agricultural facilities • Horticulture remote learning curriculum 	5	Provision	Internal Investment	Distant	Distant
<i>Agriculture 2</i>	2015	<ul style="list-style-type: none"> • Small-scale agricultural facilities 	15	Provision	External Distribution	Distant	Mixed
<i>Agriculture 3</i>	2017	<ul style="list-style-type: none"> • Egg incubator 	2	Provision	External Distribution	Local	Distant
<i>Clothing</i>	2011	<ul style="list-style-type: none"> • Winter coats 	35	Paired	Philanthropy	Local	Local
<i>Food 1</i>	2015	<ul style="list-style-type: none"> • Jam 	2	Inclusion	Internal Investment	Local	Local
<i>Food 2</i>	2012	<ul style="list-style-type: none"> • Honey 	2	Inclusion	External Distribution	Distant	Distant
<i>Food 3</i>	2017	<ul style="list-style-type: none"> • Soup 	2	Inclusion	Internal Investment	Local	Local
<i>Handicrafts 1</i>	2009	<ul style="list-style-type: none"> • Jewelry • Housewares 	2	Inclusion	Philanthropy	Distant	Distant
<i>Handicrafts 2</i>	2012	<ul style="list-style-type: none"> • Jewelry • Housewares 	3	Inclusion	External Distribution	Distant	Distant
<i>Skincare</i>	2016	<ul style="list-style-type: none"> • Lotions, soaps, lip balms 	1	Inclusion	External Distribution	Distant	Distant

6.2.2 Data sources and methods

In all cases but *Agriculture 3* (where the interview was conducted with a co-founder), interviews were conducted with the person in the focal organization responsible for supply chain management. Generally, due to the size of the participant organizations, respondents were responsible for multiple functions within the organization, and even if not directly overseeing supply chain management, had high visibility into activities undertaken by their colleagues.

To gather insight from across the supply chain, interviews were also conducted with external stakeholders for all cases except *Clothing*. Specifically, suppliers, buyers, funders and other support organizations like incubators or networking associations were targeted for participation. This procedure created an opportunity to validate the insights from focal organization members and provide an outside perspective into the focal organization's effectiveness from other actors on whom the focal organization depends.

To ensure the reliability and comparability of the data collected across cases, an interview protocol was followed for all interviews. The interview protocol was created to capture the following broad categories of information:

- Organizational history including mission formation
- Professional history of interview participant
- Overview of supply chain architecture and partnerships
- Challenges, constraints and successes in supply chain management
- Financial challenges, constraints and successes
- Mission-oriented partnerships, challenges, constraints and successes

The interviews used exclusively open-ended questions to allow participants to broadly explain their understanding of the phenomenon under investigation and allow the interview progression to be guided by the information that participants saw as most important or relevant to their experiences.

Interviews were conducted between October 2019 and August 2020. The majority of interviews with participants from the focal organizations themselves were conducted in-person, though telephone or videoconferencing were used where required based on participant availability and geographic accessibility. As data collection continued through the COVID-19 pandemic, data collection shifted to remote formats between March and August 2020. Interviews with participants from the focal organizations lasted 56 minutes on average, while interviews with external stakeholders had an average length of 40 minutes. Interview participants were primarily located in

Canada in the United States with the exception of one participant who is located in Zambia. A summary of interviews conducted for each case can be found in **Error! Reference source not found.**

Table 22. Summary, interviews conducted for participating organizations

Name	# of Interviews	Participant Roles
<i>Agriculture 1</i>	5	<ul style="list-style-type: none"> • Co-Founder, • Operations Manager • Supplier • Director, Support organization • Executive Director, Support organization
<i>Agriculture 2</i>	5	<ul style="list-style-type: none"> • Co-Founder (Email interview) • Operations Lead • Customer Success Manager • Customer • Executive Director, Support organization
<i>Agriculture 3</i>	3	<ul style="list-style-type: none"> • Co-Founder • Funder • Director, Support organization
<i>Clothing</i>	1	<ul style="list-style-type: none"> • Vice President, Operations & Finance
<i>Food 1</i>	5	<ul style="list-style-type: none"> • Program Director • Supplier • Buyer • Funder • Committee Member, Support organization
<i>Food 2</i>	2	<ul style="list-style-type: none"> • Co-Founder • Buyer
<i>Food 3</i>	2	<ul style="list-style-type: none"> • Executive Director • Head Chef
<i>Handicrafts 1</i>	3	<ul style="list-style-type: none"> • Co-Founder • Sales Manager • Buyer
<i>Handicrafts 2</i>	2	<ul style="list-style-type: none"> • Founder • Supplier
<i>Skincare</i>	4	<ul style="list-style-type: none"> • Founder • Retailer #1 • Retailer #2 • Committee Member, Support organization

All interviews were recorded and transcribed verbatim by the interviewer. All participants were provided an opportunity to review and correct the transcripts to support the reliability of the data. Analytic memos were written by the interviewer upon completion of each interview to

highlight important insights gained from the interview (Saldaña 2013) and to take note of information gathered through the interview that is not reflected in the transcript. For example, two in-person interviews involved tours of production spaces used by the focal organizations. Secondary data was also gathered from focal organization and external stakeholder websites, as well as from blog posts and news articles written about the focal organization or external stakeholders. Combining secondary data sources and interview transcripts, a total of 685 pages of material were coded for this study. A database was created to organize all interview transcripts from internal and external stakeholders, secondary data and memos associated with each of the ten cases.

6.2.3 Coding procedure

In the earliest stages of the project, the data were initially investigated using open coding. The initial interview protocol was developed with a goal of examining social enterprise supply chains in the context of contingency theory and how their strategy affected their supply chain architecture. However, during the initial coding of early interviews, emphasis on the nature of supply chain relationships emerged, suggesting that social capital theory would be a relevant foundation for further analysis.

Following this change in theoretical foundation, elaborative coding was used to connect codes identified during open coding with constructs related to social capital theory drawn from the existing literature (Saldaña 2013). Specifically, overarching codes were used relating to the three dimensions of social capital (structural, relational, cognitive), with additional nested codes emerging based on specific issues and practices addressed in the interviews related to these social capital dimensions. Other codes were created for the costs associated with developing social capital and benefits associated with social capital. Axial coding was then used to remove redundant

nested codes and prioritize those that were most dominant within the data (Saldaña 2013). Table 23 describes practices that were employed throughout the research design, data collection and analysis that support the validity and reliability of the findings.

Table 23. Practices to improve validity and reliability

Practices employed	
Construct Validity	<ul style="list-style-type: none"> • Multiple sources of evidence used for all cases • Where possible, interviews conducted with stakeholders from within and outside the organization • Multiple respondents from within organization interviewed where possible to reduce bias • Operationalization of social capital theory concepts during coding guided by established measures from the literature • Interview participants given opportunity to view and correct transcript
Internal Validity	<ul style="list-style-type: none"> • Case selection procedure allowed for contrasting across cases with similar and different social value creation strategies • Theory triangulation with social capital literature • Pattern matching used in analysis to assess replication of insights across cases with shared characteristics
External Validity	<ul style="list-style-type: none"> • Case selection allowed comparison across industries • Interview protocol included significant data gathering on focal organization history and context to support interpretation and analysis
Reliability	<ul style="list-style-type: none"> • Consistent interview protocol used • Case study database created for each focal organization • All interviews manually transcribed by interviewer • Selection criteria documented in case study protocol

6.3 Findings - Constraints & Opportunities

Using evidence from ten case studies, this section will validate and elaborate on the social value creation strategy (SVCS) framework presented in Chapter 3. In Chapter 3, the Activity Link is treated as the central characteristic of an organization’s SVCS, and their financial model and beneficiary characteristics are understood to modify the implementation of the Activity Link. The data collected during the qualitative study support this assertion, as two organizations with the same activity link shared far more in common than two activities with the same financial model or the same geographic or cultural proximity to their beneficiaries.

Among all types of SISCs, it was apparent that the constraints created by the focal organization's social value creation strategy are centralized in the supply chain segment where the beneficiaries are located. In order to achieve their social mission effectively, the focal organization must structure and manage their supply chain relationships in the constrained segment so as to mitigate those constraints. In contrast, the unconstrained supply chain segment does not create immediate threats to the focal organization's effectiveness, but instead provides opportunities for the focal organization to enhance its impact and viability.

The subsequent section of this chapter outlines the constraints and experienced by organizations with Provision and Inclusion SVCSs, additionally highlighting the areas in which organizations with a Paired SVCS will be aligned with each based on the presence of beneficiaries in both the upstream and downstream supply chain. First, inherent constraints and opportunities associated with each Activity Link are discussed. Subsequently, supply chain social capital is discussed with respect to how organizations develop or deploy different dimensions of social capital to exploit opportunities and mitigate threats, with attention paid to the modifying effect of each beneficiary characteristics and financial model.

6.3.1 Provision

Organizations who employ a Provision SVCS attempt to create value by providing a product or service that, through its use, addresses a previously unmet societal need. Three organizations examined during this study use a Provision SVCS: *Agriculture 1*, *Agriculture 2*, *Agriculture 3*. Additionally, *Clothing* employs a Paired SVCS, meaning it uses elements of both a Provision and Inclusion strategy, and its downstream supply chain resembles that of an organization using a Provision SVCS.

BENEFICIARY ACCESS – Common to the supply chains of organizations with Provision SVCSs or Inclusion SVCSs was centralization of constraints in the supply chain segment where beneficiaries are located. For Provision SVCSs, the beneficiaries are located only in the downstream supply chain and are the end recipients of the social value created by the focal organization, whether or not they are the direct customer of the focal organization. For all organizations with a Provision SVCS physically accessing their end beneficiaries is a significant threat to their ability to achieve their mission.

Agriculture 1, Agriculture 2 and Agriculture 3 all experience challenges related to the geographic and infrastructural characteristics of their downstream supply chain. For *Agriculture 1* and *Agriculture 2*, these difficulties stem from the remoteness of their Northern customers and the difficulty of getting their product to customer communities. Given the costs associated with air freight to the North, combined with the size of their products, marine freight is the most accessible way for *Agriculture 1* and *Agriculture 2* to get their products to Northern customers. This shipping schedule is dictated by ice coverage on their shipping routes, and *Agriculture 1* noted that they typically only have one or two opportunities a year to ship their product.

Well yeah, and then the issue is if we screw it up, or we miss certain things we have to wait a year to get if it's too big. (...) If you're lucky you might get a second sailing, but if not, you've gotta' wait the year.

– Chief Technology Officer, Agriculture 1

As a consequence, product quality and order completeness are key, as missing or defective components can delay product installation for the customer community by a full year.

In contrast, *Agriculture 3* can easily move their products to the general region where their customers live but knew when they started the organization that they would face significant challenges in the last mile, distributing their product to individual customers.

The last mile of distribution effort in developing countries is tough. It's really, really tough to do. So, in Zambia at [FORMER EMPLOYER], we were building our own last mile distribution network. So, myself and my Co-Founder, that's what we did for a year and a half is setting up this distribution network, so like we know sort of first-hand the challenges and how tough it really is.

– Co-founder, Agriculture 3

Key to the last mile challenge when working with these beneficiary customers is the fact that the geographic remoteness and/or low or inconsistent income of these customers have left them underserved by mainstream commercial organizations (Global Distributors Collective 2019). In response, a host of last mile distributors of various sizes have emerged in these markets to address this gap in service.

Clothing, whose downstream supply chain resembles that of an organization with a Provision SVCS, faces the same issues as *Agriculture 1*, *Agriculture 2* and *Agriculture 3* when it comes to distributing their product to the end beneficiaries. One complication arising from their product is that the people who could see the greatest health and safety benefit from the product are also the most difficult to reach as a result of social exclusion, rather than geographic isolation. While their product is beneficial for anyone who spends a significant amount of time outside, it was initially designed after *Clothing's* Founder noticed someone sleeping on the street just outside a shelter, rather than accessing the shelter's services. *Clothing* often distributes their products through service organizations like shelters, however they need a breadth of partnerships with diverse knowledge to help them connect to groups of beneficiaries who for many reasons may not access the services of organizations like shelters and are therefore not accessible through those distribution channels. A secondary source describes *Clothing's* partnership with student-run street outreach group at a local university, and the important role this organization and others play in helping *Clothing* figure out where their product could be directed to have the greatest impact.

PRODUCT ADOPTION – Another significant downstream threat faced by organizations with a Provision SVCS is their ability to facilitate beneficiary adoption of their product. In many cases, the product offered by the focal organization represents some sort of technological innovation that makes it easier, more cost effective or safer for beneficiaries to meet one of their basic needs. However, beneficiaries will not be able to capture social value from these products if they are not adopted or used correctly.

This adoption challenge was noted as being particularly relevant to *Agriculture 3*, whose product represents a technological enhancement upon basic agricultural practices with which beneficiaries may have years of experience.

The weakness is it's harder to sell people on things that are not what they've always done. So if you're raising chickens, people often think, "Well that's just the way that happens. The chickens sit on the eggs, some of them work, some of them don't work. And you get, if you have four eggs in the nest, maybe one will hatch". It's a different thing to say all four of them can hatch if you use this thing you've never used before. (...) Technology that works well is usually an extension of a behaviour that people are willing to adopt. So how do you get people to adopt a new behaviour?

- Support Organization Director, Agriculture 1 & Agriculture 3

Although they expect beneficiaries to see immediate financial returns from the adoption of their product, this value will not be realized if beneficiaries are unwilling to modify their existing agricultural routines or are for whatever reason unable to use the product according to its intended design.

For *Agriculture 2* and *Agriculture 3*, an important challenge is whether or not their customers will be able to operate their product effectively without sustained intervention and support from the focal organization. Both organizations produce hydroponic growing facilities in slightly different forms whose operation requires that customers build some familiarity with horticultural practices. Yet, both organizations initially prioritized sales to northern communities,

where the harsh climate has historically made agriculture untenable and of limited cultural relevance relative to other means of food acquisition.

When we were working in Nunavut, we found that one of our biggest roadblocks I guess was that there was no education in the local schools about like germination, about like, you know, harvesting plants. You know, there just wasn't anything there. So, it was like, you know, how do we promote this project and how are we able to combine economic opportunity, volunteer opportunities, if individuals don't know how to grow?

– Chief Technology Officer, Agriculture 1

For these organizations, successful adoption required that they provide sufficient training in the use of their systems in addition to general horticultural practices for their customers to be able to operate the system independently long-term.

Cost-Performance Trade-off – One of the universal constraints faced by organizations with a Provision SVCS is the financial accessibility of their products to the end user. The majority of these organizations serve beneficiaries who live in relative, if not absolute poverty, and they need to find a way to ensure their product is affordable for their intended customers.

So primarily the biggest thing why people don't or can't work with us is financial. And we bring the cost down as far as we can, but at a certain point it just doesn't make any sense for us to go any lower. We can't physically go any lower. And so, that's kinda the biggest constraint. (...) So, we don't get a lot of people saying, "Oh no, we don't see the value in what you guys do". People are like "Yeah, food is crazy expensive. It would be awesome if we could reduce the cost of food but we just can't afford a solution like that".

– Chief Technology Officer, Agriculture 1

The salience of constraint is affected by the organization's financial model. *Clothing* and *Agriculture 1* are registered charities, and as a result, all of their product sales must be aligned with their social mission. This all but guarantees that their customers will be highly sensitive to the cost of the product, even though both organizations produce products that may be appealing to mainstream customers.

For for-profit social enterprises like *Agriculture 2* and *Agriculture 3*, sales are not restricted to any particular groups of customers. The potential to sell to mainstream customers creates additional competitive pressures related to product performance, which may in turn negatively impact the initial affordability of their product for their mission-aligned customer group. In an interview with a secondary source, *Agriculture 2*'s CEO describes their choice to source relatively expensive LED lights for their product, suggesting that the higher upfront cost is paid off overtime through energy cost savings. The pressure to innovate to maintain competitiveness was reiterated by *Agriculture 2*'s Operations Lead.

Like they're always trying new things and testing new things, so we have to also do that or we'll just disappear and fizzle. (...) The suppliers are constantly evolving and because it's the new sexy industry, there's always new suppliers and so that's the struggle is evaluating all these, every day new up-and-coming suppliers and partners and research partners and, you know, potential consultants and all this noise to ensure that whatever we entertain is worthwhile for us and for our customers.

– Operations Lead, Agriculture 2

While these competitiveness enhancements may support the viability of the organization's activities by maintaining competitiveness, the cost implications may reduce the organization's acceptability from the perspective of mission-aligned customers to whom the product may no longer be financially accessible. To this end, upstream supply chain partners can play an important role in helping focal organizations design and manufacture products that optimize the balance between performance and affordability.

6.3.2 Inclusion

Organizations who employ an Inclusion SVCS create social value through the inclusion of beneficiaries into the supply chain activities. While this inclusion may occasionally happen in the downstream supply chain via distribution partnerships with entrepreneurs from the beneficiary community, it more often takes the form of social procurement, or the focal organization hiring

people from their target beneficiary population to work within the organization. Six organizations examined during this case use an Inclusion SVCS. *Skincare*, *Food 2*, *Handcrafts 1* and *Handicrafts 2* purchase goods from communities that otherwise face barriers to market participation. Meanwhile, *Food 1* and *Food 3* create impact by incorporating beneficiaries into their internal operations, either permanently or on an internship basis. Additionally, *Clothing*, who use a Paired SVCS has the characteristics of an Inclusion SVCS in their upstream supply chain, as they hire people from underemployed groups to work in their manufacturing facility.

SUSTAINED BENEFICIARY ENGAGEMENT – As previously mentioned, each organization’s SVCS is associated with particular operational and supply chain constraints, which are centralized in the supply chain segment where the beneficiaries are located. For a majority of organizations using an Inclusion SVCS, this means that they will experience the most significant constraints in their upstream supply chain. One of the major distinctions between Provision and Inclusion SVCSs is not just where beneficiaries are located within the supply chain, but the intensity of their involvement in the supply chain. Where organizations with a Provision SVCS only require brief contact with beneficiaries for the purposes of distributing their product, organizations using an Inclusion SVCS require sustained participation of the beneficiaries over time in order to maintain their operations, either because beneficiaries provide key inputs as suppliers or provide necessary labour. As a consequence, these organizations not only face challenges accessing the beneficiary population, but they may also need to adapt their activities to ensure participation is accessible to their target beneficiaries. These adaptations can be financial, policy-related or product-related, however, all of these adaptations can pose a threat to the focal organization’s viability.

For Inclusion organizations who work with distant beneficiaries, beneficiary inclusion tends to occur through procurement, with a desired effect of increasing economic empowerment of beneficiary supply chain partners (BSCPs) through sustained purchasing by the focal organization and by opening up channels that would increase the access of beneficiary supply chain partners to other customers. In addition to limited access to international markets, one of the key challenges faced by BSCPs is limited access to capital or the cashflow necessary to purchase the required inputs to fulfil customer orders. As a direct result of their social mission, social enterprises with an Inclusion SVCS may be required to make asymmetric financial investments into their relationships with BSCPs in order to make the desired exchange feasible.

Skincare purchases the primary input from their products from a small-scale shea processor that practices fair trade purchasing from local shea nut farmers and uses ethical and sustainable practices in their processing operation. When *Skincare* initiated their relationship with this supplier, they recognized that this supplier used more capital-intensive processing practices than other shea processors and would require a substantial investment to set up production to be able to meet *Skincare*'s demand.

So an example of that is that when we first started the social enterprise didn't have the funds to pay the farmers upfront and they needed to be able to do that in order to make the product for me.

– CEO, Skincare

Similarly, *Food 2*'s beneficiary supply chain partner has to pay upfront in cash for all of the honey they purchase from the beekeepers. This financial constraint moves downstream in the supply chain, also requiring *Food 2* to pay for their orders in advance of receipt.

The beekeeper is in the forest and they've had three months and they haven't had any money of any kind, six months maybe. They show up with a couple of buckets and they need to feed their kids, school fees. They need money. Well you know, the people that are taking that, they pay in cash. So they've paid for it right there on the spot. They had to give them buckets. They gave them the buckets, and they had to buy the buckets and give it to them and they'll bring it back next year in six months or whatever. So they've put up all of that cash and they put in equipment to process, and so you want honey and it takes three months, they go "I can't give you three months credit".

– Co-Founder, Food 2

For Inclusion organizations who work with local beneficiaries, Inclusion typically occurs within the organization itself. These organizations are referred to in the social entrepreneurship literature as Work Integration Social Enterprises (WISEs) (Longoni et al. 2019). Their missions tend to focus on supporting skill development and economic empowerment for beneficiaries who experience barriers to employment in conventional job markets. The barriers that affect the beneficiaries' access to conventional employment also create challenges for these social enterprises.

But I think some of the clients from the projects that we fund can't go into even say, "I'm gonna work part-time now". I think that's too much. And I think they need more transition time. They need to be able to have more flexibility and not have the fear of you know, "I'm going to lose everything if I lose my job". Just trying to ease them in, especially when you're faced with homelessness. I mean that's such a huge hurdle to have to overcome that being able... thinking about working full-time or even part-time is probably too much.

– Program Manager – Funder, Food 1

For example, *Clothing* mentioned challenge related to employee absenteeism, and its effect on their ability to schedule production on a daily basis.

So typically, with this workforce some of the new people really struggle in getting here and there's all kinds of things that can take their head out of the game for a minute. (...) So it can be rough to figure out how you want to stack each day.

– VP Operations & Finance, Clothing

This sentiment was echoed by *Food 3*'s Executive Director in relation to the gap between the number of participants who sign up for their program each year compared to the number of participants who are able to successfully finish.

It's a little bit tricky because one of the things that we want to do is to be barrier-free. So if you think you can make the commitment and you want a spot, you put your name on the list and you get a spot. (...) But because of that, we have a high dropout rate, so we'll work with maybe 20, 25 people and then 12-15 will like finish successfully, right, a year.

– Executive Director, Food 3

The final notable adaptation that is consistent across all Inclusion organizations, regardless of whether the beneficiaries are local or distant relative to the focal organization is that the product offerings of the focal organization will be dictated by the resources and capabilities possessed by the BSCPs, rather than customer demand. With the exception of *Clothing*, whose product design preceded the inclusion of beneficiaries into the organization's operations, the Inclusion organizations studied can all be described as being formed opportunistically, where the creation of the organization itself came after the initiation of a relationship with their BSCPs. It is therefore unsurprising that the product offerings by all of these organizations, even *Clothing*, are impacted by the BSCPs.

For *Food 2*, *Handcrafts 1*, *Handicrafts 2* and *Skincare*, all of whom work with distant BSCPs, their product offerings were explicitly determined by the capabilities and available resources of the BSCPs. Each of these focal organizations formed a relationship with an existing organization or collective of BSCPs and designed their own organization to make use of the outputs created by the BSCPs in order to support the BSCP's work.

We say like we want to, our mission as an organization is to support people there, as a result we purchase products, like based on the skills they already have, what they can make.

– Sales Manager, Handicrafts 1

And [the Founder of our BSCP Org.] said, “Well we’ve trained over 6000 people to become beekeepers. We exported 800 tons of honey last year. Yeah, but we’re just selling in bulk, we don’t get a very good price for it. We’re trying to figure out how do you value add it? How do you get more money for it so the beekeepers can make more income out of it?”. So, we said, well we’d like to figure out how to do that and six years ago we started, and we ordered 28,000 bottles of honey.

– Co-Founder, Food 2

As a consequence, these organizations have limited ability to make significant changes to their product offerings without jeopardizing their relationships with their BSCPs and abandoning their social mission.

Inclusion organizations who work with local beneficiaries, like *Food 1*, *Food 3* and *Clothing* also experience constraints related to their BSCPs. Where the Inclusion organizations previously described are limited by the skills and resources immediately available to the BSCPs in their own regions, Inclusion organizations who include BSCPs in their internal operations are limited in the level of skill and complexity required in their production processes, as their hiring decisions are driven by their social mission and not the skillset of the BSCPs.

Food 1, *Food 3* and *Clothing* identify this tension explicitly when discussing the potential of their organizations to scale their production over time. For these organizations, maintaining participant accessibility and creating a supportive environment requires acceptance of what may be seen as prohibitively low productivity in a conventional organization.

So until this point, [Head Chef] could make way more soup on his own than he does with the interns there. So, they’re actually more of a hazard to the business than a help.

– Executive Director, Food 3

However, these organizations produce a product primarily as a means to create their desired social value for their BSCPs. Their priority is to provide a social network for vulnerable community members and provide a supportive environment for participants to develop skills and competencies that may support future employment. To this end, *Food 1* and *Clothing* both expressed an unwillingness to prioritize efficiency and productivity gains over the participant experience.

I'm working with someone who's got lots of manufacturing experience and you know, the first conversation we had to have was like, "yes I want to be able to make more jam faster", and we're never gonna' have a high-pressure experience for people who are just kinda' getting back into the swing of employment.

– Program Director, Food 1

But at the same time the more efficient I get, then guess what I need, less employees so, is that really my goal? Well isn't that odd for the first time? (...) So, you know, as I've talked about bringing on the other line, I'm like "Hmm let me take off the gas". I need to hire more. I need to help more.

– VP Operations & Finance, Clothing

INTERNALIZATION OF COSTS –Where Provision organizations struggle to balance the performance and cost of their products to optimize beneficiary impact, Inclusion organizations have to balance their internalization of the costs associated with their social mission with the need to compete against conventional organizations in their sales to non-beneficiary customers. For Inclusion organizations working with local beneficiaries, some of these internalized costs relate to staffing or differences in productivity relative to conventional organizations, given the learning curve of their BSCPs.

Because the retailers need a 28% or 30% profit margin, and we're not going to come in where Campbell's or any of those guys are because we have, it's all fresh and we can't do that. We have different staffing costs and the whole thing. So, it's just trying to figure out what does that look like?

– Executive Director, Food 3

When Inclusion organizations are working with distant beneficiaries, the types of costs internalized include working with suppliers who pay higher wages to their employees, costs associated with providing additional support for community development initiatives in their suppliers' communities, as well as absorbing the cost of non-conforming products to shield their BSCPs from financial risk. Although they may be able to pass these additional costs on to the end customer, *Handicrafts 1* indicated that in practice, consumers may be less willing to pay more for ethically produced goods than they claim.

You see in surveys people are willing to spend like a little bit more on ethical products, or people say they are, but then you don't see that reflected in their purchasing, their actual decision-making [...] you vote with your dollar, right? And I don't actually see that reflected.

– Co-Founder, Handicrafts 1

As many of these organizations sell their product through distributors or retailers, their ability to compete against conventional organizations is affected by the extent to which downstream partners value the procurement and manufacturing practices employed by the focal organization. For these reasons, downstream organizations within these SISCs can play an important role in helping focal organizations bear the costs they internalize as part of their social mission.

6.4 Findings - Supply Chain Social Capital

Social capital theory examines the ways in which people and organizations can accrue benefits from resources accessed through their relationships (Nahapiet and Ghoshal 1998). While supply chains are explicitly formed to facilitate access to specific resources, social capital theory can provide insight into the secondary benefits that organizations can accrue as a result based on the configuration and characteristics of these relationships. As identified in the previous section, social impact supply chains (SISCs) face specific supply chain constraints that can be directly linked to the social value creation strategy (SVCS) of the focal organization. Social capital theory provides

useful insights into the specific activities undertaken by the focal organizations of SISCs to overcome these constraints and access the social, intellectual, physical or financial resources possessed by their supply chain partners. Using insights from multiple case studies, this section of the dissertation identifies patterns in the application of social capital in SISCs, including the prioritization of different dimensions of social capital in the formation and management of the supply chain, and how social capital functions to alleviate constraints and exploit opportunities created by different SVCSs.

The supply chain constraints social enterprises experience while trying to carry out their social mission are centralized in the same supply chain segment as the focal organization's beneficiaries. Organizations with a Provision strategy experience constraints centralized in the downstream supply chain. The opposite is true for organizations using an Inclusion strategy, while organizations with a Paired strategy experience constraints in both their upstream and downstream supply chains. As these constraints pose immediate threats to the effectiveness of the focal organization, social capital development in the constrained supply chain segment should be prioritized over development in the unconstrained supply chain segment.

Proposition 1. *Social capital development in SISCs should be prioritized in the supply chain segment where the end beneficiaries are located.*

Despite the differing needs and challenges social enterprises face based on their social value creation strategy, the same general pattern of application was identified (see Figure 6). This pattern will be described in the subsequent sections of this chapter. The structural characteristics of the constrained supply chain segment may inhibit or facilitate the flow of social value across the supply chain through the presence or absence of direct ties between the focal organization and the beneficiaries. Relational capital in the constrained supply chain segment affects the amount of

value beneficiaries capture as a result of the focal organization’s intervention. Finally, cognitive capital is used as a means to meaningfully incorporate actors from the unconstrained supply chain segment into the impact generating activities and allow them to capture additional value from their participation.

The remainder of this chapter examines differences in how this pattern presents itself in the supply chains of organizations with Provision vs. Inclusion SVCSs, highlighting the specific practices employed by the focal organizations and how these patterns of social capital development alleviate the constraints identified in the previous section.

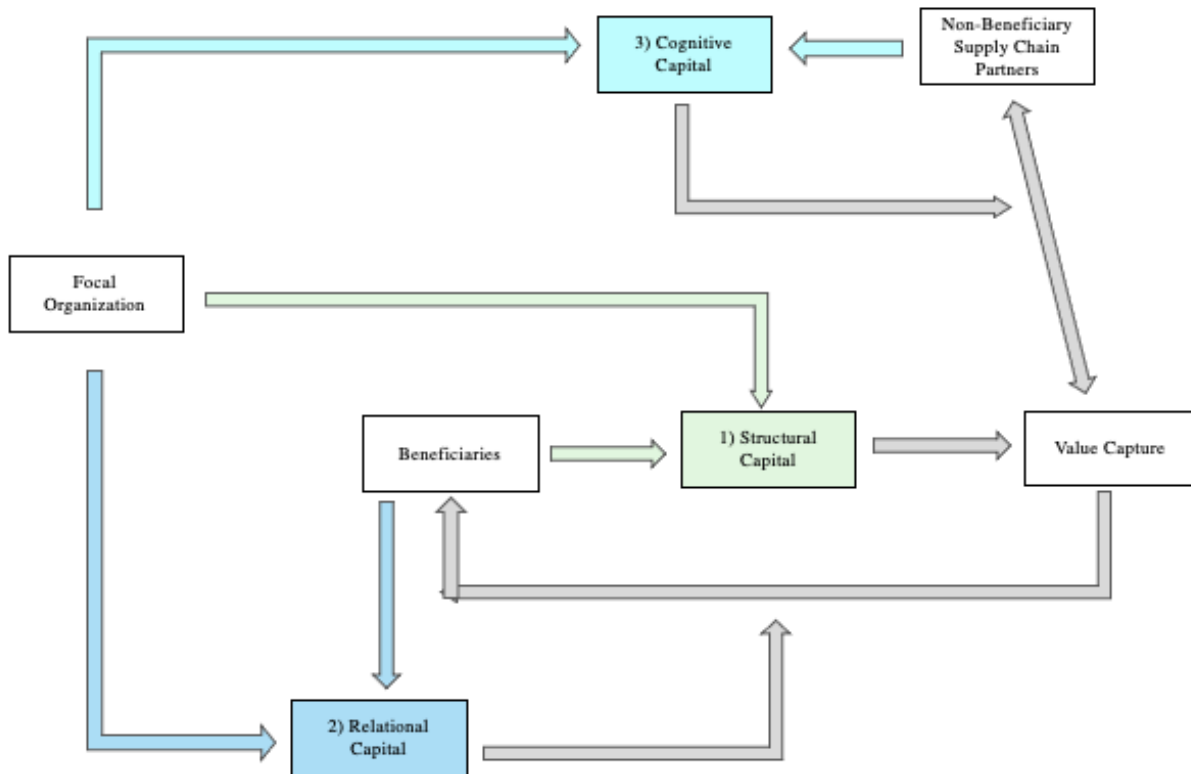


Figure 6. Social capital development in SISCs

6.5 Structural Capital

Structural social capital is embedded in the architecture of the supply chain in the form of characteristics like the strength and density of ties (Nahapiet and Ghoshal 1998). A portion of the

social capital literature focuses only on strong ties, referring to those involving frequent, high-intensity contact over a long duration (Granovetter 1973), as a source of social capital (Krause et al. 2007; Lawson et al. 2008). Yet, other literature highlights the benefits that actors can accrue from participation in a network characterized by weaker ties among diverse organizations (Katz and Anheier 2006).

In the context of SISCs, the primary outcome of interest related to structural capital is the extent to which the architecture, meaning the configuration of nodes and ties, of the supply chain enables the creation and transmission of social value to beneficiaries. As previously noted, the intensity and duration of contact the focal organization needs to have with the beneficiaries will vary based on the focal organization's social value creation strategy. It then follows that organizations with different requirements for beneficiary interaction will benefit from very different configurations of ties within their supply chains. As stated in Chapter 2 of this dissertation, this study does not automatically equate strong ties with the presence of structural capital. Instead, this study aims to illuminate which types of tie configurations support the effectiveness of different types of social enterprises, and define structural capital based on the configuration that is most beneficial to different types of organizations.

For each activity link, structural capital in the supply chain is discussed with reference to the presence or absence of ties between the focal organization and their end beneficiaries, and the strength or weakness of network ties within the constrained supply chain segment.

6.5.1 Provision

Constant among organizations with downstream beneficiaries is that these organizations do not share direct ties with their end beneficiaries. As stated in the previous section, organizations with a Provision SVCS do not require repeated contact with individual beneficiaries over time in order

to sustain either their operations or their social value creation. Instead, beneficiary contact in these SISCs can be most efficiently made through intermediaries who have existing connections to the beneficiary community. Given the various forms of social and economic exclusion faced by the beneficiaries these organizations are trying to serve, establishing strong ties directly with the end beneficiary would be costly for the focal organization in terms of time and financial resources, and would not necessarily increase social value capture by the beneficiaries or enhance the effectiveness of the focal organization. To mitigate these threats, these organizations generally choose not to transact directly with the end beneficiaries, but instead to partner with some actor (organization or individual) as a customer or distribution partner who would then be responsible for delivering social value to the end beneficiaries. This downstream supply chain architecture can help Provision organizations mitigate the barriers to beneficiary access inherent in their SVCS.

As the acceptability and value capture of the focal organization is directly affected by social value capture by the beneficiaries, the selection of these intermediaries has important strategic implications for the organization's ability to achieve its mission. Social value creation, which only occurs through beneficiary use of the product, is outsourced to these intermediaries.

Agriculture 1 and *Agriculture 2*, whose missions relate to the issue of food security and food sovereignty, work to serve beneficiaries with limited access to fresh, healthy food. To accomplish this goal, their customers are predominately other organizations who then take responsibility for distributing what is produced to the end beneficiaries through whichever means they choose. As *Agriculture 1* and *Agriculture 2* have different financial models, their approach to selecting these intermediary customers differ.

Agriculture 1's key customers are typically remote communities, rather than individual beneficiaries. As a charitable organization, all of their product sales must be aligned with their

mission, limiting customer relationships to organizations or actors with a clear tie to issues of food security and economic marginalization. Primarily, they transact with political bodies, like town councils, who purchase and manage the growing facilities and distribute what is produced to the end beneficiaries through local sales or through donations to community organizations. These customers are crucial to the acceptability of *Agriculture 1*, building awareness and support for the project among the end beneficiaries. In addition to reducing the need to manage the last mile and get food directly to the end beneficiaries, these intermediaries also reduce the salience of the geographic distance between *Agriculture 1* and the end beneficiaries by carrying out important activities needed to prepare for the project on *Agriculture 1*'s behalf.

They're the ones that take the ownership over the project and they really help us on ground. Like they have all the connections in their community to know, for us, we do as much as we can from the South but then it's like, they have their contacts in the schools and the government, so it really is kind of handed over to them and they help us do what we need to do.

– Operations Manager, Agriculture 1

Through these intermediary relationships, *Agriculture 1* is able to effectively serve their target beneficiaries without requiring direct contact with the individual community members who will be accessing the food produced in their facility. However, prioritizing relationships with political bodies and other community organizations creates additional risks associated with government processes, including increased planning times related to the duty-of-care political bodies have to their constituents, as well as the risk of turnover among government representatives during the project implementation process, both of which can increase project implementation times and decrease project viability.

Agriculture 2, as a for-profit organization, has a more varied customer base than *Agriculture 1*, as they are not required by their legal structure to prioritize any one customer group

over another. Where *Agriculture 1* frames their offering as a community development opportunity, *Agriculture 2* frames their offering as a business opportunity, open to any interested customer.

The way AG2 is structured is we are more of kind of a B2B company as opposed to B2C. We're essentially selling a business in a box, or kind of an entrepreneurial opportunity. So, each new customer that we bring on board is really bringing a new business into the economy because they're able to kind of grow this produce, which is ultimately just a commodity and then either sell it to their community, sell it to local grocery stores, have a direct-to-subscriber model.

– Customer Success Manager, Agriculture 2

As a result, *Agriculture 2* is able to target a much wider group of customers, increasing their volume of sales and enhancing their viability. However, a consequence of this B2B distribution model is that *Agriculture 2*'s initial target beneficiary group, people experiencing food insecurity, may not be the target market of their customers. This discrepancy may reduce *Agriculture 2*'s acceptability by shifting them away from their initial social mission. For example, one customer, an existing grocery store in the Yukon, purchased their system to increase the quality of their produce they already sold to their customers, rather than to address barriers to food access. In an interview, the store owner stated the cost of food in their community is no different than communities in southern Canada. By mediating their contact with end beneficiaries, both *Agriculture 1* and *Agriculture 2* are able to decrease the costs they bear associated with the last mile in their downstream supply chain. However, the selection of intermediaries has important consequences for the acceptability of the organization and their ability to create impact for their desired beneficiaries.

Unlike *Agriculture 1* and *Agriculture 2*, *Agriculture 3* relocated their operations to be geographically closer to their end beneficiaries, however their physical proximity does not entirely mitigate the last mile barriers related to infrastructure in the beneficiary communities or beneficiary decentralization. As a result, *Agriculture 3* also does not sell their product directly to

the end users of their product. Instead, they sell their product to existing solar energy product providers in their target markets. These solar distributors then independently manage the importation, registration and certification of this project and integrate it into their existing product offerings.

Almost every country in Africa in terms of the solar industry has a really good last mile distributor who's been successful, who's raised a lot of money and who is already servicing, you know, rural clients with similar products. So that's why our business model is partnering with those distribution companies and providing them with, you know, a solar product that can be, you know, integrated into their existing operations. But that's definitely the biggest challenge is the distribution effort.

– Co-Founder, Agriculture 3

Finally, *Clothing*, whose Paired activity link means beneficiaries are located in both the upstream and downstream supply chain segments, also partners with intermediaries to distribute their product to their downstream beneficiaries. While some coats are purchased on behalf of specific individual beneficiaries, they are more often distributed to various non-profit organizations that have existing service relationships with the beneficiary population, and these distribution partners will then allocate the product to the end beneficiaries based on observed need.

A lot of times what will happen is a shelter will have some of their sponsors pay for the jackets for us and we'll deliver them. We have a lot of people who just donate and sponsor a coat and say, "send it where you need it", right. So we'll do that certainly with the shelters here or other shelters.

– VP Operations & Finance, Clothing

Together, the above examples highlight the gains that Provision and Paired organizations can experience by structuring their downstream supply chain to include intermediaries, rather than creating direct ties to the end beneficiaries.

Proposition 2a. *The use of mediated focal organization-beneficiary relationships by organizations with downstream beneficiaries leverages existing social and service relationships within the beneficiary community to maximize efficiency and social acceptance.*

While these organizations have the use of intermediaries in common, they differ in terms of the number of intermediaries with whom they transact, and the nature of their ties to these intermediaries. Based on the evidence from the organizations described above, organizations with downstream beneficiaries may experience greater effectiveness with a downstream supply chain configuration characterized by a larger number of nodes to which the focal organization is weakly tied.

An example of the costs associated with developing strong ties with downstream intermediaries can be seen in the supply chain of *Agriculture 1*. *Agriculture 1* views their downstream intermediaries as their most important partner and works closely with these partners for a period of up to a year-and-a-half from project initiation until the full turnover of the system to the customer. One factor that contributes to the duration and intensity of *Agriculture 1*'s relationships with these intermediaries is a recognition of the risk of exploitation that these communities have historically faced when working with organizations from outside their community, as well as the complexity of the system itself and the need for sustained labour inputs from the beneficiary community.

Basically, for the idea that like with the larger tier projects because we're talking hundreds of thousands of dollars and multi-year commitments and large-scale infrastructure, we don't just wanna' say, "Here you go. Away we go". Because that's typically been the modus operandi of a lot of organizations. (...) It's being able to educate and teach and train and have floor planning and have people local step into positions of power and actually be able to operate the facilities and do all of that, which truly becomes kinda like the bigger or more difficult piece of the puzzle.

– Chief Technology Officer – Agriculture 1

While the intensity of their relationship with these intermediaries may positively affect the acceptability of *Agriculture 1*, they recognize that it creates a barrier to scaling their activities and enhancing the viability of the organization through increased sales.

I think that was something that we faced for a while, where like it is big and it has a long implementation time. So, it's like how do we do this, how can we do this for example with more than one community at the same time. You know, can we implement it at four communities at the same time? You know, how long will it take us between projects?

– Operations Manager, Agriculture 1

In contrast, *Agriculture 2*, *Agriculture 3* and *Clothing* do not require the same intensity of interaction and collaboration with their intermediaries. Where *Agriculture 1* works closely with a small number of these intermediaries at any given time, *Agriculture 2*, *Agriculture 3* and *Clothing* have the capacity due to the nature of their weaker intermediary ties to efficiently work with a larger number of intermediaries and as a result, reach a larger group of end beneficiaries. Requiring less input and interaction from the focal organization, these intermediaries are then empowered to act independently to serve their own customers, the end beneficiaries.

Proposition 2b. *The overall effectiveness of organizations with downstream beneficiaries is supported by weakly tied downstream supply chain configurations featuring mediated focal organization-beneficiary relationships.*

6.5.2 Inclusion

Unlike Provision organizations, Inclusion organizations require continued engagement with their beneficiaries to sustain both their general operations and social value creation, and these beneficiaries are located primarily within the upstream supply chain. As a consequence of these characteristics, organizations with an Inclusion SVCS tend to interact directly and with their beneficiary supply chain partners.

For organizations who want to source their products responsibly, there are many fair-trade wholesalers available, whose goods can be accessed through conventional channels not requiring direct contact with individual producers or small-scale collectives. While this procurement strategy would support an organization in demonstrating a commitment to responsible labour practices, organizations with an Inclusion SVCS tend to play a more active role in supporting their suppliers.

As previously stated, many Inclusion organizations are formed following the development of a relationship with a particular group of BSCPs. For this reason, their missions are often more specific than simply encouraging fair trade practices, but rather focus on creating an impact for the specific group of BSCPs with whom they transact. Direct contact with BSCPs can therefore be an important source of differentiation for organizations with an Inclusion SVCS, and a necessity for creating their desired impact. This is particularly true for Inclusion organizations who source from distant BSCPs.

I would say what sets us apart from other fair-trade stores and such is that we are connected with the artisans personally. Like we know them, we've been in each of their homes, ate with their families. I know their kids. (...) There's a baby named after me. And there's [another] named after my husband. They've met my kids, so there's a definite relationship there. I didn't realize that was unique until I met more social enterprises and they were like, "That's a really unique situation".

– Founder, Handicrafts 1

These direct relationships also enable the focal organizations to ensure that their financial investments in their relationships with their BSCPs are going to be as impactful as possible. Where conventional fair-trade purchasing tends to involve an intermediary that acts as an importer/exporter, Inclusion organizations' upstream supply chain relationships are structured so as to minimize the number of actors involved, ensuring more money filters to the BSCPs

We want to be as direct as possible. So, I don't have a middleman, I have a direct connection to the farmers in Uganda. (...) So we're cutting out that middleman which is great because the cost then is to the farmer and not to the middleman. So our farmers are getting more money, which is important to us.

– CEO, Body Products

Proposition 3a. *For organizations with upstream beneficiaries, direct focal organization-beneficiary ties avoid the dilution of financial, social and information flows to beneficiaries to maximize the efficiency and impact of the relationship.*

As demonstrated by the examples above, having direct relationships with beneficiary supply chain partners has the potential to enhance both the acceptability and the financial viability of organizations with an Inclusion SVCS, while increasing the social value generated through their upstream transactions. For Inclusion organizations who integrate BSCPs directly into their internal operations as part of their social mission, direct ties to BSCPs are an inherent feature of their supply chain architecture. Perhaps the most important contribution these direct ties make to the effectiveness of Inclusion organizations is that they enable the development of relational capital, as will be discussed in the subsequent section of this chapter.

***Proposition 3b.** The overall effectiveness of organizations with upstream beneficiaries is supported by the development of a strongly tied upstream supply chain configuration with direct ties between the focal organization and beneficiaries.*

6.6 Relational Capital

The relational dimension of social capital refers to the personal connections that actors in a network develop over the history of their interactions (Nahapiet and Ghoshal 1998). In SISCs, relational capital appears to play an important role in determining the extent to which beneficiaries are able to capture social value from the focal organization's intervention such that higher levels of beneficiary-directed relational capital leads to greater social value capture by beneficiaries. In ties that are characterized by high levels of relational capital, actors experience trust, familiarity and identification with each other (Ataseven et al. 2018). Each of these relationship attributes support beneficiary engagement with the SISC activities, however their development and location within the supply chain differs based on the focal organization's SVCS. For each activity link, the specific mechanisms used within the supply chain to develop beneficiary-directed relational capital will be discussed, as well as its consequences for beneficiary value capture.

6.6.1 Provision

As discussed in the previous section, organizations with a Provision SVCS seldom transact directly with the end beneficiaries, choosing instead to allow other actors within the supply chain to act as intermediaries and deliver social value to the end beneficiaries. These intermediaries are selected based on the presence or absence of existing ties to the beneficiary community. However, the nature of the ties between the intermediary and the beneficiary community can have important implications for social value capture by the beneficiaries by alleviating constraints related to beneficiary product adoption and continued product use.

One of the distinguishing characteristics of social capital in general is its appropriability (Adler and Kwon 2002), referring to its capacity to create value beyond its intended purposes. In addition to its potential to create value in multiple ways, social capital cannot be owned by a single actor within a network, and is instead jointly owned by and accessible to all actors within the relationship (Nahapiet and Ghoshal 1998). These characteristics of social capital are crucial to the ability of organizations with a Provision SVCS to leverage the relational capital possessed by downstream intermediaries. The presence of high levels of relational capital between the downstream intermediaries and the end beneficiaries reduces constraints associated with product adoption, and as a result, enhances the focal organization's effectiveness via increased beneficiary impact.

One barrier many social enterprises experience in serving their targeted beneficiary population is a difference in the social location of the entrepreneurs and employees within these organizations, and the intended beneficiary population. While there are many social entrepreneurs from marginalized or underdeveloped communities working to create social value for their communities, many social enterprise founders and employees come from outside of the beneficiary communities they are trying to engage with and may lack lived experience of the social, economic

or geographic exclusion that the beneficiaries experience. Having support from other organizations who already have trusting relationships with the beneficiary community may help foster increased produced adoption by the end beneficiaries.

Agriculture 1 and *Agriculture 2* both at least initially targeted geographically remote and Northern communities with largely Indigenous populations, and as a result, were both serving beneficiaries at high geographic and cultural distance from the majority of their employees. Historical exploitation of Indigenous people in Canada has made it more difficult for external organizations to initiate relationships with Indigenous communities. *Agriculture 1* articulated the need to connect with existing organizations and institutions in the community like schools to gradually build engagement within the communities to create support for new projects.

We've been up in communities before where people would be like, "We would love this, but you shouldn't build here", and we're like "Why?" and they're like "Oh the kids'll burn it down". And it's like "Oh that's a big red mark". That's a really hard thing for us to do, so we take a step back and look at how can we bring in community engagement pieces on an educational level for students or kids so that they can actually feel engaged and have ownership over something and revisit in a couple years. (...)

– Chief Technology Officer, Agriculture 1

These relationships are important not only for getting initial access to the community, but also for ensuring that the projects are sustained successfully after management of the growing facility is fully transitioned to the community.

Yeah, so for this particular community we worked with the Community Wellness Centre. So there's two of them: there's one that's run through the hospital that's more of an addictions clinic and then there's another one which is more community-focused in that it offers community programming like cooking, wellness. There's a space where people can come hang out and so we focused on chatting with both of those as main project leads basically to take some of this over. We talked with the band council, which is like the local municipal government, and we talked with the school as well.

– Chief Technology Officer, Agriculture 1

Working with trusted local organizations, governments and schools helps to enhance the legitimacy of the project, while also giving ownership for distribution of the food it produces to organizations who know where within the community there the greatest need may be. Similarly, *Clothing's* decision to distribute primarily through service organizations ensures that beneficiaries are receiving their product from an organization with whom they already have an existing service relationship and may be more likely to trust than if they were approached with the coat by a stranger.

The benefits of downstream relational capital are also visible in *Agriculture 2's* supply chain with regard to the business development of their first customer. This customer is located in a close-knit northern town with a population of about 800 people. Operating on a break-even basis, this customer takes the produce grown in their facility and sells it to community members, local restaurants and cafeterias through a subscription model as a way to increase the accessibility and variety of fresh food in the community. Owing to both the size of the community and its relative isolation (it is only accessible by ice road, train or boat), people in this community know each other well, which has made it easy for this customer to adapt their own business model to ensure as many people within the community can access their produce as possible.

We're not breaking thumbs or knocking down people's doors for money. Like people who live here live here. You know where they are all the time, it doesn't really matter. (...) And [town] is small again, like I said. I mean most people just leave their doors open, especially in the winter too, like we just come to town, we just open their front door and throw their veggie bag in. (...) We said free delivery for seniors or people with mobility issues, or just call me and let's talk about your situation. Again, like these aren't strangers, these are people in a small town.

– Customer, Agriculture 2

As a result of their relational capital within the community, this customer is able to increase accessibility of their produce to the end beneficiaries, which in turn enhances *Agriculture 2's*

impact. As *Agriculture 2's* acceptability and impact are directly tied to the business models adopted by their customers, *Agriculture 2's* impact can be enhanced through the prioritization of customers who are already embedded and have trusting relationships with people experiencing food insecurity.

Proposition 4a. *For organizations with downstream beneficiaries, the selection of distribution intermediaries with high beneficiary-oriented relational capital enables the prioritization of social value delivery to beneficiaries with the greatest need.*

Proposition 4b. *The acceptability of the organizations with downstream beneficiaries is enhanced by the prioritization of beneficiary-oriented relational capital as a selection criterion for distribution intermediaries.*

6.6.2 Inclusion

As previously described, Inclusion organizations adapt conventional supply chain management practices to facilitate the sustained engagement of their BSCPs over longer periods of time, and these adaptations may directly threaten the viability of the focal organization by making these organizations vulnerable to opportunism. By developing relational capital with BSCPs, Inclusion focal organizations are able to build mutual commitment and mitigate the risk of opportunistic behaviour and enhance social value capture by beneficiaries.

One of the characteristics of relationships between Inclusion organizations and their beneficiary supply chain partners is that they are highly asymmetric by design. This asymmetry presents itself in multiple areas of the relationship, including relative power, financial resources and market access of the focal organization and the BSCPs. All of these conditions help to create an ideal environment for focal organization opportunism and dominance within the relationship (Brito and Miguel 2017). Yet instead of behaving opportunistically, these organizations engage in repeated acts of benevolence, making concessions and investments in their relationships with the

BSCPs. Wang and Jap (2017) describe the phenomenon of benevolence on the part of high power actors in asymmetric relationships as a ‘benevolent dictatorship’. Their findings suggest that benevolence in these circumstances is seen as an even stronger signal of mutuality, and may lead to greater commitment, idiosyncratic investments and concessions from the receiving organization (Wang and Jap 2017). What makes Inclusion organizations so interesting, however, is that these acts of benevolence within their relationships with BSCPs persist, even when investments and concessions by BSCPs cannot be reciprocated. Instead, acts of benevolence support the development of relational capital and sustain beneficiary engagement and social value capture by beneficiaries.

Within the supply chains of Inclusion organizations, acts of benevolence may initially be presented in the financial, policy and product-related adaptations the focal organizations make to enable beneficiary participation in their supply chain. These adaptations typically require the focal organization to make investments or concessions in their relationships with BSCPs. This section will provide examples of these adaptations, identify how they contribute to relational capital, and provide examples of how relational capital subsequently enhances social value capture by beneficiaries.

Financial adaptations made by focal organizations with Inclusion SVCSs help BSCPs overcome economic barriers, like a lack of access to capital to enable BSCPs to participate in the supply chain. For organizations that work with distant BSCPs, this may take the form of adopting payment terms that favour the BSCPs by shifting the burden of financial risk onto the focal organization. A clear example of this behaviour is *Skincare’s* immediate financial investment into their relationship with their BSCPs. Recognizing that their BSCPs would require capital to scale

their operations in order to meet *Skincare's* demand, *Skincare* provided them these funds in advance of receiving their first order.

Fair trade businesses say, "I'll give you half the money, and then when you give it to me, I'll give you the other half". That's fair trade. What I did was I said, I'll give you all the money and I'll give it to you nine months before I actually see a product, because I know that this is the only way that you're gonna' be able to do this. So again, as a business-person, probably a pretty stupid move, but as a social enterprise, someone who thinks, "hey I'm in this for the long haul. I believe in this relationship that I'm building, I think that we can do this. I'm putting my faith and my trust in this", and the end result is 9 months later I got the product, and they were able to set up the supply chain that I needed, so that now I can more confidently say, okay, you know, here's my order, here's the money and now I'm gonna' get it in maybe a month, not 9 months (laugh) because the process is there.

– CEO, Skincare

As *Skincare's* CEO notes above, paying for an order nine months in advance of receipt of the product represents a substantial financial risk and a major adaptation to standard procurement practices. However, this investment was absolutely necessary to build the supply chain and creating social value through their procurement practices was a key element of their organizational mission. Furthermore, as CEO notes, this investment is a signal of their commitment to the relationship with the BSCP, and a commitment to creating mutual value through that relationship. As Wang and Jap (2017) note, this type of idiosyncratic investment, particularly in the presence of a large power differential, more likely to be met with commitment from the less powerful partner.

In addition to the financial investments that enabled the relationship to develop, *Skincare's* CEO invests further financial resources in developing the inter-personal component of the relationship by travelling to Uganda annually to meet with their BSCPs in person. As a result of these investments, both in financial resources but also time, they now see the character of their BSCP relationship as one of the key strengths of their supply chain.

I think just our strength is the relationships that we're building. I've worked really hard to make sure that that relationship is equal partnership and that there's a level of trust there, and that there's genuine caring about each other. And so yeah, I've actually travelled to Uganda, I've made sure that the relationships are nurtured.

– CEO, Skincare

As a consequence of the depth of their relationship with the BSCPs, they have also opened up additional channels of communication that will help them understand how they can better serve the BSCPs and support their social value capture.

So, we still have to help somehow, but we want to make sure that we're doing that in a delicate way and we're not making a situation worse. You don't want to go in there and, you know, your values and your, you know, "I think you need this". It really has to come from them. "We need this. This is how you can help".

– CEO, Skincare

Through these conversations, Skincare was made aware of a need for cleaner biofuels within the community that led to them purchasing a charcoal-making machine on the community's behalf.

Policy-related supply chain adaptations are most common in Inclusion organizations who work with local BSCPs. In these cases, BSCPs participate in the day-to-day operational activities of the organization, often while participating in some sort of supplementary programming like job-readiness activities or additional skill development. For these organizations, adaptations are made to expectations regarding employee-employer relationships in conventional organizations. These adaptations prevent focal organizations from recreating the system barriers that contribute to the exclusion of the BSCPs from conventional employment and provide a supportive environment for BSCPs to build skills and relationships that can create a long-term positive impact on their lives. For *Food 1* and *Food 3*, these adaptations take the form of structuring their programs to minimize barriers to participant entry. While both organizations anticipated running their programs on a fixed cohort model, they soon recognized the importance of flexibility in attracting and retaining

participants whose life circumstances can lead to frequent destabilization of schedules and routines. Instead, both organizations adapted their programs to allow participants to start anytime and if needed, pause their participation and later be welcomed back into the program to pick up where they left off.

If you called yesterday and said you wanted to join the jam company, I'd say great come out tomorrow. Try it out, see how it works and then we'll kinda' sign you up and get you going. If you come out for a couple weeks and then, you know, you have a relapse or you can't get out of bed that day or you've got a doctor's appointment, great come back next week. It's fine and you'll just pick up where you left off. I'm trying to make it as accessible as possible and the fewest amount of barriers to success.

– Program Director, Food 1

Food 3 employs a similar practice, allowing participants to enter and exit the program, or pick up where they left off in the program if they are unable to attend regularly for a period of time. While *Food 3* has slightly stricter attendance requirements than *Food 1*, this is due to their desire to prepare participants for conventional employment, whereas *Food 1*'s mission focuses primarily on social connection as the key outcome of interest. In both cases, these organizations made concessions that complicated their production scheduling as a way to demonstrate their commitment to their BSCPs.

Similarly, *Clothing* has adapted conventional practices around discipline and termination to reduce barriers to participation for their program participants, employing a much higher threshold for employment termination than would be seen in a conventional organization to reduce barriers.

So people are used to, you know, threatening to terminate as getting things done and if that's the only card you have in your pocket then it's probably not gonna' happen here really. One, it's not likely to happen in the early days because we're gonna' be a lot more tolerant.

– VP Operations & Finance, Clothing

Even more than their forgiving discipline policies, they invest heavily in each of their program participants. For each participant, 40% of their paid time is to be devoted to non-production activities like attending workshops on topics like financial literacy or completing apprenticeships or higher education. Together, these investments and concessions provide a very visible signal to BSCPs that then builds participant commitment to the organization and helps them to open up to *Clothing* so they are able to get more out of their participation.

You see new employees come in. Their stories are all different. Sometimes there's a chip on their shoulder. It's difficult to get 'em to open up. So it really kinda' takes the whole employee engagement discipline conversations, coaching conversations become really different.

So sometimes things get a little heated a little quicker with some of the new people. I think as they move to the production floor and really see that we're actually genuine and that we're actually gonna' pay you while you get our GED. So you're not just gonna' get paid for production hours, you're gonna' get paid while you get your GED. You're gonna' get paid while you do so that you can actually get that leg up, right? People start to settle down.

– VP Operations & Finance, Clothing

In addition to enhancing the level of BSCP commitment to the organization, the investments and concessions made by all of the above organizations build trust and a sense of connection between BSCPs and the focal organization that helps the organizations create a more personalized impact for the program participants. *Food 3*, for example, tailors each participants' experience working with them based on their personal goals.

It's very intimate too. Like normally we'll have 1-2 people max at a time, right? So it's very, so hands-on. We like to get like their goals too. Like what they want to really focus on. So you know, if it is knife skills, if it is business aspects, if they need some customer service then we'll have them, you know, come and do tastings and meet with our customers and stuff too, you know?

– Head Chef, Food 3

In the case of *Food 1*, developing trusting, personal relationships with the participants ensures that *Food 1* is more aware of important events, positive or negative, happening in their participants' lives so they can provide support or encouragement.

Part of kind of the tagline for the shelter is that “friendship is what makes the difference”, saying like when you’re connected in community that’s gonna’ be what makes a difference in your life. So when something comes up, you’ve got someone to lean on or someone to talk to or whatever it is. (...) And so the gap that was identified is that in this vulnerable time of folks, they sometimes need a prompt or a push to maintain that connection.

– Program Director, Food 1

The friendships that develop amongst program participants or between the participants and the non-participant volunteers are a crucial resource that can provide stability to participants as they transition into stable housing.

The final type of adaptation commonly made by Inclusion organizations are adaptations to their products and purchasing practices based on the capabilities and resources available to the BSCPs. As previously mentioned, many Inclusion organizations are formed opportunistically after a relationship with some group of BSCPs is developed. In these cases, the product offerings provided the focal organization reflects the existing production capabilities of the BSCPs, or the resources that are available in the BSCPs' immediate environment. In addition to limiting the type of products that the focal organizations can sell, BSCP resources and capabilities can have a significant effect on product quality.

Handicrafts 1, for example, noted that while their BSCPs have access to beautiful textiles that are not available in North America, some other necessary materials like zippers are seconds from mass production and are likely to be defective. They also experience substantial issues related to inconsistency in the products they receive from their BSCPs. However, because of their social

mission, they still pay in full for these non-conforming products, even when they know they will not be able to sell them.

Sometimes it's okay if it's the wrong measurement, we can still sell it, but sometimes we really can't. And so [our local staff member] still sends it because, like, she has commissioned this work. If they messed up, she doesn't want to say, "Oh I'm not paying you for this. It's not what I asked for". That also goes against what we, like our core principles, which is like we're ultimately here to support people there. So, we don't want them to put all the time and effort and money, because there's a cost to the materials to produce something, they mess it up and then we say, "we're not paying for it", right? So, we end up with a lot of stock that we can't necessarily move because it's not exactly what we ordered.

– Co-Founder, Handicrafts 1

Here, *Handicrafts 1* recognizes that their BSCPs lack the financial resources to be able to absorb the cost of non-conforming items. This concession signals *Handicraft 1's* commitment to creating social value for the BSCPs, even when this value comes at their own expense.

The development of relational capital between focal organizations and BSCPs also creates opportunities for organizations to better leverage the skills and production capabilities of their BSCPs through collaborative product development. Compared to a previous supplier relationship with a larger organization, *Handicrafts 2* now has a direct relationship with the individual artisans who produce their product. As a result of the personal relationship that has emerged from this unmediated supply chain structure, communication around product design has improved.

When we first started, the artisan group we worked with was part of a large organization. And so I could contact the Canadian office who contacted the Ugandan main office who contacted the head of the artisans who then... and so there was no relationship. Where now I can send a message and be like, "Hey, I was thinking maybe we can try that necklace in 18 inch rather than 16 inch" and I can talk directly with the artisans. So that way is much easier.

– Founder, Handicrafts 2

This ease of communication not only impacts product development, but also social value creation for beneficiaries. As a result of the relational capital *Handicrafts 2* has developed with their

BSCPs, including the face-to-face connections they have built with other members of the BSCP community who are not involved in their supply chain, they are more likely to be made aware of opportunities to support the BSCP community.

Sometimes there's been things like in the community. Especially in Kenya, they know us in the community. We've been there a number of years. Somebody who wasn't part of the artisan group had a fire and lost everything, and so we were able to send funds and say you know, like help them with that, rebuild the home.

– Founder, Handicrafts 2

Similar to what was expressed by *Body Products*, *Handicrafts 2* also found that this open communication with BSCPs created opportunities for them to learn of needs in the BSCP communities that would not have been obvious to outsiders.

One thing I've learned is to listen rather than tell them, "this is what you need" because I don't know. And they came back with birth certificates for the adults. And they're like, "Without birth certificates, we're more susceptible to human trafficking. You know, our children are. We can't access government services". And so it wasn't on my radar at all. I would never think for an adult you know, going for a birth certificate.

– Founder, Handicrafts 2

All of the above examples indicate that acts of benevolence, either in the form of idiosyncratic investments or concessions support the development of relational capital with BSCPs, which in turn, enhances social value capture by beneficiaries.

Proposition 5a. *Organizations with upstream beneficiaries use demonstrations of benevolence to build relational capital with beneficiaries.*

Proposition 5b. *The acceptability of organizations with upstream beneficiaries is enhanced by presence of high levels of relational capital in the focal organization-beneficiary relationship.*

6.7 Cognitive Capital

Cognitive capital refers to the extent to which actors in some relationship have shared systems of meaning, languages, codes of behaviour and a shared understanding of goals (Nahapiet and Ghoshal 1998). In SISCs, cognitive capital development helps focal organizations mitigate supply

chain constraints by creating mission alignment across the entire supply chain, particularly in the supply chain segment that does not include their beneficiaries. Including likeminded organizations in their unconstrained supply chain segment can not only enhance the effectiveness of the focal organization, but also increase the opportunity for value capture by these non-beneficiary supply chain partners (NBSCPs). For each activity link, the methods used to develop cognitive capital with non-beneficiary supply chain partners is discussed, as well as how it contributes to focal organization effectiveness and NBSCP value capture.

6.7.1 Provision

Provision organizations try to serve beneficiaries that are located within their downstream supply chain by providing a product or service that addresses an unmet need in the beneficiary population. While they often rely on downstream distribution intermediaries to deliver social value to the end beneficiary, focal organizations have the potential to enhance their impact by improving the performance or accessibility of their product through collaboration with upstream supply chain partners. For organizations with a Provision SVCS, cognitive capital development primarily takes the form of creating a shared sense of mission with upstream NBSCPs that facilitate collaboration on product enhancements. These product enhancements in turn can increase the effectiveness of the focal organization while also contributing to existing financial value capture for NBSCPs.

A strong example of upstream collaboration for product enhancement is visible in *Agriculture 2's* supply chain. The hydroponics industry is still quite new, and as a result, actors within this industry are very motivated to increase the efficacy of this technology for food production. Although *Agriculture 2's* upstream supply chain partners are not social enterprises, and may therefore operate based on different institutional logics (Longoni et al. 2019), they share

Agriculture 2's commitment to innovation and identifying novel applications for hydroponics technology.

Everyone's kind of willing to work together to co-innovate and to kind of like push the boundaries even further of like, "ooh, yeah, let's do that. Let's grow strawberries in a shipping container". So we lean on a lot of our suppliers for like, as an example, for our research project of like, "ooh like do you have any like better lights that like might be stronger for lettuce but would work on fruits?" and you know, "Ooh do you have any ideas of like other people to reach out to or other methods or whatever". So like a lot of co-innovating and co-development happens within this industry.

– Operations Lead, Agriculture 2

In addition to the research partnerships describe by the Operations Lead above, they also collaborated with another agriculture technology company to integrate this partner's technology into their product. This partnership involved joint funding of the design, testing and integration of the two technologies, which is expected to dramatically increase the yields from the growing facilities. In this project, cognitive capital is embodied in a shared understanding of what constitutes an improvement (Krause et al. 2007), which is increased growing facility yields, and the achievement of that goal had clear benefits to both parties. For *Agriculture 2*, this product improvement could increase the potential social value created by each customer, and it provided an opportunity for this technology supplier to demonstrate the effectiveness of their own product in a novel context. Even though this technology partner may not have previously held the same social mission as *Agriculture 2*, this project created an opportunity for this organization to be meaningfully integrated into *Agriculture 2's* social value generating activities, rather than only contributing to material flows.

The importance of a shared mission in the successful integration of upstream actors in the supply chains of Provision organizations is also visible in *Agriculture 1's* relationship with their licensor, from whom *Agriculture 1* used to purchase a key component of their product which they

now manufacture independently. This licensor has similar agreements with other a small number of other organizations around the world. Together, all of these organizations recognize their shared goal in serving their customers and recognize the importance of sharing their knowledge to create product improvements that benefit all parties.

But [Agriculture 1 Co-Founder #1] is really good and then our partner in France is also really good about if they learn something, if they come up with a new technique, new supplier or something, they'll share that with us proactively. So, I'm really thankful for that. And then we get to kind of use that technology or use that idea as well. And same goes our way. You know, if we discover something new, or do something new we'll shoot it their way as well.

– Licensor, Agriculture 1

This licensor has also articulated support for *Agriculture 1*'s social mission, as they hope to one day undertake similar activities within their own community.

So, you know, we've really modeled some of our programs on Agriculture 1 and what they're trying to accomplish through farmer training, you know, making sure the community is self-sufficient in growing in their greenhouses. And you know the incubator programs. (...) And like you said with Agriculture 1 just kind of seeing their mission and seeing them carry that out to help with food insecurity has been a blessing to kind of see the product used in that way.

– Licensor, Agriculture 1

Through their partnership with *Agriculture 1*, they not only benefit financially from *Agriculture 1*'s success, but also see additional value in their relationship with *Agriculture 1* through the satisfaction they feel in supporting their social mission.

Proposition 6a. *For organizations with downstream beneficiaries, the development of upstream cognitive capital supports product enhancements that can increase value capture by beneficiaries and support competitiveness.*

Proposition 6b. *The development of upstream cognitive capital supports the overall effectiveness of organizations with downstream beneficiaries, while enhancing value capture by upstream supply chain partners.*

6.7.2 Inclusion

Organizations with Inclusion SVCSs integrate beneficiary supply chain partners into their operations, primarily in their upstream supply chain. One of the important constraints created by

this SVCS is that the focal organization internalizes additional costs related to their commitment to a mutually beneficial relationship with their BSCPs. These costs include higher prices paid to suppliers, additional investments in supplier capacity development, as well as other financial supports provided to BSCPs or their wider communities. Unlike Provision organizations, whose product addresses a void in the beneficiary market, Inclusion organizations compete against conventional commercial organizations in their sector. As a consequence, the characteristics of their relationships with retailers and other downstream non-beneficiary supply chain partners can have a crucial impact on the viability of these organizations over time.

Cognitive capital development in the downstream supply chains of Inclusion organizations primarily takes the form of prioritizing relationships with downstream partners who share the focal organization's values. These likeminded partnerships create benefits for focal organizations through the development of a long-term relationship orientation resulting from the presence of a shared mission. These partnerships also allow the focal organization to access customers who may be more willing to pay a premium for products created by organizations who are aligned with their values. For downstream partners, cognitive capital development creates a pathway through which the partner is incorporated into the focal organization's narrative. Highlighting the role that downstream partners play in the focal organization's ability to achieve their mission creates the opportunity for these partners to extract value from their participation in the focal organization's larger narrative through the communication of the credence attributes⁸ of the focal organization's product.

⁸ Credence attributes refer to characteristics of a product/service that are undetectable to the customer either through search or experience (Feddersen and Gilligan 2001). In the SISC context, the socially responsible practices employed in the supply chain are a credence attribute of the product.

Nearly all Inclusion organizations interviewed through this project explicitly referenced the importance of like-mindedness as a selection criterion for downstream supply chain partners. See Table 24 for representative quotations. In some cases, value alignment contributed to financial benefits for the focal organization beyond increased sales. For example, *Food 2* described the additional financial support and flexibility offered by their mission aligned customers. In other cases, like *Food 3*, value alignment with downstream partners helps the focal organization access appropriate customer markets, like customers who prioritize local products. Meanwhile, *Handicrafts 2* expressed appreciation for their retailers’ willingness to communicate the story behind their products to their end customers.

Table 24. Interview quotations describing downstream value alignment

Case	Quotation
<i>Food 1</i>	<p><i>The alignment with our brand and who we are, and who we want to be is really important as well. So with resellers, how does that fit? (...) And part of that is just trying to align ourselves with the brands that are, you know, doing similar things to us. Not just social enterprises, but who are caring about their community and you know, paying their people well.</i></p> <p><i>– Program Director</i></p>
<i>Food 2</i>	<p><i>[Our biggest successes have] been literally landing some of these larger customers. They’ve been, and more than that, mission-aligned customer, ‘cause they have been, even when we’ve had things go wrong because we do and everybody does, they just say, “okay we’ll help you”. So we had, for instance, a brewery that we would work with. We ran out of financing and we had problems and they said we need the product, we need it by this date and we said, well we... and they sent us this PO and we said okay, we will maybe try to, and three days later there was a deposit in our bank. They paid 100% of it up in advance.</i></p> <p><i>– Co-Founder</i></p>
<i>Food 3</i>	<p><i>I think [Grocery Customer] is definitely a champion for us, which is amazing. Well he’s a champion for local products, right, and also just a really lovely person. So he’s been great.</i></p> <p><i>– Executive Director</i></p>

<i>Handicrafts 2</i>	<p><i>The wholesalers, we're so grateful for their relationships. They've all been really great to work with. We love that they share the mission. We ask that they always hand out the postcards to go with it. We always want to make sure it's the story, so that it's not just stuff. That people know the story.</i></p> <p><i>– Founder</i></p>
<i>Skincare</i>	<p><i>It's all sustainable fashion, fair trade, local artisans, things like that. Again, we're looking at retailers that share our values as well. So, you know, when, outside of the typical health food store, if we're going into a boutique that's the type of store we're looking for.</i></p> <p><i>– CEO</i></p>

While the benefits focal organizations experience from the development of cognitive capital with downstream supply chain partners are evident, these partners can also experience benefits from cognitive capital development. A theme that emerged from interviews is the idea that downstream partners, including customers, have the opportunity to benefit from being integrated into the focal organization's story. This idea of shared understandings, representations and systems of meaning is a component of cognitive capital (Nahapiet and Ghoshal 1998), but for these downstream actors, it can also be a source of competitive advantage.

Food 2, who primarily partners with small and medium sized organizations who use their product in a value-added way in their own products, recognizes the value of this narrative incorporation for their customers.

So I think we're kinda like, we're still sort of the off-beat hippy people with kind of a cool story that can add a little something to their story.

– Co-Founder, Food 2

The extent to which their customers draw value from *Food 2's* story is evident in their relationship with a particular customer who named one of their product lines after *Food 2*. *Food 2's* story is an important selling point for this product and being able to highlight their own contribution to this story is a significant source of value for this supplier.

I mean again, we talk to our customers about them. And so the story of [Food 2] is part of how we talk to our customers about our ingredients and our products. We've done a couple of blog posts about them, we talk about them on social media sometimes so it's not just an ingredient that we put in a nutrition panel, it's an ingredient that we proudly talk about with our customers.

– Customer, Food 2

What may be most interesting about this example is that *Food 2* themselves are actually borrowing from the story of their BSCP. Although they've made important contributions to the success of their BSCP, their primary contribution to the BSCP's work is through procurement and supply chain rationalization, just as their customer's primary contribution to their own work is through procurement. Thus, this narrative incorporation creates opportunities for all actors to benefit from their contributions to the same shared goal.

Another example of the value of narrative incorporation can be seen in *Skincare's* distribution network. Recognizing the importance of communicating credence attributes to their end customers, *Skincare* prioritized developing relationships with a small number of likeminded retailers who were invested in their mission and committed to sharing their story with customers.

Originally, we were thinking like, "okay just kinda get out there and get everybody we can get out there". I quickly realized that that was actually not a great approach because this is a product that has a story. This is a product that when you walk by the shelf, unless somebody's telling you that story, you don't get it. So what I decided to do was to take a slower step back and say, let's not go for 50 stores right now. Let's nurture the relationship between the 20 stores we have so that every single one of those store owners and even employees knows what [Skincare] about. That they're vested in telling our story. They feel a part of our story because they are. And they can pass that on to our customer, that our customer now feels a part of our story because they are our story. If they don't buy, we don't have anything that we're doing.

– CEO, Skincare

In return, their buyers and retailers happily advertise their relationship with *Skincare* and their contribution to *Skincare's* work. One customer in particular highlighted *Skincare's* product as an

ingredient in a new sustainable product line in an Instagram post, saying that they “Love knowing [our] new lipstick is supporting even more great work!”.

The existing literature on social capital in supply chains emphasizes the communication and coordination benefits associated with cognitive capital, and its potential to reduce conflicts between supply chain partners (Fan and Stevenson 2018). In addition to these benefits, this study reveals the value that likeminded organizations can capture from the development of a shared supply chain narrative through which all actors communicate and benefit from the credence attributes of a social enterprise’s product.

***Proposition 7a.** For organizations with upstream beneficiaries, downstream cognitive capital is developed through the integration of supply chain partners into the organization’s overarching narrative, which supports competitiveness and viability via the communication of product credence attributes.*

***Proposition 7b.** The development of downstream cognitive capital supports the overall effectiveness of organizations with upstream beneficiaries, while enhancing value capture by downstream supply chain partners.*

6.8 Conclusion

The conceptual work presented in Chapter 3 and the QCA study described in Chapter 5 both generated propositions that directly link the presence or absence of different dimensions of social capital in the upstream and downstream supply chains to three related outcomes of interest: focal organization effectiveness, acceptability and viability. The study presented in this chapter provides additional insight into the ways in which the manifestation or development of social capital varies in different types of social enterprises, as well as identifying underlying mechanisms through which social capital may support effectiveness, acceptability or viability.

Through in-depth interviews with ten social enterprises employing a range of SVCSs, this study identified common patterns present within and across SVCSs linking different dimensions of supply chain social capital to focal organization effectiveness. Regardless of the SVCS

employed by the focal organization, the presence of beneficiaries in a supply chain segment creates operational constraints that can be alleviated through strategic development and deployment of different dimensions of social capital in the constrained or unconstrained supply chain segments. The findings of this study, combined with the insights generated through the QCA study indicate that different dimensions of social capital, though broadly beneficial, can be expected to lead to different outcomes based on its location and manifestation within the supply chain.

7. Discussion & Conclusions

Using a conceptual framework development (Chapter 3), a fuzzy-set QCA study of 22 social enterprises (Chapter 5) and a multiple case study of 10 social enterprises (Chapter 6), this dissertation sought to answer the following two research questions:

Research Question 1. What is the range of social value creation strategies (SVCSs) available to social enterprises? How do various components of these strategies affect the supply chain requirements, constraints and tensions experienced by social enterprises?

Research Question 2. How do different upstream and downstream actors within social impact supply chains (SISCs) contribute to the overall effectiveness of the focal organization? How are the nature and extent of these contributions affected by the focal organization's SVCS?

To address research question 1, Chapter 3 included the generation of a framework that represents the range of SVCSs available to social enterprises. This work drew attention to the ways in which characteristics of their day-to-day activities, beneficiary population and financial model may affect the structure and management of their supply chains. Prior to the empirical investigation, this framework supported a series of predictions about the impact that upstream and downstream supply chain social capital could have on social enterprises based on their SVCS. These propositions supported theorization related to research question 2. These predictions were then used to guide the development and analysis of the fsQCA and multiple case studies.

Second, the fsQCA study presented in Chapter 5 integrated quantitative measures of upstream and downstream cognitive and relational capital with qualitative evaluations of each organization's SVCS to understand the impact of supply chain social capital on organizational effectiveness via acceptability and viability (Sydow and Windeler 1998). This study provided an initial opportunity to evaluate the propositions generated in the Chapter 3 to identify which proposition would need to be respecified or abandoned based on initial empirical evidence. The findings from this study primarily address Research Question 2 presented above, highlighting

differences in the relative importance of upstream and downstream supply chain partners and different types of supply chain relationships on organizations for focal organizations with different SVCSs.

Finally, Chapter 6 presents a multiple case study, which serves to validate or refute the supply chain constraints associated with different SVCSs, as theorized in Chapter 3 and in service of Research Question 1. Further, this work presents a more nuanced look at the creation of value in social impact supply chains (SISCs) and presents potential mechanisms through which supply chain social capital can enhance the focal organization's acceptability, viability and effectiveness., supporting Research Question 2.

The remainder of this chapter will proceed as follows. First, the key findings of the fsQCA study and case studies will be compared against the framework and propositions presented in Chapter 3 to highlight areas of alignment or contradiction. Next, this chapter will outline conceptual, theoretical and managerial contributions made by this dissertation. Subsequently, the chapter will present limitations with the above dissertation components. Finally, suggestions for future research will be presented, including ways to resolve contradictions between dissertation components.

7.1 Summary of Findings

A comparison of the propositions presented in Chapter 3 with the results of the fsQCA study (Chapter 5) are presented in Table 25. A summary of findings resulting from the multiple case study is presented in Table 26.

The conceptual framework in Chapter 3 and the multiple case study presented in Chapter 6 propose and subsequently validate the presence of particular supply chain constraints related to the focal organization's activity link. Yet, findings from the fsQCA study in Chapter 5 do not

provide evidence of consistent use of particular social capital configurations as a way for organizations to mitigate those constraints. This suggests that knowing the activity link employed by a particular social enterprise alone may not be sufficient to make sweeping predictions about the way their upstream and downstream supply chain partners may contribute to their effectiveness.

Table 25. Summary of findings, conceptual propositions and fsQCA study

Proposition	fsQCA Findings
P1: For social enterprises employing a Provision SVCS, prioritizing the development of upstream cognitive capital will be particularly useful in achieving organizational effectiveness.	<ul style="list-style-type: none"> • Cognitive capital core condition associated with effectiveness in the presence of revenue extraction from beneficiaries
<p>P2: For social enterprises employing a Provision SVCS, prioritizing the development of downstream structural capital will be particularly useful in achieving organizational effectiveness.</p> <p>P8: For social enterprises employing a Paired SVCS, prioritizing the development of downstream structural capital will be particularly useful in achieving organizational effectiveness.</p>	<ul style="list-style-type: none"> • Not evaluated
P3: The overall effectiveness of focal organizations employing Provision SVCSs is enhanced by implementation of a philanthropy financial model.	<ul style="list-style-type: none"> • No clear link between effectiveness of organizations with Provision SVCS and any particular financial model.
<p>P4: For social enterprises employing an Inclusion SVCS, prioritizing the development of upstream relational capital will be particularly useful in achieving organizational effectiveness.</p> <p>P7: For social enterprises employing a Paired SVCS, prioritizing the development of upstream relational capital will be particularly useful in achieving organizational effectiveness.</p>	<ul style="list-style-type: none"> • Upstream relational capital may be more useful than upstream cognitive capital for organizations who include culturally and geographically distant beneficiaries in their supply chain.
P5: For social enterprises employing an Inclusion SVCS, prioritizing the development of downstream cognitive capital will be particularly useful in achieving organizational effectiveness.	<ul style="list-style-type: none"> • No evidence that downstream cognitive capital is strongly linked to effectiveness
P6: The overall effectiveness of focal organizations employing Inclusions SVCSs is supported by the implementation of an internal investment financial model.	<ul style="list-style-type: none"> • There are more potential pathways to effectiveness identified in this study for for-profit organizations with Inclusion SVCSs than non-profit organizations.
P9: Serving geographically distant beneficiaries increases the difficulty of developing relational capital.	<ul style="list-style-type: none"> • Not evaluated
P10: Serving culturally distant beneficiaries increases the difficulty of developing cognitive capital.	<ul style="list-style-type: none"> • Not evaluated

Table 26. Summary of findings, multiple case study

Proposition	Case Study Findings
<p>P1: Social capital development in SISCs should be prioritized in the supply chain segment where the end beneficiaries are located.</p>	<ul style="list-style-type: none"> • Different SVCS configurations lead to different constraints that threaten the survival of social enterprises (e.g. beneficiary access, sustained engagement) • Social capital development in constrained supply chain segment supports survival • Social capital development in the unconstrained supply chain segment support thriving
<p>P2a: The use of mediated focal organization-beneficiary relationships by organizations with downstream beneficiaries leverages existing social and service relationships within the beneficiary community to maximize efficiency and social acceptance.</p> <p>P2b: The overall effectiveness of organizations with downstream beneficiaries is supported by weakly tied downstream supply chain configurations featuring mediated focal organization-beneficiary relationships.</p>	<ul style="list-style-type: none"> • Organizations with downstream beneficiaries (Provision & Paired) consistently partner with distribution intermediaries and do not transact directly with end beneficiaries • Intermediary relationships help address issues related to decentralization and social access to beneficiary communities • Highly interdependent relationships with intermediaries may impede viability of focal organizations and do not create additional value for end beneficiaries • Connecting with many intermediaries who are able to independently connect with beneficiaries can help organizations maximize their impact
<p>P3a: For organizations with upstream beneficiaries, direct focal organization-beneficiary ties avoid the dilution of financial, social and information flows to beneficiaries to maximize the efficiency and impact of the relationship.</p> <p>P3b: The overall effectiveness of organizations with upstream beneficiaries is supported by the development of a strongly tied upstream supply chain configuration with direct ties between the focal organization and beneficiaries.</p>	<ul style="list-style-type: none"> • Organizations with upstream beneficiaries often developed direct, highly interdependent relationships with beneficiary supply chain partners • Direct beneficiary ties were a source of differentiation for some organizations relative to conventional fair trade sourcing (supporting focal organization viability) • Direct beneficiary ties enable the development of relational capital, which facilitates additional social value capture by beneficiaries (supporting focal organization acceptability)
<p>P4a: For organizations with downstream beneficiaries, the selection of distribution intermediaries with high beneficiary-oriented relational capital enables the prioritization of social value delivery to beneficiaries with the greatest need.</p>	<ul style="list-style-type: none"> • Distribution intermediaries with existing relational capital within the beneficiary community better understand beneficiary needs and can adapt distribution to increase accessibility for most in-need beneficiaries

<p>P4b: The acceptability of the organizations with downstream beneficiaries is enhanced by the prioritization of beneficiary-oriented relational capital as a selection criterion for distribution intermediaries.</p>	<ul style="list-style-type: none"> • Prioritizing beneficiaries with the greatest need increases the impact of the focal organization, enhancing their acceptability
<p>P5a: Organizations with upstream beneficiaries use demonstrations of benevolence to build relational capital with beneficiaries.</p> <p>P5b: The acceptability of organizations with upstream beneficiaries is enhanced by presence of high levels of relational capital in the focal organization-beneficiary relationship.</p>	<ul style="list-style-type: none"> • Demonstrations of benevolence take the form of supply chain adaptations in terms of financial investments, policy and products • Investments in beneficiary relationships cannot be financially reciprocated, but are returned via beneficiary commitment • Close personal relationships between focal organizations and beneficiary supply chain partners reveal additional opportunities to create social impact for beneficiaries
<p>P6a: For organizations with downstream beneficiaries, the development of upstream cognitive capital supports product enhancements that can increase value capture by beneficiaries and support competitiveness.</p> <p>P6b: The development of upstream cognitive capital supports the overall effectiveness of organizations with downstream beneficiaries, while enhancing value capture by upstream supply chain partners.</p>	<ul style="list-style-type: none"> • Upstream supply chain relationship development should prioritize development of shared goal around innovation to encourage product enhancements • Upstream partners may feel intrinsic benefits from being associated with the focal organization’s social impact
<p>P7a: For organizations with upstream beneficiaries, downstream cognitive capital is developed through the integration of supply chain partners into the organization’s overarching narrative, which supports competitiveness and viability via the communication of product credence attributes.</p> <p>P7b: The development of downstream cognitive capital supports the overall effectiveness of organizations with upstream beneficiaries, while enhancing value capture by downstream supply chain partners.</p>	<ul style="list-style-type: none"> • Cognitive capital development focuses on partnering with distributors who share a commitment to the focal organization’s social mission • Downstream partners with shared values support communication of credence attributes of product • Through their participation in the supply chain, downstream partners are integrated into the focal organization’s “impact story”, which may enhance their own reputation and/or competitiveness

Combining the insights across the conceptual framework and the two empirical studies revealed a few interesting findings. First, although upstream cognitive capital does not have a stronger link to effectiveness than upstream relational capital for organizations with Provision SVCSs, it does appear to be more valuable for organizations with Provision SVCSs relative to other SVCS. The case study describes a potential mechanism for that impact: cognitive capital as

a support for product enhancements or supply chain efficiency improvements. Thus, upstream social capital development presents one potential avenue for organizations with Provision SVCSs to enhance their effectiveness, but it is not itself necessary or sufficient for effectiveness.

Second, upstream relational capital was predicted to be an important contributor to acceptability of organizations with Inclusion SVCSs. The multiple case study identified several supply chain adaptations made by these organizations in order to meaningfully include upstream beneficiary supply chain partners in their work, and the contributions these adaptations made to the development of trusting, friendly relationships with beneficiary supply chain partners. However, the fsQCA study revealed configurations where acceptability does not require any upstream social capital, either relational or cognitive. However, when configurations included distant beneficiary supply chain partners, upstream relational capital was consistently included (with or without upstream cognitive capital), indicating that beneficiary location impacts the salience of different dimensions of social capital. The multiple case study details how organizations may develop relational capital with their upstream beneficiary supply chain partners, and to what effect. This finding highlights the importance of examining SVCS configurations as a whole, rather than individual components, when making inferences about a social enterprise's supply chain.

Third, findings from the multiple case study indicate that the social capital of a particular supply chain partner may support the effectiveness of the focal organization. For example, organizations with Provision SVCSs may benefit from the structural and relational capital that distribution partners have with the focal organization's target beneficiaries. In these cases, partnering with organizations with high beneficiary-oriented social capital serves as a substitute for actually developing direct ties with the beneficiaries themselves. As the fsQCA study primarily

focused on social capital embedded in direct ties between the focal organization and various supply chain partners, it was not able to capture ‘second hand’ benefits from social capital possessed by supply chain partners. This finding highlights the importance of understanding the configuration and nature of a supply chain partner’s ties within its own networks (Choi and Kim 2008), as these network characteristics may enable or inhibit a supply chain partner’s ability to support the focal organization’s mission through their own work.

Finally, the results of the fsQCA study suggest that the importance of financial models in determining the appropriate configuration of upstream and downstream social capital may have been underestimated. Compared to all other components of the SVCS (activity link, beneficiary location, revenue extraction from beneficiaries), there were the fewest configurations associated with effectiveness where financial model (whether the case is a non-profit or for-profit organization) was treated as an irrelevant condition. In fact, there was only a single configuration (S5 from Table 14) out of the 25 potential configurations associated with effectiveness that would apply to both for-profit and non-profit social enterprises. While the multiple case study did identify differences in the relative salience of pricing constraints experienced by non-profit vs. for-profit organizations with Provision SVCSs, the primary focus of the study was these organizations’ experiences of constraints related to their activity link. As a result, additional constraints created through their financial model may have been overlooked.

Findings from the fsQCA and multiple case studies together demonstrate that there is no single SVCS component or social capital dimension alone that is necessary or sufficient for effectiveness. This suggests that social enterprises have a lot of flexibility in the selection of their SVCS. It is important to understand how the constraints inherent to particular component may interact with other opportunities or constraints created by other components of the organization’s

social value creation strategy, such as their beneficiary location or financial model. Furthermore, the fsQCA study failed to identify even a single SVCS configuration that was associated with effectiveness that did not incorporate high levels of some dimension of either upstream or downstream social capital. This finding suggests that supply chain relationships play a crucial role in the ability of a social enterprise to succeed. Chapter 6 presented several potential explanations for underlying mechanisms through which certain types of supply chain relationships can contribute to social enterprise effectiveness. Social entrepreneurs must then be intentional in the way that they structure and manage their supply chain relationships based on their desired contributions from supply chain partners. Thus, OSCM scholars have an opportunity to contribute valuable knowledge to the field of social entrepreneurship and encourage the development, survival and thriving of impact-driven organizations.

7.2 Contributions

By addressing the gap between the current mainstream supply chain management literature and the social enterprise context, this dissertation provides contributions to both the SCM literature and managerial practice. The subsequent section describes the conceptual, theoretical and managerial contributions of this work.

7.2.1 Conceptual

A small number of existing works have addressed the particularities of supply chain management in the context of social enterprises. Pullman et al. (2018) described the consequences of conflicting institutional logics present within SISCs on their supply chain management, relationship management and stakeholder engagement. They also presented a three-type classification scheme for SISCs based on the centrality of commercial and social welfare logics to the supply chain operations. The existing SISC typology generated by Pullman et al. (2018) is theoretically rich and

provides a strong foundation for SCM and social entrepreneurship scholars to scrutinize the impact of institutional logics on the use of supply chains to create social value. However, the institutional logics of an organization may be opaque to outsiders, and risks conflating characteristics like the supply chain structure with organizational action. Consequently, it may fail to explain how SISCs with similar outputs could have similar structures even if the focal organizations have different institutional logics or profit orientations at their core. This dissertation includes a cross section of for-profit and non-profit organizations who may or may not generate their revenues from sales of their products to a particular group of beneficiaries and who conduct very similar activities. The organizations included in the studies within this dissertation then permit the evaluation of each of these different elements of an organization's social value creation strategy to identify the root causes of any similarities or differences in organizations who may employ very similar supply chain structures and practices.

Bals and Tate (2018) also contributed to the SISC literature through their investigation into the structures and flows of different types of SISCs. Specifically, they assessed and mapped the physical, informational and financial flows present in these supply chains. In this study, Bals and Tate (2018) identified three primary configurations that these supply chains can take and highlighted the importance of support chains in their operations. Some elements of the configurations they mapped are represented in the framework that was presented in Chapter 3.

One of the primary conceptual contributions made in this dissertation is the elaboration of the configurations discussed by Bals and Tate (2018). Specifically, this dissertation accounts for the presence of social enterprises that simultaneously apply multiple social value creation strategies (Paired SVCS) and the synergies and constraints that can emerge from this practice. Although one of the cases described by Bals and Tate was determined to be a mixed model (Bals

& Tate 2018:65), there was no discussion of the implications of using multiple action-oriented social value creation strategies on the functioning of this supply chain. This dissertation intentionally incorporates cases exhibiting a Paired SVCS in the study to understand how different SVCSs interact to create different configurations of structures and practices in SISCs. Additionally, the framework presented in this dissertation elaborates on their archetypes to incorporate the impact of beneficiary selection and financial models, in addition to the organization's day-to-day activities.

In contrast with the typology developed by Pullman et al. (2018), the framework of social value creation strategies presented in Chapter 3 is based solely on characteristics of the focal organization that are readily observable to organizational outsiders, yet still contribute to theoretically significant differences between SVCSs, and as a result, a social enterprise's supply chain management practices. As Chapter 3 explained, the SVCS chosen by a focal organization determines the core around which all other supply chain decisions are made. This in turn will affect the constraints experienced by the focal organization. SISCs that are oriented around the production of a specific product, for example, experience different opportunities and barriers than those that are oriented around the preservation and enhancement of a specific inter-organizational relationship.

By distinguishing between SVCSs using readily observable focal organization characteristics, the framework presented in this dissertation supported the generation of theoretical propositions that can be readily applied to existing social enterprises without requiring in-depth knowledge of a focal organization's core values or day-to-day interactions with different stakeholders. The SVCS framework presented in this dissertation provides an exhaustive but parsimonious tool that can be applied in future research to efficiently classify and group social

enterprises on the basis of characteristics that are expected to have consistent consequences for the functioning of their supply chains. In contrast with existing SISC M typologies, the framework developed in this dissertation also indicates how interactions between SVCS components can exacerbate or alleviate tensions inherent to a particular activity link.

7.2.2 Theoretical

One of the primary theoretical contributions of this dissertation is the opportunity it provides to dissect the implications of the prioritization of financial objectives underlying the existing SCM literature. By carefully examining the costs and consequences of the implementation of commonly prescribed supply chain management practices in the context of hybrid objectives (social and financial) it can reveal fundamental differences between SISCs and conventional supply chains and support calls for unique theorization about how these supply chains should be structured and managed to optimize their effectiveness. For example, Chapter 6 of this dissertation describes various constraints social enterprises face as a result of their social value creation strategies which are unique to their social mission and may lead to counterintuitive managerial decision making.

The other theoretical contributions presented in this dissertation relate to the advancement of social capital theory. First, this research draws attention to the importance of creating fit between organizational strategy and the cultivation of each dimension of social capital in order to achieve organizational effectiveness. Where much of the OSCM research using social capital theory focuses on the various performance implications of different dimensions of social capital, this study highlights the importance of organizational strategy in driving the prioritization of specific dimensions of social capital within the supply chain in order to achieve desired organizational outcomes. In the SISC context, this work explores how different dimensions of an organization's SVCS (e.g., activity link, financial model) can create conflicting needs and constraints related to

social capital development and application within SISCs. Furthermore, the analysis presented in Chapter 5 reveals configurations where the development of particular dimensions of social capital may be detrimental to the effectiveness of the focal organization. In doing so, this research contributes to the existing work on the “dark side” of social capital (Villena, Choi, and Revilla 2020; Villena et al. 2011) and highlights the importance of fit between supply chain social capital and organizational strategy.

Another gap in the existing literature on social capital in supply chains lies in the scope of analysis. Like the supply chain management literature as a whole, social capital literature in SCM emphasizes the buyer perspective or buyer performance as the primary unit of analysis (e.g. Krause et al. 2007). In contrast, this study takes a full supply chain perspective, examining a focal organization’s relationships with both upstream and downstream supply chain partners. In doing so, it captures focal organizations experiences as both buyers and suppliers, as some of the organizations included focus on B2B rather than B2C sales, or some combination of both. In doing so, this dissertation provides unique insight into how social capital operates within different segments of the same supply chain. By examining social capital in both the upstream and downstream supply chain, this work provides useful insights into how different dimensions of social capital can support or hinder different types of supply chain management activities. Much of the OSCM research using social capital theory focuses solely on upstream buyer-supplier relationships. In contrast, this work separates different segments of SISCs to afford more consideration to the different priorities social enterprises will face based on the location of their beneficiaries within the supply chain. In doing so, it also recognizes that suppliers and distributors may have different needs and demands of focal organizations, and that these relationships should be managed in distinct ways.

7.2.3 Managerial

The value of social enterprises is visible in the numerous examples of impactful social enterprises operating around the world. To ensure that social enterprises are able to maximize their impact, it is increasingly important for researchers to interpret and tailor existing theory to fit the unique character of SISCs, in addition to generating unique theories dedicated to the social enterprise context. SISC-specific theorizing will support the creation of both theoretically and practically relevant suggestions to better equip social entrepreneurs to tackle the increasingly complex problems facing the world today. By developing a better understanding of the social enterprise landscape, SCM scholars will be able to make managerial prescriptions that are more relevant to managers in SISCs and more reflective of the challenges and tensions they find most salient. This dissertation reveals the crucial role that supply chain relationships play in the effectiveness of social enterprises.

When forming a social enterprise, managers are often driven by a deep concern or commitment to a particular community or social issue. This framework presented in this dissertation can help prospective social entrepreneurs understand how decisions like beneficiary selection their activities and financial models interrelate to form their entire social value creation strategy. Further, this work illuminates the large-scale operational and supply chain implications of these decisions to help managers make more informed decisions regarding supply chain structural formation and the initiation and management of their supply chain partnerships.

In examining these implications in the context of social capital theory, this work can also help managers make the most efficient use of social and relational resources; a valuable contribution given that financial and material resources are often lacking in the social enterprise context. Relationship development is costly. The insights from this research can help managers think strategically about how they invest in social capital development within their supply chains

to create fit with their SVCS and organizational goals. Together, these insights can help managers identify and apply supply chain management practices that will enhance the overall effectiveness of the supply chain.

Finally, practices employed by social enterprises, like creating a product for an in-need group or diversifying hiring strategies to include underemployed groups, may be adopted by conventional organizations as part of their corporate social responsibility strategy. The operational and supply chain constraints identified through this dissertation are still relevant for conventional organizations who implement these activity links. For example, conventional organizations selling a product to base of the pyramid customers can expect to experience the same challenges associated with beneficiary access, product adoption and the cost-performance trade off identified in Chapter 6.

Where conventional organizations implementing these practices will differ from social enterprises in a substantial way is in their experience of the tensions associated with pursuing social impact as a profit-driven organization. Social enterprises tend to operate in contexts where poor profitability has discouraged engagement by conventional organizations. The integration of social welfare institutional logics into social enterprises reduces the salience of these profitability concerns, encouraging organizations to prioritize financial self-sufficiency over profit maximization. In contrast, conventional organizations implementing the activity links described in Chapter 3 may be less likely to persist in these activities if confronted with barriers to profitability. Thus, understanding what constraints can be expected and how various relational resources may diminish their impact may encourage the implementation of socially impactful activities by conventional organizations in addition to social enterprises.

7.3 Limitations

This section of the chapter will outline several key limitations to the work undertaken in this dissertation. First, there are some limitations related to the fsQCA study presented in Chapter 5. One of these limitations relates to the solution coverage for the various models presented related to effectiveness, viability and acceptability. The overall solution coverage refers to the proportion of cases that show the outcome and are covered by any of the configurations included in the model, and is considered to be analogous to an R^2 in a regression model (Greckhamer et al. 2013; Ragin 2006). Observed solution coverages for the outcomes of interest in the fsQCA study ranged from .476 (effectiveness, upstream social capital, upstream beneficiaries) to .828 (acceptability, upstream social capital, upstream beneficiaries). While the coverage for the acceptability analyses is quite high, the relatively low coverage of the effectiveness analyses indicates that there are several paths to effectiveness that are not captured by the presented solutions. This weakness is unsurprising as the number of cases created a significant constraint on the number of conditions that could be included in the analysis.

Another common issue within QCA studies is the phenomenon of limited diversity, which relates to the number of logical remainders in a particular truth table, meaning truth table rows where no observed case has a membership score of at least .50 (Schneider and Wagemann 2012c). While some of these remainders may be impossible (e.g., an organization with an Inclusion SVCS that extracts revenues from their beneficiaries), some of these logical remainders represent valid unobserved configurations. The method of analysis used in this study makes use of these logical remainders, however the reliability of the results would be strengthened by the inclusion of a larger number of cases, particularly if they represent conditions that have low coverage or no coverage in the existing study data. Including more cases provides opportunities for the identification of

configurations linked to the outcomes of interest that may contradict the directional hypotheses used in the present study.

Another limitation with the fsQCA study is the failure to develop a useful measure of structural capital. Given the very limited population of social enterprises to draw from, thorough pilot studies should have been conducted on a sample of conventional commercial organizations to refine these measures before the instrument was distributed to the target population. Future research should include work to develop survey items that can be used to develop a clear picture of the objective characteristics of the respondent's supply chain that can themselves be used to classify different types of supply chain structures.

One final limitation associated with the fsQCA study is the misalignment between the scope of the social capital analysis compared to the multiple case study. While the multiple case study results speak to the need to consider social capital embedded in ties upstream or downstream in the supply chain from the focal organization, the fsQCA study focuses only on social capital embedded in ties directly between the focal organization and other actors within the supply chain. This misalignment also may fail to accurately capture focal organization-beneficiary social capital in work integration social enterprises, where beneficiaries are integrated into the focal organization itself, and may therefore not have been included in the respondents' reflections of their upstream ties.

As previously mentioned, one issue arising from the studies conducted within this dissertation is that they do not involve any evaluations of the effectiveness of SISC activities from the perspective of the beneficiaries. Many of the organizations included in the two studies serve beneficiaries that are geographically distant from the focal organization. Many of the beneficiary customers or supply chain partners are located in developing countries where costs, language

barriers and infrastructure-related issues make meaningful data collection from these populations very difficult. In the case of beneficiaries who may be located in the same communities as the focal organization, there are social barriers that make data collection more difficult. For example, *Clothing* distributes their products to people experiencing homelessness through a variety of social partners, like churches or social service agencies. This makes it difficult to track and regain contact with past beneficiaries, in addition to the social, ethical and methodological difficulties associated with conducting research involving participants who face homelessness (Runnels et al. 2009). Although this is a fairly extreme example, each of these focal organizations works with a beneficiary population who is marginalized in some way, be it economically, socially or geographically. Furthermore, the types of interventions implemented by the social enterprises include in these studies may reflect their own beliefs about what the beneficiaries want or need, rather than a need the beneficiaries themselves have articulated (Tucker and Croom 2021).

Similarly, to ensure the feasibility and affordability of data collections, all organizations selected for participation in the multiple case study were located within reasonable proximity to London, Ontario. As a consequence, the results may not be fully generalizable to social entrepreneurs in different regions, for example, emerging economies or subsistence markets, who operate in a very different institutional context than the social enterprises profiled in this work. Further, this sample does not adequately reflect the extensive work social entrepreneurs from emerging or subsistence economies do to support social value creation and economic empowerment within their own communities. This oversight risks overemphasizing the contributions of Western social entrepreneurs and perpetuating harmful neocolonial narratives around what types of entrepreneurs or communities are fit to offer or receive “help” in the context of social entrepreneurship (Tucker and Croom 2021).

Another important limitation to these findings is the influence on survivor bias on the ability to theorize about conditions or configurations of SVCSs that are associated with ineffective social enterprises, meaning those associated with the absence of acceptability, viability and effectiveness. Of the cases included in both the multiple case study and QCA study, only one organization is no longer operating. Despite this limitation, the subset relationships and consistency requirements set out in fsQCA still enable the identification of conditions that are sufficient for the outcome. As previously described, calibration of data in fsQCA permits cases to have varying degrees of membership to a particular set, far beyond simply being in the set or out of the set. These fuzzy membership scores have important implications for the calculation of consistency and make it possible for a configuration to include cases that are all associated with the presence of the outcome but is still not considered sufficient for the outcome. To better evaluate configurations that are associated with the absence of the outcomes of interest, future data collection should seek out social enterprises that are no longer operating and examine their supply chain structures and relationships.

7.4 Future Research

As identified in Chapter 1, this is a relatively new area of OSCM scholarship, and there are many useful and important research questions to be addressed. This section of this chapter will highlight a number of opportunities for future research that emerged from the findings of this dissertation.

7.4.1 Supply chain constraints and financial models

As described during the findings summary, the results from the fsQCA study suggest that there was only a single configuration associated with effectiveness identified in the result where it was irrelevant whether the organization was for-profit or non-profit. Furthermore, this configuration did not include any other irrelevant conditions, suggesting very limited flexibility. This finding

indicates that a social enterprise's financial model can create significant restrictions in the number of configurations of SVCS components and upstream and downstream social capital that can still lead to effectiveness.

Restrictions associated with pursuing a for-profit vs. non-profit business model also emerged from the case study interviews. For example, one participant lamented that there are limited funding opportunities available for social enterprises that would allow them as a for-profit social enterprise to make profitability concessions in order to achieve their desired social impact. Another participant, the Director of a social enterprise incubator, described the taken-for-grantedness of a non-profit business model for social enterprises working in certain themes (e.g., homelessness). A co-founder of one of the social enterprises discussed the importance of having charitable status in building trust with the beneficiary community but expressed frustration with the strict financial regulations imposed on registered charities in Canada. Together, all of these insights indicate that social entrepreneurs experience constraints associated with their financial models that are not adequately captured by the framework developed in Chapter 3. Future research from the perspective of supply chain finance could help to identify what unique financial barriers social enterprises face, either in non-profit or for-profit social enterprises, relative to conventional businesses or donation-based charities. These findings could then be used to adapt the framework developed in this dissertation to reflect this additional layer of complexity.

7.4.2 Co-occurrence of social capital dimensions in mission driven organizations

As described in the previous section, there were several configurations in which both relational and cognitive capital were both associated with the outcome of interest, both for upstream and downstream social capital. This raises a question about whether the co-occurrence of cognitive and relational capital is more common in SISCs than in conventional supply chains.

Cognitive capital refers to the benefits derived from the presence of shared goals, vision, values, or language within a particular relationship (Cai and Yang 2008). Relational capital focuses on the interpersonal character of these relationships, via the presence of trust, mutual respect, friendliness and reciprocity (Nahapiet and Ghoshal 1998). A shared goal to maximize product quality, for example, may not necessarily be associated with the development of personal friendship between transacting parties. Can the same be said for the goals that are shared within social impact supply chains? As the activities that happen within SISCs, like supporting a particular group of beneficiaries or creating some type of social value for your immediate community, may involve a stronger emotional attachment to the work, do shared goals of this nature have a high propensity to lead to the development of more personal relationships among members of the involved organizations? This theme of a shared commitment to a social cause leading to a friendship emerged from several of the interviews conducted during the case study, but further research is required to validate the presence of this relationship and determine if and how it may be unique in SISCs compared to conventional supply chain relationships.

7.4.3 Supply chain conditions contributing to social enterprise failure

One limitation of this study, which was previously discussed, is that the characteristics of the samples for both studies severely limit opportunities to understand what configurations of SVCS components and supply chain social capital may contribute to social enterprise failure. From the fsQCA study, there were ten configurations covering three cases that indicated that the absence of a particular dimension of social capital was linked to acceptability, viability or effectiveness. As some interpretations of social capital have been criticized in the past for being tautological and evaluating the presence of social capital based on its beneficial outcomes (Lin 1999; Nardone, Sisto, and Lopolito 2010), this finding highlights one of the benefits of QCA, in that it creates

opportunities to identify where the absence of a condition is associated with a particular outcome. The fact that negations of social capital dimensions emerged in these configurations suggests there are trade-offs associated with social capital development. Interestingly, these negations all related to relational capital, either upstream or downstream in the supply chain. This finding raises interesting questions about where the trade-offs associated with social capital development may emerge, and whether or not there are any configurations of social capital and SVCSs that are consistently associated with social enterprise failure.

7.4.4 Social enterprise effectiveness, beneficiary perspective

One shortcoming of the fsQCA designs employed in this dissertation is that it relies on the focal organization's perceptions of stakeholder approval, rather than collecting feedback from the stakeholders themselves. While this deficiency was remedied somewhat by the inclusion of upstream and downstream stakeholders wherever possible in the multiple case studies, none of the case studies included interviews with any of the beneficiaries themselves. Future research could focus primarily on the effectiveness evaluations from the beneficiary perspective and identify the dimensions of SISC performance where effectiveness perceptions of beneficiaries may differ from those of the focal organization or its external partners.

7.4.5 Application of SVCS framework to service-based social enterprises

In order to maintain alignment with mainstream supply chain management research, all social enterprises studied as part of this dissertation were required to manage at least one product-based supply chain. However, it is important to note that many social enterprises, including a large number of work integration social enterprises, focus on services rather than products. As some of the constraints identified in this work relate specifically to material flows, it is clear that the constraints identified in Chapter 6 may not apply in a service context. Additionally, there are

substantial differences in the nature of customer interactions in service supply chains compared to product supply chains that are not sufficiently represented in the findings of these studies. To support the extension of these findings and enhance their relevance to a wider group of social enterprises, future research should be undertaken to understand what barriers, constraints and challenges service-based social enterprises play in the creation of social value, and supply chain relationships in mission-driven service supply chains may differ from those in mission-driven product supply chains.

8. References & Appendices

- Adler, P. S. & Kwon, S. (2002). Social Capital: Prospects for a New Concept. *Academy of Management Review* 27(1), 17–40.
- Alur, S. & Schoormans, J. P. L. (2011). Sustainable Rural Healthcare and Social Franchisee Selection - an India Study. *Journal of Medical Marketing* 11(3), 230–36.
- Alvarez, G., Pilbeam, C., & Wilding, R. (2010). Nestlé Nespresso AAA Sustainable Quality Program: An Investigation into the Governance Dynamics in a Multi-Stakeholder Supply Chain Network. *Supply Chain Management: An International Journal* 15(2), 165–82.
- Alvarez, S. A., Barney, J. B., & Newman, A. M. B. B. (2015). The Poverty Problem and the Industrialization Solution. *Asia Pacific Journal of Management* 32(1), 23–37.
- Anderson, L. et al. (2013). Transformative Service Research: An Agenda for the Future. *Journal of Business Research* 66(8), 1203–10.
- Ataseven, C., Nair, A., & Ferguson, M. (2018). An Examination of the Relationship between Intellectual Capital and Supply Chain Integration in Humanitarian Aid Organizations: A Survey-Based Investigation of Food Banks. *Decision Sciences* 49(5), 827–62.
- Autry, C. W. & Griffis, S. E. (2008). Supply Chain Capital: The Impact of Structural and Relational Linkages on Firm Execution and Innovation. *Journal of Business Logistics* 29(1), 157–73.
- Avdagic, S. (2010). When Are Concerted Reforms Feasible? Explaining the Emergence of Social Pacts in Western Europe. *Comparative Political Studies* 43(5), 628–57.
- Awaysheh, A. & Klassen, R. D. (2010). The Impact of Supply Chain Structure on the Use of Supplier Socially Responsible Practices. *International Journal of Operations & Production Management* 30(12), 1246–68.
- Bacq, S. & Janssen, F. (2011). The Multiple Faces of Social Entrepreneurship: A Review of Definitional Issues Based on Geographical and Thematic Criteria. *Entrepreneurship and Regional Development* 23(5–6), 373–403.
- Bakker, R. M., Cambré, B., Korlaar, L., & Raab, J. (2011). Managing the Project Learning Paradox: A Set-Theoretic Approach toward Project Knowledge Transfer. *International Journal of Project Management* 29(5), 494–503.
- Bals, L. & Tate, W. L. (2018). Sustainable Supply Chain Design in Social Businesses: Advancing the Theory of Supply Chain. *Journal of Business Logistics* 39(1), 57–79.
- Battilana, J. & Dorado, S. (2010). Building Sustainable Hybrid Organizations: The Case of Commercial Microfinance Organizations. *Academy of Management Journal* 53(6), 1419–40.
- Battilana, J. & Lee, M. (2014). Advancing Research on Hybrid Organizing - Insights from the Study of Social Enterprises. *Academy of Management Annals* 8(1), 397–441.
- Battilana, J., Sengul, M., Pache, A.-C., & Model, J. (2015). Harnessing Productive Tensions in Hybrid Organizations: The Case of Work Integration Social Enterprises. *Academy of Management Journal* 58(6), 1658–85.
- Baumgartner, M. & Thiem, A. (2017). *Model Ambiguities in Configurational Comparative Research*. Vol. 46.
- Bellamy, M. A., Ghosh, S., & Hora, M. (2014). The Influence of Supply Network Structure on Firm Innovation. *Journal of Operations Management* 32(6), 357–73.

- Bendul, J. C., Rosca, E., & Pivovarova, D. (2016). Sustainable Supply Chain Models for Base of the Pyramid. *Journal of Cleaner Production* 162, 1–14.
- Berger, E. & Nakata, C. (2013). Implementing Technologies for Financial Service Innovations in Base of the Pyramid Markets. *Journal of Product Innovation Management* 30(6), 1199–1211.
- Bollen, K. A. & Bauldry, S. (2011). Three Cs in Measurement Models: Causal Indicators, Composite Indicators, and Covariates. *Psychological Methods* 16(3), 265–84.
- Bonett, D. G. & Wright, T. A. (2015). Cronbach's Alpha Reliability: Interval Estimation, Hypothesis Testing, and Sample Size Planning. *Journal of Organizational Behaviour* 36, 3–15.
- Bönte, W. (2008). Inter-Firm Trust in Buyer-Supplier Relations: Are Knowledge Spillovers and Geographical Proximity Relevant? *Journal of Economic Behavior and Organization* 67(3–4), 855–70.
- Borchardt, M., Ndubisi, N. O., Jabbour, C. J. C., Grebinevych, O., & Pereira, G. M. (2020). The Evolution of Base of the Pyramid Approaches and the Role of Multinational and Domestic Business Ventures: Value-Commitment and Profit-Making Perspectives. *Industrial Marketing Management* 89(January 2019), 171–80.
- Bouncken, R. B., Ratzmann, M., Pesch, R., & Laudien, S. M. (2018). Alliances of Service Firms and Manufacturers: Relations and Configurations of Entrepreneurial Orientation and Hybrid Innovation. *Journal of Business Research* 89(June 2017), 190–97.
- Brito, R. P. & Miguel, P. L. S. (2017). Power, Governance, and Value in Collaboration: Differences between Buyer and Supplier Perspectives. *Journal of Supply Chain Management* 53(2), 61–87.
- Buckland, J. (1998). Social Capital and Sustainability of NGO Intermediated Development Projects in Bangladesh. *Community Development Journal* 33(3), 236–48.
- Cai, S. & Yang, Z. (2008). Development of Cooperative Norms in the Buyer-Supplier Relationship: The Chinese Experience. *Journal of Supply Chain Management* 44(1), 55–70.
- Cameron, K. S. (1986). Effectiveness As Paradox : Consensus and Conflict in Conceptions of Organizational Effectiveness. *Management Science* 32(5), 539–53.
- Cannon, J. P., Doney, P. M., Mullen, M. R., & Petersen, K. J. (2010). Building Long-Term Orientation in Buyer-Supplier Relationships: The Moderating Role of Culture. *Journal of Operations Management* 28(6), 506–21.
- Cao, M., Vonderembse, M. A., Zhang, Q., & Ragu-Nathan, T. S. (2010). Supply Chain Collaboration: Conceptualisation and Instrument Development. *International Journal of Production Research* 48(22), 6613–35.
- Capaldo. (2007). Network Structure and Innovation: The Leveraging of a Dual Network as a Distinctive Relational Capability. *Strategic Management Journal* 28, 585–608.
- Capaldo, A. (2007). Network Structure and Innovation: The Leveraging of a Dual Network as a Distinctive Relational Capability. *Strategic Management Journal* 28(6), 585–608.
- Carey, S., Lawson, B., & Krause, D. R. (2011). Social Capital Configuration, Legal Bonds and Performance in Buyer-Supplier Relationships. *Journal of Operations Management* 29(4), 277–88.
- Chappin, M. M. H., Cambré, B., Vermeulen, P. A. M., & Lozano, R. (2015). Internalizing Sustainable Practices: A Configurational Approach on Sustainable Forest Management of the Dutch Wood Trade and Timber Industry. *Journal of Cleaner Production* 107, 760–74.
- Choi, J. & Contractor, F. J. (2016). Choosing an Appropriate Alliance Governance Mode: The

- Role of Institutional, Cultural and Geographical Distance in International Research & Development (R&D) Collaborations. *Journal of International Business Studies* 47(2), 210–32.
- Choi, T. Y. & Kim, Y. (2008). Structural Embeddedness and Supplier Management: A Network Perspective. *Journal of Supply Chain Management* 44(4), 5–13.
- Clyde, P. & Karnani, A. (2015). Improving Private Sector Impact on Poverty Alleviation: *California Management Review* 57(2), 20–36.
- Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology* 94, S95–120.
- Collins, J. D. & Hitt, M. A. (2006). Leveraging Tacit Knowledge in Alliances: The Importance of Using Relational Capabilities to Build and Leverage Relational Capital. *Journal of Engineering and Technology Management* 23(3), 147–67.
- Cousins, P. D., Handfield, R. B., Lawson, B., & Petersen, K. J. (2006). Creating Supply Chain Relational Capital: The Impact of Formal and Informal Socialization Processes. *Journal of Operations Management* 24(6), 851–63.
- Davis, D. F., Golicic, S. L., & Boerstler, C. N. (2010). Benefits and Challenges of Conducting Multiple Methods Research in Marketing. *Journal of the Academy of Marketing Science* 38(3), 467–79.
- Dees, J. G. (2012). A Tale of Two Cultures: Charity, Problem Solving, and the Future of Social Entrepreneurship. *Journal of Business Ethics* 111(3), 321–34.
- Defourny, J. & Nyssens, M. (2010). Conceptions of Social Enterprise and Social Entrepreneurship in Europe and the United States: Convergences and Divergences. *Journal of Social Entrepreneurship* 1(1), 32–53.
- Diedenhofen, B. & Musch, J. (2016). Cocron: A Web Interface and R Package for the Statistical Comparison of Cronbach's Alpha Coefficients. *International Journal of Internet Science* 11(1), 51–60.
- Dietrich, T., Trischler, J., Schuster, L., & Rundle-Thiele, S. (2017). Co-Designing Services with Vulnerable Consumers. *Journal of Service Theory and Practice* 27(3), 663–88.
- Doherty, B., Haugh, H., & Lyon, F. (2014). Social Enterprises as Hybrid Organizations: A Review and Research Agenda. *International Journal of Management Reviews* 16(4), 417–36.
- Dorado, S. & Ventresca, M. J. (2013). Crescive Entrepreneurship in Complex Social Problems: Institutional Conditions for Entrepreneurial Engagement. *Journal of Business Venturing* 28(1), 69–82.
- Drazin, R. & Van de Ven, A. H. (1985). Alternative Forms of Fit in Contingency Theory. *Administrative Science Quarterly* 30(4), 514–39.
- Dusa, A. (2019). *Package "QCA."* Cham, Switzerland: Springer International Publishing.
- Duşa, A. (2019). *QCA with R: A Comprehensive Resource.*
- Duşa, A. (2019). Critical Tension: Sufficiency and Parsimony in QCA. *Sociological Methods and Research* (90).
- Dyer, J. H. & Singh, H. (1998). The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage. *The Academy of Management Review* 23(4), 660–79.
- Ebrahim, A., Battilana, J., & Mair, J. (2014). The Governance of Social Enterprises: Mission Drift and Accountability Challenges in Hybrid Organizations. *Research in Organizational Behavior* 34, 81–100.

- Elmuti, D. (2002). The Perceived Impact of Supply Chain Management on Organizational Effectiveness and Quality. *Journal of Supply Chain Management* 38(2), 49–57.
- Elson, P., Hall, P., & Wamucii, P. (2016). *Canadian National Social Enterprise Sector Survey Report*.
- Esposito, M., Kapoor, A., & Goyal, S. (2012). Enabling Healthcare Services for the Rural and Semi-Urban Segments in India : When Shared Value Meets the Bottom of the Pyramid. *Corporate Governance* 12(4), 514–33.
- Fan, Y. & Stevenson, M. (2018). Reading on and between the Lines: Risk Identification in Collaborative and Adversarial Buyer–Supplier Relationships. *Supply Chain Management: An International Journal* 23(4), 351–76.
- Fang, S. R., Wu, J. J., Fang, S. C., Chang, Y. S., & Chao, P. W. (2008). Generating Effective Interorganizational Change: A Relational Approach. *Industrial Marketing Management* 37(8), 977–91.
- Feddersen, T. J. & Gilligan, T. W. (2001). Saints and Markets: Activists and the Supply of Credence Goods. *Journal of Economics & Management Strategy* 10(1), 149–71.
- Fisher, G. & Aguinis, H. (2017). Using Theory Elaboration to Make Theoretical Advancements. *Organizational Research Methods* 20(3), 438–64.
- Fisk, R. P. et al. (2016). Billions of Impoverished People Deserve to Be Better Served A Call to Action for the Service Research Community. *Journal of Service Management* 27(1), 43–55.
- Fiss, P. C. (2011). Building Better Casual Theories: A Fuzzy Set Approach To Typologies in Organizational Research. *Academy of Management Journal* 54(2), 393–420.
- Flint, D., Gammelgaard, B., Golicic, S. L., & Davis, D. F. (2012). Implementing Mixed Methods Research in Supply Chain Management. *International Journal of Physical Distribution & Logistics Management* 42, 726–41.
- Fornell, C. & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research* 18(1), 39.
- Galera, G. & Borzaga, C. (2009). Social Enterprise: An International Overview of Its Conceptual Evolution and Legal Implementation. *Social Enterprise Journal* 5(3), 210–28.
- Gazley, B. (2010). Why Not Partner with Local Government? Nonprofit Managerial Perceptions of Collaborative Disadvantage. *Nonprofit and Voluntary Sector Quarterly* 39(1), 51–76.
- Gebauer, H., Reynoso, J., Heiko, G., & Javier, R. (2013). An Agenda for Service Research at the Base of the Pyramid. *Journal of Service Management* 24(5), 482–502.
- Geels, F. W. (2004). From Sectoral Systems of Innovation to Socio-Technical Systems: Insights about Dynamics and Change from Sociology and Institutional Theory. *Research Policy* 33(6–7), 897–920.
- Global Distributors Collective. (2019). *Last Mile Distribution: State of the Sector Report*. Rugby, UK.
- Goffin, K., Lemke, F., & Szwajczewski, M. (2006). An Exploratory Study of “close” Supplier-Manufacturer Relationships. *Journal of Operations Management* 24, 189–209.
- Granovetter, M. S. (1973). The Strength of Weak Ties Author. *American Journal of Sociology* 78(6), 1360–80.
- Greckhamer, T. (2016). CEO Compensation in Relation to Worker Compensation across Countries: The Configurational Impact of Country-Level Institutions. *Strategic Management Journal* 37, 793–815.
- Greckhamer, T., Furnari, S., Fiss, P. C., & Aguilera, R. V. (2018). Studying Configurations with Qualitative Comparative Analysis: Best Practices in Strategy and Organization Research.

- Strategic Organization* 16(4), 482–95.
- Greckhamer, T., Misangyi, V. F., & Fiss, P. C. (2013). *The Two QCAs: From a Small-N to a Large-N Set Theoretic Approach*. Vol. 38. Emerald Group Publishing Limited.
- Greenwood, R., Díaz, A. M., Li, S. X., & Lorente, J. C. (2009). The Multiplicity of Institutional Logics and the Heterogeneity of Organizational Responses. *Organization Science* 21(2), 521–39.
- Grofman, B. & Schneider, C. Q. (2009). An Introduction to Crisp Set QCA, with a Comparison to Binary Logistic Regression. *Political Research Quarterly* 62(4), 662–72.
- Gualandris, J. & Klassen, R. D. (2018). Delivering Transformational Change: Aligning Supply Chains and Stakeholders in Non-Governmental Organizations. *Journal of Supply Chain Management* 54(2), 34–48.
- Gummesson, E. (2006). Qualitative Research in Management: Addressing Complexity, Context and Persona. *Management Decision* 44(2), 167–79.
- Hager, M. A., Galaskiewicz, J., & Larson, J. A. (2004). Structural Embeddedness and the Liability of Newness among Nonprofit Organizations. *Public Management Review* 6(2), 159–88.
- Hahn, R. & Gold, S. (2014). Resources and Governance in “Base of the Pyramid”-Partnerships: Assessing Collaborations between Businesses and Non-Business Actors. *Journal of Business Research* 67(7), 1321–33.
- Haigh, N. & Hoffman, A. J. (2012). Hybrid Organizations. The next Chapter of Sustainable Business. *Organizational Dynamics* 41(2), 126–34.
- Haigh, N., Kennedy, E. D., & Walker, J. (2015). Hybrid Organizations as Shape-Shifters: Altering Legal Structure for Strategic Gain. *California Management Review* 57(3), 59–82.
- Hall, J. & Matos, S. (2010). Incorporating Impoverished Communities in Sustainable Supply Chains. *International Journal of Physical Distribution & Logistics Management* 40(1/2), 124–47.
- Hall, R. (2013). Diamond Mining in Canada’s Northwest Territories: A Colonial Continuity. *Antipode* 45(2), 376–93.
- Handley, S. M. & Benton, W. C. (2013). The Influence of Task- and Location-Specific Complexity on the Control and Coordination Costs in Global Outsourcing Relationships. *Journal of Operations Management* 31(3), 109–28.
- Hockerts, K. (2015). How Hybrid Organizations Turn Antagonistic Assets into Complementarities. *California Management Review* 57(3), 83–106.
- Huang, K. H., Rey-Martí, A., & Miquel-Romero, M. J. (2018). Quantitative and Qualitative Comparative Analysis in Business. *Journal of Business Research* 89, 171–74.
- Hughes, M. & Perrons, R. K. (2011). Shaping and Re-Shaping Social Capital in Buyer-Supplier Relationships. *Journal of Business Research* 64(2), 164–71.
- Inkpen, A. C. & Tsang, E. W. K. (2005). Social Capital Networks, and Knowledge Transfer. *Academy of Management Review* 30(1), 146–65.
- Ireland, R. D. & Webb, J. W. (2007). A Multi-Theoretic Perspective on Trust and Power in Strategic Supply Chains. *Journal of Operations Management* 25, 482–97.
- Johnson, J. L., Dooley, K. J., Hyatt, D. G., & Hutson, A. M. (2018). Cross-Sector Relations in Global Supply Chains: A Social Capital Perspective. *Journal of Supply Chain Management* 54(2), 21–33.
- Johnson, N., Elliott, D., & Drake, P. (2013). Exploring the Role of Social Capital in Facilitating Supply Chain Resilience. *Supply Chain Management: An International Journal* 18(3), 324–

- Jones, G. J., Edwards, M., Bocarro, J. N., Bunds, K. S., & Smith, J. W. (2017). Collaborative Advantages: The Role of Interorganizational Partnerships for Youth Sport Nonprofit Organizations. *Journal of Sport Management* 31(2), 148–60.
- Kale, P., Singh, H., & Perlmutter, H. (2000). Assets in Strategic Alliances: Building. *Strategic Management Journal* 21(3), 217–37.
- Karnani, A. (2007). The Mirage of Marketing to the Bottom of the Pyramid: How the Private Sector Can Help Alleviate Poverty. *California Management Review* 49(4), 90+.
- Katz, H. & Anheier, H. (2006). Global Connectedness: The Structure of Transnational NGO Networks. Pp. 240–65 in *Global Civil Society 2005/6*.
- Ketokivi, M. A. & Schroeder, R. G. (2004). Strategic, Structural Contingency and Institutional Explanations in the Adoption of Innovative Manufacturing Practices. *Journal of Operations Management* 22, 63–89.
- Ketokivi, M. & Choi, T. (2014). Renaissance of Case Research as a Scientific Method. *Journal of Operations Management* 32(5), 232–40.
- Khalid, R. U. & Seuring, S. (2017). Analyzing Base-of-the-Pyramid Research from a (Sustainable) Supply Chain Perspective. *Journal of Business Ethics* 1–24.
- Kianto, A., Sáenz, J., & Aramburu, N. (2017). Knowledge-Based Human Resource Management Practices, Intellectual Capital and Innovation. *Journal of Business Research* 81(December 2016), 11–20.
- Kim, D. Y. (2014). Understanding Supplier Structural Embeddedness: A Social Network Perspective. *Journal of Operations Management* 32(5), 219–31.
- Kistruck, G. M., Beamish, P. W., Qureshi, I., & Sutter, C. J. (2013). Social Intermediation in Base-of-the-Pyramid Markets. *Journal of Management Studies* 50(1), 31–66.
- Klitsie, E. J., Ansari, S., & Volberda, H. W. (2018). Maintenance of Cross-Sector Partnerships: The Role of Frames in Sustained Collaboration. *Journal of Business Ethics* 150(2), 401–23.
- Krause, D. R., Handfield, R. B., & Tyler, B. B. (2007). The Relationships between Supplier Development, Commitment, Social Capital Accumulation and Performance Improvement. *Journal of Operations Management* 25(2), 528–45.
- Kumar, V., Fantazy, K. A., Kumar, U., & Boyle, T. A. (2006). Implementation and Management Framework for Supply Chain Flexibility. *Journal of Enterprise Information Management* 19(3), 303–19.
- Lawson, B., Tyler, B. B., & Cousins, P. D. (2008). Antecedents and Consequences of Social Capital on Buyer Performance Improvement. *Journal of Operations Management* 26(3), 446–60.
- Lee, S. Y. (2015). The Effects of Green Supply Chain Management on the Supplier's Performance through Social Capital Accumulation. *Supply Chain Management: An International Journal* 20(1), 42–55.
- Lejeune, M. A. & Yakova, N. (2005). On Characterizing the 4 C's in Supply Chain Management. *Journal of Operations Management* 23(1), 81–100.
- LeMay, S. A., Dwyer, M. J., & Helms, M. (2018). World Views and the Evaluation of NGO Supply Chains: Thirteen Cases from Guatemala. *Operations and Supply Chain Management: An International Journal* 9(2), 90.
- Ben Letaifa, S. & Reynoso, J. (2015). Toward a Service Ecosystem Perspective at the Base of the Pyramid. *Journal of Service Management* 26(5), 684–705.
- Lin, H.-M. (2006). Interorganizational Collaboration, Social Embeddedness, and Value Creation:

- A Theoretical Analysis. *International Journal of Management* 23(3), 548–58.
- Lin, N. (1999). Building a Network Theory of Social Capital. *Connections* 22(1), 28–51.
- Ling-ye, L. & Ogunmokun, G. O. (2008). An Empirical Study of Manufacturing Flexibility of Exporting Firms in China: How Do Strategic and Organizational Contexts Matter? *Industrial Marketing Management* 37(6), 738–51.
- Longoni, A., Luzzini, D., Pullman, M., & Habiague, M. (2019). Business for Society Is Society's Business: Tension Management in a Migrant Integration Supply Chain. *Journal of Supply Chain Management* 55(4), 3–33.
- Longoni, A., Pagell, M., Johnston, D., & Veltri, A. (2013). When Does Lean Hurt? - An Exploration of Lean Practices and Worker Health and Safety Outcomes. *International Journal of Production Research* 51(11), 3300–3320.
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample Size in Factor Analysis. *Psychological Methods* 4(1), 84–99.
- MacCarthy, B. L., Blome, C., Olhager, J., Srari, J. S., & Zhao, X. (2016). Supply Chain Evolution – Theory, Concepts and Science. *International Journal of Operations and Production Management* 36(12), 1696–1718.
- MacKenzie, S. B., Podsakoff, P. M., & Jarvis, C. B. (2005). The Problem of Measurement Model Misspecification in Behavioral and Organizational Research and Some Recommended Solutions. *Journal of Applied Psychology* 90(4), 710–30.
- Mair, J., Battilana, J., & Cardenas, J. (2012). Organizing for Society: A Typology of Social Entrepreneurial Models. *Journal of Business Ethics* 111(3), 353–73.
- Mair, J., Mayer, J., & Lutz, E. (2015). Navigating Institutional Plurality: Organizational Governance in Hybrid Organizations. *Organization Studies* 36(6), 713–39.
- Mani, V., Gunasekaran, A., & Delgado, C. (2018). Enhancing Supply Chain Performance through Supplier Social Sustainability: An Emerging Economy Perspective. *International Journal of Production Economics* 195, 259–72.
- Marx, A. (2010). Crisp-Set Qualitative Comparative Analysis (CsQCA) and Model Specification: Benchmarks for Future CsQCA Applications. *International Journal of Multiple Research Approaches* 4(2), 138–58.
- Marx, A., Rihoux, B., & Ragin, C. (2014). The Origins, Development, and Application of Qualitative Comparative Analysis: The First 25 Years. *European Political Science Review* 6(1), 115–42.
- Mason, K. & Chakrabarti, R. (2017). The Role of Proximity in Business Model Design: Making Business Models Work for Those at the Bottom of the Pyramid. *Industrial Marketing Management* 61, 67–80.
- Matos, S. & Silvestre, B. S. (2013). Managing Stakeholder Relations When Developing Sustainable Business Models: The Case of the Brazilian Energy Sector. *Journal of Cleaner Production* 45, 61–73.
- Matthews, R. L. & Marzec, P. E. (2012). Social Capital, a Theory for Operations Management: A Systematic Review of the Evidence. *International Journal of Production Research* 50(24), 7081–99.
- Min, S., Kim, S. K., & Chen, H. (2008). Developing Social Identity and Social Capital for Supply Chain Management. *Journal of Business Logistics* 29(1), 283–304.
- Moore, S., Daniel, M., & Eng, E. (2003). International NGOs and the Role of Network Centrality in Humanitarian Aid Operations: A Case Study of Coordination during the 2000 Mozambique Floods. *Disasters* 27(4), 305–18.

- Moosmayer, D. C. & Davis, S. M. (2016). Staking Cosmopolitan Claims: How Firms and NGOs Talk About Supply Chain Responsibility. *Journal of Business Ethics* 135(3), 403–17.
- Nahapiet, J. & Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. *Academy of Management Review* 23(2), 242–66.
- Nakata, C. & Weidner, K. (2012). Enhancing New Product Adoption at the Base of the Pyramid: A Contextualized Model. *Journal of Product Innovation Management* 29(1), 21–32.
- Narasimhan, R., Mahapatra, S., & Arlbjørn, J. S. (2009). Impact of Relational Norms, Supplier Development and Trust on Supplier Performance. *Operations Management Research* 1(1), 24–30.
- Narasimhan, R. & Nair, A. (2005). The Antecedent Role of Quality, Information Sharing and Supply Chain Proximity on Strategic Alliance Formation and Performance. *International Journal of Production Economics* 96(3), 301–13.
- Nardone, G., Sisto, R., & Lopolito, A. (2010). Social Capital in the LEADER Initiative: A Methodological Approach. *Journal of Rural Studies* 26(1), 63–72.
- Ojha, D., Shockley, J., & Acharya, C. (2016). Supply Chain Organizational Infrastructure for Promoting Entrepreneurial Emphasis and Innovativeness: The Role of Trust and Learning. *International Journal of Production Economics* 179, 212–27.
- Pache, A. C. & Santos, F. (2013). Inside the Hybrid Organization: Selective Coupling as a Response to Competing Institutional Logics. *Academy of Management Journal* 56(4), 972–1001.
- Pagell, M., Fugate, B., & Flynn, B. (2018). From the Editors: Introduction to the Emerging Discourse Incubator on the Topic of Research Where the Focal Actor in the Network Is Not a for-Profit Firm. *Journal of Supply Chain Management* 54(2), 1–2.
- Pagell, M., Klassen, R., Johnston, D., Shevchenko, A., & Sharma, S. (2015). Are Safety and Operational Effectiveness Contradictory Requirements: The Roles of Routines and Relational Coordination. *Journal of Operations Management* 36, 1–14.
- Parmigiani, A., Klassen, R. D., & Russo, M. V. (2011). Efficiency Meets Accountability: Performance Implications of Supply Chain Configuration, Control, and Capabilities. *Journal of Operations Management* 29(3), 212–23.
- Parmigiani, A. & Rivera-Santos, M. (2015). Sourcing for the Base of the Pyramid: Constructing Supply Chains to Address Voids in Subsistence Markets. *Journal of Operations Management* 33–34, 60–70.
- Peredo, A. M. & McLean, M. (2006). Social Entrepreneurship: A Critical Review of the Concept. *Journal of World Business* 41(1), 56–65.
- Pervez, T. et al. (2013). Innovation and social entrepreneurship at the bottom of the pyramid - A conceptual framework. *South African Journal of Economic and Management Sciences* 16(5), 54–66.
- Petersen, K. J., Ragatz, G. L., & Monczka, R. M. (2005). An Examination of Collaborative Planning Effectiveness and Supply Chain Performance. *Journal of Supply Chain Management* 41(2), 14–25.
- Polyviou, M., Croxton, K. L., & Knemeyer, A. M. (2019). Resilience of Medium-Sized Firms to Supply Chain Disruptions: The Role of Internal Social Capital. *International Journal of Operations and Production Management* 40(1), 68–91.
- Prahalad, C. K. (2012). Bottom of the Pyramid as a Source of Breakthrough Innovations. *Journal of Product Innovation Management* 29(1), 6–12.
- Prahalad, C. K. & Hart, S. L. (2002). The Fortune at the Bottom of the Pyramid.

- Strategy+Business* (26), 2–14.
- Preston, D. S., Chen, D. Q., Swink, M., & Meade, L. (2017). Generating Supplier Benefits through Buyer-Enabled Knowledge Enrichment: A Social Capital Perspective. *Decision Sciences* 48(2), 248–87.
- Pullman, M., Longoni, A., & Luzzini, D. (2018). The Roles of Institutional Complexity and Hybridity in Social Impact Supply Chain Management. *Journal of Supply Chain Management* 54(2), 3–20.
- Qi, Y., Zhao, X., & Sheu, C. (2011). The Impact of Competitive Strategy and Supply Chain Strategy on Business Performance: The Role of Environmental Uncertainty. *Decision Sciences* 42(2), 371–89.
- Ragin, C. C. (2008). *Measurement Versus Calibration: A Set-Theoretic Approach*.
- Ragin, C. C. (2006). Set Relations in Social Research: Evaluating Their Consistency and Coverage. *Political Analysis* 14(3), 291–310.
- Reimann, F., Kosmol, T., & Kaufmann, L. (2017). Responses to Supplier-Induced Disruptions: A Fuzzy-Set Analysis. *Journal of Supply Chain Management* 53(4), 37–66.
- Reiner, G., Gold, S., & Hahn, R. (2015). Wealth and Health at the Base of the Pyramid: Modelling Trade-Offs and Complementarities for Fast Moving Dairy Product Case. *International Journal of Production Economics* 170, 413–21.
- Reynoso, J., Valdes, A., Cabrera, K., Valdés, A., & Cabrera, K. (2015). Breaking New Ground: Base-of-Pyramid Service Research. *Service Industries Journal* 35(13), 695–709.
- Rihoux, B. et al. (2013). *QCA, 25 Years after “The Comparative Method”*: Mapping, Challenges, and Innovations-Mini-Symposium. Vol. 66.
- Roden, S. & Lawson, B. (2014). Developing Social Capital in Buyer-Supplier Relationships: The Contingent Effect of Relationship-Specific Adaptations. *International Journal of Production Economics* 151, 89–99.
- Rodríguez, J. A., Giménez, C., & Arenas, D. (2016). Cooperative Initiatives with NGOs in Socially Sustainable Supply Chains: How Is Inter-Organizational Fit Achieved? *Journal of Cleaner Production* 137, 516–26.
- Rodríguez, J. A., Gimenez Thomsen, C., Arenas, D., & Pagell, M. (2016). NGO’s Initiatives to Enhance Social Sustainability in the Supply Chain: Poverty Alleviation Through Supplier Development Programs. *Journal of Supply Chain Management* 52(3), 83–108.
- Romzek, B., LeRoux, K., Johnston, J., Kempf, R. J., & Piatak, J. S. (2014). Informal Accountability in Multisector Service Delivery Collaborations. *Journal of Public Administration Research and Theory* 24(4), 813–42.
- Rosca, E. & Bendul, J. C. (2018). Value Chain Integration of Base of the Pyramid Consumers: An Empirical Study of Drivers and Performance Outcomes. *International Business Review* 28(1), 162–76.
- Rosca, E., Möllering, G., Rijal, A., & Bendul, J. C. (2019). Supply Chain Inclusion in Base of the Pyramid Markets. *International Journal of Physical Distribution & Logistics Management* 49(5), 575–98.
- Rubinson, C., Rutten, R., & Greckhamer, T. (2019). Avoiding Common Errors in QCA: A Short Guide for New Practitioners. *Compass.Org* (9), 397–418.
- Runnels, V., Hay, E., Sevigny, E., & O’Hara, P. (2009). The Ethics of Conducting Community-Engaged Homelessness Research. *Journal of Academic Ethics* 7(1), 57–68.
- Russo, I., Confente, I., Gligor, D., & Cobelli, N. (2019). A Roadmap for Applying Qualitative Comparative Analysis in Supply Chain Research. *International Journal of Physical*

- Distribution & Logistics Management* 49(1), 99–120.
- Saebi, T., Foss, N. J., & Linder, S. (2019). Social Entrepreneurship Research : Past Achievements and Future Promises. *Journal of Management* 45(1), 70–95.
- Saldaña, J. (2013). *The Coding Manual for Qualitative Researchers*. 2nd ed. Thousand Oaks, CA: Sage.
- Sameer, P., James, J., Kuntal, B., Jasmine, T., & Donna, M. (2017). Value Supply Chains at the Base of the Pyramid: Studies of Past and Present Textile Networks. *Journal of Humanitarian Logistics and Supply Chain Management* 7(3), 304–23.
- Sancha, C., Gimenez, C., & Sierra, V. (2016). Achieving a Socially Responsible Supply Chain through Assessment and Collaboration. *Journal of Cleaner Production* 112, 1934–47.
- Sanchez-Barríos, L. J., Giraldo, M., Khalik, M., & Manjarres, R. (2015). Services for the Underserved: Unintended Well-Being. *Service Industries Journal* 35(15–16), 883–97.
- Sardana, G. D. (2013). Social Business and Grameen Danone Foods Limited. *Society and Business Review* 8(2), 119–33.
- Schneider, C. Q. & Wagemann, C. (2012a). Introduction. Pp. 1–20 in *Set-Theoretic Methods for the Social Sciences : A Guide to Qualitative Comparative Analysis*. Cambridge: Cambridge University Press.
- Schneider, C. Q. & Wagemann, C. (2012b). *Set-Theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*. Cambridge: Cambridge University Press.
- Schneider, C. Q. & Wagemann, C. (2012c). *Set-Theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*. Cambridge: Cambridge University Press.
- von Schnurbein, G., Seele, P., & Lock, I. (2016). Exclusive Corporate Philanthropy: Rethinking the Nexus of CSR and Corporate Philanthropy. *Social Responsibility Journal* 12(2), 280–94.
- Schrader, C., Freimann, J., & Seuring, S. (2012). Business Strategy at the Base of the Pyramid. *Business Strategy and the Environment* 21(5), 281–98.
- Seawright, J. & Gerring, J. (2008). Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options. *Political Research Quarterly* 61(2), 294–308.
- Sengupta, K., Heiser, D. R., & Cook, L. S. (2006). Manufacturing and Service Supply Chain Performance: A Comparative Analysis. *Journal of Supply Chain Management* 42(4), 5–16.
- Seny Kan, A. K., Adegbite, E., El Omari, S., & Abdellatif, M. (2016). On the Use of Qualitative Comparative Analysis in Management. *Journal of Business Research* 69(4), 1458–63.
- Singh, R., Bakshi, M., & Mishra, P. (2015). Corporate Social Responsibility: Linking Bottom of the Pyramid to Market Development? *Journal of Business Ethics* 131(2), 361–73.
- Skaaning, S. E. (2011). Assessing the Robustness of Crisp-Set and Fuzzy-Set QCA Results. *Sociological Methods and Research* 40(2), 391–408.
- Smith, W. K., Gonin, M., Besharov, M. L., Smith, W. K., & Besharov, M. L. (2013). Managing Social-Business Tensions: A Review and Research Agenda for Social Enterprise. *Business Ethics Quarterly* 23(3), 407–42.
- Sodhi, M. M. S. & Tang, C. S. (2011). Social Enterprises as Supply-Chain Enablers for the Poor. *Socio-Economic Planning Sciences* 45(4), 146–53.
- Sodhi, M. S. & Tang, C. S. (2014). Supply-Chain Research Opportunities with the Poor as Suppliers or Distributors in Developing Countries. *Production and Operations Management* 23(9), 1483–94.
- Sodhi, M. S. & Tang, C. S. (2016). Supply Chain Opportunities at the Bottom of the Pyramid. *Decision* 43(2), 125–34.

- Son, B. G., Kocabasoglu-Hillmer, C., & Roden, S. (2016). A Dyadic Perspective on Retailer-Supplier Relationships through the Lens of Social Capital. *International Journal of Production Economics* 178, 120–31.
- Song, H., Yu, K., Ganguly, A., & Turson, R. (2016). Supply Chain Network, Information Sharing and SME Credit Quality. *Industrial Management and Data Systems* 116(4), 740–58.
- Sousa, C. M. P. & Bradley, F. (2008). Cultural Distance and Psychic Distance: Refinements in Conceptualisation and Measurement. *Journal of Marketing Management* 24(5–6), 467–88.
- Squire, B., Cousins, P. D., Lawson, B., & Brown, S. (2009). The Effect of Supplier Manufacturing Capabilities on Buyer Responsiveness: The Role of Collaboration. *International Journal of Operations and Production Management* 29(8), 766–88.
- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R., & Samson, D. (2002). Effective Case Research in Operations Management: A Process Perspective. *Journal of Operations Management* 20, 419–33.
- Swierczek, A. (2019). Manufacturer Structural Embeddedness and the Network Rent: The Intervening Role of Relational Embeddedness in the Triadic Supply Chains. *Supply Chain Management: An International Journal* 24(3), 334–54.
- Sydow, J. & Windeler, A. (1998). Organizing and Evaluating Interfirm Networks: A Structurationist Perspective on Network Processes and Effectiveness. *Organization Science* 9(3), 265–84.
- Tachizawa, E. M. & Thomsen, C. G. (2007). Drivers and Sources of Supply Flexibility: An Exploratory Study. *International Journal of Operations and Production Management* 27(10), 1115–36.
- Thiem, A. (2014). Navigating the Complexities of Qualitative Comparative Analysis: Case Numbers, Necessity Relations, and Model Ambiguities. *Evaluation Review* 38(6), 487–513.
- Thomann, E. & Maggetti, M. (2020). Designing Research With Qualitative Comparative Analysis (QCA): Approaches, Challenges, and Tools. *Sociological Methods and Research* 49(2), 356–86.
- Timmer, S. & Kaufmann, L. (2017). Conflict Minerals Traceability – a Fuzzy Set Analysis. *International Journal of Physical Distribution and Logistics Management* 47(5), 344–67.
- Todo, Y., Matous, P., & Inoue, H. (2016). The Strength of Long Ties and the Weakness of Strong Ties: Knowledge Diffusion through Supply Chain Networks. *Research Policy* 45(9), 1890–1906.
- Tóth, Z., Thiesbrummel, C., Henneberg, S. C., & Naudé, P. (2015). Understanding Configurations of Relational Attractiveness of the Customer Firm Using Fuzzy Set QCA. *Journal of Business Research* 68(3), 723–34.
- Tsai, W. & Ghoshal, S. (1998). Social Capital and Value Creation: The Role of Intrafirm Networks. *Academy of Management Journal* 41(4), 464–76.
- Tucker, A. L. & Singer, S. J. (2015). The Effectiveness of Management-by-Walking-around: A Randomized Field Study. *Production and Operations Management* 24(2), 253–71.
- Tucker, R. & Croom, R. M. (2021). A Xenophilic Perspective of Social Entrepreneurship. *Journal of Business Venturing Insights* 15, e00217.
- Tuo, G., Feng, Y., & Sarpong, S. (2019). A Configurational Model of Reward-Based Crowdfunding Project Characteristics and Operational Approaches to Delivery Performance. *Decision Support Systems* 120(March), 60–71.
- Um, J., Lyons, A., Lam, H. K. S., Cheng, T. C. E., & Dominguez-Pery, C. (2017). Product

- Variety Management and Supply Chain Performance: A Capability Perspective on Their Relationships and Competitiveness Implications. *International Journal of Production Economics* 187(February), 15–26.
- Upadhaya, B., Munir, R., & Blount, Y. (2014). Association between Performance Measurement Systems and Organisational Effectiveness. *International Journal of Operations and Production Management* 34(7), 853–75.
- Uzzi, B. (1997). Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness. *Administrative Science Quarterly* 42(1), 35–67.
- Villena, V. H., Choi, T. Y., & Revilla, E. (2020). Mitigating Mechanisms for the Dark Side of Collaborative Buyer–Supplier Relationships: A Mixed-Method Study. *Journal of Supply Chain Management* 1–31.
- Villena, V. H., Revilla, E., & Choi, T. Y. (2011). The Dark Side of Buyer-Supplier Relationships: A Social Capital Perspective. *Journal of Operations Management* 29(6), 561–76.
- Viswanathan, M. & Sridharan, S. (2012). Product Development for the BoP: Insights on Concept and Prototype Development from University-Based Student Projects in India. *Journal of Product Innovation Management* 29(1), 52–69.
- Wang, Q. & Jap, S. (2017). Benevolent Dictatorship and Buyer-Supplier Exchange. *Journal of Business Research* 78, 204–16.
- Wang, Y., Wallace, S. W., Shen, B., & Choi, T. M. (2015). Service Supply Chain Management: A Review of Operational Models. *European Journal of Operational Research* 247(3), 685–98.
- Webb, J. W., Kistruck, G. M., Ireland, R. D., & Ketchen, D. J. (2010). The Entrepreneurship Process in Base of the Pyramid Markets: The Case of Multinational Enterprise / Nongovernment. *Entrepreneurship Theory & Practice* 1042–2587.
- Zelbst, P. J., Green, K. W., Sower, V. E., & Reyes, P. M. (2012). Impact of RFID on Manufacturing Effectiveness and Efficiency. *International Journal of Operations and Production Management* 32(3), 329–50.
- Zeschky, M., Widenmayer, B., & Gassmann, O. (2011). Frugal Innovation in Emerging Markets. *Research-Technology Management* 54(4), 38–45.
- Zhu, Q. & Lai, K. hung. (2019). Enhancing Supply Chain Operations with Extended Corporate Social Responsibility Practices by Multinational Enterprises: Social Capital Perspective from Chinese Suppliers. *International Journal of Production Economics* 213(January), 1–12.
- Zylberberg, E. & Ezequiel, Z. (2013). Bloom or Bust? A Global Value Chain Approach to Smallholder Flower Production in Kenya. *Journal of Agribusiness in Developing and Emerging Economies* 3(1), 4–26.

A. Hybridity, Tensions & Practices, Summary of Selected Literature

Authors	Year	Hybridity-Related Challenges	Hybridity-Supporting Practices
1. Battilana & Dorado	2010	Institutional tensions may threaten the organization's ability to sustain hybridity over time.	Strategic employee selection based on socializability to facilitate development of shared organizational identity that embraces hybridity.
2. Haigh & Hoffman	2012	Institutional entrepreneurship may threaten their competitiveness, ability to maintain their mission and ability to scale their operations.	N/A
3. Smith, Gonin & Besharov	2013	Classified the types of tensions social enterprises experience: Performing, Organizing, Belonging, Learning.	N/A
4. Pache & Santos	2013	Hybrid organizations experience legitimacy threats based on their organizational history.	Selective coupling and strategic partnerships used to manage conflict and build legitimacy.
5. Battilana & Lee	2014	Defined a set of internal and external tensions faced by social enterprises (SE) related to institutional hybridity.	Propose five practice-based dimensions of hybrid organizing where different levels of differentiation or integration of commercial/social logics can produce different organizational structures.
6. Doherty, Haugh & Lyon	2014	Reviewed SE literature and linked challenges SEs face to their mission, financial resources and human resources.	Summarized existing literature on managerial practices that SEs use to overcome tensions (e.g., use of non-financial rewards to motivate employees).
7. Ebrahim, Battilana & Mair	2014	Describes two accountability-related challenges: accountability to dual objectives and accountability to multiple stakeholders.	Emphasized governance practices as a way to avoid drift and maintain hybridity through monitoring, developing control strategies, enacting meaningful accountability.
8. Haigh, Kennedy & Walker	2015	Discussed impacts of hybridity on partners of SEs.	Found SEs alter their legal structure to maximize flexibility.
9. Battilana, Sengul, Pache & Model	2015	Social imprinting supports social mission attainment but may hurt financial value.	Separate responsibility for social and economic activity but maintain "spaces for negotiation".

10. Hockerts	2015	Discussed hybridity tensions using metaphor of antagonistic assets.	Firms can benefit from antagonistic assets by building them into the org. mission, partnering with hybrids and using open innovation.
11. Mair, Mayer & Lutz	2015	Suggests two structures that form in response to institutional conflict: conforming hybrids and dissenting hybrids.	N/A

B. Sampling frames, SVCS components

Table 27. Sampling frame characteristics, QCA and case study

SVCS Component	QCA	Case Study
Provision	61	9
Inclusion	63	9
Paired	15	2
For-profit	102	12
Non-profit	37	8
Revenues Extracted from Beneficiaries	57	6
Revenues Not Extracted from Beneficiaries	82	14
Geographically Local	68	7
Geographically Distant	71	13
Culturally Local	64	7
Culturally Distant	75	13
TOTAL	139	20

C. QCA Instrument

For the following questions, we would like you to consider your upstream supply chain, meaning any people or organizations that support your operations in the stage leading up to and including the manufacturing of your product. For example: your suppliers, logistics/shipping organizations used to manage movement of materials from your suppliers, organizations you partner with to manage supplier relationships, etc.

Focus your responses on the three organizations or partners you feel have been the most critical to your organization's operations.

1. Please indicate the extent to which your organization and these **upstream supply chains partners** (i.e., organizations you buy materials, products or packaging from, organizations you partner with to manage supplier relationships) share:
 - a. Similar organizational culture
 - b. The same vision of how to manage the relationship
 - c. Agreement on the importance of improvements that are mutually beneficial
 - d. The same ambitions and overarching vision

2. Please indicate the extent to which the relationship between your organization and these **upstream supply chain partners** (i.e., organizations you buy materials, products or packaging from, organizations you partner with to manage supplier relationships) is characterized by:
 - a. A close personal interaction between parties (e.g., you communicate monthly with the same individual from the partner organization)
 - b. Mutual respect between the parties
 - c. Personal friendship between the parties
 - d. Reciprocity between the parties

For this question, please consider the entire network of organizations involved in providing or transporting materials, products, packaging etc. to your organization. Include any organizations that may help you recruit or manage relationships with your suppliers.

3. Please indicate the extent to which your level of agreement with the following statements regarding your **upstream supply chain** (i.e., organizations you buy materials, products or packaging from, organizations you partner with to manage supplier relationships):
 - a. My organization's **upstream supply chain**
 - b. Involves organizations that are highly interconnected with each other, independent of their relationship with my organization
 - c. Involves organizations that collaborate on multiple types of activities, for example: forecasting, product design, awareness campaigns.
 - d. Involves organizations that are located geographically close to my organization
 - e. Involves organizations that allow each other to act on independent decisions that may affect the supply chain without first seeking approval from other supply chain members.
 - f. Involves organizations from multiple different industries or sectors.

- g. Relies on one (or a small number of) well-connected organizations to coordinate information flows across the network.

For the following questions, we would like you to consider your downstream supply chain, meaning any people or organizations that support your operations in the stages after the product is manufactured and until reaches the end user. For example: retailers/distributors, end users/customers, organizations you partner with to manage relationships with retailers/distributors or end users/customers.

Focus your responses on the three organizations or partners you feel have been the most critical to your organization's operations.

4. Please indicate the extent to which your organization and these **downstream partners** (i.e., retailers/distributors, end users/customers, organizations you partner with to manage relationships with retailers/distributors or end users/customers) share:
 - a. Similar organizational culture
 - b. The same vision of how to manage the relationship
 - c. Agreement on the importance of improvements that are mutually beneficial
 - d. The same ambitions and overarching vision

5. Please indicate the extent to which the relationship between your organization and these **downstream partners** (i.e., retailers/distributors, end users/customers, organizations you partner with to manage relationships with retailers/distributors or end users/customers) is characterized by:
 - a. A close personal interaction between parties (e.g., you communicate monthly with the same individual from the partner organization)
 - b. Mutual respect between the parties
 - c. Personal friendship between the parties
 - d. Reciprocity between the parties

For this question, please consider the entire network of organizations involved in getting your product to its end user. Include any organizations that may help you connect with or manage relationships with your customers.

6. Please indicate the extent to which your level of agreement with the following statements regarding your organization's **downstream supply chain** (i.e., retailers/distributors, end users/customers/customers, organizations you partner with to manage relationships with retailers/distributors or end users/customers):
 - a. My organization's **downstream supply chain**
 - b. Involves organizations that are highly interconnected with each other, independent of their relationship with my organization
 - c. Involves organizations that collaborate on multiple types of activities, for example: forecasting, product design, awareness campaigns.
 - d. Involves organizations that are located geographically close to my organization

- e. Involves organizations that allow each other to act on independent decisions that may affect the supply chain without first seeking approval from other supply chain members.
 - f. Involves organizations from multiple different industries or sectors.
 - g. Relies on one (or a small number of) well-connected organizations to coordinate information flows across and out of the network.
7. Reflecting on your organization's state, **prior to the COVID-19 pandemic**, please indicate the extent to which you agree with the following statements:
- a. Most months, my organization's monthly revenues from product sales exceed monthly expenses (including salaries)
 - b. Most months, my organization's monthly revenues from all sources including grants and donations exceed monthly expenses (including salaries)
 - c. My organization has successfully reduced our per-unit operating costs over time.
 - d. My organization consistently hits our target number of beneficiaries served.
 - e. I feel confident that my organization will still be operating in three to five years.
8. Please indicate the relative importance of each of the following stakeholder groups to your organization's overall success: (Allocate a percentage, adding to 100%)
- a. Beneficiaries – The people your organization was created to support
 - b. Non-beneficiary Customers – People who purchase your product but are not directly affected by the social mission
 - c. Funders – People or organizations who financially contribute to your organization but who do not purchase your organization's product
 - d. Non- Beneficiary Upstream Supply Chain Partners - your suppliers, logistics/shipping organizations used to manage movement of materials from your suppliers, organizations you partner with to manage supplier relationships
 - e. Non-Beneficiary Downstream Supply Chain Partners - retailers/distributor, organizations you partner with to manage relationships with retailers/distributors
9. Please indicate the extent to which you agree that your organization's **beneficiaries**:
- a. express strong approval of how our organization operates on a day-to-day basis
 - b. express strong approval of the product our organization produces
 - c. express strong approval of the social impact of our organization
10. Please indicate the extent to which you agree that your organization's **non-beneficiary customers**
- a. express strong approval of how our organization operates on a day-to-day basis.
 - b. express strong approval of the product our organization produces
 - c. express strong approval of the social impact of our organization
11. Please indicate the extent to which you agree that your organization's **funders**
- a. express strong approval of how our organization operates on a day-to-day basis.
 - b. express strong approval of the product our organization produces
 - c. express strong approval of the social impact of our organization

12. Please indicate the extent to which you agree that your organization's **non-beneficiary upstream supply chain partners**
- express strong approval of how our organization operates on a day-to-day basis.
 - express strong approval of the product our organization produces.
 - express strong approval of the social impact of our organization.
13. Please indicate the extent to which you agree that your organization's **non-beneficiary downstream supply chain partners**
- express strong approval of how our organization operates on a day-to-day basis.
 - express strong approval of the product our organization produces.
 - partners express strong approval of the social impact of our organization.
14. What is your organization's name?
15. Please briefly describe your organization's mission and how your organization's work contributes to this mission.
16. What is your organization's legal structure?
- For-profit
 - Non-profit (Other than registered charity)
 - Registered charity
 - Other: _____
17. How many years has your organization been operating?
18. How many paid employees (FTE) did your organization have prior to the COVID-19 pandemic?
19. Please indicate the extent to which you agree with the following statements:
- Once I've made up my mind, people can seldom change my opinion.
 - I don't always know the reasons why I do the things I do.
 - When I hear people talking privately, I avoid listening.
 - I have received too much change from a salesperson without telling him or her.

D. Results of Necessity Analysis

Table 28. Necessity analysis, effectiveness

Condition	Consistency	Relevance of Necessity
Downstream Beneficiaries	0.601	0.763
Upstream Beneficiaries	0.753	0.650
Local Beneficiaries	0.555	0.795
For-profit Structure	0.548	0.787
Upstream Cognitive Capital	0.486	0.944
Downstream Cognitive Capital	0.748	0.794
Upstream Relational Capital	0.580	0.859
Downstream Relational Capital	0.717	0.841
Revenues Extracted from Beneficiaries	0.316	0.901

Table 29. Necessity analysis, Negation of effectiveness

Condition	Consistency	Relevance of Necessity
Downstream Beneficiaries	0.556	0.469
Upstream Beneficiaries	0.641	0.320
Local Beneficiaries	0.514	0.515
For-profit Structure	0.536	0.518
Upstream Cognitive Capital	0.660	0.695
Downstream Cognitive Capital	0.873	0.420
Upstream Relational Capital	0.706	0.566
Downstream Relational Capital	0.781	0.458
Revenues Extracted from Beneficiaries	0.327	0.737

Table 30. Necessity analysis, Negation of conditions - Effectiveness

Condition	Consistency	Relevance of Necessity
~Downstream Beneficiaries	0.399	0.853
~Upstream Beneficiaries	0.247	0.898
~Local Beneficiaries	0.445	0.830
~For-profit Structure	0.452	0.837
~Upstream Cognitive Capital	0.664	0.840
~Downstream Cognitive Capital	0.398	0.958
~Upstream Relational Capital	0.528	0.886
~Downstream Relational Capital	0.423	0.926
~Revenues Extracted from Beneficiaries	0.684	0.674

Table 31. Necessity analysis, Acceptability

Condition	Consistency	Relevance of Necessity
Downstream Beneficiaries	0.575	0.837
Upstream Beneficiaries	0.745	0.807
Local Beneficiaries	0.541	0.876
For-profit Structure	0.537	0.870
Upstream Cognitive Capital	0.453	0.988
Downstream Cognitive Capital	0.713	0.919
Upstream Relational Capital	0.568	0.959
Downstream Relational Capital	0.674	0.938
Revenues Extracted from Beneficiaries	0.303	0.934

Table 32. Necessity analysis, Negation of acceptability

Condition	Consistency	Relevance of Necessity
Downstream Beneficiaries	0.717	0.444
Upstream Beneficiaries	0.587	0.292
Local Beneficiaries	0.579	0.486
For-profit Structure	0.613	0.488
Upstream Cognitive Capital	0.646	0.636
Downstream Cognitive Capital	0.912	0.374
Upstream Relational Capital	0.723	0.516
Downstream Relational Capital	0.924	0.419
Revenues Extracted from Beneficiaries	0.438	0.717

Table 33. Necessity analysis, Negation of conditions - Acceptability

Condition	Consistency	Relevance of Necessity
~Downstream Beneficiaries	0.425	0.950
~Upstream Beneficiaries	0.255	0.941
~Local Beneficiaries	0.459	0.921
~For-profit Structure	0.463	0.927
~Upstream Cognitive Capital	0.620	0.913
~Downstream Cognitive Capital	0.367	0.986
~Upstream Relational Capital	0.499	0.945
~Downstream Relational Capital	0.413	0.987
~Revenues Extracted from Beneficiaries	0.697	0.836

Table 34. Necessity analysis, Viability

Condition	Consistency	Relevance of Necessity
Downstream Beneficiaries	0.623	0.793
Upstream Beneficiaries	0.731	0.631
Local Beneficiaries	0.558	0.802
For-profit Structure	0.590	0.838
Upstream Cognitive Capital	0.470	0.929
Downstream Cognitive Capital	0.723	0.766
Upstream Relational Capital	0.566	0.847
Downstream Relational Capital	0.688	0.807
Revenues Extracted from Beneficiaries	0.336	0.922

Table 35. Necessity analysis, Negation of viability

Condition	Consistency	Relevance of Necessity
Downstream Beneficiaries	0.478	0.458
Upstream Beneficiaries	0.714	0.325
Local Beneficiaries	0.502	0.512
For-profit Structure	0.392	0.498
Upstream Cognitive Capital	0.579	0.678
Downstream Cognitive Capital	0.828	0.413
Upstream Relational Capital	0.654	0.556
Downstream Relational Capital	0.728	0.449
Revenues Extracted from Beneficiaries	0.257	0.723

Table 36. Necessity analysis, Negation of conditions - Viability

Condition	Consistency	Relevance of Necessity
~Downstream Beneficiaries	0.377	0.835
~Upstream Beneficiaries	0.269	0.919
~Local Beneficiaries	0.442	0.830
~For-profit Structure	0.410	0.800
~Upstream Cognitive Capital	0.639	0.813
~Downstream Cognitive Capital	0.384	0.945
~Upstream Relational Capital	0.512	0.872
~Downstream Relational Capital	0.406	0.911
~Revenues Extracted from Beneficiaries	0.664	0.657

E. Research Protocol

OUTLINE OF CASE STUDY REPORT

- Brief description of organizational history
- Description of respondent(s) involvement with the organization
- Description of their key supply chain relationships
 - Emphasis on direct relationships with beneficiaries where relevant
- Description of key operational challenges faced by the organization
 - Separate challenges with internal antecedents, environmental antecedents, supply chain antecedents
- Description of the organization's social network
 - Types of partnerships that exist in their supply chain, in their broader social network
 - Types of organizations that they partner with for different purposes
- Details of how organization interacts with supply chain partners
 - Frequency and form of communication
 - Inter-personal relationships
 - Knowledge sharing routines incl. technologies that facilitate exchange
 - Past experiences of collaboration
 - Governance and evaluation of partnerships
 - Evaluation and monitoring practices
- Description of the organization's effectiveness [narrative]
 - Changes to model over time
 - Relationships with major funders
 - Current financial status
 - Key outcomes of their social activities, evolution over time
 - Expected changes in the near and distant future
 - Effectiveness evaluations from external partners
- Attachments:
 - Supply chain map (first tier minimum, additional tiers where relevant)
 - Scans of supplier/distributor contracts if possible
 - List of interviewees with contact information
 -

SAMPLE INTERVIEW QUESTIONS

ORIGINS

1. Describe general organizational history (early formation)
 - a. Triangulate with company website, newspaper articles, incubator case studies, etc.
2. What is the personal history of respondent? (with regards to their involvement in the organization and other relevant background information)
 - a. Networks they had access to

SUPPLY CHAIN PARTNERSHIPS

1. Provide broad overview of the focal organization's wider network including supply chain partners, beneficiary-related partners or other supporting organizations.
 - a. Triangulate with news releases and annual reports where relevant

2. How did the relationships with these partners begin and why?
3. What have the biggest challenges been in their supply chain in general?
4. What have the biggest successes been in their supply chain in general?
5. What do they rely on their suppliers for most?

SUPPLY CHAIN MANAGEMENT

To be answered for each major supply chain partner:

1. Describe relationship history for most significant partners in more detail.
2. What tools do they use to manage their relationships and interactions with their supply chain partners and beneficiaries?
3. How do they interact with their supply chain partners?
 - a. What is the nature of these interactions?
 - b. By what means do these interactions take place?
 - c. How frequently do these interactions take place?
6. What have the biggest challenges been in each relationship?
7. What have the biggest successes been in each relationship?

EFFECTIVENESS (Viability)

1. What are the organization's current financial goals?
2. Have the organization's financial goals changed over time? If so, how?
3. What, if any, relationship does the organization have with different types of funders (e.g., private donors, large foundations, government programs)
 - a. Triangulate with input from external stakeholders
4. What have been the organization's greatest financial challenges?
5. What have been the organization's greatest financial successes?
 - a. Triangulate both of the above with internal documentation where possible

EFFECTIVENESS (Acceptability)

1. What are the organization's current social goals?
2. Have the organization's social goals changed over time? If so, how?
3. How does the organization evaluate the effectiveness of their social initiatives?
4. How has their social effectiveness changed over time, and why?
5. How are their social initiatives received by various stakeholders? (e.g., service organizations, beneficiaries, customers, funders, governments)
 - a. Triangulate with input from external stakeholders
6. What have been the organization's greatest social challenges?
7. What have been the organization's greatest social successes?
 - a. Triangulate both of the above with internal documentation where possible

F. Multiple case study – Case Summaries

Agriculture 1

Value Design - *Agriculture 1* was initially envisioned as offering a solution to food insecurity and poor access to produce for many families in remote and Northern communities. After lengthy consultation with their first host community, their mission has evolved to address three prongs: food security, education and employment. This mission is pursued through the construction of greenhouses to support hydroponic and conventional agriculture in remote regions of the country. In addition to food production, *Agriculture 1* offers educational opportunities in their host communities, as well as any other communities that are interested in their programming. Their educational programming includes a curriculum about hydroponic agriculture to be taught in classrooms, as well as cooperative education placements for high school students to work in the greenhouses in the hopes of improving high school graduation rates and creating an opportunity for students to learn skills that may benefit them in future employment. Finally, in addition to increasing economic attainment through education, the greenhouses also create opportunities for permanent employment of a greenhouse manager from within the community, as well as providing opportunities for the community to recoup the costs of building the greenhouse (if not externally funded) by selling the produce within the community.

Value Delivery - *Agriculture 1* pursues their social mission through a long process of engagement with host communities, culminating in the construction of a greenhouse and eventually the full transition of the management of the greenhouse to community members. Staff members estimate that the amount of time elapsed between initial contact and the first grow day at the facility is about a year and a half. Through their highly consultative approach, they attempt to break patterns experienced by these communities where large companies from southern Canada or other countries come to the North and implement large-scale resource extraction projects from which the communities see limited benefits. Additionally, it is important to consider the historical context, distant and recent, of settler colonialism in Canada on the lives of Inuit people in the North (Hall 2013), who comprise the majority of the population in the regions where *Agriculture 1* implements projects.

Agriculture 1's upstream supply chain largely operates based on arms-length relationships and suppliers are generally selected based on having satisfactory quality and low costs. Preference is given to suppliers located in reasonable proximity to *Agriculture 1*'s office, or near the port used to ship the growing facilities north. To address cost constraints for their customers, *Agriculture 1* vertically integrated their supply chain, creating a for-profit company which provides the physical structure of their growing system at a substantially lower cost than their previous supplier, with whom they now have a licensing agreement.

Value Capture - As is typical in conventional value chains, the primary type of value captured by actors in the upstream value chain is the financial associated with component sales. However, as a registered charity, *Agriculture 1* is not driven by a profit maximization motive and the amount of revenues extracted from beneficiary communities is closely monitored. *Agriculture 1*'s status as a registered charity has also enabled them to capture additional financial value from the impact created for end beneficiaries through the solicitation of donations from suppliers, individuals or other corporate sponsors.

Agriculture 2

Value Design – *Agriculture 2*'s mission is quite similar to that of *Agriculture 1*. However, over the course of the organization's operations, the scope of their activities has widened from focusing on food security in remote and Northern communities to supporting food sovereignty and access to locally grown produce in any community. In addition to their commitment to increasing food access, *Agriculture 2* frames their product as a plug-and-play business opportunity for customers. Where *Agriculture 1* primarily frames their product as a community-level project, *Agriculture 2* focuses on business-to-business sales, selling their growing systems to both for-profit and non-profit organizations, emphasizing its potential as an on-going revenues stream and its potential to create job opportunities. The product design is flexible enough to be suited for many uses, whether or not those uses contribute to increasing food security.

Agriculture 1's formal status as a charitable organization requires that all of its projects directly serve their stated social mission. *Agriculture 2*, in contrast, is registered as a for-profit organization, allowing them to serve a broad range of customers and distribute excess revenues generated through product sales to owners or other stakeholders. However, this means that some of their sales are to customers for whom food security is not a significant challenge, though all projects naturally support sustainability goals as they dramatically shorten food supply chains. Additionally, some of their for-profit customers have independently committed to donating a portion of their produce or revenues to food security initiatives in their own communities.

Value Delivery – *Agriculture 2* addresses its social mission through the sale of modular hydroponic systems that are designed to be functional year-round in even the most extreme environments. Their system is intended to be as simple to operate as possible, with a “plug-and-play” design and the ability for *Agriculture 2* to remotely monitor and control each growing system via their subscription-based mobile app. From initial contact to installation, the process generally takes about 8-10 weeks, excluding delays related to shipping to remote communities. Following installation, customers have continued technical support and business development support from *Agriculture 2*.

Agriculture 2's upstream supply chain is based largely out of the United States, where their manufacturing partner is located. Due to the relatively newness of the hydroponics sector and the frequency of new entrants, *Agriculture 2*'s supply chain relationships fairly dynamic as they are always looking to maintain their competitiveness by ensuring their growing facilities use the most efficient or innovative technology. They also engage in collaborative component development with their long-term suppliers to support yield enhancements, reduce operating costs or increase the variety of produce that can be grown in the facility. While these improvements may increase the cost of the product, price increases are balanced with yield increases and enhanced profitability for the facility owners.

Value Capture - Value Capture for *Agriculture 2*, as a for-profit organization, occurs through the sales of their systems, and through the paid support they offer customers beyond initial installation. The software integrated into their systems provides a recurring revenues stream as customers must pay to continue to use the application and access remote support from *Agriculture 2*. As a for-profit social enterprise, *Agriculture 2* evaluates success on the basis of business metrics, rather than specific social targets, though they support their customers in achieving whatever financial or societal goals they are pursuing. Compared to *Agriculture 1*, *Agriculture 2*'s product comes at a substantially higher cost but does have the potential for higher yields and by extension, a shorter payback period for customers and greater revenues generation opportunities. This is due

in part to the technology used in their units and the fact that they can operate all year, whereas *Agriculture 1*'s growing units can operate 6-months of the year.

Agriculture 3

Value Design – *Agriculture 3*'s mission is to increase the productivity, income and food security of smallholder chicken farmers. They pursue this goal through the sale of solar powered egg incubators, which will increase the yield of eggs produced by these farmers, which can then be used to feed their household and generate income. This can also improve nutritional outcomes by providing an accessible source of protein year-round and help farmers to diversify their incomes and become more resilient. Most solar products emphasize the health, financial and environmental benefits associated with switching from kerosene fuel to solar-powered products. Their product, however, aims to provide those harm reduction functions as well as providing an impact for farmers to increase their income in a sustainable way by increasing egg production.

Value Delivery - Their model focuses on B2B, rather than B2C sales, connecting with pay-as-you-go solar distributors that have already proven to have an effective distribution network in their target market. To ensure the affordability of their product for end beneficiaries, the product is financed and paid off gradually by the customer, with the expectation that payments will be easily covered through additional profits farmers make by raising eggs using this technology relative to the analog method.

Agriculture 3's supply chain is centered around their manufacturing partner, based out of China. The core design for their product is completed internally, however they collaborate with their manufacturing partner to modify the design for manufacturing ease, and their manufacturing partner completes the design of their circuit boards. This partner, who has extensive experience in the solar sector, then sources the majority of their components, though they do undertake some independent supplier evaluation. Several of their component suppliers are highly established and provide components to industry leaders in the pay-as-you-go solar sector.

Value Capture - As a for-profit social enterprise, *Agriculture 3*'s profits will be externally distributed to owners and other stakeholders. As they are currently conducting large-scale testing, the business has not yet become profitable. Their products will be sold to existing solar distributors in their target markets.

Clothing

Value Design – *Clothing*'s mission is to interrupt the cycle of poverty by providing employment and services to people who are transitioning out of the shelter system. To maximize their impact, they focus on supporting people who have financial dependents, whether they are children, siblings or other family members.

Originally, the organization was built around their product offering, which is a convertible coat that can be used as a sleeping bag for people who are experiencing homelessness. During the early days of the organization, a coat recipient expressed that providing jobs would be more impactful than providing coats. As a result, the workforce development component of the organization's mission was expanded, though the health and safety benefits coat recipients receive from their product continues to be an important way *Clothing* creates social value.

Value Delivery – Value is delivered to two separate groups of beneficiaries: those who participate in their workforce development program and those who receive their product. One of the most important parts of their workforce development model is that 40% of each production employee's paid time is devoted to personal development activities like meeting with social

workers, attending educational programs, or completing apprenticeships for future employment. Through these services, *Clothing* hopes to address the root causes of poverty and remove barriers their employees experience to conventional employment, with the hope of transitioning them to a well-paying job within two years of their start at *Clothing*. This includes programs like mandatory GED completion for employees who do not already have high school education, as well as paid opportunities to participate in trade apprenticeships.

Product-related value delivery is undertaken through the provision of a self-heating insulated winter jacket that converts to a sleeping bag and carrying bag to provide overnight warmth to people who are unable or otherwise unwilling to sleep in a shelter. In addition to contributing to health and safety, it also purports to contribute to the dignity of recipients by providing them a new coat made of high-quality materials, that they make them less easily identified as being unhoused.

Clothing's upstream supply chain includes a group of conventional suppliers who provide components to *Clothing* on a paid basis, as well as a group of donor-suppliers. These donor-suppliers are generally large manufacturing organizations who donate deadstock material to *Clothing* when available, though some create unique materials specifically for *Clothing* as part of their CSR program. *Clothing*'s procurement procedures are quite dynamic, replacing conventional suppliers with donor-suppliers when available, however inconsistent ordering policies have complicated their supplier relationships in the past, decreasing the priority of *Clothing*'s orders following periods of donations and creating potential gaps in their supply of necessary materials. In their downstream supply chain, *Clothing* distributes their coats to the end user largely through service organizations that have existing relationships with the beneficiary community, though customers can target their coat to a specific recipient or organization when placing their order. To provide a unique employee engagement opportunity for their larger corporate sponsors, *Clothing* has recently expanded their downstream practices to allow corporate sponsors to distribute purchased coats among their own employees to allow these employees to direct the coats to organizations or individuals in their own communities.

Value Capture - *Clothing* uses a sponsorship-based sales model, where individuals (or more often, corporations) can sponsor the production of one coat for \$125 per unit. The coats produced can be purchased on behalf of particular individuals or organizations, or *Clothing* can allocate it to one of its non-profit partners. They have also expanded their sponsored offerings to include things like paying for a lunch for their production employees, buying materials for production, or donating to specific funds (housing, education, childcare, transportation) for employees.

Revenues generated from corporate and individual sales (sponsorships) seem to be used primarily to cover day-to-day operational costs like paying production employees, whereas large foundation grants are used for program expansion or growth like a recent move to a new production facility. Some of these grants may be restricted to particular functions identified by the donor.

Food 1

Value Design – *Food 1* was created by an existing shelter organization after recognizing a gap in services and support provided to people who are transitioning out of the shelter operated by their parent organization and into conventional housing. While their program may provide peripheral benefits in terms of skill development for future employment, *Food 1*'s primary mission is to support their program participants by encouraging them to maintain a connection to the

organization after leaving the shelter and build relationships amongst each other and with other supportive members of the community.

Value Delivery – *Food 1* works towards this mission through the creation of a jam-making enterprise. Originally conceptualized as 16-week, cohort-based program, the program is now 6-weeks with a rotating intake. The program involves two half-days of production each week. The first day is a production day, where the fruits are processed and put into jars. The second day takes place at a different site and involves packaging jars for orders. In addition to experience working in a commercial kitchen, part of the program involves structured conversations around conflict management, communication, teamwork, etc. and general life skills. Upon graduation from the 6-week program, participants are given a modest stipend, and are invited to continue their participation in the production team as a volunteer. In addition to their program participants, *Food 1* has two paid staff and a team of volunteers from the wider community.

Food 1's upstream supply chain consists largely of local farmers from whom fruit is either donated or purchased at a discounted rate, depending on the individual supplier or the season in which the fruit is needed. Their parent organization has longstanding ties with local farmers through a service program targeting migrant farm workers, and these ties build reciprocity that have supported consistent fruit donations over the several years that *Food 1* has been operating. These relationships are very informal, with no commitment for continued engagement in the future, and *Food 1* recognizes that this precarity may affect their ability to scale in the future.

Value Capture – As an arm of a registered charity, *Food 1* operations with an internal investment financial model and any excess revenues generated is held within the organization and used for growth, additional programming or to support other activities carried out by their parent organization. Although they have not yet profitable after about four years of operation, they anticipate that they will begin to generate profit within the next year.

Jam produced by *Food 1* is sold through in-person sales at markets or at the parent organization, wholesale through local retailers and as wedding favours. *Food 1* keeps operating costs low in several ways: the kitchen they use for production is already owned by their parent organization, and they do not need to pay any fees to use it; a significant portion of the fruit they use in their jams is donated; their workforce is predominately volunteers.

Food 2

Value Design – *Food 2*'s mission is to support conservation and economic empowerment for small scale beekeepers operating in the Zambezi river basin. By increasing the market for sustainably farmed honey, they hope to support the preservation of forests by supporting productive uses of intact forests, rather than for charcoal production or other uses.

Value Delivery - This value is delivered largely through a supply chain partnership with a local social enterprise that supports forest beekeepers. The organization was born out of a pre-existing relationship with a Zambian-Canadian entrepreneur who had launched an organization that trained beekeepers to collect honey that they would then process and sell in the global market. When this organization approached *Food 2*'s Co-Founders, they were having difficulty accessing the North American market and *Food 2* was formed to support them. As the supply chain continues to become more formalized, *Food 2* expects to see increased market access for their beneficiary supply chain partners, even beyond their relationship with *Food 2*.

Food 2's downstream supply chain comprises primarily of small to medium-sized enterprises that use their *Food 2*'s product in a value-added way in their own products. While *Food 2* initially targeted sales to individuals through bricks and mortar retail, this shift to B2B sales has

contributed to consistent high-volume orders and the development of long-term buyer relationships, often built around a shared commitment to societal impact.

Value Capture – *Food 2* is a for-profit social enterprise, operating with an external distribution financial model. Their honey is sold (occasionally) by the bottle to individual customers through retail locations like health food stores. More often, their honey is sold in bulk to businesses like food and beverage producers, cosmetics companies etc. who use it in value-adding ways.

Food 3

Value Design – *Food 3* is a social enterprise nestled under a larger adult literacy organization. They emerged out of a need they identified in their existing program participants, who often arrived at the program hungry, and who had limited access to healthy food. To address this need, they created a monthly cooking class focused on soup as a healthy and low-budget food. As the popularity of the program grew, it shifted to a weekly class where the students would sell the soup they cooked to the other organizations located in the same building. Eventually, program participants asked if they could use the skills they learn in the cooking class to increase their employment prospects. Alongside their workforce development program, *Food 3* retained a mission to help people improve their ability to prepare healthy food, increase their feeling of deserving high quality food and improve their general enjoyment of food.

Value Delivery - The way that *Food 3* works towards these outcomes for their participants is through a 12-week staggered internship where students have the opportunity to work side-by-side with *Food 3*'s Head Chef to learn specific kitchen-related skills, as well as general soft skills that will help them in any place of employment. Another key element of the program is mock interviews with real employers from the community. Rather than being formal paid employment like *Clothing*, these program participants are volunteers who are given a meal rather than being paid an hourly wage for their time in the program. This decision was made by participants specifically to avoid administrative complications that would result from new short-term income, as many receive some form of means-tested social assistance. To tailor the original cooking program to participant needs, they settled on soup which allowed them to use vegetables that may be past their prime and are most cost effective for participants, while still being healthy and tasty. This method is also most cost effective for the organization.

Food 3's upstream supply chain is very simple and informal. As their program was born out a cooking class for low-income participants, the bulk of their ingredients are purchased from the grocery stores located in the immediate neighbourhood. Their downstream supply chain is slightly more complex, with a network of 13 retail locations across their region. These retailers are largely independent grocers who prioritize locally produced food.

Value Capture – *Food 3* generates revenues through sales of their products in local retailers, as well as larger volume sales to commercial cafeterias. They recently started offering a commercial lunch service where they bring large volumes of prepared soup to offices or other workplaces. They have also introduced new products (pickles) to help manage the seasonality of soup demand and create an additional source of revenues through the summer months. They are also pursuing a new partnership with the local food bank, where the food bank would provide produce grown in their farm, which *Food 3* to process and sell back to the food bank at a reduced price to then be distributed to food bank clients.

Handicrafts 1

Value Design – *Handicrafts 1* emerged from a relationship a Co-Founder developed with artisans in Uganda while there for a volunteer project as a university student. The artisans asked if he would be willing to bring some of their jewelry back to Canada to see if there was a market for their products. Thus, the specific beneficiary population (a very particular group of artisans) was a foundational characteristic of their operations, as was the method through which they could create value for this group (selling their products to increase income opportunities). Because the organization emerged out of the relationship with this community, their ambitions as an organization stayed relatively modest, and they were looking to create value for a relatively small group of people.

Value Delivery – *Handicrafts 1* creates value for their beneficiary supply chain partners in three primary ways: through supply chain inclusion, through donations for special projects and through the provision and management of a microfinance fund accessible to members of the community. This model emerged over time. Originally, the organization was focused largely on procurement as a route to impact and was going to donate 20% of their revenues back to the community. Recognizing that the business would be tough to make profitable enough to live off and still create a meaningful impact for the host community, they moved to run the most of their operations as volunteers, hire two paid field staff from the supplier community and donate all of their profits back to the community either directly or through microfinance.

This has changed the nature of their relationships with their earliest group of supply chain partners. These groups are now supported through special projects and microfinance, and the majority of their products are purchased by their field staff from seamstresses at the local market. While this is a departure from their earlier model to source predominately from women's' cooperatives, they recognize that their purchases from other producers in the community still creates social value.

Handicrafts 1's downstream supply chain is highly geographically centralized, given that all deliveries to retailers and participation in local markets (their primary sales channel) are completed by an unpaid staff member. Their products are sold through several local retailers, largely stores that sell kitchen goods or housewares. These relationships are largely arms-length, with little communication or collaboration between *Handicrafts 1* and their retailers beyond soliciting reorders.

Value Capture – *Handicrafts 1* as an organization does not capture any financial value associated with the sales of their products. Instead, all of their profits are redirected back to the communities where their beneficiary supply chain partners reside, either in the form of direct donations for special projects or investments in their microfinance fund.

Handicrafts 2

Value Design – Like *Handicrafts 1*, *Handicrafts 2* emerged out of relationships the Founder developed with artisans in Uganda while travelling for other employment. After purchasing jewelry during an earlier trip, Handicraft 2's Founder noticed that she was getting questions and compliments about the jewelry, realized there is demand for this style of jewelry in her local market and decided to start a social enterprise. Handicraft 2's mission is to provide on-going, dignified income opportunities for skilled artisans through the development of long-term, fair trading relationships.

Value Delivery - *Handicrafts 2* works towards their social mission through sales of handicrafts produced by their artisan partners through their website and bricks and mortar retail location. Their retail store also sells products from a small number of other fair trade businesses, and they partner with non-profit organizations to develop unique fundraising products produced by their artisan partners. Additionally, they also sell their products through a small network of about 10 wholesalers. *Handicrafts 2* also provides other support to artisan partners and the supplier community through ad hoc projects when a need within the community is identified. For example, they helped their artisan partners secure birth certificates for themselves and their families so they are better protected from human trafficking and can more easily access government services.

Value Capture – As a for-profit social enterprise, *Handicrafts 2* captures financial value through the sales of their products through three primary channels: in-person retail at their physical store, ecommerce and wholesale.

Skincare

Value Creation – *Skincare*'s mission is to support education in their local community and internationally by creating sustainable employment for small-scale producers in developing countries that will allow parents to fund their children's education. In addition to their social mission, BP also has a product-oriented mission as a direct result of the founder/CEO's personal experience recovering from melanoma. She wanted to provide a product that is organic and naturally derived and appropriate for people with sensitive skin.

Value Delivery - This value is delivered through the creation of shea butter-based body care products including soaps and moisturizers. Their social mission is delivered through their on-going sourcing relationship with a Uganda-based social enterprise that purchases shea nuts from local farmers at above-market prices and employs people from the community to press and process shea nuts into shea butter. To maintain a triple bottom line perspective, *Skincare* uses certified organic ingredients and works to reduce the use of plastic in their packaging in favour of more sustainable alternatives. They focus on building a close relationship with beneficiary supply chain partners (BSCPs) and people from their supplier community and support this community in other ways by fundraising on their behalf. For example, a recent project involves the purchase of a charcoal making machine to increase income generating opportunities and reduce deforestation in the area.

In their downstream supply chain, *Skincare* prioritizes developing relationships with retailers that share their commitment to social value creation. Their products are currently sold through 24 retailers, all located in the same immediate region as *Skincare* to minimize shipping costs. By prioritizing likeminded retailers, *Skincare* experiences consistent reorders from retailers and a willingness to collaborate on promotions and product development that have allowed the company to meet or exceed their sales targets in the current fiscal year, their fourth year of operations.

Value Capture – *Skincare* operates with an external distribution financial model, as a for-profit business, though a portion of their profits are donated to local and international education organizations. Thus, value capture for *Skincare* occurs through the sales of their products, which are carried out with the support of downstream retail partners, direct-to-consumer through their website, or in a value-added capacity through integration into other cosmetics.

9. CV

Kelsey Taylor

EDUCATION

Expected 2021 **PhD, Business Administration, Operations Management**
Ivey Business School, Western University

2016 **Master's in Environment & Sustainability**
Western University

2015 **B.A., Sociology, Criminal Justice & Public Policy**
University of Guelph

ACADEMIC EMPLOYMENT

July 2020 - **Lecturer, Supply Chain Management**
University of Manitoba

September 2018 - **Sessional Instructor**, Western University
April 2019 Operations Management - MOS 3300 (Fall 2018, Winter 2019)
Average instructor evaluation: 6.3/7

PEER-REVIEWED PUBLICATIONS

Taylor, K.M., Hajmohammad S. & Vachon, S. (2021). Activist Engagement and Industry-Level Change: Adoption of New Practices by Observing Firms. *Industrial Marketing Management*, 92, 295-306.

Taylor K.M., Vachon, S. (2018). Empirical Research on Sustainable Supply Chains: IJPR's Contribution and Research Avenues. *International Journal of Production Research*, 56(1-2), 950-959.

PUBLISHED CONFERENCE PROCEEDINGS

Taylor, K.M. (2018). 'Does it pay to be green?' revisited: LGM assessment of the relationship between sustainability performance and financial performance. Proceedings of the 49th Annual Meeting of the Decision Sciences Institute, November 2018, Chicago, IL.

Taylor, K.M. (2018). Building sustainable and inclusive supply chains: Integrating base-of-pyramid producers. Proceedings of the 25th EurOMA Annual Gathering, June 2018, Budapest, Hungary.

CONFERENCE PRESENTATIONS

Taylor, K.M. Generating social impact through supply chain management: A typology of social value creation strategies. POMS Annual Conference, April 2021, Virtual.

Rosca, E., Taylor, K.M. & Segers, L. Driving bottom-up change in supply chains: The role of purpose-driven organizations. EurOMA Sustainable Operations & Supply Chain Forum. March 2021, Virtual.

Bals, L. Rosca, E. & Taylor, K.M. Exploring restorative flows in circular economy supply chains: Structural archetypes and support actors. EurOMA Sustainable Operations & Supply Chain Forum. March 2021, Virtual.

Taylor, K.M. Effectiveness of social enterprises: The role of value chains. Decision Sciences Institute Annual Gathering, November 2020, Virtual.

Rosca, E. & Taylor, K.M., Segers, L. Social value creation through supply chains: The case of B-Corps. Decision Sciences Institute Annual Gathering, November 2020, Virtual.

Rosca, E., Taylor, K.M. and Segers, L. Social value creation through supply chains: The case of B-Corps. B Academic Roundtable, August 2020, Virtual.

Taylor, K.M. Generating social impact through supply chain management: A typology of social value creation strategies. EurOMA Supply Chain Forum, February 2020, Nottingham, UK

Taylor, K.M. Generating social impact through supply chain management: A typology of social value creation strategies. Decision Sciences Institute 50th Annual Gathering, November 2019, New Orleans, LA.

Taylor, K.M. Industry adoption of B Corp certification: Better together? POMS Annual Conference, May 2019, Washington, D.C.

Taylor, K.M, Vachon, S. & Hajmohammad S. Activist engagement and industry level change: The adoption of new practices by observing organizations. Decision Sciences Institute Annual Gathering, November 2017, Washington, D.C.

Taylor, K.M. Activist engagement and industry level change: The adoption of new practices by observing organizations. [Poster] Presented at Ivey Faculty Retreat, May 2017, London, ON.

Taylor K.M, Lachance, K. & Dallosch, M. The Effects of Climate Change and Land Use on the Prevalence of Lyme Disease in Canada. [Poster] Presented at Fallona Family Interdisciplinary Science Showcase, March 2016, London, ON.

TEACHING CASES

Taylor, K. (2019). World Tailors: Stitching together a plan for growth. Ivey Publishing #9B18D020. Supervised by Prof. Robert Klassen.

HONORS AND AWARDS

- 2020 **Global B Academics Paper Development Workshop – Showcase Presentation**
B Academics
- 2019 **EurOMA Sustainable and Operations Supply Chain Forum Travel Bursary**
European Operations Management Association
- 2019 **Dr. Alvin J. Silk Graduate Scholarship**
Ivey Business School, Western University
- 2016-2020 **Brock Scholarship**
Ivey Business School, Western University
- 2017-2020 **Vice Admiral D. A. Collins Research Grant**
Ivey Business School, Western University
- 2016-2020 **Plan for Excellence Doctoral Fellowship**
Ivey Business School, Western University
- 2016-2019 **C.B. (Bud) Johnson Ontario Graduate Scholarship**
Ivey Business School, Western University & Province of Ontario
- 2016 **A.E.R. Environment & Sustainability Graduate Student
Award for Excellence**
Western University
- 2016 **Canadian Sociological Association Outstanding Graduating Student Award**
University of Guelph & Canadian Sociological Association
- 2015 **Fallona Family Interdisciplinary Science Ontario Graduate Scholarship**
Western University & Province of Ontario
- 2015 **Sociology and Anthropology Retiree Tribute Prize**
University of Guelph
- 2015 **Nominee, J.W. Skinner Medal in Social Science**
University of Guelph
- 2014 **College of Social and Applied Human Sciences Student Volunteer Award**
University of Guelph

PROFESSIONAL AFFILIATION AND SERVICE

Service at Academic Conferences

Co-Editor, POM Division, ASAC 2021 Conference

Invited Session Organizer, Procurement & Supply Management Track, POMS 2021 Annual Conference

Invited Session Organizer, Sustainability Track, Decision Sciences Institute 2020 Conference

Program Co-Coordinator, POM Division, ASAC 2020 Conference

Ad-hoc Reviewer

International Journal of Operations and Production Management

ASAC Annual Meeting, 2021

ASAC Annual Meeting, 2020

AOM Annual Meeting, 2019

Decision Sciences Annual Meeting, 2017

Asian Journal of Sustainability and Social Responsibility

Environment, Development and Sustainability