

## **Doctoral Thesis**

### ***Paradoxes of Sustainable Business: Balancing Ecological Priorities in the Fine Cacao and Chocolate Value Chain***

HENLEY BUSINESS SCHOOL

THE UNIVERSITY OF READING

This document is submitted towards the partial requirements of the DBA 08 programme

Marketing & Reputation

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Submission Date: 17<sup>th</sup> July, 2023

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## **Declaration**

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

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## **Abstract**

This thesis explores the paradoxes of sustainable business on the balance of priorities in the fine cacao and chocolate value chain. The aim is to better understand a market in which the business case and the socio-environmental interests are at odds with one another. Of necessity, the approach to the problem is multi-disciplinary. The research is set on literatures of sustainable development associated with paradox, trade-based tension and sensemaking in the context of temporality, considering the trade-based tensions shaping decision priorities for the stakeholders. The study examines how the roles and relationships adopted by the informants shape the opportunities for sustainable development in Canada, Costa Rica and Ecuador. The findings offer insights into the dynamics between major stakeholders entangled in a system of paradoxes, affecting the overarching trade-based tensions. It outlines how the interactions between stakeholders operate within a both/and thinking framework, to understand the dynamics, shifts, boundaries and acceptance of difference. Contributions to theory are made by alternative trade system uses that increase value and overcome some tensions through hybrid-organizing. Contributions to practice are made by outlining value that could be realized from understanding the priorities of the informants and how tensions are managed by enacting ecological practices in the value chain. The originality of the knowledge in this study advances our understanding of the balance of priorities suggesting routes to managing the tensions. Recognition of fine cacao with aroma aims to close the divide between the north and south, incentivizing a higher-premium market that prevents opportunism by disintermediating the trade system. Informants adopted multiple positions along the value chain, embracing and transcending tensions for improving livelihoods through cooperation and response to both/and demands. Traditional and cultural aspects created value in differentiated processes and products in a direct-trade relationship for transcending the tensions.

# Impact Statement

## *EMBRACING THE MANAGEMENT OF PRIORITIES IN THE FINE CACAO AND CHOCOLATE VALUE CHAIN*

This study has identified the trade-based tensions interpreted by the informants in the cacao and chocolate value chain of Canada, Costa Rica and Ecuador from production to retail. Canada was used as a testing ground for the internationalization of trade. The applicability of this study is not restricted to Canada alone: the learning can be applied globally to similar trade systems that involve cultivars where hundreds of thousands of families and their production communities struggle with livelihood.

This study provides guidance for multiple stakeholders, including: researchers, producers and chocolate makers wishing to engage in direct-trade, government bodies wishing to implement or adapt current approaches, and NGOs and producer associations wishing to learn from the findings to improve process and practice.

The study examined the priorities of the informants which fall into categories of tensions that emphasise belonging, performing learning and organizing. Organizing is interwoven with all other areas. Most of the tensions that persist across time fall into these four categories. The themes of capability, resources, and structure were found as key areas of engagement cooperation and conflict between stakeholders. Observed examples outlining the management of tensions are provided, leading the discussion towards sustainable development objectives that include benefits for society, environment, and economy, and cultural connections to indigenous communities and the conservation of ancestral cacao.

This study may be useful for engaging alternative trade networks, reducing the number of levels in trade systems and providing benefits upstream towards the producers and downstream towards



consumers in the retail market. The findings show that fine cacao can pay premiums that are triple the international market price based on its quality characteristics and sourcing guarantees. This may enable a more liberalized and democratized market in which producers and trading partners consider the value offering and address the tensions in a way that aims to improve livelihood without neglecting short term financial priorities.

This work invites practitioners and academics alike to examine, name, and navigate the contradictory and interrelated tensions that are persistent in trade systems. This work has the likelihood – by way of extension to be used in other luxury products settings that operate in similar market trade circumstances, such as premium coffee and vanilla with linkages to socio-economic and ecological benefits in a very similar way as cacao and chocolate have.

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## **Dedication and Acknowledgements**

### *Dedication*

This thesis is dedicated to my wife Karen, my daughters Arabella and Victoria, and my parents. First, my wife Karen, whom without her support, care, and unconditional love this thesis would not have been possible. Next, my daughters, who have endured the sacrifices of time in allowing me to conduct my work with much patience and understanding, and with soft and gentle voices that encouraged me to finish by asking, ‘how much longer do you have daddy?’ And, my parents, for encouraging me and providing support every step of the way.

### *Acknowledgements*

I would like to extend my deep appreciation to my extended family members and everyone else who supported me while I wrote this thesis.

I thank my professors and supervisors Dr. Jane McKenzie and Dr. Peter McManners for supporting me with advice, a deep level of expertise, and genuine dedication and commitment throughout my studies. I am also thankful to my previous professor and supervisor Dr. Helen Stride for believing in me and understanding, for lighting the way with her expertise in sustainability and sustainable change at the start of the programme when it was most needed.

Thank you to my friends and colleagues who supported me by exchanging ideas and being there to listen. In particular, my deep appreciation to Sam Incekol, who was there for me and listened as I reflected on my data collection in our conversations during very odd hours.

Finally, I want to thank the people that participated in my research, the Canadian crafters and logistic providers, and the people of Ecuador and Costa Rica that opened their doors to me as being one of their own. Thank you for placing your trust in me.

## List of Terms and Definitions

Term	Definition
Actor	A relevant person who plays an active role in the trade system.
Bean-to-bar	A movement that supports chocolate making as a continuous process by sourcing small batches of cacao beans in closer relationship from producers.
Bioengineered	A process that modifies species from its original natural state by introduction of genetic material in a controlled environment through non-conventional practice.
Buyer	The actor that has an established relationship in the trade system, such as a crafter that purchases from a logistics provider, consolidator, or producer, or, a consolidator that purchases from a producer.
Cacao	The raw material in the physical form of a bean that is extracted from the pod of the cacao tree for consumption or processing.
Cacao Pod	The fruit outer shell that is comprised of many beans which grows on a cacao tree.
CATIE	Tropical Agricultural Research and Higher Education Center
CCN-51	Coleccion Castro Naranjal. An inexpensive bioengineered type of cacao that is used in the mass chocolate market, genetically modified to be resistant to pest and fungal disease. Producers use this cacao to obtain higher harvest yields than the cacao of fine flavour and aroma. The cacao is commonly used in cosmetics and candy bars as opposed to artisanal high-end chocolate products. The most common designation is -51 which accounted to almost 49% of all cacao in the 2000s.
Child Labour	“[D]efined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development.” (ILO, 2022)
Coyote	An intermediary in the trade system that makes use of situational circumstances to make a financial profit or other types of gains.
Crafter	The artisan chocolate maker in the bean-to-bar chocolate value chain.
Democratized	A democratic system in which people are able to make decisions, freely and arising out of own choice.
Direct-Trade	Alternative and disintermediated networks that bypass nodes along the conventional trade system by reducing the number of actors involved in the trading process.
Disintermediated	The process of removing middle-men activities from the trade system.
Ecological	Related aspects, or the inextricable interdependencies between living organisms and their surrounding environment (Berkes, 2004; Gladwin et al., 1995b; Whiteman and Kennedy, 2017).
Equality	In the context of sustainable development, equality is defined as a concept underlying liberal democracies. While equity is a first norm and need is a third norm, equality in turn is a central norm based on the principle of fairness and signifying the application of distributive equal value such as, balance in power, social status, present and future opportunities, rights (Ehrenfeld, 2008b; Monin et al., 2013).

Equity	In the context of sustainable development, equity is defined as intersubjective fairness applied to the over- and under-rewarded in the distribution of resources for inter- and intra-generation, and interspecies that experience distress while placing particular emphasis on the needs of the least advantaged with the aim to bring them to a level of equality (Gladwin et al., 1995b; Huseman et al., 1987).
Exporter	The logistics partner assisting producers to export cacao.
Fine cacao	Raw material derived from the pods of the cacao trees that are identified as having fine flavour and aroma that has been recognized by ICCO under the ‘Arriva’ label. Known to have originated in the Amazonia, and to have been used for over 5000 years according to carbon date records. (Ruales, 2013)
Business	An organization that justifies its existence based on the generation of economic profit.
Green movement	A social practice that is enacted by a group of people for the generation and awareness of greater good for the environment and social communities. For example, bean/farm/tree-to-bar.
Importer	The logistics partner assisting crafters to import cacao.
Intermediated	The process of adding middle-men activities into the trade system.
Intertemporal	Pertaining to the relatedness aspects of time. E.g., across the past to present; present to future.
Liberalized	Less restrictive economic, regulatory and political systems.
Logistics Provider/partner	The actor that enables the export or import activities of cacao.
Monilla	Moniliophthora roreri is a disease commonly found in cacao, in which spores adhere to the surface of the cacao pod, a type of mushroom that starts an early association with live cell and at a later stage, dead cells.
Network	Related and extended trade system nodes, such as where packaging functions take place.
NGO	Non-governmental organization.
North Nation	Referring to developed nations that exhibit a higher consumption than production rate in cacao.
Paradox	“[P]ersistent contradictions between interdependent elements. While seemingly distinct and oppositional, these elements actually inform and define one another, tied in a web of eternal mutuality.” (Schad et al., 2016: 6)
Producer	The farmer or worker of a farmer that cultivates cacao.
Sensemaking	“A sensemaking perspective is an inherently temporal and ongoing process whereby cues that are discrepant from expectations are noticed, interpreted, given meaning and enacted in narrative and dialog[ue]” (Jansen and Shipp, 2019: 1159).
South Nation	Referring to developing nations that exhibit a higher production than consumption rate in cacao.
Stakeholder	Person with vested interest in matters.
Supplier	The actor that has an established relationship in the trade system, such as a producer that sells to a logistics provider, consolidator, or crafter, or a consolidator that sells to a crafter.

Supply chain	In the context of the fine cacao and chocolate market, it is concerned with the logistical movement of products along the trajectory of demand and supply activities, such as from place of fermentation activities to another destination.
Sustainability	A concept that at a macro level aims to rebalance ecological priorities (Ehrenfeld, 2008a) for humanity and other life to continuously prosper (Everard, 2011). This overarching concept is supported by sustainable development at a meso level.
Sustainable business	Ability “to respond to short-term financial, social and environmental demands, without compromising their long-term financial, social and environmental performance” (Slawinski and Bansal, 2009: 1).
Sustainable development	“development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987: 43).
SDGs	Sustainable development goals. Recognized by the United Nations Development Programme ( <i>see <a href="https://www.undp.org/sustainable-development-goals">https://www.undp.org/sustainable-development-goals</a></i> ).
Sustainable outcomes	Related to intended results that are operationalized by a sustainable development agenda.
Temporal	Dealing with the trajectory and the dynamics of time (such as, rhythms; perceptions of time).
Temporal depth	A descriptive ‘distance’ into the temporal focus of the individual or collection of individuals (Kunisch et al., 2017). E.g., the near-future.
Temporal focus	In relation to the proximity and the emphasis placed in the near versus the distant dominance of time (e.g., past; present; future) and addressed for interrelatedness and isolation (Bluedorn, 2002; Slawinski and Bansal, 2017).
Tension	Phenomenon that is subject to multiple objectives. Lewis and Smith (2014: 129) suggest that “tensions appear inherent and ubiquitous in organizational life”. These tensions appear in systems and interdependent sub-systems arising from flux that could be ambiguous, dynamic, and complex, having different, fluctuating objectives, functions, and expectations (Katz and Kahn, 1966; Lewis and Smith, 2014; Simon, 1962). For example, subjective versus objective existence of time; clock time versus event time; past versus present versus future orientations; short term versus long term, and fast versus slow (Slawinski and Bansal, 2017).
Value chain	Value chain is often confused with supply chain. Value chain emphasis the creation of value rather than logistical movement. As such added value is created along the trajectory of demand and supply activities from supplier to retail to consumers.

# **1 Thesis Introduction**

This chapter presents the research focus, background and context for studying paradoxical tensions in connection to sustainability in the fine cacao and chocolate value chain within an international trade system. The need and reason for this study emerges from an end-to-end focus where the research examines a whole system including connections and contradictions, in contrast to prior research that has focused on independent elements of systems.

## **1.1 The Research Focus**

This study aims to understand the trade-based tensions that arise from balancing the ecological priorities in relation to the social and business case logics. The writer presents the aims and objectives of the research setting, the practical and theoretical boundaries within which this study has been conducted, leading to the structure of the thesis.

The writer's desire to conduct cross-disciplinary research dealing with social, environmental and economic dimensions arose from a combination of professional and personal experience in the food industry and by following a research call in science. In particular, there is a need for better integration across the stages of the food chain since ecological decisions are made at localized levels, while distance and time adds to the complexity of conventional trade practices. As an empirical driver to the study, the cacao and chocolate market appears to be evolving with alternative trade models as it offers better support for sustainable development focusing on the improvement of producers' livelihoods. Few studies (Slawinski and Bansal, 2015, Sharma and Bansal, 2017, and Slawinski et al., 2021) have specifically addressed trade-based tensions empirically to understand the complexity of a social-business case as exemplified by Smith and Lewis (2022); hence, there appears to be value in contributing further with studies that examine the tensions in the trade process of cacao and chocolate where more focus is placed on

generating value that benefits both the agricultural end of cacao production and the production of chocolate by crafters at the retail end of the value chain.

**IMPORTANT** – As a boundary to this study, the empirical work focuses on the shorter food chain as opposed to longer food chains where multinational enterprises are a part of. As a result, multinational enterprises that own operations or have financial assets invested in sourcing nations are excluded from this study.

Agriculture involves a close association between people and environment (Berry, 2010; Richards, 2002), with direct consequences for sustainability. The popularisation of chocolate as a desirable luxury product has meant that the wealthier northern nations create product demands that are dependent on the southern nations where the cultivation takes place (Haynes et al., 2012). The dependency arises from the physical requirements of the cacao tree to grow in the southern regions, which have been economically impoverished due to the commoditization of cacao. Over time this has established a significant divide economically, socially and environmentally between the north and south nations. Closing that historical divide brings present and future needs of both north and south nations into tension. Addressing the divide in an equitable way means understanding the processes that connects north and south (Haynes et al., 2012) and the temporal considerations (Orlikowski and Yates, 2002) affecting the environmental and social priorities (Granqvist and Gustafsson, 2016; Maitlis and Christianson, 2014; Schad et al., 2016).

The economic, environmental and social priorities create tensions that underpin the livelihood of producers, questioning sustainability for present and future generations. Sustainability is a concept that lacks common agreement (Blowfield, 2003; Ehrenfeld, 2008b; Rainey and Araujo, 2015). The commoditization of time in business has led to implications for the earth's physical

resources (Ehrenfeld, 2008a; Garnett, 2013; Gladwin et al., 1995b). The cacao and chocolate trade displays economic inequality and a clear divide in terms of social justice, as a result of economic gains being prioritized over human conditions. With chocolate becoming a luxury food, consumers have ignored or left unnoticed abuses linked to chocolate.

Multinational businesses have a large footprint in the conventional food chain and their sustainable commitment may create a sphere of influence (Wilhelm et al., 2016). Higher demand for chocolate may create implications for the ability to supply. There are calls for better integration to balance the system (Haynes et al., 2012) by placing more emphasis on ethical and liberalized norms that make use of non-conventional food chains to gain understanding on improving producers' livelihood (Blowfield, 2003; Butcher and Wilson, 2014; Melo and Hollander, 2013).

Alternative trade models are emerging which deliberately aim to counteract the implications of unsustainability (Melo and Hollander, 2013) by allowing choices for actors upstream in the trade process and balancing the priorities of the various stakeholders by surfacing their different assumptions and finding solutions that honour all parties interests (Smith and Lewis, 2022). This should provide more flexibility in the local context, breaking away from a conventional trade system and providing producers a voice in the international community.

## **1.2 The Business Context of the Research**

Ecological concerns have echoed in the business world since the 1960s. Environmental disasters have caused advocates to voice concerns over corporate practices and question the balance of environmental, social and economic priorities, namely as sustainable priorities. Scholars and practitioners have since begun to debate what 'a process to sustain' means (Ehrenfeld, 2008b; Evans et al., 2002; Gladwin et al., 1995b). While some scholars attempt to quantify benefits or disbenefits and the order of priorities (Blowfield, 2004; Maitlis and

Christianson, 2014; Schad et al., 2016), others claim that to shift from the current state of unsustainability would require a mindset that envisions a sustainable future through development that aims to balance the sustainable priorities across time (Little, 2014 & Porter and Kramer, 2011b).

Scholars argue that a focus on monetary gains (Acheson, 2006; Ehrenfeld, 2008a) leads to utility maximisation of short-term benefits (Bridger and Luloff, 1999), and resource exploitation and over utilisation (Acheson, 2006; Bansal and DesJardine, 2014; Butcher and Wilson, 2014). This resonates with capitalist structures that thrive on consumerism but also encroach on the very foundations of justice and equality for humanity and the physical world (Ehrenfeld, 2008a). Quick monetary gains have created negative consequences for the earth's physical resources. At the same time short-term pressures and resource maximation create tensions between satisfying the present and future needs of humanity.

The current ecological state is argued as becoming increasingly severe. Although humanity continues to witness problems like climate change and degradation of resources, which have implications for both present and future generations, finding solutions is a 'wicked problem' that needs systemic studies across the length of the trade system (United Nations, 2022).

**IMPORTANT** – Sustainable priorities can only be balanced when viewed as a whole system; however, research to date has focused on elements of the system, rather than the connections and contradictions across the system (Bansal and DesJardine, 2014; Garnett, 2013; Little, 2014).

Since food is a fundamental human need, it offers a good location to study first hand, the effects of environmental, social and economic forces in action and connect the effect of consumer choices on agricultural resources, social conditions and economic priorities.



At the very basic level, human livelihoods are at stake, including physiological needs such as, the supply of food, water, and shelter. However, at present only part of humanity experiences these livelihood issues. There is a visible economic divide between the north and south nations (Gonin, 2015; Whiteman and Kennedy, 2017). As such, the north has too much and the south has too little. The United Nations (2015a) has emphasised too little as poverty where 836 million people are living in extreme poverty. While producers supply most of the food that is traded in the world, the Food and Agriculture Organization of the United Nations (FAO) estimates that one in four producers lives in poverty. Castañeda et al. (2018) estimate that over 75% of the people that are experiencing poverty live in rural areas and work in agriculture. Poverty discourages intergenerational equality, meaning that future generations of producers will pursue other means to maintain livelihoods. This not only creates implications for maintaining or increasing resources in the present, it also contradicts a rational approach for efforts undertaken towards the reduction of poverty for the future (United Nations, 2015b, 2022).

The United Nations suggests that significant progress has been made in the reduction of poverty through the rapid growth of economies in the last decade; however, the COVID-19 pandemic erased any progress made in the last four years (United Nations, 2022). While progress is accounted through past economic growth in certain nations, it does not translate to poverty reduction for all nations in the present. In addition, the United Nations poverty reduction estimates do not consider people that enter or re-enter poverty cycles. These developmental priorities may be salient in the present for the south nations but also will become so in the future of all of humanity if not addressed. This surfaces tensions and questions about how resources of the physical world should be managed in attempts both to improve livelihoods and achieve sustainable outcomes for attaining intergenerational equality (United Nations, 2022).

Inequalities in the present are likely to affect all of humanity in the future, surfacing an overarching temporal paradox. Engaging with the tensions that the paradox creates may contribute to solutions in the present while providing a way forward for the future (Smith and Lewis, 2022). Therefore, the following section provides the theoretical aspects of this study by considering the practical problems of livelihood and intergenerational equality in the southern nations.

### **1.3 The Theoretical Background of the Research**

Cacao and chocolate exemplify the symptoms of an economic divide that is characterised by the paradoxical dependency of product demand from the north on the south nations, and the north nations dependency of supply from the south. This perspective as a whole system surfaces tensions for achievement of short- and long-term goals that are dependent on sub-systems in priorities or ideal outcomes of the economic (e.g., commodity market premiums or producer premiums), social (e.g., maintain current generation while provide opportunities for future generations; use of conventional or alternative trade structures), and environmental (e.g., using resources without degrading resources).

The practical problem provides a springboard to the theoretical domains discussed in the sub-sections of Paradox as Metatheoretical Lens (*see Section 1.3.1*), Decision-Making and Business Trade Perspectives (*see Section 1.3.2*), Alternative Trade and Decisions in the Food Chain (*see Section 1.3.3*), and Temporal Sensemaking and Decisions in Alternative Trade (*see Section 1.3.4*).

#### **1.3.1 Paradox as Metatheoretical Lens**

Paradox becomes a useful meta-theoretical lens (Lewis and Smith, 2014), first, for examining the conflicting forces in a system in which multiple theories and assumptions; for example,

contradictory economic and social theories seek conflicting goals: economic competition is a means of efficient resource allocation, social collaboration aims to assure equitable outcomes and increase survival chances for more people involved. Second, it provides guidance for overcoming the limitations of conflicting forces and enables a strategy for theorizing by juxtaposing apparent opposites under a more integrative lens. For example, co-opetition may be considered as a route to ecological integration between the economic and the social to provide a sustainable perspective. It can challenge assumptions associated with marginalization and degradation, poverty and resource degradation, and local livelihood and protected areas, and provide alternative perspectives based on a better understanding of economic versus environmental contradictions. Such as, when environmental resources become a public and free good for anyone to use and intended to reduce scarcity; however, leading to over use or lack of interest in maintaining the public resource (Acheson, 2006). Third, paradox accentuates iterations between the tensions and outcomes where fluctuations of paradoxical tensions may tip the balance of another paradox. For example, the cacao market has been subject to human slavery (Crane, 2012) for about four hundred years. In some parts of the world, the labourers that are compensated monetarily at present eke out a living on less than USD 0.50/day, which is less than 40% of the rate set as the international poverty line (United Nations, 2015b). At present, labourers are entrapped in an economic debt cycle that favours capitalist dependency, a form of economic debt slavery. While the previous situation leads to tensions that are of economic nature, complexity increases as iterations to achieve an immediate goal of economic stability may raise new tensions as soon as crafters raise prices to give the producers a better future (such as, aspects of livelihood to enable a future that is equitable and just). In complex systems, tensions may not be restricted to their sub-systems and may transcend dimensional areas. For example, tensions that arise from maintaining or degrading of natural resources may

synergistically link with tensions of social prosperity or social marginalization, leading to conflicting demands between sub-systems. A paradox perspective enables sustainable aspects to be assessed independently while at the same time being interdependent of one another within the system.

Paradoxical complexity may also extend across levels of trade systems. For example, at one end of the system north nations consider chocolate a luxury product, consumption of chocolate involuntarily contributes to the neo-classical economic exploitation of the physical world and humanity, with chocolate being supplied by multi-national businesses at the expense of rural society and the environment. At the opposite end of the system, this raises tensions for producers that contrast choice between conventional with disintermediated trade systems. The disintermediated trade system aims to achieve economic gains while at the same time attain socially just and environmentally responsible outcomes, becoming a focus for this study for the evaluation of overcoming cost to society and the environment.

In contrast to conventional chocolate (candy-bar) production, the fine flavour with aroma chocolate production is relevant as a case that addresses the north and south nations divide that is largely attributed to the fact that fine chocolate is a luxury product that is disintermediated – having less levels in the trade system. As such, the fine chocolate crafters are able to share with consumers the human issues through their branding and their relationships, and are likely to hold closer relationships with producers since there are less layers of intermediation along the trade system. Crafters may be more concerned for the lives and well-being of the producers who make their chocolate high value and distinctive.

### **1.3.2 Decision-Making and Business Trade Perspectives**

The conventional cacao and chocolate trade system is comprised of many actors such as producers, cooperatives, processors, and distributors (Haynes et al., 2012). Each actor typically

focuses on a process of the trade system. Multi-national businesses may operate at many levels and at multiple locations. For example, while a large chocolatier could be headquartered in Europe, it could have strong presence in the United States of America. Similarly, production facilities could also be located near cacao plantations (such as, in the Dominican Republic, where about 300 producers live nearby a processing facility). This type of model enables a logistically agile and efficient supply chain while exerting control over the raw product at local levels. Some multi-national businesses have a tentative sustainable development path in writing, namely in the form of sustainability policies; however, the media reports that some businesses have admitted to child labour practices in recent years (Food Australia, 2015; Green, 2022) and while some complainants against child labour have been unsuccessful, some businesses have been subject to lawsuits (The Guardian, 2021).

Multi-national businesses have a large footprint globally and commitment to a sustainable path is questionable as historical events contradict present and future intentions. As such, alternative trade models such as Fair-Trade have been introduced to provide assurance to producers for idealistic fair-market pricing (e.g., if commodity price is higher) while contributing to the communities. Consequentially, some multi-national businesses adopted Fair-Trade as a global strategic initiative for sourcing products and ingredients (such as, cocoa; sugar; vanilla). Under the Fair-Trade label and contrasting with current requirements, cacao producers should have some ability of choosing how community and business investments are allocated. While Fair-Trade admits that growing cacao is a difficult task and claims to make growing cacao more sustainable, the Fair-Trade model is centred on price premiums, and the effect of the price premiums on collective investment decisions to reduce poverty. This model acts as an insurance policy to producers and attempts to provide price premium guarantees paid to the producers that are not below market pricing. However, it does not consider wider sustainable priorities

and implications related to tensions that arise from the environmental and social dimensions (such as, the condition of the land and the effects of social equity) and from distribution of benefits to the non-Fair-Trade community members, leaving the social and environmental aspects mostly unattended while sustainable priorities are unnoticed and unaccounted.

Fair-Trade initiatives appear to have low producer participation rates due to lack of engagement and misallocation of benefits. Lack of producer participation stems from the Fair-Trade model utilizing a hierarchical structure for decisions made within groups that are controlled through committees and also disperse benefits to the wider community (e.g., producers and non-producers; Haynes et al., 2012). The literature suggests that Fair-Trade deters most producers from participating (Blowfield, 2003; Blowfield and Dolan, 2010; Doherty, 2013) while some crafters have switched to other standards (Butcher and Wilson, 2014). Models that are solely based on price premiums are of little interest to the farming community.

Fair-Trade functions as a large cooperative that may or may not be morally justified as the intent to bring farming communities out of poverty may lead to further marginalization of producers, and decreasing intergenerational equality. This negatively contributes to the cacao sector experiencing an aging population; where younger generations lack economic incentives and pursue other work as a result.

Current trade models that operate on market premiums add bureaucracy in the trade system. Unavailability of solutions drive new generations away from cacao cultivation. While multinational businesses have attempted to embrace more stakeholder concerns into decisions, Fair-Trade may not be as effective as initially intended (Haynes et al., 2012).

The present situation in the cacao sector has started a crisis for cacao production based on supply and demand patterns (Almeida et al., 2017; Almeida and Bassompierre, 2021). While the south nations are in a unique geographical position to produce cacao, most of the production

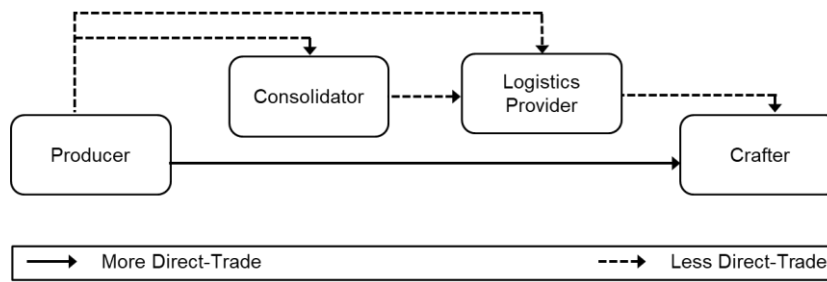
is consumed by the north nations (Fountain and Hütz-Adams, 2022). There is a requirement to attain better integration between the social and business case in order to improve producers livelihood (Haynes et al., 2012; Melo and Hollander, 2013) and attain balance of the sustainable priorities (Granqvist and Gustafsson, 2016; Maitlis and Christianson, 2014; Schad et al., 2016). The north will have to embrace the social responsibility to improve livelihoods in the south, or higher demand for chocolate is likely to create implications for supply capacity.

### **1.3.3 Alternative Trade and Decisions in the Food Chain**

New business models have slowly emerged linking cacao producers to consumers in the business segment of the bean-to-bar (Butcher and Wilson, 2014; Gallo et al., 2018; Melo and Hollander, 2013). These business models have originated in the north nations through entrepreneurial initiatives advocating for an ethical and disintermediated trade system that is more liberalized and democratized (Melo and Hollander, 2013).

The actors that participate in the bean-to-bar chocolate movement include the producer, crafter, consolidator, and logistics provider; playing a key role in the alternative trade model. While producers transact with crafters directly enacting a direct-trade relationship; consolidators and/or logistic providers enact a lesser direct-trade relationship when supplying to crafters (*see Figure 1.1*). The crafter creates demand for the cacao beans used in artisanal production of chocolate products and the producer supplies cacao by cultivating and harvesting cacao pods (fruit).

Figure 1.1 The Actors in the Alternative Trade Relationship



Source: illustrated by author

Such examples of crafters include Hummingbird Chocolate Maker in Canada, Divine Chocolate in the United Kingdom, and Theo's Chocolate in the United States of America. The latter being a pioneer in advocating for the improvement of cacao producers livelihoods (Butcher and Wilson, 2014). Other bean-to-bar crafters are following the trend that primarily started in the United States and has recently emerged in Canada.

Although, crafters could transact with producers that may follow Fair-Trade guidelines for example, crafters are not limited by certification schemes. Incentives to producers include equal or higher than commodity market prices which are warranted by product characteristics (Evans and Mylan, 2019) associated with different types and better quality cacao. Some crafters and producers may opt for other certifications such Rainforest Alliance (*see* <https://www.rainforest-alliance.org>) for stronger impact on sustainable initiatives including, economic, social and environmental causes, that enable a framework to improve livelihoods and protect the land to work and live.

Some crafters, like Theo's chocolate and Hummingbird Chocolate Maker go beyond price premiums and certification schemes. They have invested time for improving producers' lives, through establishing trust and direct trading relationships. Specifically, Erica Gilmour, founder of Hummingbird Chocolate Maker states that producers obtain better price premiums than Fair-Trade (Gilmour, 2022), and Gilmour advocates for ethically sourced cacao without child labour by focusing on human rights and equitable compensation.



In 2016, Hummingbird Chocolate Maker received the Golden Bean award from the UK-based Academy of Chocolate. This was possible through careful processing of artisanal chocolate sourced from ecological organic cacao beans in cooperation with ÖKO Caribe, a cacao consolidator with relationships with over 160 producers in San Francisco De Macoris in DR (Hummingbird Chocolate Maker, 2018b). As an example of the relationships in the trade network, ÖKO Caribe founders Gualberto Torrejon and Adriano Rodriguez work closely with other smaller producers in the community providing training and financial funding (de Jesús-Rodríguez, 2016). ÖKO Caribe founders have established a chocolate processing educational facility in Dominican Republic to bring community awareness and teach children how chocolate is prepared. The founders acknowledge that the majority of cacao beans are exported and there is a need to bring greater awareness of the potential for processing local cacao into chocolate tablets that can then be exported while keeping the processing value local (Haynes et al., 2012). As such, local processing reduces the importation of ready-to-eat chocolate that is ironically sourced from northern nations and in doing so, exploiting relationships and resources and furthering unsustainability (Melo and Hollander, 2013).

As a set of priorities, crafters achieve business success by forming relationships, considering a shorter end-to-end trade process, in which crafters and producers make better sense of local requirements (price and resources) and establish awareness in communities. Producers make sense of opportunities to improve local business and break-away from conventional trade dependency, while demanding a more liberalized and democratic system that enable choice in trade. These priorities support both a business case for sustainable development and a social case for improving livelihoods and the reduction of poverty. The business case is possible by increasing resources in the local context and disintermediating the current conventional trade system. This should liberalize trade where actors are able to exercise choice. This is a big

contrast to the fragmented process in the conventional trade system that is mostly dominated by multi-national businesses who simultaneously appear to be leading a market-driven resource decline by driving down prices and neglecting local social needs.

Alternative trade systems being shorter could change and improve livelihoods by providing greater choice and flexibility in contrast to longer conventional models.

Similarly, Hummingbird Chocolate Maker engages producers in the region of Bicknell's Thrush Reserve (Zorzal Cacao, 2014). The scientific reserve is privately funded by the producers to be 70% forever-wild. Producers participate in land and biodiversity conservation while at the same time make use of the land to harvest one of the world's finest organic cacao that is native to the local environment. This engagement involves several stakeholders including producers, government agencies, scientists, not-for-profit organizations, and chocolate crafters. New business models that extend beyond certifications and build on relationships in shorter and less fragmented trade systems are emerging, primarily by crafters engaging producers and the community of stakeholders in ecological initiatives.

While crafters and some producers claim that a shorter alternative trade business model improves ecology and livelihoods, and therefore the reduction of poverty, this study places emphasis on how producers make sense of the initiatives and the effects of priorities.

#### **1.3.4 Temporal Sensemaking and Decisions in Alternative Trade**

Within the local context, this raises questions primarily for the producers, including, how crafters and producers make sense of priorities considering a past and present orientation in order to make decisions for the present and future. A temporal lens enables focus on priorities that are intertwined with intergenerational concerns and the expectations around an alternative trade model (disintermediated) and its social, environmental and economic dimensions (Ancona, Okhuysen, Perlow, 2001; Blount and Janicik, 2001; Huy, 2001). Making sense as

defined by the theories of sensemaking, is a social construction process that is triggered by a deviation (e.g., an interruption) affecting the expectations (e.g., how an event unfolds) which leads to creating meaning (e.g., subjective thoughts) to reframe and generate a response bringing realignment (such as, order) on a situation (Gephart, 1993; Granqvist and Gustafsson, 2016; Hoffman and Ocasio, 2001; Jansen and Shipp, 2019; Maitlis and Christianson, 2014; Weick, 1995). From an interpretative phenomenological perspective, sensemaking and temporality together enable understanding of the consequence of practices, experiences and events both historical and present and their influence on choice in an ongoing processes (Langley, 1999; Langley et al., 2013; Stake, 1995), leading to surfacing tensions that have gone unnoticed.

As a process, decisions in alternative trade models could be influenced by information that is either omitted or unknown by the informants. Information may not always be salient to the producers or crafters (e.g., being unfamiliar with a process along the trade system) and be dependent on the level of involvement in the relationships (e.g., being closely or further apart) and how pivotal their connective role is, relative to their position in held in the disintermediated trade process (e.g., the extent and make-up of the network layers). Furthermore, what and how decisions are made (such as, individual or collective; between family or within an extended community) and what and how are priorities managed, including environmental, social and economic (e.g., short-term versus long-term).

The level of involvement between the actors can vary and exert influence in the decisions that take place in the relationship (such as, greater or less control/power), this can lead to coordinated action based on consensus. The different types of relationships result in very different sensemaking dynamics (such as, between a producer and a consolidator versus a crafter), leading to increased complexity of how the different individuals approach the decision

process and influence how producers ultimately manage the financial, social, and environmental resources (such as, workers, land, and trees).

Thus, closer relationships in an alternative trade model allow the actors flexibility to make decisions that are far less restrictive and timely. Cooperation between individuals may influence decisions and affect the saliency of the tensions; yielding varying implications. Closer relationships (such as, between a producer and crafter) deepens the understanding of the actors' context, the more likely they are to have a shared sense of the temporal issues affecting decisions and how tensions are managed. This sets a requirement to enquire what priorities mean in the context of the informants and their roles (e.g., assuming single or multiple roles, such as producer, consolidator, logistics provider or crafter). The roles of the informants assist in characterizing the experiences, expectations and how tensions are managed within the temporal phenomena (e.g., past, present, or future; Maitlis and Christianson, 2014; Schad et al., 2016; Slawinski and Bansal, 2017).

Trade-based tensions in alternative trade models may serve as an indicator on whether intergenerational equality is being better accounted for, which may be difficult to surface in the larger and more complex conventional trade system. In practice, if actors are not aware of concerns for intergenerational equality, the tension between now and the future will not be salient to them, without a chance of addressing the tensions that have long-term implications; instead, when tensions are surfaced, they become salient and can be simultaneously managed. As an example, managing priorities that are persistent across time increasingly affecting the future (such as, soil erosion), including, how do past and present events affect future planning and with what temporal depth. In particular considering the effects of seasonality and cultivation; do decisions and choice undergo cycles and adaptation; how does this affect the collective and individual priorities of the distinct groups, and how are the tensions confronted

and managed simultaneously (Lewis and Smith, 2014; Smith et al., 2013; Smith et al., 2016; Smith and Lewis, 2022).

#### 1.4 The Research Design

The research design is exploratory. It involves natural inquiry in the empirical investigation using a case study design and an abductive logic of inquiry, which iterates between analysis and the literature in order to interpret anomalies and hunches that give insight on complex problems. Two cases in the Fine Cacao and Chocolate Value Chain studied sustainable development in Ecuador and Costa Rica, with a view to understanding how actors manage tensions in relation to priorities, using a process-oriented philosophy. Epistemologically the study is social constructionist, being consistent with a process ontology that assumes reality is in a constant state of flux.

The research sets out to explore the problem of in what ways do trade-based tensions influence sustainable development in direct-trade network relationships, and leading to the research questions (RQs) of:

*RQ A: In what ways do stakeholders make sense of trade-based tensions?*

*RQ B: In what ways does relational sense making support and/or hinder sustainable development?*

Networks of informants were developed to explore the relationships between the informants. Semi-structured interviews and observations at the individual level and with individuals in impromptu group settings were conducted as the primary methods. The accounts were interpreted by the researcher being fluent in the natural language of the informants, to understand the nature of the individual roles and relationships between the informants. As

wholly qualitative research, this study is inevitably subjective, however, steps were taken to ensure the meaning was consistent with that of the informants.

The literature review provided access to established theories inclusive of sensemaking, trade-based tensions and paradoxes, contextual influence on decisions and the role of time in the context of sustainable business and relative to cacao and chocolate production. The data organization and analysis followed established methods of interview, observation and template analysis to interpret data following the approach of King (2004b) and Woolf and Silver (2018).

### **1.5 Thesis Introduction Summary**

This chapter presented the research focus and context for studying paradoxical trade-based tensions in the fine cacao and chocolate value chain. The study aim is to understand how ecological priorities shape social and business case logics and surface the trade-based tensions that arise as a result. This chapter outlined the business context of the research, setting the theoretical and practical boundaries within which this study was conducted, followed by the structure of the thesis.

It argues that monetary gains in conventional trade treats cacao as a commodity. Chocolate as a popular and luxury product has led to over utilization and the exploitation of resources, and an economic divide between the north and south nations. A market-driven decline in resources driven by global commodity price setting has expanded the economic divide and facilitates neglect of social needs at local levels. Such consequent short-term pressures surface tensions for the actors in the value chain making it hard to satisfy both present and future needs of all actors. As such, the fine cacao and chocolate value chain is a good example to examine as a case study since it has fewer layers of intermediation in comparison to the conventional trade system. While cacao is traded internationally from the south to the northern nations, it is easier to understand how the informants in an alternative trade relationship make sense of sustainable

development priorities that may contribute to social, environmental, and economic outcomes, including intergenerational equality and the improvement of livelihoods for producers. Tentatively, informants, such as crafters, who are closer to the consumer, may be able to share concerns in relation to the producers' livelihood and promote an agenda for sustainable development. Over five-million producers are responsible for the production of most of the chocolate consumed in the world and a large portion experience poverty. Demand for chocolate across the world has been relatively steady; however, as a result of the COVID-19 pandemic any global sustainable development progress made in the last few years was futile. While progress may be accounted by measuring economic growth, it does not equate to improvement in livelihood or reduction in poverty. Potentially, addressing inequalities in the trade system of south nations, may require a mindset shift from the northern nations to accept a social responsibility to better integrate and balance the system while placing a focus on the improvement of livelihood for the producers. While some studies have been conducted in cacao trade and alternative schemes, little work has been done to focus on how the actors make sense of their priorities and the tensions that arise, which have gone unnoticed. As such, engaging with the tensions implicit in a social and business case surfaces contradictory yet interrelated elements known as paradoxes. In particular, paradox as a meta-theoretical lens is useful for examining systems and subsystems that deal with conflicting demands. Understanding the priorities and the trade-based tensions of the alternative fine cacao and chocolate value chain provided support to examine the social-business case; while, the learning that was gained could benefit similar trade systems that experience challenges by way of extension.

## **1.6 Structure of the Thesis**

This thesis contains six chapters. These chapters are broadly organized in accordance to other similar doctoral social science research studies. The writer provides an introduction to the study

in the fine cacao and chocolate market, followed by a literature review with the purpose of justifying the theoretical foundation for the research questions of: a) In what ways do stakeholders make sense of trade-based tensions? And, b) In what ways does relational sense making support and/or hinder sustainable development? As a process, the literature and research questions guide the study design and methodology for data collection. Presentation of findings and analysis, and discussion lead to the study conclusions that aim to draw recommendations. Contribution to theory and practice are demonstrated, and the study's limitations and opportunities for future research are discussed.

*Chapter 1:* Provides contextualization of the research, theoretical background, and a descriptive overview of the thesis structure. Additionally, it illustrates analytical elements, interconnections, flow and feedback loops are provided upfront (*see Figure 1.2: 38*), orienting the reader to the details (Pratt, 2009) about what to expect in this study.

*Chapter 2:* Establishes the cross disciplinary nature of this study (Barry, 2014; Cox et al., 2016) which is necessary since sustainable development is multi-dimensional intersecting at different levels of the trade system. The literature was reviewed in a consistent and progressive way to position the study in sustainable development (e.g., Ehrenfeld, 2008b; Gladwin et al., 1995b) in relation to alternative trade (e.g., Goodman et al., 2013; Melo and Hollander, 2013; Page and Slater, 2003) in the cacao and chocolate value chain (e.g., Butcher and Wilson, 2014; González, 2017; Haynes et al., 2012; Ruales, 2013). It identifies paradox as key theoretical lens and temporality on influencing decisions, to enable complex understanding of the social and business challenges (e.g., Hahn et al., 2018; Lewis, 2000; Lewis and Smith, 2014; Smith and Lewis, 2011). The chapter concludes with distilling two research questions that are derived from the gaps in the current literature supported by its concepts and constructs.



*Chapter 3:* Provides a description of the case study research design (Stake, 1995) that as a process (Langley, 1999; Langley et al., 2013) case study (Fachin and Langley, 2017) that is appropriate for exploring and understanding of trade-based tensions (Hahn et al., 2018). The constructionist research paradigm was adopted (Crotty, 1998) following a qualitative methodology that is supported by philosophical assumptions that: a) considers the process by which meaning is constructed collectively (Saunders et al., 2012) and as such, knowledge is accepted to be relative, as a social construction without an absolute truth; b) the nature of the reality is focused on the informants with meaning being socially constructed, subjective, and changing; and c) the value of the research seeks to understand how informant sensemaking affects the tensions inherent in sustainability priorities.

The research strategy was predominantly inductive using literature to sensitise the researcher to key issues, followed by fieldwork in Canada to understand the dynamics of the crafter at one end of the trade process, then further fieldwork in Costa Rica and Ecuador was conducted to investigate the producer's perspective at the other end of the trade process. Costa Rica and Ecuador were chosen since they are renowned globally for their fine cacao and chocolate production capabilities. The researcher obtained first-hand accounts and observed practices (Waddington, 2004) in the setting of forty-six informants (three in Canada; twenty-five in Costa Rica; seventeen in Ecuador). The researcher interacted with another ten people through informal conversations during the research process. Data collection methods were triangulated (Flick, 2018b; Rubin and Rubin, 2011) leading to emergent patterns (Jarzabkowski et al., 2017). Template Analysis (King, 2012) was used to manually and thematically code the data from interviews with the informants (Rubin and Rubin, 2011) and their untold stories (Bansal et al., 2018), observation notes, written documents, and images (Crabtree and Miller, 1999; Miles and Huberman, 1994) in the NVivo<sup>TM</sup> (QSR, 2018) software (Woolf and Silver, 2018).

*Chapter 4:* Provides a presentation of the data and the analytical process in order to answer the research questions. As suggested by Smith and Lewis (2022: 241), the tensions are identified and named by describing their paradoxical nature. The tensions are organized and discussed thematically, following a case model design that includes model 1: Logistics provider, model 2: Consolidator, and model 3 (Direct-trade): Crafter. The cross-case comparison presents a discussion of logics and thematic analysis of the priorities; while the within-case comparisons offer patterns of relational engagement between the case models.

*Chapter 5:* Provides a discussion of the way in which the findings relate to existing theory, and the potential consequences. The discussion is structured using a top-down approach that includes the literature perspective starting with hybrid-organizing logics that position the business and social case, followed by the paradoxes belonging, performing, learning, and organizing (Lewis, 2000; Smith and Lewis, 2011) as being knotted (Jarzabkowski et al., 2022; Sheep et al., 2017). Then, making use of the Both/and Thinking System Framework from Smith and Lewis (2022) and in relation to the findings and theory, the writer discusses: a) structuring of boundaries to contain the tensions, b) enabling dynamics to unleash and surface the unknown tensions, c) shifting to both/and assumptions from the traditional trade-off approach, and d) accepting and embracing of the paradoxical tensions. The discussion enables understanding and meaning of a workable strategy in organization (Smith and Lewis, 2011) to value competing demands within sustainable development while honouring their independence (Lewis, 2000).

*Chapter 6:* Provides conclusions, limitations and recommendations of the study.

Conclusions:

- The analysis shows that informants were able to transcend trade-based tensions by adopting various roles in the value chain process (Fachin and Langley, 2017).

- Having a shorter and disintermediated value chain allowed the informants to be closer to the market trade issues which led to better understanding of the tensions.
- The theoretical contributions included: a) naming the tensions and the useful engagement of the Both/and System Framework developed by Smith and Lewis (2022), b) answering the research call to take seriously the engagement of social-business tensions that deal with institutional logics and paradoxes (Smith et al., 2013), as initiated by the request of Margolis and Walsh (2003) to explore antinomies, and c) examining the variation in paradoxical knotting (Jarzabkowski et al., 2022) that leads to (dis)equilibrium between sub-systems (Putnam et al., 2016).

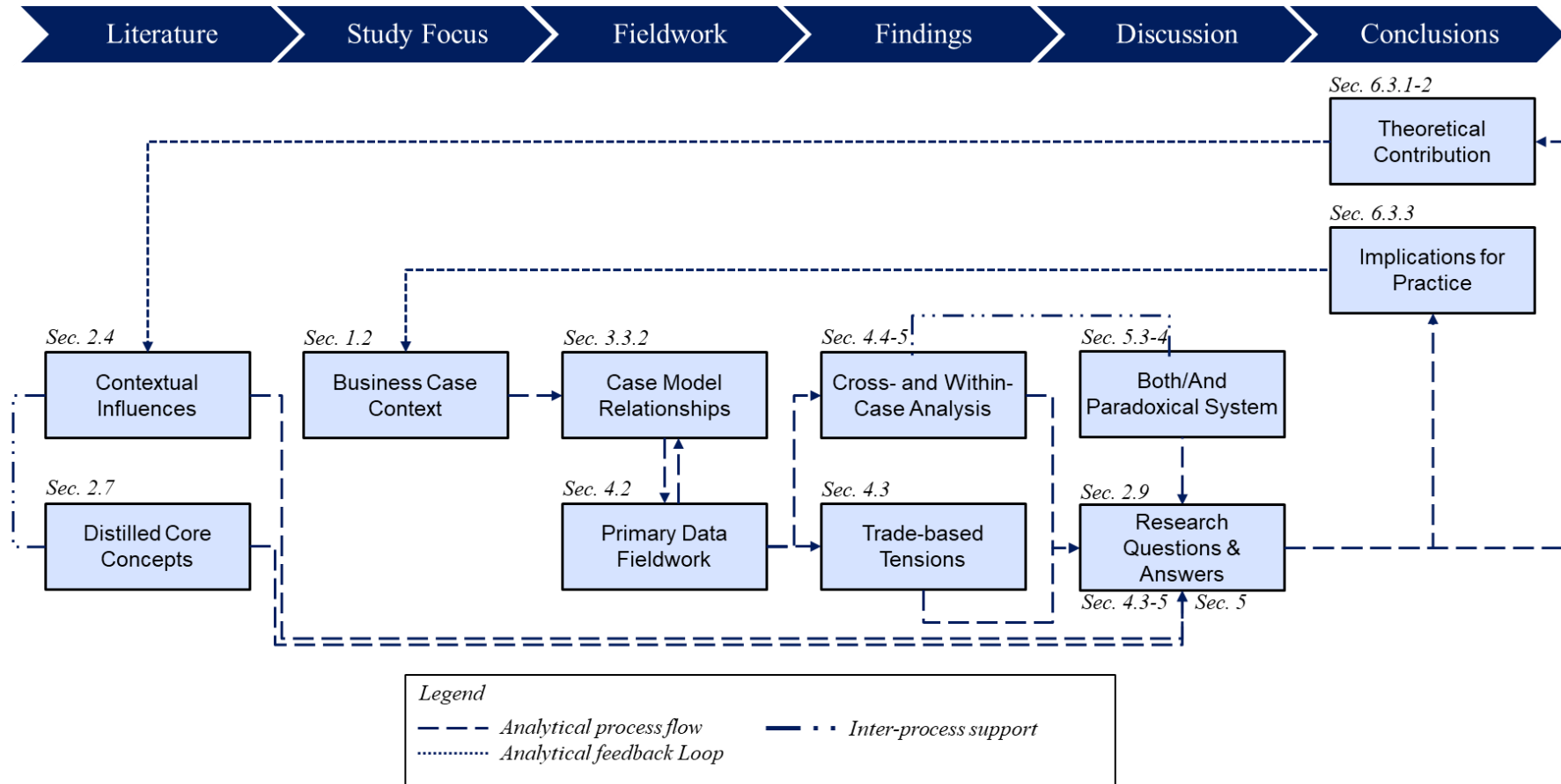
#### Limitations:

- Considering that there are over five-million small-scale cacao producers in the world (Fountain and Hütz-Adams, 2015; Fountain and Hütz-Adams, 2022) and that the sample size in this study is tiny in comparison (forty-six informants), this research does not intend to be nor it is generalizable. The study is limited to understanding of the tensions within the niche market of a fine cacao and chocolate value chain in South/Central America.
- Information gathered from the data collection process varied in length of time from about an hour or more, leading to more or less data being gathered across informants.
- The research process was completed by the writer, a person that conducted research on human subjects and researcher bias must not be ignored. Therefore, a key limitation is the information that was provided to the researcher by the informants and how this information was interpreted (such as, in language translation and meaning) by the researcher.

#### Future Research:

- From a theoretical perspective there appears to be a requirement for further empirical research to further the understanding of hybrid-organizing perspectives between the social and business case and the linkages to paradoxical tensions in the areas of belonging, performing, learning, and in particular how organizing may create affects that are linked to the trade-based tensions that are intertwined to sub-systems that experience intra-dependencies – knotting.

Figure 1.2 Key Elements of the Thesis Structure



Source: illustrated by author

## 2 Review of the Literature

The purpose of this literature review is to lay the foundation for a study of the ecological priorities in the fine cacao and chocolate value chain.

### 2.1 Chapter Introduction

The examination of the literature considers the state of knowledge in: a) sustainability and business (*see* Bansal and DesJardine, 2014; Blowfield, 2004; Ehrenfeld, 2008b; Gladwin et al., 1995b; Iakovou et al., 2016), b) paradox and trade-based tensions in relation to the interrelated social, environmental and economic aspects (*see* Hahn et al., 2018; Lewis, 2000; Lewis and Smith, 2014; Smith and Lewis, 2011), c) contextual influences on decisions in relation to the interrelated aspects of the alternative trade systems (*see* Goodman et al., 2013; Melo and Hollander, 2013; Reinecke and Ansari, 2015) that are particular to the cacao and chocolate market (*see* Butcher and Wilson, 2014; González, 2017; Haynes et al., 2012; Ruales, 2013), and d) sensemaking in disintermediated trade with a focus on meaning and reframing of expectations that potentially are seated in the priorities of the actors (*see* Granqvist and Gustafsson, 2016; Jansen and Shipp, 2019; Maitlis and Christianson, 2014; Weick, 1995). The chapter concludes with distilling two research questions that are derived from the gaps in the current literature supported by its concepts and constructs.

The literature clearly positions a process to sustain the physical world and humanity as a temporal issue (Slawinski and Bansal, 2009, 2015) that is affected by both development over time and the temporal priorities of actors at different stages in the trade system.

*Sustainability has been defined as a macro level goal to rebalance ecological priorities (Ehrenfeld, 2008a) for humanity and other life to continuously prosper (Everard, 2011).*

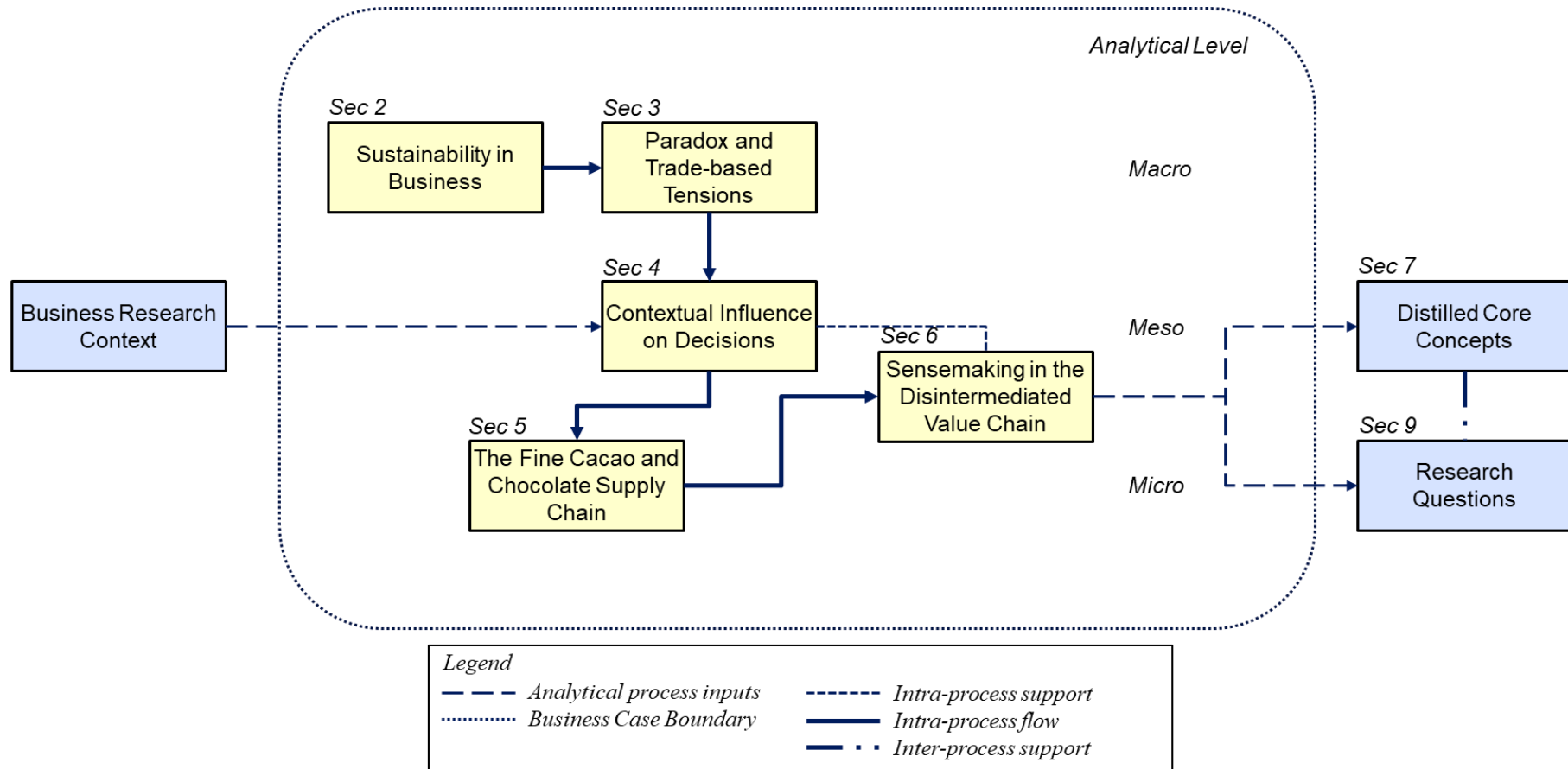
On the other hand, the definition of sustainable development focuses at a more manageable level in terms of the specific resources and the importance of considering how actions now affect present and future generations.

*Sustainable development establishes a focus on areas of concern such as fresh water resource availability and use for the present generation while at the same time aiming not to compromise resources currently available for future generations (WCED, 1987).*

This brings into focus the temporal implications of decisions taken now and the consequences for the future. This immediately highlights a paradox in which decision-makers need to take the consequences into account, means sense making that pays attention to both now and the future (Slawinski and Bansal, 2009, 2012, 2017). Following a review of temporal influences, the work considers the value of paradox theory as a relevant meta-theoretical lens (Lewis and Smith, 2014). Tensions and contradictions are implicit in the choice actors make when managing priorities associated with current and long-term needs. Arguably the trade-based tensions that actors experience and how they handle them provide a robust theoretical framework for the role of time and space, and the ways actors make sense of priorities (*see Figure 2.1*).

This study attempts to address the ways that *trade-based tensions influence sustainable development*.

Figure 2.1 Literature Review Process using a Macro-to-Micro Approach



Source: illustrated by author



The first objective is to distinguish sustainability from sustainable development and the reasoning of why it is important to consider adopting a position on the latter (Bansal and DesJardine, 2014; Slawinski and Bansal, 2009, 2015).

The second objective is to identify the role time plays in decisions about sustainable development and why the separation of decisions across the trade system is a problem for achieving sustainable development. This requires consideration of both immediate and long term consequences of economic, environmental and social concerns, which makes it a complex problem that can not be managed by any one part of the trade system, but requires co-ordinated focus on all elements simultaneously. For example, the actors that are closer to the environment may gain greater benefits for protecting and investing in the land than the actors that are closer to retail consumers, even though the state of the environment becomes a concern for the existence of all of society.

The third objective is to locate trade-based tensions within paradox meta-theory and identify the potential consequences (Lewis and Smith, 2014; Schad et al., 2016; Slawinski and Bansal, 2015). This acknowledges the implications of contradictory yet interrelated elements in relation to the choices made by the actors. When making choices, business have alternatives. They can make either/or choices (Poole and van de Ven, 1989) that lead to, or accept and engage with tensions (Hahn et al., 2018) leading to transcendence of the contradiction via a both/and approach (Smith et al., 2016). Tensions across time and space are influenced by different cultural interpretations. Differences in culture lead to different perception of the timeframes, including length and depth.

The fourth objective identifies durable contextual influences such as historical events, since they are embedded in the social fabric of the cultures, and influence the choices available to actors within communities. This is especially true where pre-colonization traditions are the

foundation of a present society. These influences create temporal pressures that arise from competing demands related to the ecological and economic aspects (Smith and Lewis, 2011). The fifth objective is to discuss the trade system. The cacao sector is composed of both, disintermediated and intermediated trade (Haynes et al., 2012; Melo and Hollander, 2013). Globally a trade system controlled by multi-national businesses is strongly intermediated, creating economic pressures that ripple across the society and the environment. The writer theorizes that disintermediated trade systems might experience more tensions associated with social and environmental pressures, which subsequently influence the economic aspects (such as, producers having to compete with cooperatives that are embedded in the community; access to fresh water).

The sixth objective is to examine the relationships that are represented by the actors intersecting at different levels in the value chain. disintermediated trade systems allow for closer relationships that have more influence on choices, compared to distant relations that span across conventional trade systems. Actors' choices are influenced by the relationships at each level in the trade system and tensions arise from the mediation of priorities (Gladwin et al., 1995b). This suggests that tensions that arise and that are experienced across time are entangled with the way actors make sense of their experiences (Smith, 2014), which becomes an important focus in this study and the final section of the literature review.

## **2.2 Sustainability in Business**

This section provides the business backdrop for the fine cacao and chocolate value chain, by briefly examining the relevant aspect of the sustainability and sustainable development literature.

### **2.2.1 Introduction**

The sustainability literature provides a high level goal for business, but provides little insight as to what will bring about ecological survival and intergenerational equality. Advances in the literature on sustainable development focus attention on the influence of political-moral and economic values upon actors' choices. Although both literatures are connected, this study relies more on the sustainable development literature to explore the sources of tension that may undermine choices that would lead to intergenerational equality and encourage the longer term survival of the physical world and its inhabitants. This study investigates a setting in which underlying political-moral, and economic values appear to be more aligned to a liberalized and democratized trade agenda, having focus on sustainable development and the choices that are made.

There is consensus that the concept of sustainable development is central to achieving intergenerational equality (Sharma and Bansal, 2017). This notion implies that development choices must take into account the implications for both current and future generations (WCED, 1987). Notwithstanding, at the highest level and broadly speaking achieving development that is equitable to present and future generations remains the greatest challenge for humanity (Gladwin et al., 1995b; World Bank, 1992), since more tangible present needs and concerns often take priority over intangible and uncertain future possibilities. From a business and policy perspective, equitable development requires cross disciplinary research, since it involves multi level choices that extend from farm scale operations and local biodiversity to markets, institutions, regional policy, and the global economy (Robbins et al., 2015). Hence, recasting "how we understand the economy and the economic" (Barry, 2014: 153).

The cacao sector is the economic and social backbone of hundreds of rural communities. *Theobroma cacao* as a raw material in its physical form is the bean extracted from the pod of

the cacao tree for consumption or processing into chocolate and other products. The cacao sector is plagued with issues that affect sustainability (such as lack of potable water and electricity; Butcher and Wilson, 2014; and, environmental degradation; Scigliano, 2008). In contrast to the conventional trading system, alternative trade systems could substantially contribute to improve producers' livelihoods and provide means for producers to exit a vicious cycle of poverty that appears to have been in existence for centuries.

Ehrenfeld (2008b: 1) states that sustainability is one of those “essentially contested concepts”. Sustainability aims to attain well-being for humanity and equality for its future generations, it is an ongoing and persistent process. Sustainability is broad, contested and subjective (Blowfield, 2003). Sustainability is debated between scholars and practitioners and labelled as a “difficult... [concept] to grasp analytically” (Barbier, 1987: 101) an “amorphous... [concept] perceived differently by different people” (Batie, 1989: 1084), lacking coherence in development or implementation (Blowfield, 2000), an ill-defined term (Whiteman and Kennedy, 2017), or a common phrase to which governments and organizations pledge to but its practice is doubtful (Dickson, 2013). Everard (2011: 58) posits that sustainability is simple and “it relates to the capacity to continue indefinitely”. Ehrenfeld (2008a: 6) asserts that it is “the possibility that human and other life will flourish on the planet forever”.

Sustainability transcends across disciplines (Meadows and Wright, 2008; Wainwright, 2010) and it is characterized by multiple fields of study (e.g., common-pool resources; political ecology; ecological economics; sustainability science; Cox et al., 2016). Cross-disciplinary operations (e.g., biodiversity; capital investments; knowledge acquisition; social movements) have led to “decentralized, dispersed, and... trans[-]nationalized ensembles of processes that operate at many levels and through multiple sites” (Escobar, 2006: 34). Scholars argue that academic work in sustainability requires consolidation and unification (Clark, 2007) of

alienated theories (Cox et al., 2016; Robbins et al., 2015) with some authors advocating for emphasis on green political and social theory (Barry, 2014).

Ehrenfeld (2008b: 1) suggests that “[s]ustainability needs to be attained, not managed” creating an “ecosystem [...] that generates a level of health, vitality, and resilience that allows its members to both live and evolve” (Ehrenfeld, 2008a: 10).

IMPORTANT – Sustainability pivots “on awareness and intention” (Ehrenfeld, 2008a: 9). As per Ehrenfeld, sustainability is conceptualised on what it means for the future and how decision-makers could envision a re-balancing of priorities. In other words, to achieve sustainability businesses have to recognise and take ownership of the problem, otherwise problems may remain a call for some larger goal that could be ignored.

Despite many attempts to define sustainability (Blowfield, 2003; Clark, 2007; Ehrenfeld, 2008b) there is little consensus on a meaning of interpretation to guide research and practice.

As such, the European Research Area advocates for research in sustainability and has identified key thrusts to meet social needs (e.g., humanity’s health; ethical production) and sustainable development (e.g., social; economic; environmental; Iakovou et al., 2016).

A meta-analysis on environmental supply chains to determine a relationship with business performance concludes that *sustainable practices* are of business and supply chain importance (Golicic and Smith, 2013). Good business performance is achieved when environmentally sustainable practices are adopted; however, there are integration gaps across the value chain, becoming an impediment for the attainment of sustainability (Wagner, 2016).

While Rainey and Araujo (2015) suggest that business scholars have failed to identify sustainability concepts, constructs, and approaches as a meaningful system; Bansal and DesJardine (2014: 70) argue that firms endure tensions from choices to balance priorities, and as such, not considering a future temporal orientation has led to short-term decisions that create

flux with what it means to sustain. Despite the debate on the concept of sustainability, the intentions of a sustainable future may not be accomplished solely on a conceptual understanding and sustainable practices can't be ignored as trade-based tensions affect business choices. Sustainable development enables the operationalization of sustainability through directed forms of actions and towards ecological concern. As such, sustainable development can contribute to the overall purpose of the interconnected ecological system.

### **2.2.2 Sustainable Development**

Sustainable development is more concrete and actionable as it categorizes areas of concern and goals (such as, zero poverty) that are reached through stakeholder agreements and outline specific challenges which stakeholders take into account. In line with addressing ecological issues, the United Nations formed the World Commission on Environment and Development (WCED) led by its chairwoman Gro Harlem Brundtland. The WCED published the Brundtland report, namely *Our Common Future* and defined and asserted sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987: 43). This position has received some criticism as the title of a journal article exemplifies: “Sustainable development: how to manage something that is subjective and never can be achieved?” (Kemp and Martens, 2007).

The Brundtland report attempted to integrate environmental, social and economic concerns (Pongratz-Chander, 2014), while aiming “to secure intergenerational equity” (Bansal and DesJardine, 2014: 71) and became commonly known as the Brundtland definition of sustainability.

Scholars of sustainable development have examined how temporal trade-offs and the concept of short-termism lead to suggested negative outcomes for the human and the physical world dimensions (Hahn et al., 2015). Formal models study human-environment interactions (Barry,

2014; Schlüter et al., 2017); however, progress cannot be easily evaluated and understood (Cox et al., 2016). Understanding the relationship between humans and the environment, and the generation of sustainable outcomes is a contemporary scientific challenge involving scattered social sciences theories, partial identification of decisions and unspecified casual mechanisms (Clark, 2007; DeFries et al., 2012; Schlüter et al., 2017). Further, “strong empirical tests of many of these theories are lacking beyond the cases in which they were developed” (Cox et al., 2016: 53).

Sekulić (2011: 133) argues that sustainable development “... can hardly be described as precise and rigorous”, it is the result of multiple choices made by the actors with respect to managing trade-offs related to monetary value and time giving preference to short-term outcomes (inferior) rather than long-term outcomes (superior). This view can be exemplified by the paradoxical nature of sustainable development stated by WCED (1980: para. 17):

“In essence, sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations”.

As such, exploiting resources and ensuring exploration leads to innovations and developments that simultaneously enhance current and future potential.

Sustainable development has been conceived in terms of: value change (Clark, 1989), social reorganization (Gore, 1992), vision expression (Lee, 1993), moral development (Rolston, 1994), and a transformational process (Gladwin et al., 1995b) towards improving the world.

It appears that the discussion is fragmented by the division of the various fields that attempt to apply the principle of sustaining development in business while drawing implications from making sense of what sustaining a future for humanity and the physical world truly means

(Ehrenfeld, 2008b). The World Commission on Environmental Development argues that natural resource constraints and the excess present resource use could negatively affect economic development in the future (Slawinski and Bansal, 2017). As previously discussed, the main purpose of sustainable development is focused on intergenerational equality and this notion will require intertemporal choices to manage simultaneous resource constraints (Bansal and DesJardine, 2014; Hahn et al., 2015). Slawinski and Bansal (2017) suggest that businesses that are committed to sustainable development should emphasize long-term investments and de-emphasize investments on the basis of a present focus that are generally driven by economic returns from short-termism (Slawinski and Bansal, 2017).

Change is necessary if achieving sustainable development is truly in mind. Unfortunately, at the macro level academics are squabbling over definitions, in the meantime resources are being wasted. Slawinski and Bansal suggest that action is needed to shift priorities at the business level, rather than at the policy level where economic development is prioritised over natural resources.

Businesses are expected to generate ‘value’ for society, but value can be interpreted narrowly, purely as financial value or it can be interpreted as broader societal benefits that satisfy the values of those that the businesses serve. The trade system is where different societal values get prioritised through the choices that are made. For example, producers’ values may be more strongly tied to their cultural roots as well as to their basic financial livelihood; logistic providers may have values that prioritise customer values, which in fine chocolate production are about luxury combined with ecologically sound principles; and crafters may have more economic as well as consumer values to prioritise.

This leads to flux in the trade system as businesses compete to meet different requirements that are based on conflicting priorities. Actors manage different business agendas that are guided by



concerns to sustain the development of the business. While these concerns may include aspects of sustainable development; the view is rooted on the definition of *sustainable business* “as the ability of firms to respond to short-term financial, social and environmental demands, without compromising their long-term financial, social and environmental performance” (Slawinski and Bansal, 2009: 1).

**IMPORTANT** – Businesses face different resource constraints that lead to unique agendas that have different priorities on how the usage of resources is managed. Therefore, decisions that are made from the perspective of sustainable business may not necessarily fit with the priorities of sustainable development.

### **2.2.3 Sustainable Business in the Food Chain**

While sustainability has a long-term focus, sustaining in the corporate world has a short-term focus as the responsibility to sustain gets prioritised to a few with the greatest influence over decisions (Maican, 2013). Sustainable development operationalizes sustainability from a transdisciplinary perspective. Corporate responsibility (Blowfield and Murray, 2014) is the process that operationalizes sustainability from a business perspective (Ditlev-Simonsen and Midttun, 2011). The previous is often referred to as corporate sustainability. Therefore, sustainable development and corporate responsibility are not synonymous, these are only akin to one another.

Blowfield (2007: 684) acknowledges that in business what corporate responsibility “seeks to measure is significantly different from the focus on changes in people’s lives that international development is concerned with”. From a multinational perspective, the World Bank concurs that the corporate responsibility focus is on sustaining economic development (Blowfield, 2007). This implies less focus on social aspects, supporting the argument that business has also shifted from an environmental focus (Barry, 2014). In business management, this represents a

neoclassical perspective that is skewed towards economic benefits in relationship to areas within sustainability. As an example, the power of MNEs who sit at the top of long supply chains, is such that although they exert tight control and dictate supplier conditions, they are detached from sustainable development concerns at the ground level, and find it hard to monitor compliance with policies. As a result, they have limited meaningful influence on improving the conditions of producers, and their policies are counterproductive in many ways. Bansal and DesJardine (2014) suggest that practical and workable models are required since sustainability is related to business success and as such, businesses need to be mindful on how operations affect future generations.

Multinational corporations have acknowledged that in making decisions, sustainable practices are a key ingredient for the management of supply chains and environmental stewardship programmes (Long, 2008). Corporations have responsibilities on how products in the supply chain are used and consumed (Kobrin, 2009; Logsdon and Wood, 2002; Moon et al., 2005; Palazzo and Scherer, 2006; Schrempf, 2012). As a result of supply and demand activities, the responsibility of a sustainable world largely belongs to the business enterprises (Hart, 1997: 76). Some authors have argued that corporations may decide to endorse community initiatives as a license to operate in the market (Valor, 2005) for the generation of profits (Porter and Kramer, 2007). This means that there is a possibility that some corporations may use the banner of sustainable practices with the intention to maximize their economic returns in the short-term rather than focusing on other aspects of sustainable development in the long-term. Furthermore, community benefits may not be distributed equally to actors that operate in the same market. While actors such as workers of producers have an important role in the market, their visibility is minimized under the banner of sustainable initiatives.

Porter and Kramer (2011b: 1) argue that “[t]he solution lies in the principle of shared value” by creating economic value that at the same time creates value for society transcending philanthropy, social responsibility, and sustainability; however, this proposition is at an infancy stage. A possibility exists for understanding true sustainable practice by redefining *what value means* (Gladwin et al., 1995b; Porter and Kramer, 2011b) and leading environmental and social harm reduction in practice. There is some acknowledgement that the supply chain needs to be viewed as a whole trade system with aligned stakeholder efforts that strive for sustainable development (Wagner, 2016). Further, there is a growing desire to expand the boundaries of sustainable performance and research beyond economic measures and demonstrate “understanding of how to make existing supply chains more sustainable” (Pagell and Shevchenko, 2014: 48).

It is becoming increasingly difficult to measure and add economic value to the separate accounts of social and environmental aspects (e.g., food inequality; depleting water resources; soil degradation). This highlights a need for novel strategic frameworks, decision levels, policies, and interventions that address challenges (e.g., sustainability; security; knowledge; competitiveness; Iakovou et al., 2016).

Most research and practice claim to be working towards sustainable development to reduce unsustainability (Pagell and Shevchenko, 2014). However, lessening unsustainability does not and will not produce a sustainable future (Ehrenfeld, 2008a). For example, from a policy perspective, less extraction of fresh water resources, does not equate to maintaining fresh water resources for the future.

The food chain is guided by macroeconomic policies such as, fiscal policy, monetary policy, and trade policy (Johnson, 2008). Government corrects failure using regulation, bans, and incentives through collective actions (Aylen and Mylan, 2013) that are guided by a domestic

interest and agenda. However, efforts to sustain are “[...] not a static linear development but a cyclic dynamic process” (Kurppa, 2016: 305), and the enforcement and extensions of policies related to a sustainable future are not properly understood and lead to loss of price controls and social rights that are open to uncertainty and negative implications (Korten, 2015).

Practitioners face constant challenges implementing sustainable practices (Wolf, 2011) and aligning them to business strategy (Otchere et al., 2013). Lack of evaluation in sustainable initiatives impacts business operational performance, costs, and efficiencies (Hassini et al., 2012). From a social perspective better governance of the global food trade is the most critical component in improving sustainable development. It is essential to adopt a multi-stakeholder process if businesses want to address the mounting challenges from the emergent global trends (e.g., domestic and global market growth; food quality and safety; climate change) and if academics want to answer the question of how to create a truly sustainable trade systems (Iakovou et al., 2016; Pagell and Shevchenko, 2014). For the food system to deliver in ways that take account of humanity and nature as well as economic concerns then environmental social and economic values should all weigh into decisions (Barry, 2014).

Swyngedouw and Heynen (2003: 910) contend that “capitalist forms of social organisation” have created uneven socio-ecological conditions, and a deeper exploration ought to enable the understanding of “for whose benefit, and to whose disadvantage” (Alkon, 2013: 665).

**IMPORTANT** – Moragues-Faus and Marsden (2017: 281) advocate transforming an “industrial food system into one that is both environmentally sustainable and socially just”. Further, as socio-economic benefits are not equally distributed this has led to discourse and reframing of neoliberal and alternative trade configurations (also known as shortening the supply chain or disintermediation) in recent years (Brunori et al., 2013; Kirwan and Maye, 2013; Moragues-Faus, 2017; Sonnino and Marsden, 2006) and exploring what constitutes

global economic and ecological injustice between consumption and production, and humanity and nature (Slocum and Saldanha, 2016).

Moreover, it emphasises a need to experiment with the infrastructure in order to make decisions that ought to support sustainable food systems (Moragues-Faus and Marsden, 2017) and not just profit maximisation.

Political-economy as an interdisciplinary field (e.g., environmental economics; ecological economics; science and technology) contributes with many theories (e.g., complexity; liberal; Marxism; post-structuralism) and science approaches (e.g., landscape ecology; conservation). This field links extensive and complex production systems as well as human livelihoods (Barry, 2014).

**IMPORTANT** – Research “explorations have under[-]examined labo[u]r markets and non[-]state institutional impacts on decision-making” (Robbins et al., 2015: 83) and traditional schemes have failed to maintain livelihoods (Mutersbaugh, 2002).

While the previous discussion is oriented towards the capitalist system, it is important to consider the non capitalist practices and economies in their own right (e.g., self-subsistence; collective farming; Escobar, 2006). Some authors suggest that solutions to sustainable challenges of the physical world and humanity require collective action (Cato et al., 2008; Dean and McMullen, 2007). Others claim that most research points towards solutions based on the actions of individuals (Dacin et al., 2011; Pacheco et al., 2010). A debate that may have overlooked how individual actions inevitably shape collective action and processes of trade networks beyond the conventional trading system. It is possible that geographical co-location may allow small producers to share practices, develop collaborations to scale up outputs and retain more control over their market end of the trade system.

**IMPORTANT** – A shorter trade system is better able to bring into play the environmental, social and economic dimensions of business choices since the actors are closer to the consequences of their actions.

#### **2.2.4 Disintermediation in the Food Chain**

In order to achieve social and ecological goals, academics and practitioners suggest alternative trade initiatives that provide an opportunity to change the economic force (Melo and Hollander, 2013). Alternative food networks have emerged as the “new wave” of social activism (Goodman et al., 2012: 3). These have been conceptualized as institutional and trade arrangements to enable value creation that is generated by small-scale and low-input agricultural producers – bypassing middle men. These trade schemes act as a bridge between the general capitalist logic and actor’s economic self-interest to sustainable objectives that operate across the niche markets for products with added value (Bramley and Kirsten, 2007; Goodman and DuPuis, 2002; Hayes et al., 2004; Taylor, 2005); inclusive of luxury products such as fine cacao and chocolate.

The failure of state regulation and policy (Korten, 2015) led to the creation of alternative trade arrangements that were primarily dependent on consumer awareness (e.g., being more ethical) and the levels and linkages between consumption and production (Melo and Hollander, 2013). This was encouraged by the era of globalisation and neo-liberalism, where the opportunities to regulate economic sectors dealing with natural resources and to guarantee citizens welfare were diminished (Barbier, 2000, 2003, 2004; McCarthy and Prudham, 2004; Sonnenfeld and Mol, 2002).

**IMPORTANT** – Goodman et al. (2012: 4) posit that alternative food networks counter “the unsustainable industrial food system and the exploitative trading relations embedded in global

supply chains”. Therefore, the adoption of alternative trade practice is well received by the sustainable development community (Melo and Hollander, 2013).

Typical arrangements include the provision of high-quality products to niche markets that are traceable and ethically produced. As such, producers obtain higher-premiums by meeting or exceeding the arrangement criteria (Melo and Hollander, 2013).

These sustainable business models claim to be a tool for businesses that are a potential solution to the tension between economic value creation and socio environmental goals. (Boons and Lüdeke-Freund, 2013) and economic value. Recent work by Joyce and Paquin (2016) suggests that business model layers should include social and environmental dimensions, while Upward and Jones (2016) propose an ontology for strong sustainable business models and offer a comparison of the framework against Osterwalder's (2004) profit-oriented model. However, these propositions treat the social and environmental dimensions as complementary to the principal economic dimension. In other words, proposals to include social and environmental dimensions as complementary issues still sublimates them to the economic dimension. These propositions do not take into consideration the influence of relationships from the actors that intersect across the trade system and how these relationships affect the values and priorities across a value chain.

Despite the previous, other literature suggests that some sustainable business models provide support for the association of actors (such as, producers and crafters), as an integrated relationship with the producers through a private partnership that offers Fair-Trade certified high-quality cacao and chocolate (Doherty and Tranchell, 2007). Similarly, some Canadian chocolate makers have created partnerships in practice with various small-producers and have taken this concept further by establishing sourcing strategies guarantees. Page and Slater (2003) argue that enabling market access is an effective means to enable small-scale producers to climb

out of poverty. Cato et al. (2008) suggest that collaborative models alleviate challenges for attaining sustainable outcomes and the reduction of market access barriers. While acknowledging that in order to solve pressing issues of the physical world and humanity in the present requires collective action (Cato et al., 2008; Dean and McMullen, 2007), most research has maintained a focus on individual actions (Dacin et al., 2011; Pacheco et al., 2010). As mentioned earlier, it may be important to consider how individual actions shape collective actions for attaining sustainable outcomes, in particular where resources may be scarce (Montgomery et al., 2012) affecting “individual and collective lives” (Ehrenfeld, 2016: 6). Although, models for solving social wealth and ecological problems are emerging in the literature (Montgomery et al., 2012; Pacheco et al., 2010), these lack in-depth understanding of relationships and how actors make sense of collective decisions through their collaborative relationships.

Alternative trade models and sustainable development research are emerging in the fine cacao and chocolate value chain based on characteristics such as shade-grown and increased consumption trends in single origin chocolate. This places the fine cacao and chocolate value chain as an ideal case for examining the achievement of social and ecologically goals (Gallo et al., 2018; Melo and Hollander, 2013). A sustainable development project conducted by Melo and Hollander (2013) aimed to improve the livelihoods of small cacao producers in South-West Ecuador by cultivating shade-grown cacao in connection with disintermediated trade. Sustainable business models examples include the producer-crafter relationship formed by Divine Chocolate in United States, where producers own most of the shares of the organisation through a private partnership that offers high quality bean-to-bar chocolate to consumers (Doherty and Tranchell, 2005). This positions the value chain as relevant for case study research as the market appears to be driven by a different set of expectations.



IMPORTANT – Research from Gallo et al. (2018) attempted to bring understanding to the application of sustainable business models in connection with the bean-to-bar business sector. Unfortunately, their research relied heavily on secondary data; creating a need for primary data collection in the value chain that deals with collaborative relationships between the producers and the crafters.

An obvious question arises as to why this particular value chain is expected to be different from other industries, trade systems or food commodities? Although a simple answer isn't readily available, the writer suggests that while this characterisation is not typical with other products or commodities, it is possible that value chain expectations may be inherent of a sense of guilt that drives the choice for alternative trade and the creation of ecological value. Additionally, cacao is associated with cultural meaning at the local level in contrast to other products (such as, sugar cane or cotton) and this may draw the research attention of scholars.

### **2.2.5 Historical Underpinnings**

The exploitation of cacao workers began in Brazil in the sixteenth century with the production of cacao (Butcher and Wilson, 2014). Colonists forced workers of South American and African descent to collect beans from cacao trees for exporting to Europe. After Brazil outlawed slavery in 1888, the colonists moved the cacao production to West Africa, not only transplanting cacao trees, “but also an entire plantation system for cocoa production based on the forced labo[u]r that endures to the present” (Walker, 2010: 543). This means that cacao production and hence, chocolate has been subject to slavery for about four hundred years. These events provide an understanding of how the fine cacao and chocolate value chain is different from other products and commodities (such as, being able to be cultivated in small batches, in bio-diverse ecological systems; i.e., in contrast to monocrop plantations of sugar cane or cotton); and raise an important point emphasizing that the role of alternative trade is not only to improve producer's

livelihoods but also to bring change by separating the past of human slavery from a very different attainable and slave-free future. Naturally, improvement of livelihoods does not equate to future freedom of humanity, and this distinction between improvement of livelihoods and freedom creates an implication for the attainment of a sustainable future that can only be realized when producers are able to make decisions that have an effect on their own livelihoods and by own choice. Lyon (2007) exemplifies where people are able to make decisions that have an effect on their own livelihoods as a consequence of human rights abuses by providing a solution based on the Guatemalan coffee commodity market; as such, Tz'utujil Maya small producers were subject to pressures until through a process of collective action a trade cooperative was formed. This cooperative has grown to over one hundred members securing a Fair-Trade supply channel with the United States market.

As a previous board member of the World Cocoa Foundation and an advocate for improving cacao producers working conditions, Joe Whinney created the first bean-to-bar chocolate factory in the United States, namely Theo Chocolate (2018b). Whinney's vision has led to making a difference in producers' lives and land by making artisan high-quality bean-to-bar chocolate (Butcher and Wilson, 2014). Theo's Chocolate (2018a: 1) core value is stated as "[o]ur model is based on a core idea – chocolate can be made in a way that allows everyone in the bean to bar process to thrive". Similarly, Erica Gilmour's vision from Hummingbird Chocolate Makers in Canada has been guided by the concept of doing the right thing (Gilmour, 2018) and suggests that to trust and connect directly with the cacao producers a set of guiding principles are required: a) "farmer receives better than Fair Trade prices", b) "cacao is grown sustainably", c) "cacao farmed ethically and humanely- no child labour", and d) "do the right thing" (Hummingbird Chocolate Maker, 2018a: 1). Hummingbird Chocolate Maker (2018a: 1) emphasizes that "[i]t's very, very important to us that the cacao we source is done fairly,

ethically and sustainably”, this has led to sourcing of cacao beans from a sustainable agroforestry system that is designated as forever-wild (Zorzal Cacao, 2014) supporting Hummingbird Chocolate Maker’s vision and commitment to biodiversity.

### **2.2.6 Summary**

The fine cacao and chocolate value chain has been identified as a preferred trade sector (Gallo et al., 2018) for using sustainable business models to address sustainability concerns that are linked with collaborative relationships in practice. In comparison to other products or commodities, its context is different due to the events that have characterised and plagued the cacao market for centuries. The alignment of shared values (Gladwin et al., 1995a; Porter and Kramer, 2011b) by chocolate crafters (Gilmour, 2018; Theo Chocolate, 2018b) interlinked with the overall concern for humanity and the physical world to thrive (Ehrenfeld, 2008b) should offer emergent solutions that could be cross-pollinated with other luxury products (such as, coffee; tea; vanilla). This study has the potential to gain a deeper understanding of the collaborative approaches between the informants, and, how the informants make sense of decisions using disintermediated trade systems as a process towards the attainment of better livelihoods.

Guided by work of WCED (1987) on sustainable development and the seminal work of Bansal and DesJardine; Sharma and Bansal (2014; 2017) on intergenerational equality and Slawinski and Bansal (2009, 2017) on business sustainability and time frames; sustainable development outcomes should be attainable by upholding an ethical and responsible behaviour towards the physical world and humanity.

This means that humanity could reconcile the differences between the present state and a future desired state through a process of making sense of current issues (such as poverty, degradation

of resources). Thus, this should prevent a distorted focus on short-term economic priorities to the detriment of social and environmental development.

## **2.3 Paradox and Trade-based tensions in Sustainable Development**

This section provides context and theoretical understanding for a deeper exploration of the way the short- and long-term paradox affects sustainability. The section proceeds using a macro to micro perspective, starting with positioning paradox in hybrid organizing, then, by defining trade-based tensions and their affect on choices and identifying how this may affect agroforestry with examples.

### **2.3.1 Introduction**

At the macro level, businesses have temporal structures which shape rhythm and pace, and how problems and solutions are framed by the actors through a world view (Orlikowski and Yates, 2002) are “leading to more positive characterizations of organizations, such as research on hybrid organizing and improvisation” (Slawinski and Bansal, 2017: 389).

Besharov and Smith (2014) suggest that organizations are faced with responding to institutional demands that arise from the expectations of the external environment. Research from Battilana et al. (2015) in social entrepreneurship and the concept of hybrid organizations from Poole and van de Ven (1989) proposing generic strategic responses in relation to tensions are helpful to position hybrid-organizing perspectives and paradox that may be useful for this study. Hybrid organizations are mostly concerned with the integration of consequential business logics (such as, ecological causes but not necessarily contradicting) that leans towards meeting the needs of communities (Battilana and Dorado, 2010).

At the meso level, a paradox lens is useful to expose processes politicised between the human and physical world (Moragues-Faus and Marsden, 2017) and in particular between developed

north and the developing south nations that are prone to inequalities, exclusion, and injustice across time.

Paradox is defined as “contradictory yet interrelated elements that exist simultaneously and persist over time” (Smith and Lewis, 2011: 386). As an example, a paradox can be characterised by an opposing symbolic metaphor such as yin and yang (Lewis, 2000) as the paradoxical elements (Sharma and Bansal, 2017) that are persistent and that “reflect polarities that are [the] interrelated aspects of a greater whole” (Lewis and Smith, 2014: 134).

**IMPORTANT** – Hahn et al. (2018) claim that although the paradox perspective attempts to change the understanding of attaining sustainable outcomes, it is still in an infancy stage, lacking definition and frameworks.

At the micro level, Slawinski and Bansal (2017: 382) state that “missing from the paradox research is both a deeper exploration of these particular trade-based tensions and recommendations for specific management approaches”. Scholars such as Slawinski and Bansal (2015) have examined the short-term and long-term tensions and how organizations attend to these. Jay (2013) described the process of navigating tensions with different organizational outcomes by decision-makers. Ghadiri et al. (2015) examined the management of tensions between economic-social responsibility using the concept of identity. Berger et al. (2007) examined the use of syncretic stewardship model in businesses that attempt to simultaneously balance sustainable dimensions (environmental; social; economic).

### **2.3.2 Paradoxes in Hybrid Organizations**

Studies have examined opposing logics in the context of the sustainable enterprise, in which hybrid organizations negotiate different paradoxes in different ways to reframe or split the tensions (e.g., Jay, 2013). An emerging stream of research applies a paradox lens to sustainable

development; for example, work by van der Byl and Slawinski (2015), Gao and Bansal (2013), Hahn et al. (2014), and Slawinski and Bansal (2015).

**IMPORTANT** – In relation to this study, The combination of hybrid organization and paradox research allows gaining understanding of how apparently opposing elements can be interdependent, and hence, identify paths to integrate different logics (Fan and Zietsma, 2017), beliefs, goals, or values (Slawinski and Bansal, 2017), time frames, and spatial scales (Hahn et al., 2014).

Research in hybrid organization from Battilana and Dorado (2010) observed that social enterprises recruited personnel without any business or social background as the norm, and the personnel were receptive to an integrative approach for achieving business operational excellence. In another study, Gotsi et al. (2010) observed that socialization practices helped design businesses to create a narrative of integrated actor creative identity, and this enabled the resolution of tensions within a commercial context. Tracey et al. (2011) argue that engagement with the commercial–social paradox may lead to new organizational forms, while, Battilana and Dorado (2010) suggest that the combination of logics as a whole may improve organizational survival.

**IMPORTANT** – In relation to this study, a persistent commercial-social paradox between the informants enables understanding for the examining the fine cacao and chocolate value chain when dealing with the business case (e.g., improvement of premiums) and the social mission (e.g., improvement of livelihood).

Lewis and Smith (2014) posit that paradox from a meta-theoretical perspective informs theory (Whetten, 1989) and is not constrained by specific contexts, methods, or variables. In addition, metatheory offers assumptions, concepts, and core elements, acting as a guide towards informing research practice and possibly testable models. A paradox approach stresses that

separation is temporary, placing substantial responsibility on informants to enable interplay between differentiated efforts and seek more holistic synergies (Smith and Tushman, 2005). Contrasting the opposing elements of a paradox may create anxiety and prompt a defensiveness reaction from informants (Sharma and Bansal, 2017) by “suppressing the relatedness of contradictions and maintaining the false appearance of order” (Lewis, 2000: 763). In relation to this study, disguising order can possibly entail practices in the conventional trade system that may claim benefits of a social-commercial relationship at the expense of livelihood.

In relation to sustainable development, a paradox perspective allows for “[o]rganizational inquiry [to] go beyond efforts to reconcile corporate responses to social misery with the neoclassical model of the business, [where] social and economic tension should serve as a starting point for new theory and research” (Margolis and Walsh, 2003: 280). Hahn et al. (2018) propose that a paradox perspective accommodates interrelated environmental, social, and economic objectives towards better business achievements. Thus, enabling the understanding of various sustainable development dimensions (Carollo and Guerri, 2018; Kanno et al., 2018; Sharma and Jaiswal, 2018) and the proposition of insights towards the mechanisms that address tensions with competing objectives (Iivonen, 2018) in proactive ways (Ivory and Brooks, 2018; Stadtler, 2018); regardless of benefits being clear (Rivoli and Waddock, 2011) or stakeholder engagement being relevant (Hart and Sharma, 2004), and without having to abandon a profit oriented mindset. Instead, “paradoxical resolution denotes purposeful iterations between alternatives in order to ensure simultaneous attention to them over time” (Smith and Lewis, 2011: 392) and substantive contribution by incorporating a sustainable development agenda, business benefits, and moral initiatives (Hahn et al., 2018).

**IMPORTANT** – Purposeful resolution may be attained by alternative trade systems that focus on both, commercial and ecological aspects that are contradictory yet interrelated. The social

construction of paradoxes is enacted when informants polarize opposing elements by rendering elements as non-interdependent. This gives rise to tensions that are cognitively socially constructed, being paradoxical in nature (Ford and Backoff, 1988).

Lewis and Smith (2014: 129) suggest that “tensions appear inherent and ubiquitous in organizational life”. Thus, informants may experience paradoxes that are salient in practice and latent in systems (Smith et al., 2016; Smith and Lewis, 2011). These tensions appear in systems and interdependent sub-systems arising from flux that could be ambiguous, dynamic and complex, having different fluctuating objectives, functions, and expectations (Katz and Kahn, 1966; Lewis and Smith, 2014; Simon, 1962). Irrespective of financial value for business, a paradox perspective considers the intrinsic value of sustainable development issues such as, future generations, biodiversity, and poverty alleviation (Hahn et al., 2018).

It is possible for this study to identify the trade-based tensions and illustrate how closer relationships affect the responses across relationships. As a process, identification can rely on categorical descriptions by examining tensions, raising questions (such as, individual differences, organizational conditions, and hierarchical aggregation; Schad et al., 2016). In addition, it can raise empirical questions between the informant’s paradoxical perspectives embedded in relationships of the value chain, contrasting the sustainable development and business case, and strategies that address the management of tensions (Hahn et al., 2018). There is a need to realize the intrinsic value that may be offered by the competing forces such as, social, environmental and economic (e.g., recognition of value in the forces own right; linkages between the forces, tensions, and outcomes).

**IMPORTANT** – Following Hahn et al.’s (2018) suggestion to use a paradox lens to address sustainable agendas, this study seeks to use it to a) investigate the dynamics of tensions between financial environment and social status in a disintermediated value chain and b) develop a richer



understanding of temporality (Slawinski and Bansal, 2017) with respect to the individuals and collectives involved in the fine cacao and chocolate value chain.

Thus so far, research has chosen to focus on an opposing element such as a short-term or long-term orientation, while understanding of interrelatedness between the opposing elements can lead to possible both/and approaches to manage sustainable concerns (Smith et al., 2016).

### **2.3.3 Trade-based Tensions and Choice**

Sustainable development requires a focus on time and its paradoxes as emergent research, being an “opportunity to address some of the most significant challenges facing organizations and society” Slawinski and Bansal (2017: 389). Smith and Lewis (2011: 389) describe how “the adaptive nature of systems spurs trade-based tensions associated with paradoxes of learning and organizing as the demands of today differ from the needs of tomorrow” and argue selecting amongst competing tensions leads to improved performance in the short-term rather than in the long-term. Since the goal to sustain is long-term, this compromises the system. Instead, competing tensions should aim to achieve multiple demands through continuous effort (Cameron, 1986; Lewis, 2000) while supporting a system to sustain in the long-term (Smith et al., 2016). Smith and Lewis (2011) propose a dynamic equilibrium model in which awareness of tensions are managed through acceptance rather than defensiveness.

**IMPORTANT** – Smith and Lewis (2011: 384) observe that “learning and performing spur tensions between building capabilities for the future while ensuring success in the present”. Slawinski and Bansal (2017: 388) suggest that “[t]he learning paradox emerges when organizations engage in change, renewal, and innovation. To create a new, competitive future, organizations must both build on the past and destroy the past”. In a similar way, Smith et al.

(2016: 6) suggest that “leaders must execute purposeful microshifts that enable growth and sustainability”.

In relation to this study, while demands are represented as a set of choice values such as either/or, and, both/and; it is possible that informants shifting to managing simultaneous demands may be more successful in dealing with tensions in the present and future.

Tension is experienced when the paradoxes become salient to the informants in their situation from different socially constructed positions on the problem. Hence, tensions become salient over time as actors accentuate differences over commonalities (Smith and Lewis, 2011). Slawinski and Bansal (2017) identify tensions that include, subjective versus objective existence of time, clock time versus event time, past versus present versus future orientations, short term versus long term, and fast versus slow. Slawinski and Bansal (2017: 386) state that “researchers have not explored the mechanisms that allow for trade-based tensions to be transcended”.

**IMPORTANT** – Researchers have not critically examined how actors are able to embrace multiple priorities in contrast to trading off one priority for another across time. Embracing multiple priorities may require coexisting solutions that are premised on dealing with both sides of the contradiction without emphasising one side over the other and that while being unlikely to optimise independently, the contradictory elements are beneficial for dealing with the trade-based tension. This aims to attain a solution or better fit between opposing elements or choice.

This perspective should enable actors to live and thrive with tensions through a process of acceptance and engagement (Lewis and Smith, 2014). In other words, instead of trying to satisfy one opposing element, it is best to satisfy both as best possible.

**IMPORTANT** – In line with the previous arguments, this study sets a focus on tensions that are able to transcend over time and are interrelated. As such, the focus is not on a trade-off or

either/or approach but rather on acceptance of the tensions, shifting from a dichotomous mindset to treating the tensions as both/and – simultaneously (Smith et al., 2016).

Moving away from abstraction and towards more concrete examples, informants' decisions may involve needing to simultaneously manage inherent tensions. The tensions persist across time and informants may engage with a set of choice values that are commonly associated with contradictory elements or poles (such as, north and south or young and old). Suggestively, informants exercise choice by favouring one pole over another, or managing choice by embarking on attaining value from both poles simultaneously.

An either/or choice adopts a dichotomous assumptions that knowledge operates in binary mode (such as, win or loose), resources engage competition (such as, zero-sum), and problem-solving reduces uncertainty (such as, lower risk). Either/or assumptions draw on preference for one pole over its opposite pole. While, a both/and choice exercises no preference of one pole over its opposite and attempts to gain value from both poles concurrently, such as holding multiple competing ideas for the creation of knowledge, holding resources as abundant, and, coping and adapting in problem-solving (Smith et al., 2016). Both/and approaches enable tensions to coexist, either/or choices do not eradicate the tensions, only releases a tension towards a preferred opposite. However, the same tension may resurface in time.

**IMPORTANT** – There is acknowledgement that decision-makers need to move beyond being derailed by the experience of tension and falling into the either/or trap, in order to seek creative responses that are both/and (Bansal, 2002; Gao and Bansal, 2013; Hahn et al., 2014). An organization's long-term success "requires continuous efforts to meet multiple, divergent demands" (Smith and Lewis, 2011: 381).

The evolution of a sustainable agenda across time has obliged businesses "to make intertemporal trade-offs to safeguard intergenerational equity" (Bansal and DesJardine, 2014:

70), accentuating a focus on the past, present, and future (Bluedorn, 2002). However, the resource debate questions whether a balance can be obtained, instead. A trade-off in itself is not equitable as actors give up something in exchange for another. This can be exemplified by Slawinski and Bansal (2017: 381) in addressing resource tensions as:

“... deforestation means not only fewer forestry products but also a build-up of carbon in the atmosphere. Yet, if current generations cannot feed themselves without removing forests for agricultural land, then important questions are raised as to whether the world's forests should be preserved for future generations that may never be born.”

The previous example raises questions of equity implications for practice. As natural resources are not in infinite supply since there are physical resource constraints, the experienced tension may not be reflective of actual practice and how informants deal with the tensions to achieve sustainable outcomes (e.g., implementing regulatory controls). In line with the argument, forests may not have to be removed in order for future generations to sustain themselves. For example, moral ethical and subjective social norms values may enable the creation of a social construction that is able to embrace concerns from both sides, such as preserving the forest for future generation while feeding current generations. When informants seek to integrate divergent demands, rather than ignore some in different time frames; the tension should enable individuals to manage ecological problems such as in the environmental, social and economic dimensions simultaneously, towards a whole system approach and not solely focused on solutions such as for profit maximisation (Hahn et al., 2010; Nijhof and Jeurissen, 2010).

Businesses ought to benefit economically through environmental and social programmes (Carroll and Shabana, 2010; Porter and Kramer, 2011a; Salzmann et al., 2005; Schreck, 2011). As an example, Paul Polman proposed the Unilever Sustainable Living Plan in 2010 with the purpose of increasing the business size by 2020, while at the same time improving the well-

being of one billion people and reducing environmental impact by fifty percent. This view led Polman to theorize that socio-environmental investments would yield an economic benefit. At first, this long-term polarized view resulted in execution challenges due to short-termism (such as, uncertainty and ambiguity) amongst senior leadership that did not believe in the potential of the both/and approach, and as consequence accelerating the competition for resources. This led Polman to make changes in the leadership of the business that accepted a both/and vision and eventually succeeding at balancing demands at a global and local scale by managing the interdependencies.

**IMPORTANT** – Smith and Lewis (2011: 391) argue that a “strategy of acceptance rather than defensiveness” is embraced for managing paradoxical tensions. Therefore, stating that a solution can be easily obtained by using a concept of shared value as suggested by Porter and Kramer (2011b) and adopted by decision-makers might undermine a reality of tensions that are faced by the informants when forming decisions, a deeper understanding of priorities should be assessed.

Sharma and Bansal (2017: 343) exemplify this through the work of Smith (2014) as “decision-makers may choose to primarily explore or exploit”, and whereby short-term profits could be compromised by too much exploring and long-term profits could be compromised by too much exploiting. The process of choosing one paradoxical element over another can lead to opposition intensification, choice reinforcement, and a negative loop that has limited outcomes (Sharma and Bansal, 2017). Lewis (2000) argues that actors that do not engage paradoxical tensions are entrapped by vicious cycles, as opposed to confronting the paradox and escaping paralysis.

The management of tensions create an exciting future for a politicised ecological agenda (Galt, 2013), and include perspectives such as the impact of policies and regulations (Damania et al.,

2003) for greater liberalisation of trade (Grossman, 1993) and the importance of overcoming the separation between humanity and the physical world (Barry, 2012; Dobson, 2012).

#### **2.3.4 Trade-based Tensions in Agroforestry Decisions**

Slawinski and Bansal (2017) argue that research should focus on temporal perspectives at the organizational and individual levels. While it is important to consider the collective decision-making process, sustainable outcomes are not attained by the effort of an individual (Cato et al., 2008; Dean and McMullen, 2007). Traditionally at the individual level of analysis, temporal research has mostly focused on the cognitive biases that shape the individual behaviours that are inclusive of decision-making (Fraisse, 1963; Klineberg, 1968; Strathman et al., 1994; Zimbardo and Boyd, 1999) and “[a] paradox lens has the potential to inform time research, and likewise, time research can also shed light on paradox research” (Slawinski and Bansal, 2017: 386).

Lewis and Smith (2014: 134) argue that the underlying assumptions of tensions and the social construction of paradoxes dramatically shifts research expectations, and from a paradox perspective, this emphasises that “a holistic understanding of tensions and cognitive and social influences on decision making” is required. Lewis and Smith (2014: 143) posit that while traditional “theory assumes that scientific processes can uncover truth, and that our prescriptions for managers emanate from these truths”; paradox “assumes that understandings emerge over time, created from the juxtaposition of opposing forces and focused via actors cognitions and social constructions”. Beck (2006) posits that business leaders should be more conscious of community responsibilities. Although, studies that link conscious orientation and environmentalism are nascent, application in practice is encouraged (Delina and Janetos, 2018; Leung et al., 2015). Business leaders should be more “aware of the pressing problems in the world, care for the needs of others, and in particular for the distant needy, aspire to make this

world a better place and act in word and deed as global and responsible citizens” (Maak and Pless, 2009: 538). These type of actors as a generation of leaders are presumed to engage paradoxes working through the anxiety that is related to contradictions (Smith and Lewis, 2011). Sharma and Bansal (2017: 343) suggest that “[a]ctors that engage paradoxes see beyond the contradictions, accept their persistence, and identify interdependencies” and “create outcomes that are enduring and expansive”. This is particularly salient in paradoxes that are inherent in innovation (Andriopoulos and Lewis, 2009; Jay, 2013), creativity (Miron-Spektor et al., 2011), and social issues (Slawinski and Bansal, 2017).

**IMPORTANT** – In a globalised environment, organizations and decision-makers face increasing requirements in order to thrive by exploring and exploiting (Andriopoulos and Lewis, 2009; Smith and Tushman, 2005), attaining economic and social performance (Margolis and Walsh, 2003), and while at the same time achieving local and global needs (Marquis and Battilana, 2009) to adapt over time (Smith et al., 2016). This requires addressing competing demands and contradictory priorities that create tensions and need to be addressed simultaneously (Lewis and Smith, 2014) to attain sustainable outcomes (Quinn and Cameron, 1988; Smith and Berg, 1997).

In order to gain a deeper understanding of the priorities, relationships, and contradictions in politicised-ecological theoretical area, SESMAD (2017) suggests several specific theories applicable to forestry, inclusive of cacao plantations that lead to concerns in the areas of local livelihoods and protected areas, and marginalization and degradation. Together these provide insight into important competing priorities and local influences specifically related to producers and being central to overcoming the separation between the human and physical world (Barry, 2014). As an example, in managing cacao plantations (such as, authority of producer to increase

land production; human resources and skills available for cultivating land; livelihood conditions).

In regards to local livelihoods and protected areas, the paradoxical tensions of attaining ecological sustainable outcomes and resource utility becomes salient for producers that aim to improve livelihoods, a critical point for how policy makers design and manage policy decisions. Rural communities in the developing world consider economic, social, and political benefits as important (e.g., equality, fairness in the distribution of benefits, and empowerment; Berkes, 2004), a “key element” for improving livelihoods and “understanding of social-ecological interactions is required for furthering interdisciplinary conservation” (Chambers, 1983: 11), shifts in ecology, and human interaction (Berkes, 2004). Addressing issues of poverty, equality, and empowerment (UNDP, 2015, 2016) lead to an ecology guided by livelihoods. Local agricultural systems can undergo over-exploitation of resources, poverty, marginalisation, and loss of diversity as a result of integration into regional or global markets (Garnett, 2013; UNDP, 2015), being particularly common in the trade system due to cacao exports. This results in demands on marginal productivity and cyclical social vulnerability which largely contradicts any concept of human progress (Ehrenfeld, 2008a).

In regards to marginalization and degradation, Dhakal et al. (2012) demonstrate that agroforestry systems significantly vary in terms of factors (e.g., farm size; tree species; tree density; cropping intensity; input usage; labour force). The specific agricultural ecologies are influenced by decisions made by the producer, inclusive of choices and strategies (e.g., labour, technology, scale, diversity of economies). The former is further influenced by regional and international politics and economics such as, commodity prices, transportation costs, and cooperatives (Robbins et al., 2015).



Regulative actions of the ecology and economy have affected market perspectives, where the economic benefits are highest at the peak of product hierarchies closer to the consumer, and ecological benefits are lower in the hierarchy between production and nature (Kurppa, 2016). Such externalities lead to destruction or spoilt environmental areas, and implies an inefficient regulatory process (Kurppa, 2016: 295-296) which as a result could be exploited for greater economic benefits by extreme forms of capitalism, affecting producers livelihoods at the expense of the natural systems that support it. Thus, it is not uncommon to witness events of land abandonment due to the degradation of resources.

Governments attempt to preserve resources through aggregation (e.g., land purchase; regulation; Acheson, 2006), although governments can fail in maintaining resources. This is exemplified by developing countries losing forestry (Ascher, 1995). Government failure is failure at the expense of the public as a whole (Acheson, 2006). This is characterized by pressures from certain groups in pursue of self-interest, and colonization of government bureaus to promote specific group interests (Baland and Platteau, 2000; Bickers and Williams, 2001). For example, businesses absorbing local cacao production in bulk and cooperative forces competing with independent cacao producers. Other authors argue that government failure is the result of bureaucratic incentives (e.g., agency cooperation), including the management of asymmetrical information within the hierarchy (e.g., inefficiency; complaisance), and science and engineering (e.g., reforestation efforts; ignoring cultural characteristics; Acheson, 2006). Despite the former, an adequate explanation does not exist for resource management policy failure (Shleifer and Vishny, 2002).

**IMPORTANT** – Linking the discussion towards sustainable outcomes, short-term and long-term outcome differences have been exemplified in the paradox of intertemporal choice (Laverty, 1996; Reinecke and Ansari, 2017). As such, paradoxical tensions deal with short-

versus long-term success, and, where tensions are exploited in the short-term requiring processes in the longer-term for the generation of future opportunities (Garud et al., 2011). Kunisch et al. (2017: 1049) suggest that “perhaps one does not need to be cast against the other”, rather manage the tensions simultaneously.

### **2.3.5 Summary**

The competing logics in hybrid organizations enable a space for paradoxes to operate within. Operating paradoxically allows actors to move from a position of limited choice to gaining control of where and how much attention is placed to meet simultaneous priorities. This study may provide a taxonomy of paradoxes that emerges from the priorities of the informants.

Despite trade-based tensions being central in the paradox literature. Trade-based tensions lack exploration and could guide sustainable development research to understand how temporalities affect decisions across the relationship.

Decision-makers appear to experience tensions that arise from business growth, including economic and social performance. Actors are faced with competing demands and tensions to achieve sustainable growth. This study can surface salient trade-based tensions and through analysis as an extension, system tensions having both/and perspectives.

Within the context of sustainable development, this study focuses on understanding of how informants manage trade-based tensions and as such, examines the tensions and paradoxes that affect the way informants in the value chain manage simultaneous priorities. Applied within the specific context of the cacao and chocolate value chain, this study would also answer the call for further examinations in agroforestry systems (Robbins et al., 2015) through collaborative approaches that arise from closer relationships in contrast to the conventional trade system where relationships are more distant.

## **2.4 Contextual Influences on Decisions in Agroforestry**

This study seeks to understand in what ways the tensions experienced by the actors influence the sustainable development priorities in the fine cacao and chocolate value chain. The understanding should enable a deeper examination of the informants' priorities and choices across time. Decisions are polarized by the actors in the value chain with constant flux that deal with competing and multi-dimensional requirements.

### **2.4.1 Introduction**

Literature reviews have examined ecological decision theories addressing society and the environment. However, these theories exhibit knowledge gaps in the area of ecology. Empirical research in agroforestry and particularly in the cacao value chain is required (Haynes et al., 2012; Robbins et al., 2015). The globalization of trade has defocused economic and ecological priorities in localized or place-based subsystems. Political influence and decisions based on poor science (such as, misguided information to manage ecological priorities in communities) may lead to policy failure (Acheson, 2006) in the long-term that appear to be more salient upstream in the value chain (e.g., closer to the producers).

### **2.4.2 Contextualized Trade-based tensions in Alternative Trade Networks**

In a disintermediated value chain, trade-based tensions are accentuated from closer relationships. This arises from a process of actors interacting with one another and having different priorities. This polarized view could be exemplified by the informants that are closer to the environment (such as cacao producers) and the informants closer to the consumers at the retail level (such as, the chocolate maker). At the various levels of the value chain, informants deal with decisions between priorities, such as economic versus environmental, social versus environmental, or social versus economic. While producers may have little to gain,

economically, environmentally their livelihood depends on the future capacity to cultivate marketable products, and socially, the continuity of that activity depends on a living wage. In contrast, those closer to consumers have more to gain from advocating environmental protection, and can gain economic advantage from the distinctive nature of their brand, but have less interest in future social consequences. This view when placed under a paradox lens enables the description of tensions between informants at different levels, since the producers need a healthy environment to grow cacao, yet perhaps some producers have very low economic returns when protecting it. Similarly, consumers want healthy products that advocate for ecological practices; however, some may not be willing to pay higher retail prices to support ecological initiatives.

**IMPORTANT** – As such, van der Byl and Slawinski (2015: 57) “observed a limited number of empirical studies that examine tensions using an integrative or paradox lens” moving away from a trade-off approach towards embracing the tensions.

Lewis (2000: 762) suggests that “most actors accentuate contradictions by interpreting data (e.g., their own and others feelings, organizational practices, environmental cues) through simple, bipolar concepts, constructing logical, internally consistent sets of abstractions that separate opposites”. Past paradox literature assumed a divide in paradoxes to be either social constructions or social realities. In a study of Business and NGOs for empowering women out of poverty by commercializing scent sticks, Sharma and Bansal (2017: 342) argue that the manager’s “ontological position affected their ability to engage the commercial–social paradox” by perceiving different managerial cognitions and actions related to the project and not seeking solutions. When faced with a contradiction, certain actors in the trade system can ignore what is important to others, and take action that creates the social reality for all encompassing actors including themselves. The work conducted by Sharma and Bansal (2017:

343) determined that the actors were “paralysed by the opposing characteristics, actors are either stuck in one or ignore the relative positions of the opposing elements, and simply choose one of the two opposing elements”. In relation to this study, if a chocolate crafter does not understand the day-to-day urgency of certain needs or chooses to ignore the historical social constraints of the producer’s decision, then, the chocolate crafter’s actions in negotiating prices will only consider their own social reality and not that of the producers. However, research on alternative (Goodman et al., 2013; Tregear, 2011), and disintermediated food networks (Moragues-Faus and Marsden, 2017), claim the role of a development agent (Blowfield and Dolan, 2010) with a primary role of resolving trade-based tensions. In other words, organizations that act as agents to encourage development (such as, alternative trade networks with the intent of brining producers out of poverty) advocate for liberalized trading systems, but in fact add complexity to the system by increasing the number of levels and making tensions less salient by extending the relationships in the value chain. These organizations that act as agents have led to the umbrella of certifications (such as Fair-Trade; Rainforest Alliance) supported by consumerism towards sustainable development (Evans and Mylan, 2019); which in-turn, may further contribute to re-enforcing the limits of a capitalist system, through the greater use of resources, the exclusion of vulnerable producers and further labour exploitation (Blowfield and Dolan, 2010; Goodman, 2004). Similarly, accelerated use of resources can be exemplified by the Jevons paradox for which improvement in technology increases resource use efficiencies (such as human and physical world resources), leading to an increased rate of consumption due to greater demand (Alcott, 2005). The Jevons paradox ultimately leads to the degradation of resources. The best attempts to resolve resource based paradoxes have unintended consequences, as they result in further degradation of resources. From an ecological perspective, exploitation of natural resources in the short-term, ought to undermine the ability

to regenerate the same resources in the long-term. This compromises the natural resources that should be available for future generations as exemplified through the work of Slawinski and Bansal (2017: 381).

In this study, consideration should be given at the various stages of the value chain as informants attempt to reconcile competing priorities at different levels (e.g., crafter may choose to source from specific producers with limited production output). As discussed in the previous section of *Paradox and Trade-based tensions in Sustainable Development*, considering a descriptive perspective (Hahn et al., 2018) may enhance the understanding of how informants engage choices to manage priorities across time.

**IMPORTANT** –While informants engage in making choices, the challenges they face when dealing with complex issues can be due to limited knowledge or experience. For example, producers that are not fully informed on crop selection implications, may choose to plant genetically modified cacao tree species as a way to increase production output instead of keeping native tree species that may produce a similar production output with proper care.

Expanding on the previous example, genetically modified cacao provides two harvest per year in contrast to native species which provides cacao throughout the year. Within the producer' community, temporal differences as a producer may affect the flow of activities. For example, differences in the start and end of harvest cycles. In one location producers who grow native species operate on a different time cycle than producers that plan for two harvests per year. The result is that within one community, there are two approaches to the supply of product. The economic and social consequences of these temporal rhythms create different priorities in the choices each group has to make (Mainemelis, 2001).

### **2.4.3 Ecological Priorities and the Political-economy in Agroforestry**

Fine cacao is not only a cultivar with the most social impact, it is also a cultivar that promotes biodiversity of flora and fauna (González, 2017; Ruales, 2013). The priorities and choice of the producers can affect biodiversity and the local ecosystems. Agricultural practices influence ecology and therefore biodiversity. For example, while simplified planted agroforestry harbours important habitat for migratory birds (Greenberg et al., 2000); this supports biodiversity poorly, compared to a rustic plantation. The latter is characterized by cultivation beneath native forestry (e.g., Reserva Zorzal or the Bicknell's Thrush Reserve in Dominican Republic; Robbins et al., 2015), creating an ecology that supports both the migratory and the local biodiversity process. Dhakal et al. (2012) demonstrate that agroforestry systems significantly vary in terms of factors (such as, farm size; tree species; tree density; cropping intensity; input usage; labour force).

**IMPORTANT** – The specific agricultural ecologies are influenced by producer's choices in multiple areas (such as, labour, technology, scale, diversity of household economies), and the previous is further influenced by regional and international politics and economics such as premiums, transportation costs, and cooperatives fees (Robbins et al., 2015).

Local agricultural systems can undergo over-exploitation of resources as a result of integration into regional or global markets (such as, increases in poverty and social marginalisation, high dependence state, poorly productive resources, poor biodiversity, and cyclical over-exploitation). This results in demands on marginal productivity and increases social vulnerability.

Place-based struggles link the environment, culture, and economy. The literature has placed much attention in the global economy in contrast with issues that arise in local economies. While more attention is required in placed-based concerns, there is also lack of theoretical or

empirical evidence of linkages and outcomes “traced from commodity economies through agroforestry practices, to diversity outcomes” (Robbins et al., 2015: 77).

Political-economy research is linked to maintaining extensive and complex production systems as well as human livelihoods; however, “political-economic explorations have under[-]examined labo[u]r markets and non[-]state institutional impacts on decision-making” (Robbins et al., 2015: 83).

**IMPORTANT** – Research that documents traditional schemes and how this fails to maintain livelihoods has been documented consistently (Mutersbaugh, 2002); while agroecology and biodiversity studies rarely account for studies dealing with decisions (Robbins et al., 2015), alternative trade systems have not focused on how incentives influence producer’s decisions.

The drivers of producer’ decisions toward intensity (increasing land production over time) are numerous (such as, insecurity over tree tenure; shade intolerant hybrid crops; increased cost of production to maintain canopy cover; migration); a rigorous assessment of producer’ decisions are required linked to how informants deal with the ecological priorities. On the other hand, crafters may face trade-based tensions that are experienced within and outside of the local context. While some tensions are directly related to crafters which may have an effect on business, other external tensions may or may not have business implications.

#### **2.4.4 Agricultural Systems and Livelihood Implications for Producers**

As already stated, it may be important to understand how informants attempt to manage priorities that lead to long-term benefits in the future rather than priority trade-offs that while may seem rational in the present may lead to short-term outcomes. Robbins et al. (2015) suggest that decision-making impacts are under-examined in practice. Uncertainty and shifts in ecology create issues of equality, social justice, and values where knowledge gaps affecting socio-economic and environmental outcomes include linkages to social impacts and influences



(Oldekop et al., 2016). Berkes (2004: 623) posits that “analysis by the conventional, rational approach of defining the problem, collecting data, analysing data, and making decisions based on the results” are ineffective. In other words, changes in the environmental conditions creates implications for social life. Thus, the writer theorizes that this may affect the balance of equality within society, rendering past approaches for solving problems obsolete as the environment changes over time and attention shifts towards the present time (Mainemelis, 2001).

**IMPORTANT** – In other words, analysis is too slow and by the time a response is provided in practice, social implications are created which primarily affect the rural producers as they are closer to the land and dependent on the environment. As such, producers have less power to defend against globalisation, yet more need for fair distribution of returns and empowerment, with particular interest in the “economic, ecological, and cultural difference that their landscapes, cultures and economies embody in relation to those of more dominant sectors of society” (Escobar, 2006: 32).

Rural communities in developing nations consider economic, social, and political benefits as being important (e.g., equality, fairness in the distribution of benefits, and empowerment; Berkes, 2004). Therefore, understanding the ecological shifts (Ancona, Goodman et al., 2001) and interaction between humans and the natural systems (Berkes, 2004) could address issues of equality and empowerment and lead to an ecology guided by livelihoods (Chambers, 1983). Holmes (2013) advocates supporting local livelihoods as part of sustainable development, yet it is under-examined in the literature. Barry (2014: 156) posits that “injustice not justice characterises the world” and people engage in struggles to defend their livelihoods against a globalized capitalism, and against economic, ecological, and cultural aspects (Escobar, 2006). This characterizes the small producer’s struggles with local livelihoods and protected areas and marginalization and degradation.

Most producers, often managing cacao plantations face a variety of priorities, for example, managing with or without canopy cover, and other related factors (e.g., authority of producer to increase land production; human resources and skills available for cultivating land; livelihood conditions). Often, these decisions require producers to choose and prioritize well in advance. Informants may consider a combination of temporalities (e.g., past; present; future) in order to make sense of a salient-future (Das, 2004). Extending the body of theory requires recognition that universal solutions for resource management are non-existent (Acheson, 2006). Resource exploitation can arise independent of whether resource management succeeds or fails; however, decisions can be influenced by poor science and affect rural communities. In order to manage economic and ecological resources effectively a shared responsibility between government and industry business leaders is required.

#### **2.4.5 Government Policy and Market Influence**

Government initiatives are generally dependent on market partnerships for the benefit of the public. However, government failure is failure at the expense of the public as a whole (Acheson, 2006). This is characterized by pressures from certain groups in pursue of self-interest (e.g., large corporations; cooperatives) and, colonization of government bureaus to promote specific group interests, namely corruption. Others argue that government failure is the result of bureaucratic incentives (e.g., agency; cooperation), including the management of asymmetrical information within the hierarchy such as inefficiency and complaisance (Acheson, 2006). It appears that policy is moving away from ecological initiatives to justify economic gains.

Although a large literature exists in government failure, there is no adequate explanation for resource management policy failure. Some failure can be characterized by politicians pursuing personal agendas and corruption in developing nations. In particular, “oppressed and repressed by the autocratic leaders and kleptocratic civil and military officers of those countries” (Baland

and Platteau, 2000: x). Acheson (2006) argues that government failure in some cases stems from the problems of science and engineering such as, reforestation efforts with non-native species, irrigation project mismanagement, inadequate allocation of monetary funds, lack of communication with local communities, and fixed focus on technical and scientific matters while ignoring cultural characteristics.

**IMPORTANT** – In relation to this study, scientific market partners appeared to have lobbied government agencies for the introduction of a cloned (CCN-51) species which has led to demoting the popularity of native and fine cacao species (Ruales, 2013). CCN-51 claims to be more drought and insect resistant, containing higher fat content, and bland flavour.

Scientific institutions claim that the cloned specie provides higher production output than the native species. The cloned specie is considered an ordinary cacao commanding lower price premiums in the market. In addition, cloned species are planted as monocrop (single crop farming). The previous alludes to contradictory practices that do not support biodiversity concerns nor improvement of livelihoods. Hence, this exemplifies resource management failure at the expense of the public.

**IMPORTANT** – Ecological and economic tensions arising from regulatory action may have affected the perspective of informants in the market by creating greater economic benefits downstream in the value chain and low ecological benefits upwards in the value chain. Thus, accentuating the tensions, and, the creation of uncertainty and ambiguity on how informants balance the priorities for making decisions.

Arguably, during the last four hundred years the cacao market has undergone a commoditisation of labour through time. Marx believed that labour was being commoditised where “labo[u]r, as a function of time, could be bought and sold” (Bluedorn and Denhardt, 1988: 302). The time invested became increasingly more important than the involvement of the worker. Since time

could be quantified as “time is money” (Bluedorn and Denhardt, 1988: 302), this created an increasing separation between the worker and the product, resulting in part, to a perceived alienation in an industrialized society (Blauner, 1964). Considering the above and in relation to this study, it is difficult to relate rebalancing of past alienation with present wages for producers estimated at \$0.50/day (Fountain and Hütz-Adams, 2015: 41) being below the international poverty line of \$1.90/day established by the World Bank (Jolliffe and Prydz, 2016: 185). Arguably a solution to improving livelihoods and bringing producers out of poverty should not depend on repeating past events, rather a solution should incorporate lessons learned from past events in search of future solutions that are endogenized in the present issues being faced by a society.

#### **2.4.6 Alternative Trade Networks and Schemes**

Building on the discussion of countering commoditization, alternative trade schemes attempt to lessen poverty and improve livelihoods. Although alternative trade schemes are well received in the sustainable community (Melo and Hollander, 2013), the current situation is concerning by differences from the intent and purpose of the schemes. Alternative trade schemes attempt to reconcile economic and ecological differences principled on equality and fairness along trade systems.

In contrast to businesses that operate under certification banners, emergent sustainable business models such as direct-trade used by Hummingbird Chocolate Maker (2018a) and Theo Chocolate (2018b), reach beyond economic guarantees which include an economic, social and environmental orientation. These models are focused on improving the livelihoods of smaller producers by enabling a more democratic and liberalized form of market access to bring producers out of poverty (Page and Slater, 2003). Alternative and disintermediated networks,

bypass levels along the conventional trade system by reducing the number of actors involved in the trading process.

In the value chain, producers and crafters are constrained by the “asymmetrical north/south geography of production and consumption” (Melo and Hollander, 2013: 252). Ehrenfeld (2008a) argues that businesses have overridden societal concerns by the motivation of profit. Historically, the complex discussion that relates “economic objectives and societal constraints is often neglected [...]”, and contributions are “[...] reduced to a plea for free trade economics” (Gonin, 2015: 221). In other words, negative social consequences cannot be justified by economic arguments.

**IMPORTANT** – Alternative trade networks such as direct-trade have attempted to bridge the gap between improving local livelihoods for producers through better economic returns while at the same time providing a contribution to the environment and society.

While improving sustainable development performance in trade systems is nascent among scholars and practitioners (Venkatraman and Nayak, 2015), this may require investments resulting in consumer price increases due to operational costs, and potentially becoming an economic barrier to businesses and the system as a whole (Schiefer and Deiters, 2015). Sheldon (2011: 536) argues that investment in ecology “[...] leads to environmental management being dragged down to the same operational only level, with strategic decisions taken on the basis of economic performance alone”.

#### **2.4.7 Summary**

Despite decades of academic work, an integrated analysis on biodiversity decisions remains outstanding (Robbins et al., 2015). There is an opportunity for this study to examine the priorities and choices of the informants by abandoning an economically driven paradigm without neglecting the economic and attaining a more balanced set of social and environmental,

and responsible values that are embraced by the informants in the cacao and chocolate value chain. Current research lacks focus from the choices that are made and greater attention to the social and environmental dimensions are required. These choices take place at multiple levels in an ecology. There is industry and government policy for managing natural resources, there are crafters making choices about where to source product, producers making choices about how to manage their livelihoods, and logistics providers who try to build connections between the crafters and the producers. The problem is that they all have different priorities and becomes challenging to co-ordinate as a whole system to generate economic and ecological value.

## **2.5 The Fine Cacao and Chocolate Value Chain**

A fine cacao and chocolate value chain can be characterized by a group of businesses responsible for managing processes and actors of luxury food products.

### **2.5.1 Introduction**

The literature encourages a value-generating system from farm to retail, that is integrated and enables ecologically sustainable outcomes (Evans and Mylan, 2019). The value chain includes two key components, agricultural food chain stages (farming, distributing, retailing), and a stakeholder value-generating process (e.g., environmental; social; economic).

Gladwin et al. (1995b: 875) advocates for an attempt to provide solutions to a “profound epistemological crisis: the conceptual division and resultant disassociation between humankind (and its organizations) and the remainder of the natural world”. Although organisational theories are “unable to address environmental discourse” (Shrivastava, 1994: 705), organizational research is unable to continue to ignore nature’s moral status (Shrivastava, 1994) and “social weakness at the expense of the world” (Porter and Kramer, 2011b: 1). This expense

is commonly exemplified by the conventional trade system' practices that are socially costly and neglect nature.

**IMPORTANT** – According to Haynes et al. (2012: 1470), the cacao and chocolate market presents rich opportunities for research addressing social and environmental aspects; however, two challenges makes researching the market difficult as: a) it is “structurally complex and geographically dispersed—spread among thousands of small growers, many consolidators and processors, across many countries”; b) “the industry is mostly calibrated to extremely large-scale production, at times rendering the field virtually impenetrable to [fieldwork access] smaller producers and participants in the value chain”.

### **2.5.2 Contextualized Influences in Cacao trade**

Studies in trade systems that take into account decisions upstream (e.g., closer to the producer) should be able to contribute to the sustainable development discussion.

Pongratz-Chander (2014) argues that most interpretations of the sustainable development debate encompass the two approaches of constrained economic growth and resource maintenance. While the constrained economic growth is focused on preserving the environment for further exploitation by humanity, this ultimately leads to sustained economic growth (Crane, 2012) rather than development, and “simply qualifies utility maximization by adding ecological considerations” (Bridger and Luloff, 1999: 378) through a set of rules of do's and don'ts by nations (Batie, 1989). The constrained economic growth approach is contradictory as growth in itself is limited by the earth's physical resources (Bridger and Luloff, 1999) and organizations are not able to survive without the ecosystems that supports them (Gladwin et al., 1995b). Some labour economists will disagree with the writer and suggest that it is human labour that maintains the ecosystem that humanity depends upon. Further, “the interpretation of sustainable development as a process of change that can be continued forever is neither possible nor trivial”

(Pongratz-Chander, 2014: 232). In contrast, the resource maintenance approach, namely bio-centric, aims to minimize the use of natural resources (Batie, 1989) and “attributes value to nature for its own sake, and does not permit its exploitation in pursuit of ever-increasing wealth” (Dickson, 2013: 74). Supporters of the resource maintenance approach argue that nature needs to be respected and not exploited, and that well-being and well-having are not the same (Ehrenfeld, 2008b; Sachs, 1989).

**IMPORTANT** – The maintenance resource approach does not attach economic value to resources and “launches a direct critique towards the current economic paradigm of neo-liberalism, based on the idea of maximization of growth, global competition, and global markets” (Pongratz-Chander, 2014: 232). It is an attempt to rethink the relationship between the human and physical world, “consumption patterns, and standards of living” (Bridger and Luloff, 1999: 379).

In addition, it “resonates with the rise of new understandings of environmental systems, technology, social organization, knowledge, values and their interplay. These new understandings reject the modern belief that these realms can be understood separately, that they do not interplay” (Norgaard, 1988: 614).

**IMPORTANT** – From an economic and social perspective, cacao production is a pillar that sustains numerous rural communities. Cacao is an engine for the ideal elimination of poverty in the south nations, that should promote human development, fair wages, quality of life, and empowerment of women and youth towards community leadership (UNDP, 2015).

In the cacao and chocolate trade system, producers harvest the cacao pods and then extract whole beans, the beans are fermented and then dried. The cacao beans are then processed for components such as cacao butter and cocoa solids or powder at local levels. Alternatively, whole cacao beans are exported from tropical climates in south nations for further processing



of cacao components or cacao products in pure form. Ultimately, whole beans or components are traded with chocolate crafters and the confectionary segment internationally, namely the north nations.

In international markets, ordinary cacao mixed with fine flavour with aroma cacao is mostly traded as a commodity and is subject to market pricing volatility. The economic shifts influence how actors prioritize resources in the value chain. Shifts lead actors to throttle good practices by lower standards, in contrast to creating value in the trade system.

In the value chain, chocolate crafters are key actors for the success of the networks. Small producers are focused on harvesting cacao in biodiverse environments with specific qualities that denote aromas and flavours (such as, distinctive characteristics that resemble notes of flowers, fruits and herbs) and in limited quantities per harvest. While the cacao chain is claimed as a catalyst for sustainable development (Syahrudin, 2012) as it promotes the resource maintenance approach; agroforestry systems have varying factors that affect the producer's priorities, choice, and decisions. These include socio-ecological and economic factors that may affect livelihoods and degradation of resources. Requiring an examination of the tensions for the management of priorities and decisions by the informants that form an integrated approach in the alternative trade system.

Alternative trade networks aim to shape how businesses reciprocate the concept of values towards small producers and societies. However, these have not focused on how decisions from producers influences farm-scale ecosystems structures or biodiversity impact and outcomes.

**IMPORTANT** – Some political ecologists claim that the aim of the alternative trade networks is to de-commodify food and agriculture (Hinrichs, 2000; Pimbert et al., 2001). While this view fits the context of this study, the writer argues that the debate to de-commodify food is not attributed to an economic movement; rather, product that can be differentiated (such as, having

higher quality characteristics) should not be subject to commodity market pricing. In relation to this study, the writer argues that cacao that is categorized as having fine flavour and aroma is not the same as ordinary cacao and should not be treated as a standard commodity. There is an added value that should be recognized, for the benefit of the producers that grow and harvest it.

The cacao trade has not only experienced environmental degradation, it has been plagued with other issues since its commercialization in the 1600's. This includes slavery (Food Australia, 2015), child labour, human trafficking (Myers, 2018; Responsible Cocoa, 2010) to name several. All affecting livelihoods of the people who depend on the cacao market for basic human survival. Policy failure through international agreements such as the Harkin and Engel (2010) protocol, has thus so far been unable to provide livelihood guarantees for small producers and their communities.

At one end of the cacao trade system Fountain and Hütz-Adams (2015: 6) state that:

“[F]armers live in destitute poverty. There are various reasons for this; low and fluctuating cocoa [as known in international markets or cacao] prices, lack of farmer organisation and market power, the small size of farms, uncertainty of land tenure, sharecropping, low productivity, lack of infrastructure and access to market and market information.”

While at the other end of the trade system, crafters may experience economic and product sourcing implications to meet the business requirements (such as, cultural, logistical access, market forces). Crafters may also immerse themselves within the social circles and lives of producers and experience further implications that are related to a distant environmental, social, and economic aspects. Haynes et al. (2012: 1468) suggest that while alternative networks have

challenges, there is a need to “continuing push to expand the role of environmental sustainability and social equity in trade, including in the cocoa trade”.

### **2.5.3 Direct-trade as an Alternative Practice**

In this study, the concept of alternative trade networks is taken further by introduction of a direct-trade model that can be illustrated by a direct relationship between the producers and crafters in the value chain. This enables a focused product sourcing approach in practice for the actors involved and the reduction of the levels in the value chain. This model is in contrast to networks that are known as conventional or operate under certification schemes.

In cacao trade markets, businesses that have adopted direct-trade practice have demonstrated some capabilities in bringing small producers out of poverty and improving livelihoods (Gilmour, 2018; Theo Chocolate, 2018a). This type of business model operates on bringing to market products by the producers in south nations for greater than fair-market price, that are, ethically produced and meet sustainable outcomes. Products are generally of high-quality and supported by various consumers in north nations.

The direct-trade business model redefines value and economic growth. Independent chocolate crafters source cacao beans directly from producers located in south nations and provide producers greater than commodity market premiums for the product. As such, many more crafters and producers are expected to adopt this model and take it further (Naptra, 2015). For example, by sourcing ingredients from the same producers (such as, cane sugar; vanilla). This practice is in contrast to the conventional trade system (such as, extended through cooperatives, grinders and roasters), and aims at improving producers’ livelihood and communities without the need of certifications schemes.

The direct-trade model shortens the cacao and chocolate trade network (e.g., allowing producers to trade product with crafters and retailers directly or with a closer relationship) in an alternative

and disintermediated chain, in comparison to the conventional trade system. Hence, eliminating middle men, by rendering any event regularity linked with intermediaries irrelevant (Lawson, 1997). This achieves a more democratized trade system (Moragues-Faus, 2017). Presumably, a closer relationship between the crafters and producers should create benefits beyond a monetary purpose that aim to balance the social and environmental aspects to achieve sustainable outcomes.

Alternative trade structures have been in existence since the 1980s which began by a small group of indigenous coffee growers supplying product to Germany and Netherlands as a result of a trade system circumvention by NGOs and developing world producers that advocated towards more responsible and ethical practices. However, disintermediation has its roots in the counterculture movement of the 1960s brought together by a group of socially conscious consumers (Choudhury, 2011; Wright and Nyberg, 2017).

A direct-trade and disintermediated value chain has implications in contrast to the conventional trade system. These implications extend beyond the activities (e.g., production; processing; distribution) of the network. The direct-trade model, may operate with a small number of actors along the trade network. These actors operate independently, through cooperatives or groups with a focus on relationships. Initiatives are supported by consumers. Economic benefits are shifted towards the producers in order to improve socio-economic and environmental benefits (such as, livelihood and natural resource conservation). Hence, supporting the culture and tradition of the producers upstream in the value chain.

#### **2.5.4 Summary**

There is an opportunity for higher-quality cacao to become an exemplar for sustainable development by contributing to a trading process that aims to sustain, including, the improvement of livelihoods of producers in the value chain. While at the same time, providing

crafters, sourcing guarantees within a more liberalized and democratic trade system. As a disintermediated and higher value chain, this provides an opportunity for addressing the present and future (intertemporal) challenges simultaneously.

While studies have researched cacao production, “few have examined the supply chain and how it can contribute to enhanced trade and mutual market benefits to producers in Central America and consumers in North America... [inclusive of] social and environmental benefits” (Haynes et al., 2012: 1468).

The examination of choices and decision from the informants in this study can contribute to the knowledge production that influence components of Central and South American Trade Agreements.

## **2.6 Sensemaking in the Disintermediated Value Chain**

In the context of this study, it is important to understand how sensemaking and the closer relationships in networks (such as, between crafter and producer) provide a springboard for the construction of solutions for sustainable outcomes, and how the priorities are balanced or reconciled. As per Weick (1995: 69) sensemaking is a construct that enables understanding through the perspectives of accounts.

### **2.6.1 Introduction**

While some scholars regard sensemaking as a cognitive process that is isolated to the individual being, others argue that sensemaking is a social construction process that is enacted through human interaction. Balancing the various viewpoints, sensemaking is framed within the cognitive and social processes, and defined as: a process that is triggered by an interruption that violates expectations, creating meaning and generating a response that cyclically re-frames

base-line expectations (Granqvist and Gustafsson, 2016; Jansen and Shipp, 2019; Maitlis and Christianson, 2014).

### **2.6.2 Sensemaking as a Social Construction Process**

In relation to this study, it appears important to consider how producers and crafters engage a process of choice based on priorities. This process may be influenced by the closer relationships along the value chain. Hence, re-framing initial expectations on priorities. This suggests that collective influence may lead to re-framing cyclically.

From the social constructionist perspective, sensemaking is rooted in symbolic interactions whereby, “sensemaking occurs and can be studied in the discourses of social members—the intersubjective social world—rather than simply occurring in their minds” (Gephart, 1993: 1470). Sensemaking examines accounts based on “conversational and social practices (methods) through which the members of a society socially construct a sense of shared meanings for that society and its institutions” (Gephart, 1993: 1469) such as, through the examination of the use of language (Sonenshein, 2006; Taylor and Robichaud, 2004) and narratives (Brown et al., 2008; Patriotta, 2003). Maitlis and Christianson (2014) suggest that while accounts may be co-constructions; this does not imply the existence of agreement in meaning among actors using a collective perspective.

Within the organizational literature sensemaking examines how sense is made in and across businesses (Clark and Geppert, 2011; Cornelissen, 2012; Monin et al., 2013; Navis and Glynn, 2011; Rudolph et al., 2009; Sonenshein, 2007; Whiteman and Cooper, 2011). Rerup and Feldman (2011) and Sonenshein (2010) have contributed to the sensemaking literature by incorporating decision processes in organizational change, other studies have explored environmental issues (Meyer, 1982; Milliken, 1990).

### **2.6.3 Sensemaking Implications**

In relation to this study, each of the informants should make sense of the other's situation through their interactions. While sensemaking could lead to looser relationships if it is divergent, within this study it can allow for the pairing of closer relationships in the value chain. These relationships are comprised of two or more informants that are dominant agents who have close relationships with both cacao producers and the crafters that engage in repetitive cycles of interactions along the trade relationship.

**IMPORTANT** – Informants may be able to leverage a process of sensemaking to guide decisions that are based on experience. For example, in contrast to producers, while crafters are not fully immersed in agricultural practices such as caring for trees; crafters may be able to utilize their exposure in a local context to construct solutions to problems and guide decisions in practice. The tensions experienced in a local context could be further supported by the relationship and communication between the two types of informants. In other words, the informant's experience and knowledge become collaborative in a process that is made possible by disintermediation in trade and closing the relationship gaps between the opposing ends of the trade network.

Some authors suggest that actor's sensemaking triggers may become buffered by collective practices and beliefs (Maitlis and Christianson, 2014) and dependant on the collective orientation of actors, these may either experience or not, a threat to their identity. For example, crafters may make sense of being part of a certain sector or movement (such as, bean-to-bar) while the crafters' actual practices may contradict the orientation. These contradictions in orientation may arise from limitations, market trends or cultural practices that collectively affect the individual. In addition, through the work of González (2017) and Ruales (2013) specific to cacao of fine flavour and aroma, Costa Rican agricultural initiatives suggest that ancestry of the

local trees is of importance to maintain quality and for gaining recognition at the world stage. Meanwhile, in Ecuador the ancestry of the cacao trees has been linked to the cultural identity as argued by the work of Valdez (2019: 127):

“... lo que se debe resaltar es que desde épocas prehispánicas el cacao ha estado inmerso en los saberes, usos y tradiciones de la identidad de los pueblos campesinos que hoy conforman el Ecuador [... what needs to be highlighted is that since pre-Hispanic times, the cacao has been immersed in the knowing, uses and identity of traditions of the peasant villages that today make up Ecuador...]”.

While (González, 2017) outlines a rehabilitation program for ancestral cacao trees in Costa Rica, making sense or lack of it remains to be established since Costa Rica's cultural identity is also embedded in the traditions of cacao. As Haynes et al. (2012: 1472) states “[a] significant proportion of the cocoa produced in Costa Rica is grown by the Cabecar and Bribri indigenous peoples”.

**IMPORTANT** – The previous linkages to ancestry suggests that culture and tradition could be deep rooted in the informant's ways of living, and perhaps influence how the informants make sense of the economic and ecological priorities, manage tensions, and across time contribute to the case for sustainable development. In other words, the old ways are better for sustainable development but the producers may neglect their old ways in favour of economic priorities.

Empirical studies appear to be scarce or non-existent within the context of the trade system that address the influence of trade-based tensions for sustainable development in network relationships. More critically, studies that address in what ways does relational sense making support sustainable development in the value chain could contribute to supporting government and industry initiatives.



#### **2.6.4 Sensemaking in the Context of Alternative Trade**

Making sense is also experienced by other stakeholders in the market (such as, investors) which hold the business accountable that for example, may perceive a threat to the business's image. Haynes et al. (2012: 1481) illustrate sense making through the use of a retailer making choices of purchasing chocolate with certification schemes:

“They’re bottom line driven; we doubt that they really care about the rest of the supply chain. So we see the third party certifications, both Fairtrade and organic, as an added assurance when we don’t necessarily trust their motivations... When we’re dealing with big companies, we’ve got to rely on the certification. When we’re dealing with smaller companies, we get to ask those important questions and get to a level of comfort”

In the above statement the retailer uses different perspectives to makes sense by contrasting lived experience and drawing a path that casts a process for choice in the selection of chocolate suppliers. The previous example alludes to choice being influenced by the extent of the relationships. Tentatively, as trade networks become more disintermediated, greater emphasis is placed on how informants may interpret situations and manage priorities with sustainable development in mind.

Using a comparative case study Day and Lord (1992) examined two distinct groups of actors to understand the actor's sensemaking when faced with business problems. While these actors had non-related specific market experience, the study suggests that when actors had prior knowledge related to the business, they were able to make better sense of the business risks and returns than actors without prior knowledge. Hence, actors were able to utilize their experience more efficiently in order to guide decisions. In other words, the more knowledge an actor has, the better able the actor make sense of business risk. Therefore, decision could be moderated

by the type and distance of the relationship between the informants. For example, familiarity between crafters and producers and the cooperation between the informants.

In this study, closer relationships, as a cyclical process may lead informants to coordinated actions based on collective sensemaking.

### **2.6.5 Sensemaking and Temporality**

Various scholars have taken distinctive viewpoints on whether sensemaking has a temporal orientation and what characterizes an orientation; the sustainable development literature associates and links the temporalities of past, present, and future in order to make decisions in the present for future generations.

Wiebe (2010) argues for an inclusive temporal orientation that takes into consideration the past, present, and the future. While, Maitlis and Christianson (2014) consider that differences between what is expected in a near future versus what actually happens in a present state could be associated as a living present, as such, a projected future is constructed by past images. Sandberg and Tsoukas (2015: S9) state that this grounds future perfect thinking in a retrospective temporal orientation through “taken-for granted beliefs” as a cyclical process. In other words, actors can be limited by their knowledge and while their use of lived experience to project into the future may appear orderly, it may not yield desirable results as times change or may not understand why the change occurs.

Taking into account paradigms that have a strong temporal embeddedness such as sustainability, and while sensemaking has been typically viewed as retrospective, where an actor looks into past actions; prospective sensemaking casts into the future through the use of assumptions that are base-lined using the actor’s experience (Kaplan and Orlikowski, 2013; Wiebe, 2010). Sensemaking is not all retrospective and when it is prospective it relies on the past as well. Differences on how scholars apply the temporal perspectives on sensemaking leads

to different sensemaking outcomes and creates implications for the development of theory that acknowledges that a past, present, and future orientation exists (Maitlis and Christianson, 2014) underpinning the temporal continuum.

Wiebe (2010) concludes that while retrospective sensemaking ignores the present, engaging the present enables all three temporal states, as it is in the present where sensemaking takes place. Implications may arise in this study through cultural differences, as these may influence the perception of temporal depth, such as near-mid and -far range. The perception of time in the south nations may be different for the north nations. While, far-range could mean weeks for south nations, the same could mean months for north nations.

### **2.6.6 Sensemaking as a Process for Action**

Demarcating a start and end for a temporal orientation that are based on decisions may be a challenging pursuit. Sensemaking is a cyclical process that is activated by a discrepancy in expectation (Sandberg and Tsoukas, 2015) to restore order; hence, sensemaking in itself utilizes a continuum of time as a process rather than being demarcated to a specific temporality. Meaning “is made in an ongoing present in which past experience is projected upon possible futures” (Hernes and Maitlis, 2010: 27) becoming a reflective process that transcends the spaces interlinking temporalities with dynamic time frames.

**IMPORTANT** – This reflective process supports the notion that sensemaking may contribute to prioritizing and balancing tensions that are associated with intergenerational equality across time. However, informants may engage a process of sensemaking that is partially dependent on certain temporal orientations (such as, prospective or retrospective), creating implications for the construction of understanding and sensemaking outcomes.

In relation to this study, empirical research in the Costa Rican cacao sector by Haynes et al. (2012: 1476-1477) demonstrates tensions experienced by the producers meeting alternative

trade certifications schemes, where the producers are confused as to why it matters to conserve ground water resources in plantations meanwhile ground water resources are readily available in-ground and through frequent (e.g., every hour in some regions) tropical rain activity.

While violations could be influenced by many factors, violations could impact identity at various levels such as, individual, social, or institutional (Corley and Gioia, 2004; Pratt et al., 2006) and goals (Balogun and Johnson, 2004; Maitlis et al., 2013). As the violation is subjected by the sub-processes of separation, creation, interpretation, and enactment (Sandberg and Tsoukas, 2015), the process is entangled between temporal norms and tensions experienced by the actors. Following on the previous example from Haynes et al. (2012) on ground water conservation, the actor in question demonstrates a lack of understanding for conceptualizing conservation of resources that extend beyond the place-based context and with a temporal orientation that spans from the here-and-now to the far-future. The producer did not realize that conserving fresh water resources was not just a requirement for certification but that it would assure fresh water availability for future generations.

**IMPORTANT** – In the example provided by Haynes et al. (2012: 1476-1477) the producer did not experience a violation and hence, making sense of the situation did not take place at that moment. Instead, the producer was able to reconcile that ground water resources were always being replenished by the tropical rain. As a process this leads to restored order for the producer. However, it is important to note that it does not reconcile the present and future tension.

### **2.6.7 Sensemaking and Collective Decisions**

Sensemaking and decision-making are part of a larger process at work. Orton (2000: 231) defines decisions as “deliberate initiatives that will change formal relationships among organizational components”. Hence, the making of decisions are a transient moment between actors making sense of the situation and bringing of order based on retrospective understanding.

Weick (2009: 56) describes the subtleness of sensemaking dynamics through the account of late Paul Gleason whereas:

“[i]f I make a decision it is a possession, I take pride in it, I tend to defend it and not listen to those who question it. If I make sense, then this is more dynamic and I listen and I can change it. A decision is something you polish. Sensemaking is a direction for the next period.”

Through a process of sensemaking and decision making, Weick (1988) posits that actions enables actors to draw cues from the unfolding events. As actors make decisions, acting upon their sense making, this enables actors to retrospectively understand “why things turned out the way they did” (Weick, 2009: 175). As a cyclical process this shapes the environment for sensemaking, as the actions shape and re-shape situations faced by informants through a process of enactment.

**IMPORTANT** – Over time, the reciprocal influence of the closer relationships between producer, consolidator, logistics provider, and crafter, will presumably grow if the outcomes of decisions turn out to be mutually beneficial (Orton, 2000).

Enactment is the link between sensemaking and action as actors play a key role in shaping and re-shaping the environment (Orton, 2000; Weick, 1988; Weick et al., 2005) as events unfold and cues are drawn from the actions taken for understanding. Weick (1988: 306-307) posits that “[p]eople who act in organizations often produce structures, constraints, and opportunities that were not there before they took action” and therefore enactment “is an orderly, material, social construction that is subject to multiple interpretations”.

Dougherty et al. (2000) examined differences between businesses that were innovative versus less innovative. Businesses that were innovative perceived that a role for engagement with customers and management of knowledge was key to solving issues collectively. While, less

innovative businesses reflected a siloed construction in sensemaking that appeared to lack the structure that encouraged making sense of issues collectively. Maitlis and Christianson (2014: 77-78) suggest that when individuals have a strong collective identity sensemaking triggers are buffered as actors appear to have strong collective beliefs and practices and a substantial event may be required to trigger making sense. In relation to this study, in a disintermediated trade network, informants engage in relationships that are closer in contrast to the conventional trade networks where relationships are further apart. Similarly, with small producers that work as a family or in larger community settings, the state of a closer relationship may emphasise a stronger sense of collective identity. Based on the previous, informants may require a significant event in order to trigger their sense making. For example, informants in a closer relationship such as a producer and crafter, may have a strong orientation for increasing production quantities to satisfy economic priorities; however, it might require a substantial event to make sense that the focus should be on quality and not quantity (i.e., a large shipment not meeting humidity import requirements and in-turn affecting expected economic returns). In other words, It's harder to challenge the norm in close relationships, unless there is a major event to trigger reframing.

Rudolph et al. (2009) examined actors that dealt with emergencies and developed an action oriented problem solving model derived from an iterative simulated process in relation to decision-making and sensemaking. The study suggests that acting, interpreting, considering alternatives, and, cycles of feedback that include tensions in the process contribute to solutions. While the “feedback relationships that drive these cycles are not clear” (Rudolph et al., 2009: 737); feedback processes are suggested as being crucial for the re-enforcing cycles to attain learning and adaptive problem solving for strategic action (Money et al., 2017).

The examinations of Day and Lord (1992) and Rudolph et al. (2009) suggest that actors with prior knowledge in businesses are better able to construct solutions through the use of re-enforcing learning cycles in order to upgrade their knowledge, deal with tensions, and reduce uncertainty. While the former suggests that the process of collective sensemaking, as a cyclical process, shapes and re-shapes meaning among actors.

### **2.6.8 Summary**

Sensemaking as a process enables the understanding of how informants can interpret meaning from events whether experienced or not. Different scholarly perspectives on sensemaking such as the application of temporal orientations, lead to different outcomes in theory and practice. Sensemaking could be of relevance to an individual, groups of people, or businesses. An interruption in expectations acts as a trigger that starts a process of understanding and the restoring of order.

The relationship between informants may re-shape the interpretation of how these informants make sense of priorities for making decision in practice.

Learning cycles establish frameworks that reshape the environment. The process of making sense acts as a springboard for making decisions and action, which can enable informants to understand related outcomes through a process of sensemaking. Learning cycles enable the construction of solutions, since prior knowledge re-enforces the learning towards more efficient solutions to problems. Collective sensemaking as a cyclical process re-shapes understanding of actors and may lead to coordinated actions.

While collective sensemaking is rooted in the individual accounts of actors and how these actors make sense of events; it may be buffered by a strong identity, beliefs or practices within groups. Therefore, a significant event may be required to trigger an interruption for making sense.

## 2.7 Distilled Core Concepts

To establish the Research Question (RQ), it is important to understand the concepts that affect how informants make sense of trade-based tensions arising from the demands of the three types of sustainable priorities, environmental, social and economic.

The table underneath summarises the core conceptual concerns that guide this study. These are based on some particular constructs associated with different logical responses to paradox (*see Table 2.1*). These are the focal issues to be considered in the empirical study, since they capture the complex of unresolved conceptual challenges associated with sustainable development. As such, the research problem and the foundation for the RQ.

While concepts are derived from or used to create theory, constructs enable a method for grounding the theory and provide opportunities to add to theory's richness and descriptiveness (Blaikie, 2009). This enables explanation of theoretical components with clarity. As an example, 'Employee Motivation' is a concept derived from Maslow theory, and while motivation is not directly observable, it is rooted in the constructs of reward, opportunities, and recognition. While a single or multiple concept build phenomena, when operationalized for empirical evidence it is characterized by constructs (Eisenhardt, 1989).

The concepts identified through the literature review support the research questions by guiding the specifics that are sought in the informants' accounts and to be interpreted by the researcher (*see Appendix A - Construct Development and Thematic Integration Plan; Appendix B - Construct Distillation and Coding; Appendix C - Construct Identification and Classification; Appendix D - Construct Merger and Identification to Key Literature and Study*).



Concepts are organized by the themes as interpreted by the researcher and based on the scholarly source of either/or logic, both/and logic, decision pattern, decision context, collective problem solving, and radical reformulation.

Table 2.1 Identification of Concepts Distilled from Literature Review

Concept	Construct	Theme	Source (Academy of Management)
Trade-offs of economic resources, human resources and time	managing resources	Either/Or logic	Teng and Cummings (2002)
Actors may enact either/or trade-offs as a result of decision-making in the short term rather than long term.	enacting trade-offs	Either/Or logic	Besharov (2014); Maitlis and Christianson (2014); Poole and van de Ven (1989); Putnam et al. (2016); Schad et al. (2016); Wright and Nyberg (2017)
Economic divide between nations leads to polarization of livelihoods.	polarizing humanity livelihood	Either/Or logic	Gladwin et al. (1995b)
Increase demand of commodity from North Nations creates resource demands in the South that polarizes the physical world.	polarizing physical world well-being	Either/Or logic	Gladwin et al. (1995b)
Actors engage processes to meet short term goals that are prioritized over long term goals	achieving short over long-term goals	Either/Or logic	Schad et al. (2016); Smith (2014); Smith and Lewis (2011); Reinecke and Ansari (2015); Wright and Nyberg (2017)
Decisions between economic, social, and environmental aspects give rise to tension	engaging tensions	Both/And logic	Fan and Zietsma (2017); Granqvist and Gustafsson (2016); Hengst et al. (2020); Kunisch et al. (2017); Putnam et al. (2016); Reinecke and Ansari (2015); Schad et al. (2016); Smith (2014); Smith and Lewis (2011); van de Ven and Poole (1995); Wright and Nyberg (2017)
The environmental, social, and economic subsystems create competing demands for actors	conflicting demands between sub-systems	Both/And logic	Smith and Lewis (2011)
Competing tensions for resources amongst actors affects the balance of intergenerational equality upstream.	triggering intergenerational equality	Both/And logic	Gladwin et al. (1995b)

Actors use sense making as a process to make decisions that aim towards attaining opportunities in the food chain for future generations.	attaining generational stability	Both/And logic	Gladwin et al. (1995b)
Past and present experiences enable making sense of a possible future.	making use of experiences	Decision pattern	Smith (2014)
Actors make sense of how to balance sub-system requirements that transcend across time that include the environmental, social, and economic.	attaining environmental, social, and economic balance	Decision pattern	Lewis (2000); Putnam et al. (2016); Schad et al. (2016); Sundaramurthy and Lewis (2003)
Demand and supply of product in the conventional food chain contributes to economic exploitation of actors upstream.	contributing to economic exploitation	Decision-making context	Crane (2012)
Understanding and extracting information from events and experiences, enables making sense as an iterative process.	sensemaking between events and experiences	Collective problem solving	Ancona, Goodman et al. (2001); Kunisch et al. (2017); Smith (2014)
The relationship between actors may shape how the actors make sense of information for decision-making that is based on collective and individual priorities.	affecting collective and individual priorities	Collective problem solving	Fan and Zietsma (2017); Gladwin et al. (1995b); Poole and van de Ven (1989); Sundaramurthy and Lewis (2003)
Actors re-conceptualize making sense of experiences as a cyclical process to project onto a future.	reformulating experience	Radical reformulation	Hengst et al. (2020); Jay (2013); Poole and van de Ven (1989); Schad et al. (2016)

Source: compiled by author

Informants may provide evidence of either/or choices by demonstrating the *managing of resources* (Teng and Cummings, 2002) such as *enacting trade-offs* (Besharov, 2014; Maitlis and Christianson, 2014; Poole and van de Ven, 1989; Putnam et al., 2016; Schad et al., 2016; Wright and Nyberg, 2017) between the triad of economic and human resources and time. This may lead to decisions that for example requires crafters to obtain an acceptable grade of cacao beans while giving up time to travel to cacao plantations in order to inspect quality in-situ; or, producers giving up monetary resources in order to procure fertilizers for trees.

The production of commodities that may or may not contribute to dignified living, polarizing livelihood (Gladwin et al., 1995b) since “[e]cological sustainability is simply unachievable under conditions of social or economic unsustainability” (Gladwin et al., 1995b: 888). For example, crafters that build relationships with producers to bring producers out of poverty and provide opportunities for a better living; while at the same time producers are dealing with international market pricing not supporting the crafters initiative (such as, compensated near or under commodity market pricing), leading to lack of monetary funds to procure meals for their family and to upkeep land.

Producers attempt to satisfy an external demand from north nations that increases resource tensions for the *south* nation by polarizing the physical world well-being (Gladwin et al., 1995b). For example, by satisfying production of cacao demand to for international markets, leading to genetically modified and monocrop plantations that contrasts with biodiversity practices and do not support the local ecological systems.

The achievement of short-term goals over long-term goals (Reinecke and Ansari, 2015; Schad et al., 2016; Smith, 2014; Smith and Lewis, 2011; Wright and Nyberg, 2017) that informants may perceive to satisfy and immediate fragile present rather a more durable oriented future. For example, involving children to harvest cacao pods rather than sending children to school to improve the possibility of a better or more durable future.

Choices that embrace the and/both values could be exemplified by the embracing and engaging tensions (Fan and Zietsma, 2017; Granqvist and Gustafsson, 2016; Hengst et al., 2020; Kunisch et al., 2017; Putnam et al., 2016; Reinecke and Ansari, 2015; Schad et al., 2016; Smith, 2014; Smith and Lewis, 2011; van de Ven and Poole, 1995; Wright and Nyberg, 2017) that take into account environmental, social and economic aspects that create competing demands for the informants and conflicting demands between sub-systems (Smith and Lewis, 2011). For

example, producers may consider and face implications of tenure over land and whether to own and maintain or lease and degrade the environment for economic benefits. Similarly, crafters may consider packaging materials that may be socially acceptable while causing less harm or no harm to the environment.

This leads to placing emphasis on generational differences and legacy, and how this is interpreted and managed. Informants may engage in a process that attempts to balance resources such as monetary requirements for the present generation while at the same time attempting to meet the monetary requirements of the future generations, triggering intergenerational equality (Gladwin et al., 1995b). For example, informants providing resources for a present generation while procuring for future generations.

Therefore as a process, informants could make sense of decisions that aim to attain and perhaps secure opportunities for future generations to flourish by attaining generational stability (Gladwin et al., 1995b) across time.

Whether informants are aware or not of enacting a logic that is rooted in either/or, and both/and choices, this creates implications for the research questions and this study by establishing the pattern and context on how informants frame past and present orientations by making use of experience (Smith, 2014) and enable making sense of a possible future. For example, crafters that establish new relationships with producers based on experience with previous producers; or, producers that select and adapt methods for obtaining higher production yields in the future. Returning to informants enacting logic in the previous paragraph, this should lead informants to balance the various sub-system requirements comprised of sustainability aspects that are aimed at attaining environmental, social and economic balance (Lewis, 2000; Putnam et al., 2016; Schad et al., 2016; Sundaramurthy and Lewis, 2003).

Within the context of decisions, it suggested that informants that engaged in a pattern that aims to attain sustainable balance should experience livelihood improvement through economic means, in contrast to experiencing a vicious cycle from the demand and supply of product that otherwise appears to be contributing to economic exploitation (Crane, 2012) paradoxically of the same informants upstream in the value chain. For example, consolidators setting price limits well below market premiums for producers that are feeling rushed or have an urgency to sell their product. Producers may attain a more democratized trading system that could enable informants to go beyond a local economy and break-away from a vicious local trading cycle; or, crafters that set ethical expectations with producers against child labour and towards the empowerment of women and young leaders in communities.

From an individual informant perspective, understanding by extracting information from events and sensemaking between events (Ancona, Goodman et al., 2001; Kunisch et al., 2017) drives an iterative process for sensemaking between experience (Smith, 2014). For example, informants are able to use their personal experience to inform a future situation and find improvements in the process. From a collective informant perspective, making sense of the individual experiences may shape how informants make sense and enact decisions through the relationship established for the attainment of - and affecting collective priorities (Fan and Zietsma, 2017; Gladwin et al., 1995b; Poole and van de Ven, 1989; Sundaramurthy and Lewis, 2003), this in-turn may create a cascading effect affecting individual priorities (Fan and Zietsma, 2017; Poole and van de Ven, 1989). Hence, the collective experience is leveraged from the experience of the individuals that are able to inform other informants such as community groups and enable a process for the enactment of decisions for a future that as a baseline uses the priorities that are being faced in the present time.

Therefore, as a process, informants could engage in *reformulating experiences* (Hengst et al., 2020; Jay, 2013; Poole and van de Ven, 1989; Schad et al., 2016) as a cyclical process by engaging the tensions, breaking away from vicious cycles and projecting onto a desired future state that provides a sustainable balance and a possible improvement in livelihood.

In other words, when informants are faced with a problem that involves a tension, a more localised and relational sensemaking process can influence action more directly and incorporate both sets of priorities in the decision process. As a result, the informants could reformulate their experience providing a foundation for moving towards sustainable development.

## **2.8 Review of the Literature Summary**

While there is no common agreement by scholars and practitioners on what sustainability means; the notion of unsustainability appears to link the modern society to current issues, and it is in the best interest of modern society to reduce unsustainability in practice.

*Sustainability is elusive, arising from a naïve understanding and an imaginary future perfect state at the expense of the physical world for humanity.*

The dialogue to sustain the future of the physical world and humanity appears fragmented across the disciplines with various interpretations that ultimately lead to a decision process with unsustainable characteristics.

In relation to the cacao and chocolate value chain, how informants make decisions should be examined at different stages, as these informants compete to balance priorities. While research has focused on alternative trade (also known as disintermediated trade) with the aim of improving producers' livelihood, additional focus on ecological goals and non-intensive (such as, biodiversity friendly; non mono-crop) production while achieving sufficient price premiums to producers is suggested.

Alternative trade systems have been in existence for many years and attempt to provide order and efficiency. However, these attempts have created unintended consequences where benefits aren't equally distributed along the trade networks. Certification schemes have created additional levels, where economic benefits are less for informants upstream in the trade system. The human and the physical world are politicized and experience a south and north divide. Across times, this has led to inequalities and injustice in the cacao trade market. It appears that the commoditization of cacao has widen the livelihood gap with emphasis on the upstream and localized labour across time.

This study seeks to understand how organizations and informants that participate in alternative trade function and make sense of tensions over time. Recent developments with direct-trade as an extension to alternative networks, have enabled informants to establish closer relationships. This leads to the reduction of levels in the trade process by consolidating upstream and downstream activities and emphasizing deep-rooted relationships among value chain partners. Direct-trade has acted as a springboard for a more democratized and liberalized trading system. Effectively through a process of trade disintermediation where cacao producers are able to for example, deal directly with chocolate crafters and vice versa. This creates implications in practice for the producers and the crafters on how to sustain business growth, construct solutions for practice, and improve livelihoods.

Informants deal with uncertainty and attempt to reconcile differences across time by making sense of the situation through a process of choices that are either/or or both/and, as a result of sensemaking, and where the actions taken lead to the economic, social or environmental problems. As such, making sense is triggered by an interruption in expectations that starts the process for understanding and restoring of order. As a process this surfaces tensions that may have economic, social, and environmental aspects, and may require multi-dimensional

objectives to be met (such as, meeting the needs of the present generation while providing for future generations), placing emphasis on intergenerational equality.

Tensions stem from the flux of opposing elements that are inherent in systems and sub-systems. Paradox studies examine contradictions when actors identify latent elements as salient to their context. Since short-term has always been salient through the economic perspective, until recently the longer-term consequences of environmental and or social issues was latent. At present they have become salient and are pitted against the economic priorities, raising other tensions as salient for different actors in the value chain. At one end, producers are challenged to make choices about which sort of cacao to grow, which has both short term and long term implications. While at the other end, crafters are challenged to make choices about the social issues affecting producers, since choices may affect their brand reputation (Money et al., 2017). A paradox perspective emphasises understanding and the acceptance of tensions that arise, which ultimately influences long-term decisions. The design of this study is influenced by Slawinski and Bansal's (2017) call for research questions that address time by allowing the trade-based tensions to emerge, in order to deepen understanding of the effect of both the subjective and objective dimensions of time on choices at the individual and the collective level. Using a normative perspective in this study enables the understanding of how informants make sense and engage decisions to manage the tensions and balance priorities across time. In the next section, the main components for generating study research questions are distilled guided by the literature review discussed earlier.

## **2.9 Research Questions**

The research questions are deduced from the literature and the identified concepts in relation to the position of this study to investigate trade-based tensions in the fine cacao and chocolate value chain. As an ongoing process, expectations and tensions may position informants to make



decisions in practice in order to construct solutions that are moving forward in time. Through their sensemaking, informants' author the frameworks that are responsible for decisions and the generation of events.

This study aims to understand the trade-based tensions that arise from managing the environmental, social and economic priorities in relation to the social and business case.

Therefore, this study seeks to understand several components that support the research question, including the expectations of informants on alternative trade in the value chain across time. These expectations are moving forward and span across generations; however, expectations are retrospectively looked-upon based on the informant's experience and how informants make sense of events in the present time. In this study, tensions experienced by informants are rooted in the informant's expectations and may be primarily driven by environmental, social, and economic dimensions. Tensions are a bi-product that are formed from a process of dealing with the expectations and limitations that are encountered by the informants dealing with direct-trade. Limitations, hinder the achievement or fulfilment of expectations and hence, this may drive a competing environment for the achievement of objectives given how resources are articulated to fulfil the expectations across time.

This identifies the research problem as *in what ways do trade-based tensions influence sustainable development in direct-trade network relationships of the fine cacao and chocolate value chain?*

Therefore, in this study the research questions lead to gaining understanding of how informants make sense of tensions across time, and how this may affect the way informants manage and deal with objectives in order to balance the everyday priorities.

The specific research questions are:

*RQ A: In what ways do stakeholders make sense of trade-based tensions?*

*RQ B: In what ways does relational sense making support and/or hinder sustainable development?*

The research is informed through the generation of appropriate data and analysis. This will enable a larger conceptualization of how informants manage decisions in practice and construct solutions in the value chain. Furthermore, this may lead to a better understanding of the relationships between the informants. The questions guide the research design, findings, and analysis, and provides an opportunity for research critique and improvement as a better understanding is sought.

## **2.10 Developing the Process to Answer the Research Questions**

The research design and methodology chapter guide the generation of data in response to the research questions. A research design rationale and methodology are detailed along with the data collection methods. As a strategy this will offer evidence towards the analysis of the findings and discussion.

### **3 Research Design and Methodology**

This chapter addresses research methods that align with the literature review to develop an exploratory strategy. Philosophical commitments and alternative methods are discussed (Saunders et al., 2009).

#### **3.1 Chapter Introduction**

The business case takes place in the Fine Cacao and Chocolate value chain, pursuing a study in sustainable development that seeks to understand how informants manage tensions in relation to priorities through a process-oriented philosophy.

In this study, the researcher engaged in observations and semi-structured interviews with informants at the individual level and with individuals in impromptu group settings as primary methods. Informal conversations, analysis of photographs and some examination of secondary data in the form of web sites and marketing materials (documents) were used as secondary methods to triangulate the information. The field research took place in Canada, Ecuador, and Costa Rica. Canada was selected as the initial country for the collection of primary data related to a growing artisanal chocolate niche with good market presence of crafters and a primary logistics provider. Ecuador was chosen as the first country to conduct fieldwork as it holds a dominant position in cacao and chocolate production at the world stage and it's also known for its biodiversity and conservational practices. Costa Rica was chosen as a geographical comparative nation as it is well-known for its ecological approach and practices and a competing nation for products including cacao, coffee, and others. Both nations Ecuador and Costa Rica have a rich history and identity in reference to upholding cacao's traditional significance and economic prosperity. Ecuador provided the foundational expertise to pursue a

similar experience in Costa Rica. The researcher chose this approach to gain more insight into the ecological perspective through the geographical comparison.

A total of forty-six informants with varying roles participated in the research (fifteen females; thirty-one males). At times, enabling a multi-role participatory approach that included eight consolidator roles, thirteen crafter' roles, three logistics provider' roles and twenty-two producer' roles (some of the forty-six informants had multiple roles). In addition, one informant contributed as a subject matter expert at the start of the data gathering process and another four during the data gathering process. The researcher held informal conversations with another six people to gain early stage understanding of the trade system. This chapter addresses the following areas of the research design and methodology:

- Philosophy
- Research strategy and unit of analysis
- Theoretical design
- Methods, data collection and process of analysis

### **3.2 Philosophy**

The guiding principle of this study is that existence is best understood as processes that are in constant flux and change rather than stable entities (Rescher, 2006). Trade systems are dynamic and experience change both at global and local levels. Ecological effects and business trade relationships constantly shape the value chain dynamics through the products, logistics, information and financial flows.

Following Fachin and Langley (2017) and Rescher (2006), the sub-sections describe the process research approach, the importance of being reflective, and the researcher's position.

### **3.2.1 Process Research**

The research is premised on a process ontology, which assumes that the world is in a constant state of flux (Tsoukas and Chia, 2002). A process is construed as a temporally “structured sequence of successive stages or phases” (Rescher, 2006: 2). This is consistent with the use of paradox as a metatheoretical lens (Lewis and Smith, 2014) to explore the way that tensions operate in shaping sensemaking between the various actors in their relationships within the supply chain. In assuming a process ontology, it is possible to design research to study a problem involving affected by temporal dimensions either longitudinally or cross sectionally, depending on how the researcher is approaching the issues of temporality (Fachin and Langley, 2017). Four types of process research have been identified, 1) Process as evolution, 2) process as narrative, 3) process as activity and 4) process as witness. The first is generally studied longitudinally, because it studies how substantive phenomena change over time. The second draws on temporal recollections within the stories people tell, on the assumption that it is possible to draw out concerns about past present and future from their narratives as they make sense of what matters about the process under study. Generally, such an approach relies on interviews and some form of thematic analysis to extract the influences of time within their sensemaking, for example Chreim (2005) and Sonenshein (2010).

**IMPORANT** – In this study, process research focuses on how the informants make sense of their accounts and construct understanding. Fachin and Langley (2017: Table 19.1) describe process research with a sense making focus – “Process as NARRATIVE” and support their conception of process thinking by offering evidence of prior studies. This conception is well established in the literature and involves informant’ meaningful interpretations which may be interwoven with temporality (such as, past, present, future; Langley & Tsoukas, 2010) as cited in (Fachin and Langley, 2017).

Rescher (2006: 31) defines a process having three factors, “a process is complex”, “this complex has a certain temporal coherence and integrity”, and “a process has a structure, a formal generic format”.

**IMPORTANT** – This study uses qualitative methods within a process as narrative ontology to access the dynamic and evolving process of navigating tensions between members of the supply chain at different levels.

While process research may incorporate quantitative data, it does not seek to define dependent and independent variables, and as such, Langley (1999) argues that process research is better suited for gaining understanding from qualitative data.

**IMPORTANT** – In contrast to longitudinal process study, Fachin and Langley (2017) argue that when a narrative process approach is taken, such strong perspective enables temporal aspects to be reconstructed in an ongoing process as individuals make sense of their situations.

More broadly, process philosophy insists that process constitutes an “essential aspect of everything that exists” (Rescher, 2006: 3). Therefore, “[c]hange is not something that happens to things, but the way in which reality is brought into being in every instant” (Langley and Tsoukas, 2017: 4). A process orientation brings activity to the foreground from the choices that are made in the face of the trade-based tensions that persist, but manifest differently in each interaction with the actors (Weick, 1995), change is prioritized over persistence and expression is prioritized over determination (Langley and Tsoukas, 2017). Process philosophy pivots on a theory and not on a particular thinker, the philosophical position invokes certain propositions: “time and change are among the principal categories of metaphysical understanding”; “process

is a principal category of ontological description”; “process is more fundamental, or at any rate not less fundamental than things for the purposes of ontological theory”; “several if not all of the major elements of the ontological repertoire” such as persons and materials “are best understood in process linked terms”; and, “[t]hat contingency, emergence, novelty, and creativity are among the fundamental categories of metaphysical understanding” (Rescher, 2006: 5).

While process philosophy has some similarities with pragmatism, unlike other philosophical doctrines such as realism or idealism, it “is not doctrinal but thematic; it is not a consensus or a thesis but rather a mere diffuse matter of type and approach” (Rescher, 2006: 10). A “process doctrine simply does not yet exist as an accomplished fact” (Rescher, 2006: 10), such fact would be counterproductive and detrimental to process philosophy by demarcation of an event being greater than the process itself. Process philosophy has a large footprint and it is too large to belong to “any one particular philosophical approach or tendency” (Rescher, 2006: 34).

Some authors (e.g., Mesle, 2008; Garud et al., 2011) embrace the philosophical view of Democritus, and posit that, a business is a subject that has the potential to change arising from processes. For example, Hummingbird Chocolate Maker becomes ethical by engaging in ethical processes – an ethical business; which otherwise, without engagement in processes would render the subject just as a business (Langley et al., 2013).

### **3.2.2 Reflexivity**

In this study, it is important for the researcher to be reflexive (Haynes, 2012) and in particular when dealing with complex issues (Remenyi et al., 2010). Reflexivity takes place at multiple levels within the research (such as, ontological; methodological; theoretical). Reflexivity is a process by which the research re-shapes itself (Weick, 2002), a process by which the researcher and the study co-evolve with one another (Haynes, 2012). A strong process approach

ontologically defines the research in a constant state of becoming, acquiring meaning by gaining understanding of the contradictions in the value chain (Tsoukas and Chia, 2002). In other words, a social reality continues to develop as the research progresses, moving from abstraction to grounding the interpretation of constructed meaning by the informants and shaping the views and writing of the researcher, such as when interpreting the lived experience of the informants in a naturalistic context that is changing (e.g., across relationships; from climatic effects; based on business rules).

### **3.2.3 Researcher's Position on the Research**

A constructionist paradigm is adopted as in most paradox research, primarily since whilst latent paradoxes may exist and persist in nature, in a social setting paradoxes arise when they become salient to those involved in social interactions where contradictions are weighted against one another.

Crotty (1998: 54) argues that in the constructionist perspective “meaning is not discovered but constructed”. Exemplar work under the constructionist paradigm includes Hallowell's (1960) as cited in (Lock and Strong, 2012), studying cultural anthropology and soaking up the culture of the Ojibwa people of North America. Although, as an approach, “this has led to the charge that often social constructionists claims are often deluded as they could be seen as legitimating an ‘anything goes’ approach” (Lock and Strong, 2012: 259), yet the value lies in the possibility of understanding the world through the eyes of those who are immersed in the setting.

#### **3.2.3.1 Ontology**

The ontological position is that social phenomena are produced by social actors and do not exist independently of human action (Crotty, 1998). Recognising that this assumes reality is subjective and in a “constant state of flux and revision” (Saunders et al., 2012: 130), it is



consistent with a process ontology, in which the researcher works within the unique situations that hold in the context of the study, since it is the social actors who are constructing meaning (Fachin and Langley, 2017) collectively (such as, identity and knowledge; Saunders et al., 2012).

Understanding is multidimensional by making use of prior knowledge, social and cultural experiences, and iterations with the environment (Crotty, 1998).

### **3.2.3.2 Epistemology**

Thus, a social constructionists' epistemology, is adopted which assumes that knowledge is constructed collectively, this aligns with paradox research since often the conflicts arise between different individuals' priorities and meanings (Fachin and Langley, 2017), but those meanings are relational. A social constructionist epistemology assumes knowledge is constructed between actors in their social interactions.

The role of the research process is to reconstruct the actor's reality; whereby, "social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence" (Saunders et al., 2009: 110) while not ignoring meaning making connections that shape cultural identity, such as historical events and interactions with the environment (Lock and Strong, 2012).

The constructionist approach, enables this research study to gain insight in understanding the trade-based tensions and inform how informants make sense of priorities across the trade relationships in the value chain (such as, a producer, crafter, logistics provider or consolidator). Subsequently, the epistemological approach is underpinned by a methodological process of generating reliable knowledge about a topic.

**3.2.3.3 Methodology**

Methodologically, the researcher proposes that social construction is happening in the disintermediated trade relationships, so there is more chance that both parties construct the meaning of their actions with an understanding of the other parties needs or ethical priorities and as such:

a) the process of trade disintermediation provides an opportunity to examine whether the meaning of tensions associated with sustainable priorities experienced across time are more aligned in disintermediated relationships than in conventional distanced relationships; since, the flux and revision of socially constructed knowledge takes place within relationships that are committed to shared interests rather than divergent goals; b) as a process, disintermediation evolves from a conventional relationship in the trade system. A disintermediated relationship arises by breaking-away from a typical conventional market relationship. For example, producers that normally sell cacao beans to intermediaries in a conventional trade system have more levels, in contrast to less levels that characterize the disintermediated value chains. The disintermediated relationship shortens the trade system by reducing the steps in the trade process. Hence, relationships are of importance, and each informant adopts one or more roles in the relationship being representative of a case model (e.g., direct-trade).

However, while “all research is interpretive; it is guided by the researcher’s set of beliefs and feelings about the world and how it should be understood and studied” (Denzin and Lincoln, 2005: 22).

**3.2.3.4 Axiology**

In this study, the researcher engages in an ongoing process of understanding events (Weick, 1995; Weick et al., 2005) through interpretation and the illumination of meaning that the informants share. As such, the researcher is not fully detached from this study but rather

embedded in a process towards converging on the shared meaning (Lock and Strong, 2012) implicit in the various informant's accounts (Maitlis and Christianson, 2014). The accounts vary with the perception of the informants which have their own characteristics, feelings, thoughts, and values. The researcher's values and preconceptions influence how data is made sense of and how meaning is re-constructed.

The researcher had natural experience with the culture, speaking the native language of the informants and the ability to assimilate meaning from it (such as slang terms). As such, it allowed the researcher to understand the way epistemologically native speakers socially construct knowledge about their reality in a collective culture through by means of language.

As a subjective insider, the above statements do not imply better or worse constructionist approaches, it just means that in the field, the researcher was better able to apprehend the tensions (Voronov and Yorks, 2015) since the cultural nuances were understood. The researcher was in a good position to focus on observing and interacting with the informants for meaning making rather than being pre-occupied with cultural acceptance or viewed as a total outsider. Hence, informants felt comfortable, there was no sense of intrusion and the informants were very welcoming to the researcher. It is possible that by the researcher holding similar moral and ethical values, made the informants felt at ease and with a sense of purpose during the fieldwork. As such, the researcher felt that activities were conducted ethically and nothing comes to mind regarding implications on how the research could change, damage or inappropriately influence the informants lives or whether the researcher's findings could damage the informants' interests (*see Section 3.5.1 Ethics Approval Process*).

### **3.3 Research Strategy**

A research strategy is underpinned by the philosophical assumptions (Saunders et al., 2009). Stake (1995: 1) posits that research is entered with a "sincere interest in learning" and "with a

willingness to put aside many presumptions”. Blaikie (2009) posits that certain strategies or a combination of strategies should be discerned to address the purpose of the research and the type of research question. As such, this study is exploratory, rather than providing an explanation or description. The goal of the study is to gain insight into how tensions are shaping the current status of sustainability and future prospects; since the writer expects that the closer relationships are in the trade network, the more likely to take into account intergenerational equality and facilitate sustainable development.

Summarizing from the literature review section and the process to answer the research questions, within the value chain, the ontological reality is defined by process moving towards the next state of the sustainability agenda; epistemologically, knowledge from the process is gained through the way informants socially construct knowledge about sustainable priorities. The research is framed to explore the problem of *in what ways do trade-based tensions influence sustainable development in direct-trade network relationships*, and leading to the RQs of:

*RQ A: In what ways do stakeholders make sense of trade-based tensions?*

*RQ B: In what ways does relational sense making support and/or hinder sustainable development?*

The strategy for this research to answer the research questions is to conduct an empirical investigation that makes use of an interpretive case study research design and an abductive logic of inquiry (Piekkari and Welch, 2017) that started by deducing concepts from the literature.

To achieve the purpose of answering the RQs, the following section describes the exploratory case study justifications based on: a) selected regions where the fieldwork takes place, b) strategic techniques consistent with the ontology and epistemology that allows addressing a complex phenomenon from the various informants in their natural setting to fulfil the purpose

of this research, and c) unit of analysis and observation establishing the understanding of the context that is constituted between the informants in the trade relationship.

### **3.3.1 Exploratory Case Study Selection Process**

The researcher deliberately chose the single and discrete fine cacao and chocolate value chain since it allows the study to be conducted end-to-end, from the producers closer to the land to the crafters closer to the retail consumers.

The geographical setting for the cases took place in Canada, Ecuador and Costa Rica. The context is sustainable development, the cases are the three models (e.g., Model 3: Direct-trade) and the unit of analysis are the trade-based tensions and the unit of observation was the role of the informant.

The value chains in Ecuador and Costa Rica were selected since they are main producers of cacao and other products to the Canadian market. The two geographical locations were chosen as both markets are recognised internationally and have rich economic and socio-cultural importance. Both nations have government market export representation in Toronto, Canada. Cost Rica appears to be the economic polar-opposite of Ecuador.

In order to understand the complexity of the value chain, this research started with the researcher interviewing specific people, analysing some web sites and visited the Dominican Republic (DR) to collect pilot data in an end-to-end (bean-to-bar) value chain, from the cultivation of cacao to chocolate production and retailing. The case study used narrative methods, in order to cover both ends of the value chain with a view to understanding the relational structure (network). These early investigations allowed the researcher to establish the condition of affairs under consideration and the relationships at the value chain level. As such, the early investigation established the case models for then to understand the way the narratives are enacted in the different relationships within each case location (such as, logistics provider,

consolidator, direct-trade). In addition, the researcher attended an inaugural chocolate festival in Toronto, Canada to speak to crafters. It became apparent through early analysis of informal discussions with key actors and through an analysis of their web sites that it is possible to distinguish a Direct-trade model of cacao and chocolate supply and production that aligns to the bean-to-bar market sector.

A structural understanding of the bean-to-bar value chain came from empirical work in Canada and then pilot study in DR. This first stage is reported outside the findings chapter as it shaped methodological choices. Subsequently, pilot results combined with the literature review informed the selection of Ecuador and Costa Rica as exemplars of a complex disintermediated trade system.

From a socio-cultural perspective and across time, cacao had religious, political, and social importance in the Mesoamerican region (Christopher, 2013). Cacao originates from the Amazon Basin and spread to Central America (Christopher, 2013). Other authors posit that the origins of cacao can be traced to Ecuador as being the birthplace of cacao (Young, 2007) through archaeological evidence of over 5000 years (Valdez, 2019). This becomes particularly important for understanding how the informants make sense of priorities. Informants may relate historical events and tradition to make choices that step outside of economic frames and towards the resource maintenance approach discussed in the literature review section. This should support a case for sustainable development and how informants relate and make sense of their experience.

From a business management and development perspective, Barbier (2003: 450) states that “[i]n Latin America, inequalities in wealth between rural households also have an important impact on land degradation and deforestation processes. Such problems are exacerbated by government policies that favour wealthier households in markets for key resource, such as

land.” For example, in Costa Rica, 60% of farms lack land title and are occupied for agricultural production with secondary effects such as clearing of trees and loss of biodiversity (Barbier, 2004: 150).

Ecuador and Costa Rica have undergone production downturns due to fungal pathogens affecting cacao plantations, partially due to preservation efforts of national and ancestral trees that produce higher quality cacao known as cacao of fine flavour and aroma. This premium cacao is highly sought in the international market by chocolate makers and renowned chefs that dominate the playing field in gastronomy. Hence, while the commoditization of ordinary cacao persists in international markets; cacao that is characterized as fine flavour with aroma should not be treated the same and should not be subject to commodity pricing in international markets. While Latin America has experienced economic booms and busts, Ecuador was the only country where an economic boom had a positive and long-term effect relative to cacao production and exports (Ruales, 2013). However, economic reforms in Ecuador have ended or reduced credit subsidies in agriculture. This has negatively influenced agricultural trade (Valdes, 1996).

Ecuadorian cacao is recognized internationally as a premium product having strategic characteristics with alternative food networks based on the evolution of trade history.

According to González (2017), Costa Rica is also recognized internationally as having a premium cacao due to its geographical location, richness in soil, and sustainable characteristics. Economic and trade characteristics lend themselves toward alternative trade networks. Costa Rican cacao production is argued as of prime importance to the local economy. In 2012, the minister of agriculture and the private sector, in conjunction with the National Chamber of Fine Cacao began efforts to bring together the cacao sector at the country level. The Costa Rican cacao sector appears to thrive economically with government support and high-quality cacao

product that may rival Ecuadorian cacao. Therefore, Costa Rica is an important comparative location for this research.

### **3.3.1.1 Justification for an Exploratory Case Study**

A deep level of understanding within a focused investigation and intimacy produces “context-dependent knowledge” (Flyvbjerg, 2006: 221) that should enable the researcher to achieve expertise using the case study approach. While the value chain is being propelled by the bean-to-bar movement as a growing market sector and business trend; exploratory cases that deal with the trend and the subject of sustainable development in business are not readily available. Langley (1999) and Langley et al. (2013) posit that cases are appropriate for exploring a study involving tensions. Easterby-Smith et al. (2015: 54) epistemologically align case study design with constructionism. This epistemological stance is supported by Cox and Hassard (2007: 488); whereby, interpreting and representing the past to prospectively construct a future is exemplified by studies that have engaged sensemaking and narrative methods to problematize temporal research (such as, Boje, 2001; Weick, 1995). Further, Weick (1995: 15) argued that “[t]o talk about sensemaking is to talk about reality as an ongoing accomplishment that takes form when people make retrospective sense of the situations in which they find themselves and their creations”.

Acknowledging that some positivists make use of multiple case designs (such as, Robert Yin) or having aspects of flexible case design, where, positivist and constructionist epistemologies are shared for the generation of theory (such as, Kathleen Eisenhardt). The main concern from the positivist’s standpoint arises from lack of rigour and generalization, production of excessive data and allowance of free-will interpretation by researchers (Easterby-Smith et al., 2015). This study does not assume a positivist position to work with an observable reality in a value-free way, and as such it does not aim to generalize by making use of large samples and demonstrate



causality (Remenyi et al., 2010: 32-33). More precisely, in this study the researcher does not seek measurement, reduction to the simplest term nor statistical probability (Remenyi et al., 2010).

While, Gummesson (2000), a critic of case study research argues that exploratory case study research tends to be viewed with low status and as supplemental to other research methods; the opportunity to study an end-to-end value chain is unique, and in Stake's (1995: 3) terms intrinsically interesting.

A constructionist position argues that a “[g]ood case study is patient, reflective” (Stake, 1995: 12) and open to alternative and contradictory views of reality (Stake, 1995) as it is co-produced by the informants and the researcher. Hence, less concerned with validity and intending to provide a rich window to the informants multiple realities (Stake, 1995). Ghauri and Grønhaug (2005) acknowledge that case study research is adopted as a strategy when addressing complex, organizational, and managerial phenomena that is difficult to study with quantitative methodologies. Eysenck (1976: 9) suggests that the purpose of the case study is on understanding rather than justification or verification, “sometimes we simply have to keep our eyes open and look carefully at individual cases—not in the hope of proving anything, but rather in the hope of learning something!”. Hence, following Robert Stake (1995) this research adopts an emergent design to address the phenomena described earlier of influences on priorities and the understanding of tensions amongst the informants.

In the context of this study: a) no one has examined the end-to-end cacao and chocolate value chain in relation to sustainable development, so it has to be exploratory, and b) the value chain is a complex phenomenon involving multiple actors, all of whom make choices in the context of local conditions. This helps to gain insight into how the choices at each level connect in relation to sustainable development that is economically viable, socially beneficial and

environmentally friendly in both short- and long-term. The purpose of this research is to address understanding of in what ways the relationship between informants operates in a way that the shared concerns do not lead to the same divergence of interests as in a conventional trade system. As such, the study involves a range of temporal foci and contradictory priorities for present and future. In agroforestry and in particularly tropical commodities (such as, cacao) a rigorous assessment of decisions inclusive of choices is required to address sustainable outcomes for the future (Robbins et al., 2015). Further, while there are many studies conducted on temporality, research appears to have neglected temporality on the cacao and chocolate value chain, and in particular how choices shape organizational processes (Granqvist and Gustafsson, 2016) reinforced by cultural meaning across time (Shipp and Jansen, 2021). Temporal focus is defined as the extent that actors, groups, and organizations direct attention to single or combined dimension of past, present, and future dimensions (Bluedorn, 2002; Shipp et al., 2009; Zimbardo and Boyd, 1999). Temporality has been characterized as an important dimension of humanity and organizations incorporating concepts, mechanisms (Langley et al., 2013), temporal modalities (such as, past; present; future; Berends and Antonacopoulou, 2014), and relationships as foundational elements (Granqvist and Gustafsson, 2016). Within organizations, the temporal lens could be intertwined with the organizational cultures that may have different temporal expectations and norms (Blount and Janicik, 2001).

**IMPORTANT** – *A temporal lens frames the actions of actors that arise from a set of priorities underpinned by the actor's role and relationship within the trade network.*

Granqvist and Gustafsson (2016: 1010) suggest that “there is a lack of empirical research” on how “actors formulate new temporally constructed understandings” and “how these microlevel processes intersect with longer-term social, political, and economic trajectories” (Emirbayer

and Mische, 1998: 1011). Studies “have overlooked how actors enact and manipulate understandings about temporality” (Granqvist and Gustafsson, 2016: 1009). Das (2004: 58-59) suggests that the organizational literature “failed to recognize the significance of the temporal dimension beyond acknowledging that there is a conflict and potential trade-off between the short term and the long term”, and thus, “[t]he strategic essence of keeping the organization continuously relevant to the unfolding future time is unthinkingly ignored”. Kunisch et al. (2017) suggest that temporal focus plays an important role as past, present, and future energize actors to act in a particular manner by allowing them to “imagine various futures” and “select their preferred end states” (Karniol and Ross, 1996: 595).

Following the work of Reinecke and Ansari, and, Slawinski and Bansal enable a sharp focus for research that examines the trade-based tensions across temporalities experienced by the informants in relation to this study. Reinecke and Ansari (2017: 410) exemplify competing temporal structures linked to sustainable development that have “important implications for organizational and field level phenomena”. Furthermore, recent work by Shipp and Jansen (2021) calls for cross-disciplinary research that addresses the influences of temporality.

### **3.3.1.2 Justification for the Use of Logics of Inquiry Within a Process Ontology**

Jarzabkowski et al. (2017: 249) “challenge the artificial distinctions of inductive, abductive and deductive methods of analysis” arguing that in strong process approach it is necessary to use a variety of logics of inquiry, to get to the depth of understanding.

When dealing with the narratives of actors making sense of tensions in their relationships relative to past, present and future priorities, the researcher has to identify what appear to be important patterns in the dynamics that emerge in the data. Initially this involves an inductive logic that moves from the specific to the general. To understand what underlies these patterns of sense making activity, the researcher abductively generates hunches and pursues anomalies

as to what is happening. To assess whether these hunches are worth pursuing requires return to the literature to deepen and strengthen the interpretive effort, and then further coding and recoding in an iterative cycle of activity. At times the researcher may also deduce that certain theoretical concepts are at play in a framework of process activity. As Jarzabkowski et al. (2017: 250) “[c]laiming something is not inductive, simply because it uses a pre-existing theoretical term to label an emergent category in order to acknowledge other’s work, is simplistic”. The themes derived through the literature review enable the characterization of the inquiry. From an abductive strategy stance, abduction incorporates and weaves “meaning and interpretations, the motives and intentions, that people use in their everyday lives, and which direct their behaviour – and elevates them to the central place in social theory and research” (Blaikie, 2009: 89).

An abductive strategy is not limited to answering why questions and can very well answer what questions as an “extended process” (Blaikie, 2009: 91) to the inductive inquiry. This enables an immersive inquiry process to shape and reshape the researcher’s understanding iteratively, across contexts, informant’s accounts, relationship types, and group types.

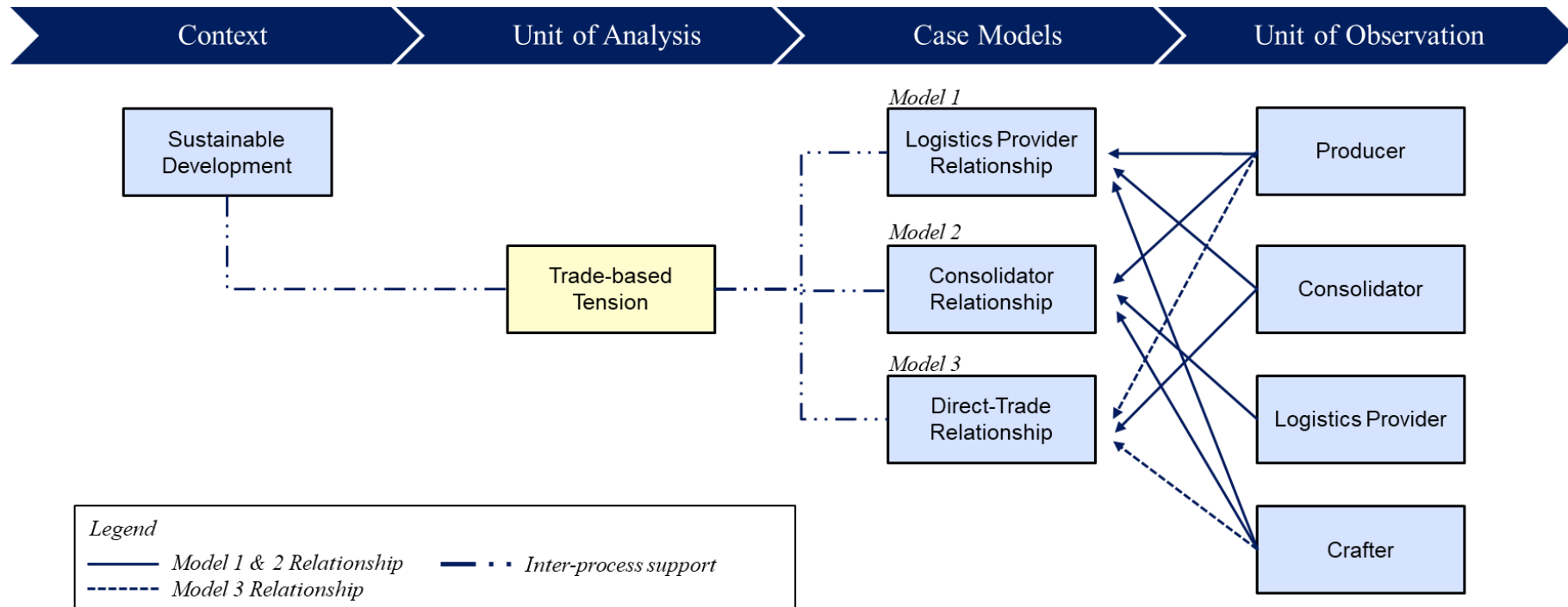
The purpose is to describe “activities” and “meaning”, and, derive “categories” and “concepts” that enable understanding of the informants’ priorities (Blaikie, 2007: 90) assisting to answer the research questions in this study.

### **3.3.1.3 Justification for Unit of Analysis Selection**

As already mentioned, the research makes use of three nations for the geographical fieldwork (Canada; Costa Rica; Ecuador). The context of sustainable development sets the boundaries for the research and with the aim to answer the research questions (Remenyi et al., 2010). This study uses a multiple case approach with a single unit of analysis – the trade-based tension that arises from the model (e.g., Model 1 - Logistics Provider) in the value chain (see Figure 3.1) as

shown with the inter-process support connectors. It is assumed that informants interact at different levels in the trade process, some taking-on different roles and may be more aware of the juxtaposition of opposing forces, since they interact with players faced with different temporal pressures at both ends of the value chain. Therefore, as the trade-based tensions change overtime based on the various roles of the informants, the unit of observation enables understanding the unit of analysis. The relationships between the unit of observations (e.g., producer) forms the different case models (e.g., between the producer and crafter – direct-trade), as shown with directional arrows and a solid connector. The relationships may exist between two businesses, a business and individual or between two individuals. This implies that an individual may not necessarily have a formal business. The focus is on direct-trade, shown with the dashed-lined connector. While the informants are separated by time and space, the approach enables understanding of the context that is constituted between the informants (such as, perspectives and the social constructions) and it is conducive with informing theory (Stake, 1995). The following section details the use of the relationships' models in relation to the research strategy.

Figure 3.1 Unit of Analysis Relationship in Multiple Case Design and Context

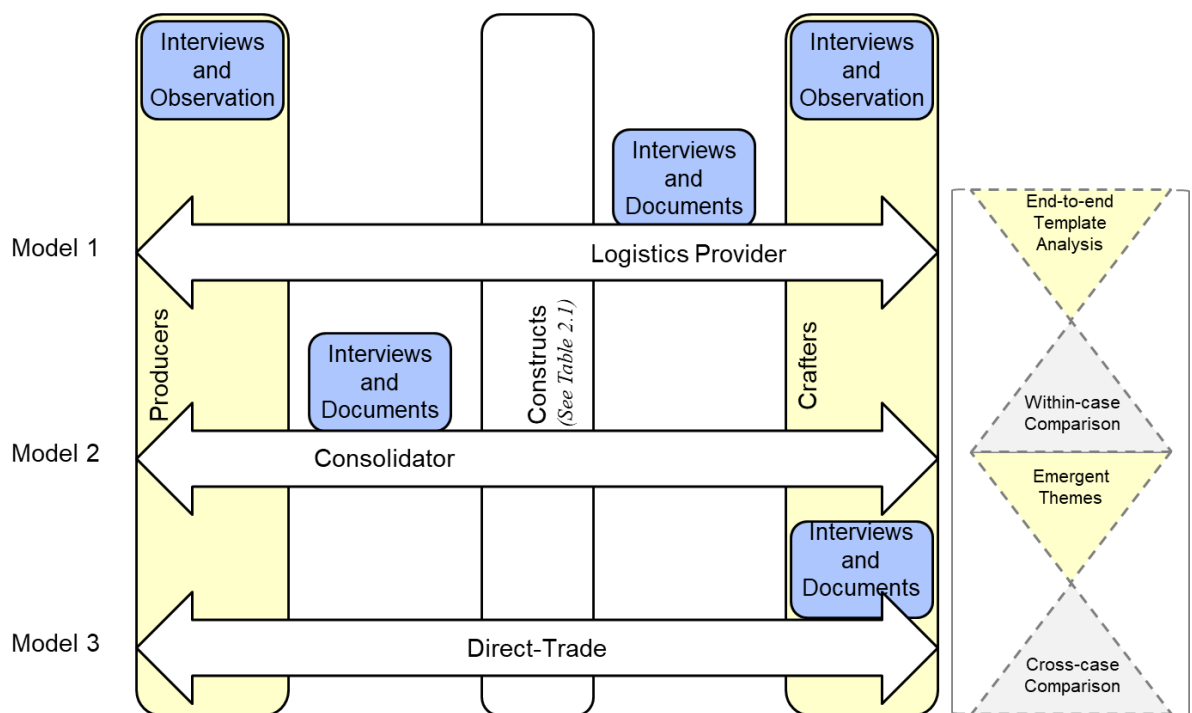


Source: illustrated by author

### 3.3.2 Case Models

The case model design takes into account the themes distilled from the literature review that were used for obtaining the accounts from informants and analysis of this study, as an iterative analytical cycle (*see Figure 3.2*). These areas are discussed in the sections proceeding the case models.

Figure 3.2 Relationships Case Study Models



Source: illustrated by author

The logistics provider relationship involves the producers or consolidators conducting trade with the importer. In other words the business that imports the product sources product directly from an individual or group of producers. The consolidator relationship involves producers that conduct trade with a business that aggregates product (e.g., regionally within a city or at different sites across the nation). The consolidator acts as a holding and processing point

between the producer and the source of export or import. The direct-trade relationship involves the producers conducting trade directly with the chocolate crafter. As such the crafter deals directly with the producer without the need of a middle man other than when shipment of the product is required through a carrier (e.g., airline). A direct-trade relationship is the shortest relationship in the intermediated value chain. These three relationships are included in the Case Models.

In order to answer the research question, the researcher emphasizes critical characteristics such as, the uniqueness of the case model (such as, direct-trade; consolidator; logistic provider), case selection by business type and geographical location and access to informant types (e.g., consolidator; crafter; logistics provider; producer). Critical model characteristics include: a) roles and corresponding relationships; b) distilled concepts (*see Section 2.7 - Identification of Concepts Distilled from Literature Review; Table 2.1*); c) accounts of informants; and, d) analytical cycle. These are summarized in the next section with greater detail provided in the sections that proceed it.

### **3.3.3 Cases**

#### **3.3.3.1 Roles and Corresponding Relationships**

In this study, case categorization enables the pairing of informants with the producers, such as, consolidator, processor, exporter, importer, or chocolate maker. Hence, these roles are aggregated as that of a crafter, consolidator, logistic provider and producer that are applied to the informants. This categorisation enables a concrete association between roles in the value chain as the cases used in this study (*see Table 3.1*) while being important for answering the second research question.



Table 3.1 Relationships Models

Model Type	Category	Upstream Value Chain Relationship	Downstream Value Chain Relationship
Model 1	Logistics provider	Producer; Consolidator	Crafter
Model 2	Consolidator	Producer	Logistics Provider; Crafter
Model 3	Crafter	Producer; Consolidator; Logistics Provider	Retail Consumer

Source: compiled by author

### 3.3.3.2 Distilled Constructs

Construct are deduced from the analysis of the literature review. These constructs are a-priori as a process for the development of semi-structured questions, and for answering the research questions of this study. The centre pillar in the case study model (*see Figure 3.2*) is composed of constructs that are related to the derived concepts, and for theorizing on themes that may at the same time become recurring patterns across the relationship between the informants.

### 3.3.3.3 Accounts of Informants

While all informants are important in this study, the producers and the crafters demarcate the beginning and end of the value chain, from farm to retail. Model one and two are intersected by a logistics provider and a consolidator respectively; while model three forms the direct-trade relationship between the producer and the crafter.

Eisenhardt (1989: 534-535) argues that “case studies typically combine data collection methods”. Techniques for data collection were chosen to suit the constraints of each actor. For example, interviews provide producers an opportunity to speak in their natural language and in their own setting, with members of family around them. This enabled the researcher to get closer to the reality of the informant, exposing clues that may be captured in language and in the cultural differences between the informants. Observations (such as, recorded in notes and

as photographs) were useful for obtaining clues on the informant setting and interpreting passages that may relate to living conditions and resource limitations, for example. Documents and text are rarely used by producers but more often generated by crafters as marketing material such as information on chocolate-bar wrappers, pamphlets or information sheets, and business documents such as reports. These methods enable data collection of informant accounts for all models.

Differences between the three models of trade relationships were subject to cross-case comparisons; while differences between the informant's accounts for each model are subject to within-case comparisons. Both, cross- and within-case comparisons make use of emergent themes that were processed using template analysis.

#### **3.3.3.4 Analytical Cycle**

A set of a-priori constructs provide an initial framework for Template Analysis (TA). This enables the identification of themes based on the constructs and possible new emergent themes that arise from a cycle of within- and cross-case comparison. As a cycle, this enabled focus on the raw data towards a process of refining interviews, observations, documents, and images.

#### **3.3.4 Key Informant Target Selection**

Key informants were selected on the basis of purposeful sampling (*see Appendix E – Sampling Purposes: Characteristics and Identification of Potential Informants*). One of the Logistics provider attended The Winter Chocolate Show in February of 2019. This key informant is the main supplier to most of the crafters from Canada. In addition, the key informant has extensive relationships with producers throughout the world and with other subject matter experts in the market. Other key informants such as a consolidator and chocolate crafter from Costa Rica and a chocolate crafter from Ecuador have been researched through informal conversations and by

exploring their social media content. The previous have importance to this research for localized fieldwork in Costa Rica and Ecuador. A public organization under the Costa Rican government was helpful in providing guidance to key people in the field and facilitated transportation for the researcher in some areas. Likewise, a private company in Costa Rica and another one in Ecuador, provided initial fieldwork guidance and contributed with some transportation without restricting the researcher on the investigating approach or methods.

### **3.4 Theoretical Design**

Qualitative researchers may use one or multiple methods to study spoken and written records (Punch, 2005). As the research process is iterative, after the identification of some themes, methods were chosen to get more data about certain constructs. The following section details a systematic process that leads to the abstraction of constructs from secondary data which are foundational for supporting the research questions and developing the semi-structured interview.

#### **3.4.1 Theoretical Concept**

Since this study deals with a complex and multidisciplinary phenomenon, the study was conceptualised through an interdisciplinary literature review that led to Distilled Core Concepts (*see Section 2.7*), then some core concepts were identified that guided the focus of the data collection. As a process this led to planning for the identification of the constructs in this study (*see Appendix A - Construct Development and Thematic Integration Plan*) and the identification of concepts applied to the business case narrative (*see Appendix B - Construct Distillation and Coding*), as interpreted by the researcher based on current knowledge and prior experience from the informal pilot fieldwork in DR of the cacao and chocolate value chain.

Then, the researcher analysed the literature to establish the constructs that are relevant to understanding the conceptual meaning of trade-based tensions, sensemaking, and sustainable priorities (*see Appendix C - Construct Identification and Classification*), classified (*see Appendix D - Construct Merger and Identification to Key Literature and Study*), and serving the purpose for the development of semi-structured interview questions (*see Appendix F - Semi-Structured Questions, Constructs and Data Sources*).

Themes are grouped supporting a process to develop semi-structured interview questions and are set a-priori to fieldwork, namely as dimensions with the purpose of categorization only.

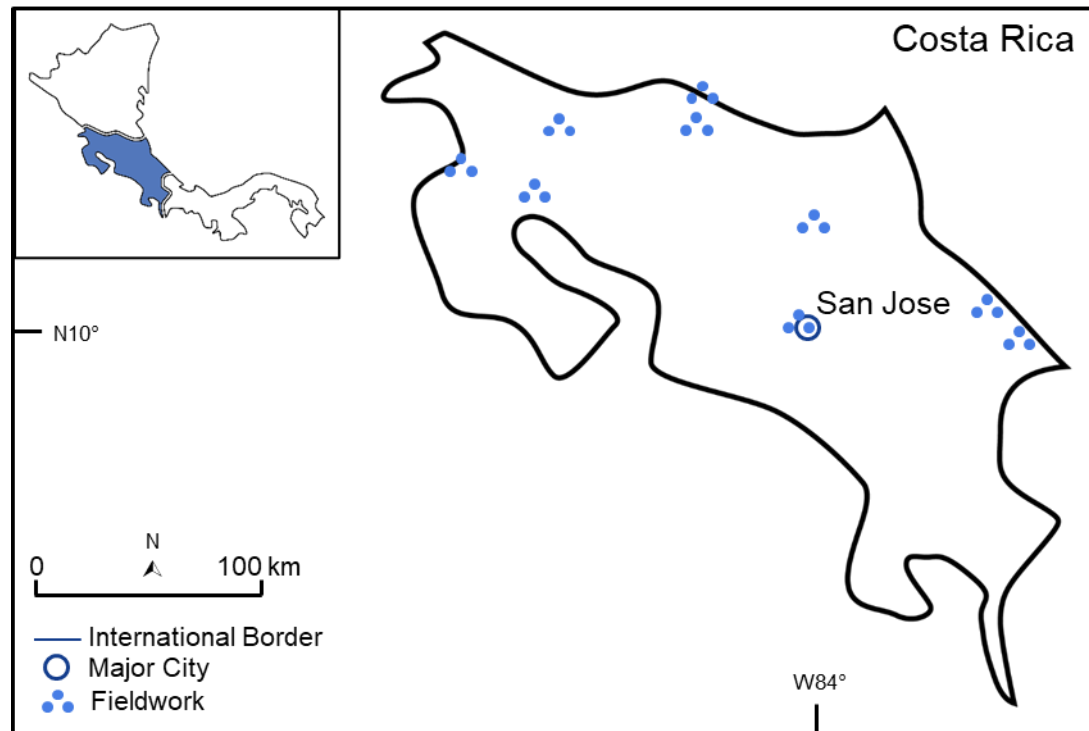
### **3.4.2 Fieldwork Plan**

In relation to this study, cases are an appropriate method to explore a process that involves trade-based tensions (Langley, 1999; Langley et al., 2013). Therefore, from an exploratory perspective and in order to understand the views of the informants in the various regions for addressing the research question, the researcher has embarked in observing practices in the field of the informants as well as obtaining first accounts from the informants (such as producers and workers of producers) in limited access areas, while supporting the research with concepts distilled from the literature. The data collection process was conducted over a one-year period starting with interviews with the logistics provider and crafters in Canada, and progressing to key informants and producers located in Ecuador and then in Costa Rica (*see Figures 3.3; 3.4*). Producers were selected having the characteristics of a small-holder a-priori. In the snowball process, new potential producers are either accepted or rejected maintaining consistency with the research participation acceptance criteria.

The informants in the trade system generally transfer the cacao beans from the producer to the logistics provider and then to the crafter. Alternatively, producers may transfer product directly to crafters, or to consolidation points – where it is then transferred to the logistics provider.

In Costa Rica, nine fieldwork sites and twenty-five informants contribute to this study from the main cacao growing areas. This embraces the different climatic regions and cultural ways of life of the informants.

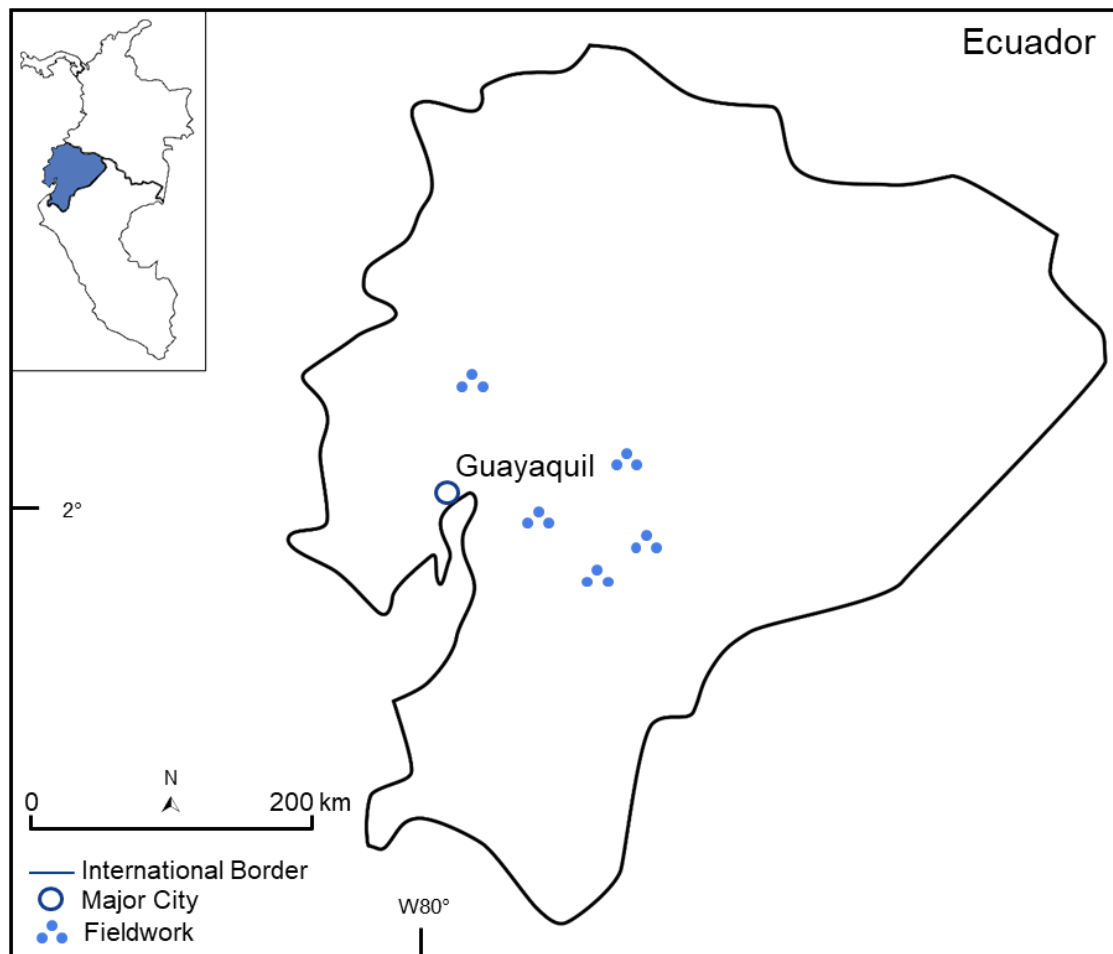
Figure 3.3 Fieldwork Location: Costa Rica



Source: illustrated by author

In Ecuador, five fieldwork sites and seventeen informants contribute to this study from key cacao growing areas. Informants include internationally acclaimed small-holders having a historical foothold in the fieldwork sites.

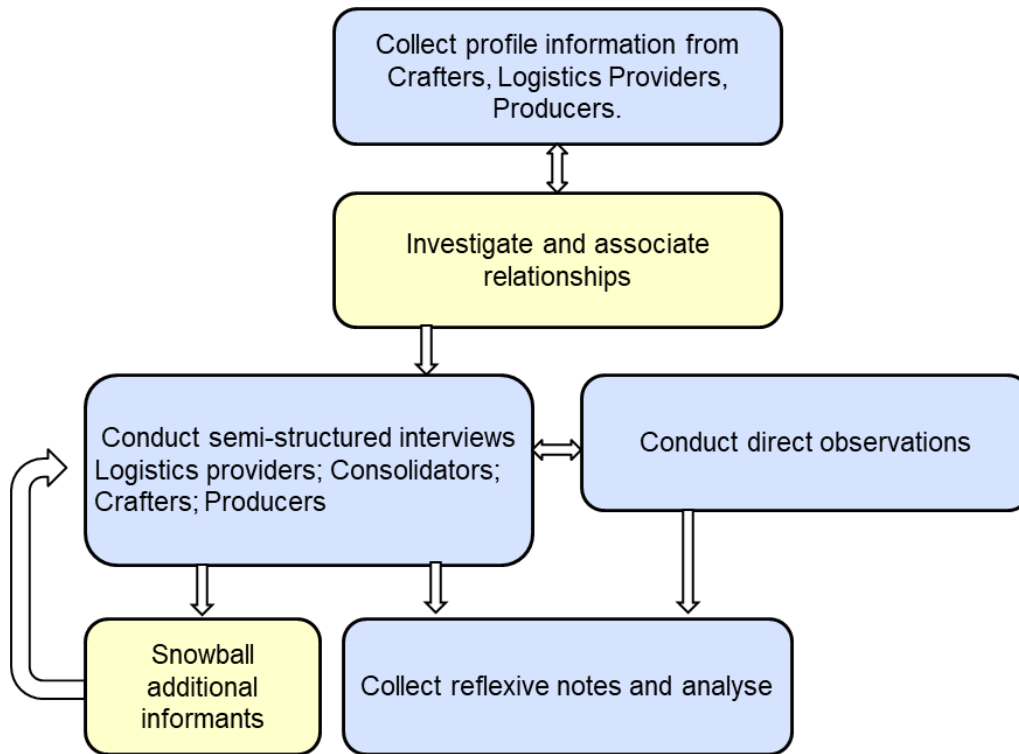
Figure 3.4 Fieldwork Location: Ecuador



Source: illustrated by author

The primary research instruments are interviews and observation (*see Figure 3.5*).

Figure 3.5 Fieldwork Plan



Source: illustrated by author

### 3.5 Methods, Data Collection and Process of Analysis

Stake (1995: 39) exemplifies effectiveness by drawing on how “[q]ualitative researchers treat uniqueness of individual cases and contexts as important to understanding” and acquire perception through “key episodes or testimonies” (Stake, 1995: 40). As previously outlined in this study, a semi-structured interview contributes rigorously to qualitative research (Kallio et al., 2016) that is supported by determined constructs. This enables a set of questions to elicit information from the informants and address the research questions and research problem. The semi-structured interview is specific, having a purpose. Other methods for qualitative data collection are relevant to this study and discussed underneath.

These qualitative methods are comprised of open interviews and observation activities with crafters, logistics providers, and producers. Interviews and observations are recognized in social

science as complimentary methods to one another (Roulston and Choi, 2018). Utilizing interviews and observations enabled the researcher to explore the trade-based tensions experienced or not by the informants by understanding the informant's priorities and how the informants make sense of the situations.

Following, data collection methods are addressed. Including, types of observations, interviews expectations, involvement of informants in the process of primary data gathering, and, the relevancy of to the cases and importance to the study. The discussion progresses sequentially, starting with ethics approval and informed consent (*see Appendix G – Inform Consent*), towards the type of informants, the process of immersion in the fieldwork and instruments utilized in the fieldwork.

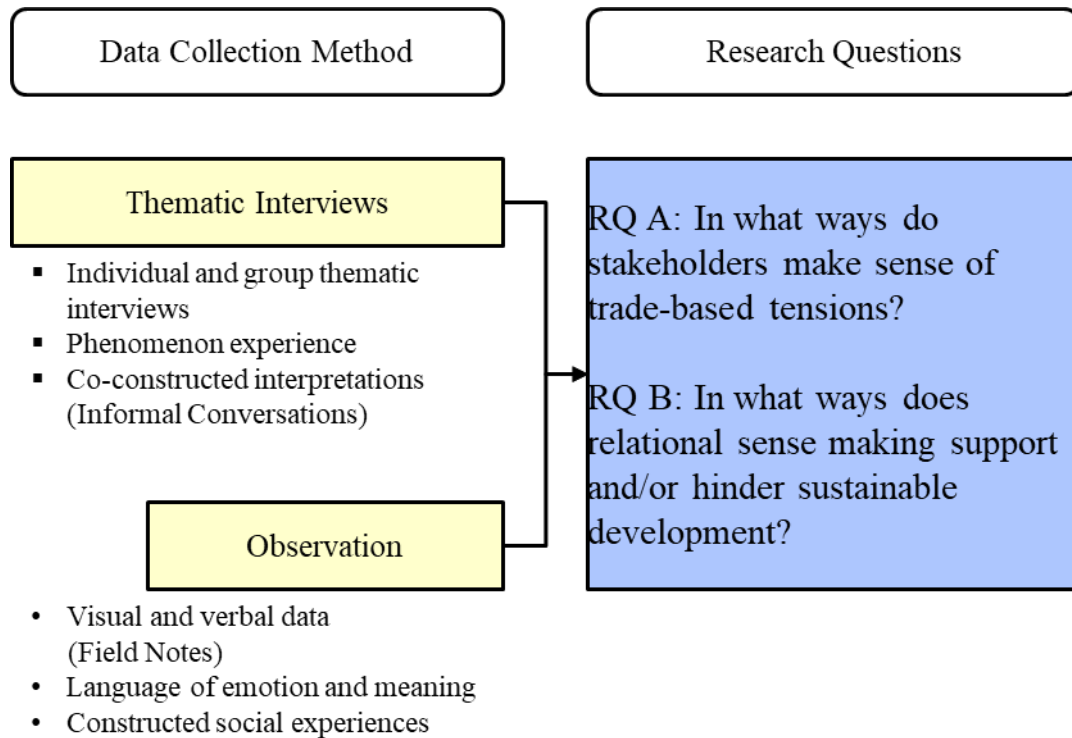
While observation and interviews were the planned primary instruments for this study, these had to be adapted based on the circumstances that were encountered while conducting fieldwork. Eisenhardt (1989) suggests that data collection methods may be altered during a study.

In relation to the case study models, the data collection method of thematic interviews was most applicable, while observation was limited to short instances at times for some of the informants (consolidator; crafter; logistics provider; producer). As supportive data collection methods, informal conversations were helpful for interpreting the everyday life of the actors, while field notes to a certain degree were helpful in planning, organizing and follow-up actions.

The methods chosen addressed the research questions (*see Figure 3.6*).

Figure 3.6 Choice of Primary Methods to Answer the Research Questions





Source: illustrated by author

### 3.5.1 Ethics Approval Process

This study conducted observations at the various facilities of crafters and producers and engage in semi-structured interviews. Following ethics approval, the first letter and consent form was hand-delivered to the logistics provider being a key informant. Consent was obtained shortly after. As outlined in the *Key Informant Target Selection* section, the logistics provider was identified through informal conversations at the 2019 Winter Chocolate Show in Toronto. Based on expert advice provided by the logistics provider and through on-going informal conversations, introduction letters were submitted to the crafters. These letters stated the intent of the research and its purpose including the research question in the language of the prospective informants. A short introduction about the researcher was included, along with an article published in the business media. This allowed the prospective informants to familiarize

themselves with the research and the researcher. van de Ven (2007: 242) posits that involvement of people “increases the likelihood of incorporating their perspectives but also their voices in research findings”.

### **3.5.2 Informed Consent**

In this research, all of the informants were assured anonymity. Several consent form types were used and distributed to informants. This included consent forms in the languages of English and Spanish. Most informants provided explicit consent. A few took a dual role. First, they explicitly consented for themselves. Second, they certified consent on behalf of producers who either could not sign due to illiteracy or who felt that personally signing a document was tantamount to a legal act because of their life experiences and cultural norms. Based on the first fieldwork experience in Ecuador and to mitigate issues with explicit consent, all fieldwork conducted in Costa Rica was witnessed and the research ethics protocols were shadowed and acknowledged in writing by an external party accompanying the researcher.

The literature review indicates that most producers live in poverty. Cacao producers in this study averaged fifty-five years of age. The youngest twenty years of age and the eldest eighty-six years of age. Most of the producers have dedicated their lives to working on the farm to provide for their families. This has led to an imbalance of education primarily in the older generation across time, being unable to complete elementary schooling. The younger generation has been able to attend university in some cases; however, higher-education is not common. In relation to this study, only one producer interviewed was in the process of completing agricultural studies.

Based on the previous, in this study some producers were unable to read the consent forms, others hesitated, while others dismissed it as an unnecessary process. On one occasion the researcher had to read the type-written consent form and date the form upon request of the

producer. The producer went on to visually scan the form and mentioned “Estoy fijándome que lo que me dijiste está aquí escrito [I am looking to see if what you told me is written here]”, followed by, “¿Puedes marcar donde firmo? [Can you mark where do I sign?]”. This situation did not arise out of lack of will-power, it clearly indicated to the researcher that some producers were not able to read, creating a very uncomfortable situation for the producers and hence a very unnecessary process indeed. Culturally, paper work that requires a signature is viewed as a major event, such as the signing of a deed for land. Producers live their daily lives based on their word as a sign of promise and sometimes a handshake, synonymous with a signature on a piece of paper. For some, this traditional approach has more weight than a scribble on any piece of paper. Consent forms for some informants in this study were invasive and were not viewed in the same way as it would be viewed or welcomed in a developed nation. Nevertheless, every informant that did not sign a consent form was fully informed by the researcher and in a verbal manner the ethical procedures that were being followed and their rights as an informant were witnessed by a third party.

Where the situation required this type of implied consent arrangement, the third parties signed an attestation that all research ethics procedures were followed by the researcher. In addition, where it was possible, the researcher included a third-party to oversee the ethics disclosure process prior to interviewing informants. The third-parties at different times of the research process included, a key informer and a government official, and a peer that also engaged in a peer-briefing process with the researcher. The third-parties have signed a letter of attestation, confirming that the research ethics and due diligence process were followed by the researcher with every informant interviewed. It is important to note, that all of the informants accepted to participate in this research study by providing their informed consent voluntarily and without coercion. In addition, informants accepted to participate in this research without receiving any

economic benefits. In the same manner, the researcher voluntarily disclosed to every informant that this research study is being realized without economic interests or benefits prior to conducting the observations and interviews for this study. No parties received any economic benefits as a result of this research study. All of the original consent/attestation records were securely archived and have been submitted to Henley Business School on completion of this thesis.

All informants are assigned a unique code beginning with the letter [i] and are numbered sequentially in no particular order. This random assignment adds a further layer of security for the purpose of analysing the results and not being possible to decipher by numbering the identity of any individual. The researcher is the only person that is able to decipher the sequence and identify the informants. This is particularly important to note for the analysis of data.

In this study, the informants can be categorized as: a) crafters; b) logistics providers; and, c) producers. Other informants may be included such as subject matter experts and local government officials with experience in the cacao and chocolate sectors.

The selection of subject matter experts, key informants and some of the crafters was conducted as a convenience sample, while producers and all other informants (such as government officials) were based on a snowballing process as the fieldwork progressed.

Observations were captured as photographs that could serve as evidence in the analysis, and semi-structured and open interviews with the producers. The research activities were conducted in the native language of the informants and sometimes in the English language. The research process allows for the collection of artefacts – physically, video recorded or captured through photographic images. Initially, at least ten producers were expected to participate in the primary data collection process of this study. However, the number of informants interviewed exceeded

the expectations between Costa Rica and Ecuador. Some producers had multiple roles, such as being a producer and a crafter.

The following sub-sections detail the data collection methodology for each type of informant.

### **3.5.3 Producers (Initial Steps)**

The producers are the small-scale farmers. Prior to fieldwork and primary data collection, minimal information was known about these informants. In relation to this study, producers are situated in Costa Rica and Ecuador. Secondary data provided guidance of the producer's characteristics. The data includes, name lists, government-maintained profiles, and information obtained first-hand through interviews conducted with governmental officials, crafters and logistics providers. Producers are not concentrated in specific areas of Costa Rica and Ecuador; therefore, the researcher had to be immersed in the fieldwork to access areas that span across the country and negotiate access while the snowballing process took place. Producers live in rural areas that are typically difficult to gain access to due to language barriers, cultural differences and cultural integration, transportation methods, safety and security of the researcher, unmarked locations and addresses, road and path conditions, and at times flooding of areas impeding access. Cacao producers live and work with their families. The farms could be as small as two acres. Cacao harvest can be sold to local consolidators or intermediaries either wet or fermented and dried and sold locally or internationally. The level of education and knowledge of exporting practices create implications for direct-trade activities between a producer and a crafter.

### **3.5.4 Crafters (Initial Steps)**

The crafters are informants of interest that have been identified in the Case Selection with a relationship type that is closest to the producers, and a production focus that is balanced between

batch production and single or specific products (*see Section 3.3.4 – Key Informant Target Selection*). This balance was assessed by the type of business the crafter operated. There are crafters that import beans without ever setting foot on a cacao plantation while others simply visit the plantations to support website marketing activities.

**IMPORTANT** – Multinational enterprises such as, candy bar makers or resellers at the production or retail level do not fit the criteria of this study and were rejected from participating in this study.

A selection criterion determined eligibility to participate in the study based on, craft practice, involvement with producers, and sustainability initiatives. This criterion was applied by reviewing website content. Flick (2009: 278) posits that “[w]eb pages are good examples to study and show the social construction of reality and specific issues”. Two out of four crafters of interest identified in this study from Canada were included in the primary data collection process where interviews took place, while informal conversations were held with other crafters in the 2019 and 2020 Winter Chocolate Show in Toronto.

Initially, the crafters were selected by the researcher on a purposeful basis (*see Section 3.3.4 – Key Informant Target Selection*). This includes crafters that are Canadian based, along with one crafter from Costa Rica and another from Ecuador. The crafters became key to the research as their knowledge and connections to producers enabled a snowballing process to other local producers with the role of harvesting cacao only. The relationship of crafters with producers in Costa Rica and Ecuador provided leads to the local informants via a snowballing research process.

Crafters are segmented accordingly in the Trade Relationships Models (*see Section 3.3.2; Research Strategy*).

### **3.5.5 Logistics Providers (Initial Steps)**

Importers or exporters are logistics providers who assisted in mediating research and data access with some crafters and most importantly with the producers. As previously mentioned, the researcher was introduced to an importer in the 2019 Winter Chocolate Show in Toronto. At that time, the importer (I1) was the only importer of cacao beans into Canada from all over the world. The importer was recruited as a result of an informal meeting to explain the research purpose. During the conversation it became apparent that the importer could a) become a key informant and b) facilitate access to others to help answer the research question. According to van de Ven (2007: 289) “the parties must come to know each other and negotiate their advisory or collaborative relationship- including how they will accommodate, adapt, and integrate their different perspectives on a problem or question being examined”.

During a 2.5-hour informal meeting, the importer (I1) demonstrated interest in the participation of this study. The logistics provider agreed for its identity to be acknowledged in future publications. The writer and importer discussed collaboration strategies to a) bring consumer awareness of cacao and chocolate origin; b) enable a sense of awareness for recognition of cacao producers; c) collaborate and corroborate data between the writer and importer; d) include importer in future published work arising from the research; e) collaborate on events. Initially, there was one logistics provider, additional logistics providers at the local levels of Costa Rica and Ecuador were recruited later in the study. These logistics providers had other roles in practice, including the role of consolidating cacao from producers in selected localized areas.

### **3.5.6 Interview Design and Guide**

Interviews proceed with a semi-structured interview guide, developing a deep understanding leading to “emerging patterns”, in contrast to “scripted patterns” (Jarzabkowski et al., 2017: 244). Patterns emerge between the interactions of actors without a predefined sequence (such

as, common goals). During actor interaction “activities are designed and aligned, sequences emerge, and - over time - a pattern develops” (Jarzabkowski et al., 2017: 244). Emerging patterns are analyzed retrospectively; and hence, elicit retrospective ties to the past (Cox and Hassard, 2007). While Cox and Hassard (2007) suggests that there are risks of informants accurately reconstructing their past in their sensemaking, these risks can be managed through triangulation and comparisons across cases.

### 3.5.6.1 Semi-structured Interviews

Semi-structured interview questions were primarily designed for both crafters and producers. The questions accommodate other informants such as logistic providers having involvement within the trade process. This enables the understanding of different perspective between the informants.

Tour questions enable informants to discuss topics with openness that are unique and can relate to experiences in their lives. While these type of questions may be generic in nature (Rubin and Rubin, 2011), it requires guidance by the interviewer (*see Appendix H – List of Thematic Semi-structured Interview Questions*). For example, as crafters would be familiar with their business from the inception of the business, a tour questions such as: in regards to future generations, what is your organization’s purpose? seems appropriate. The latter part provides informants a comfortable space to discuss a topic; while, the former part of the question enables focus. The researcher does not expect that all informants have prior experience or familiarity with the topics. Some informants may gain awareness of the topics discussed while engaging in a conversation. This may lead into new and emergent areas where the research may need to maintain question boundaries or sharpen the focus in the search to obtain greater depth.

While example questions are similar to tour questions (Rubin and Rubin, 2011), these are much more focused and enable the informant to make reference to an act or event (Leech, 2002). For



example, could you give me an example of a time when your organization and a partner used past experience to make a decision for the future? As such, stating of a time that enables the informant to frame the question in relation to a specific event.

Prompt questions have a dual purpose as these provide greater specificity than example questions (Rubin and Rubin, 2011) and enable the interview protocol to be re-tuned as needed in order to obtain information that is desired for coding (Leech, 2002). There are various categories of prompt questions such as informal, floating, and planned. Prompt questions in the interview guide are pre-planned to gather details crucial to the study. For example, could you describe the role of increased demand for chocolate related to livelihoods? seeks to gather the informant's perception on how increase demand for chocolate in the north affects the livelihoods of the producers for the supply of cacao beans in the south.

Floating prompts such as why and how, why not and what if could be used to interject should the informant need to be directed towards information that is desired, while searching for a fuller explanation of the informant's argument or perspective.

### **3.5.6.2 Semi-structured Interviews Question Design**

Marshall and Rossman (2006: 12) posit that “[b]y linking the specific research questions to larger theoretical constructs or to important policy issues, the writer shows that the particulars of the study serve to illuminate larger issues and therefore hold potential significance for that field”. In relation to this study, the semi-structured interview questions (*see Appendix I – Interview Questions; Appendix J – Open Interview Questions*) are derived from themes that have been distilled from the literature review a-priori (*see Section 2.7 – Distilled Core Concepts*).

In relation to the specific semi-structured interview questions, the word partner is generic and can be interchanged in the relationship, such as with either a crafter or producer, depending on

whom the questions are directed to. For example, when interviewing a crafter, the word partner signifies producer, and when interviewing a producer, it signifies crafter. In addition, when interviewing an importer, the word partner signifies either producer or crafter or both. This enables the gathering of information that could be compared and triangulated between the informants and between the various models.

### 3.5.6.3 Interview Guide

King, (2004a) suggests that interview guides do not represent a formal schedule of questions to be used word-for-word in a set order. The interview guide acquires structure with prior identification of generative theoretical categories for exploration related to the research problem of: *In what ways do trade-based tensions influence sustainable development in network relationships of the fine cacao and chocolate value chain?*

The interviewer should impose a relatively low degree of structure with a tendency towards open questions (King, 2004a). Hierarchically, the interview guide relies on open-ended questions that guide the informants towards specific areas (Rubin and Rubin, 2011). Koven (2014: 500) posits that “interviews are not one monolithic, predictable type of encounter that is equally familiar to everyone everywhere”, the data is co-constructed by the informant and researcher (Roulston and Choi, 2018). This enables exploration for the areas of interest by the informants while ensuring relevant data is collected by the researcher where events can be distilled with significance and shape the research study (Poole et al., 2017).

According to a systematic methodological study conducted by Kallio et al. (2016), data trustworthiness is obtained through rigorous development of questions when designing semi-structured or thematic interviews. Since possible questions that address the constructs in this study are organized categorically, the interview technique is referred to as thematic interview for the remainder of the paper (Crabtree and Miller, 1999; Miles and Huberman, 1994).

The thematic interview technique has several purposes: a) address the identified construct, b) group questions, c) sequence the questions, and d) use a drill down approach, moving from a generic tour question towards a more specific prompt type question.

In addition, while the interview guide contains a number of topics and probes to elicit detail from informants (Alvesson and Ashcraft, 2012), when an initial response appears inadequate, Kvale (1983) suggests that further probes should be applied such as, asking for examples to qualify the informant's accounts, hence, a degree of flexibility is required.

### **3.5.7 Fieldwork Immersion and Observation Process**

Some informants assisted in providing guidance with the fieldwork activities and enabled an iterative process for snowballing of new potential informants, providing local knowledge that was unfamiliar to the researcher.

While some informal interviews were conducted remotely, the majority of the fieldwork took place in situ in Costa Rica and Ecuador. A key interest in this study was to gain access to the producers. Accessing this group of informants is a challenging task that should account for physical access to the producer's location and any language and cultural barriers that may exist between the informants and researcher.

**IMPORTANT** – In prior studies of cacao trading in Costa Rica and Ecuador (Haynes et al., 2012; Melo and Hollander, 2013; Portalanza et al., 2019), researchers found it necessary to conduct fieldwork where the cacao is grown and immerse themselves in the natural setting to make sense of the network and ecosystem influences. Similarly in this study, when immersing in fieldwork, some observation took place prior to interviews; however, observation activities also occur in the process of conducting interviews.

Observation is how the researcher begins to make sense of the environment and social-economic characteristics that are taking place in-situ as the research process develops (such as, having conversations, developing a relationship between the researcher and the informant).

Observation as “participant-as-observer, who forms relationships and participates in activities but makes no secret of an intention to observe events” (Waddington, 2004: 154) enables the researcher to familiarise with the research setting. This provides an opportunity for a feasibility assessment.

While there is a risk of spending unplanned time at the different fieldwork areas, observation enables the researcher to engage at a more personal level with the informants by demonstrating interest in the setting and listening to cues from the informants.

The initial group of informants are most likely to provide the greatest amount of data that is rich in context. Unique life experiences that originate from the informants add richness and depth in the findings. This leads to findings that are conveyed through verbal and non-verbal actions, including documented and narrated types of data.

Observations occurred during guided tours, which offered the researcher a sense of the physical setting and its challenges as well as evidence of practical accomplishments. The process was helpful for getting to know the researcher, gaining first impressions, starting to build a trusting relationship prior to interviews (Rubin and Rubin, 2011). While participating as an observer (such as, taking part in the research) was a primary method, using film as an optional instrument to conduct parts of this study was helpful to review the settings at a later time (Brannan and Oultram, 2012). This type of observation allows researchers to be close to the informants and the details of interest in the fieldwork (Waddington, 2004) while recording details in a non-intrusive way (Brannan and Oultram, 2012). As a method, this allowed the researcher to

document the state of the environment (such as condition of the land trees, and facilities), the physical and emotional gestures of the actors (such as the level of engagement; facial expressions), and the sub-processes that informants engaged with in practice (such as, assessing the quality of the cacao; humidity of the cacao beans).

### **3.5.8 Data Analysis**

There is no ideal framework or method for conducting process research or qualitative research and the importance is: a) frameworks and methods matching the researcher's inquiry, b) acknowledgement of decisions, and c) recognition of decisions (Braun and Clarke, 2006); "[w]hat is vitally important is that the analysis is theoretically coherent and consistent" (The University of Auckland, 2016: 1). In the same manner, there are a variety of methods that can be used to generate data and approach the analysis of such data in qualitative research. An objective of this study is to deal with complex issues and in doing so it is important to recognize the inherited richness in the data that serves to unearth meaning through a process of interpretation and understanding. Punch (2005) posits that analysis techniques may interconnect, overlap, or complement the study. Miles and Huberman (1994) suggest that having focus on answering the research question, the data generated is viewed most appropriately. This requires a process of rigour and discipline (Punch, 2005). This view is also supported by Gray (2004: 319) stating that "qualitative analysis is (or should be) a rigorous and logical process through which data are given meaning". This provides greater confidence and add trustworthiness in the findings. In this study another aspect to consider is the criterion of reproducibility. While Punch (2005) suggests that reproducibility is debatable. According to Miles and Huberman (1994) qualitative studies are difficult to deny as words inherently are concrete and are able to transmit to readers meaning that is vivid and that has flavour. While some authors such as Gray (2004) emphasize criticism on methodological rigour, interpretive

subjectivity, and limitations such as by either the number of cases or evidence. Many emphasize the contribution richness and power that qualitative studies provide (Eisenhardt and Graebner, 2007; Langley, 1999; Ragin and Amoroso, 2010).

### 3.5.9 Template Analysis

This section discusses the application of Template Analysis (TA) for the interpretation and coding of data for this study. The chapter follows a macro to micro approach working towards the details. An overview of TA is followed by a description of the strategy, stages and template construction techniques that were used to integrate codes abstracted codes from the literature with the coding of interview and observation data.

TA follows a similar style as thematic analysis with some prior structure; It is adapted to the needs of the study (King, 2012; King et al., 2017) and was applied to support the constructionist epistemology (King, 2004b; *see Appendix K –Thematic Codes by Model Role and Informant Country Code*).

#### 3.5.9.1 Overview

TA is appropriate for “research which is concerned with discovering underlying causes of human action” (Miles and Huberman, 1994: 21). TA does not come with a set of particular philosophical assumptions and it is not wedded to an ontological or epistemological position (King, 2012). TA does not set limits across discipline boundaries (e.g., Business management and educational and clinical psychology research), is less time consuming, and is able to process larger data sets than other techniques (King, 2012). TA is inductive, iterative, and, makes use of codes to organize and analyse large amounts of qualitative data. Hence, these were the justifications for selecting TA.

King emphasises that “template analysis is, on the whole a more flexible technique with fewer specified procedures, permitting the researcher to tailor it to match their own requirements” (King, 2004b: 257). This flexibility allowed the analytical process in this study to evolve and adjust with the inclusion of both a-priori themes (Langley, 1999) abstracted from the literature and records from the data collection (King, 2012). The informant responses provided direct

access to lived experiences, exploring meaning to understand how informants make sense of priorities. Data interpretation proceeded with an initial objective of understanding the informant's priorities in relation to sustainable development at the individual level. Then, advancing to the stage of exploring and understanding linkages between informants' experiences across relationships that led to the tensions.

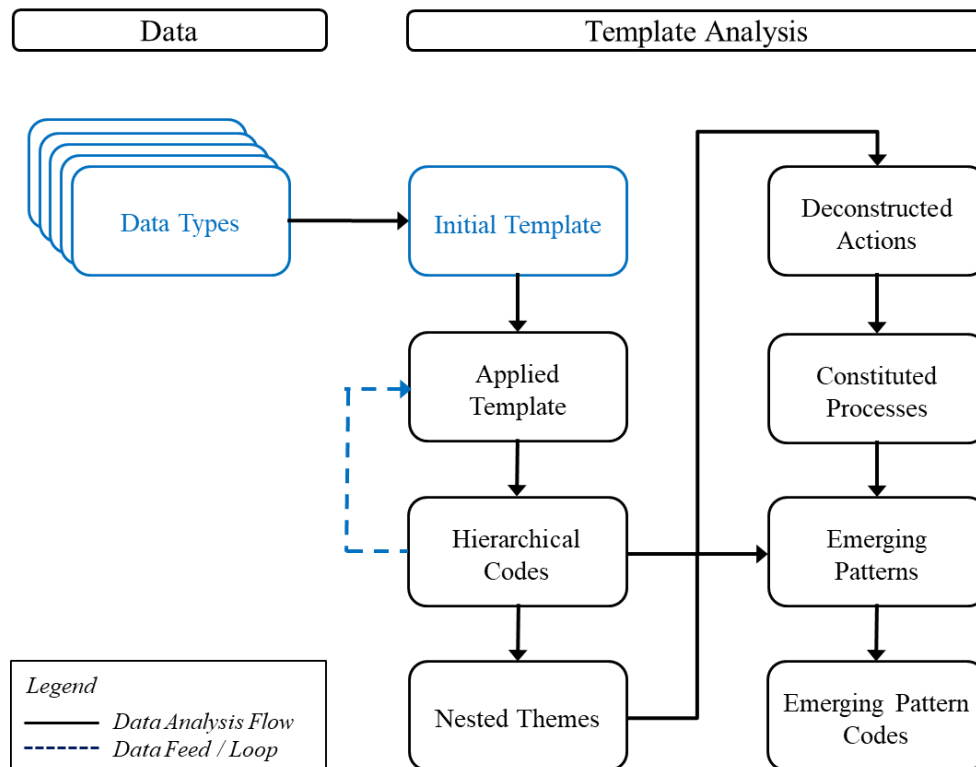
### **3.5.9.2 Strategy**

TA itself does not specify any particular process for the interpretation of data; however, King (2004b: 266) suggests that, "a strategy must be developed which fits the aims and content of the particular study". The interpretative strategy for this study is designed with the aim of an exploratory case study to gain insight by analysing emergent themes from the data collection. This is possible by structuring the analytical process and presenting a focused and streamlined approach that aims to answer the research questions (King, 2012).

Interpretation of the data is a mechanism to organise a broad array of exploratory themes and conceptual ideas to define understanding for the final template. This process had the distinct phases of both selecting and categorizing codes into iterative templates that are informed by a process of creating memos and coding of text sections from data immersion discussed in the following sections (*see Figure 3.7*).

Figure 3.7 Template Analysis Strategy





Source: illustrated by author

### 3.5.9.3 Stages

The researcher engaged in a process of: a) reading and familiarizing with the data (linguistic analysis about the text), b) carrying out preliminary coding (subset of the data), c) developing the initial template utilising the first template to make others, d) using the initial template to create iterative revisions for coding other data, e) producing a final (draft) version of the template, f) using the final version of the template (Applied Template) to interpret and map thinking and key findings around the topic, and g) carrying out quality checks at all stages as appropriate to fit the coding and analytical approach (King, 2012).

A-priori themes were considered for theorization and comprehension related to the aim of the research and the use of TA. In preparation for the coding process, codes that fitted the a-priori

themes (*see Section 2.7 – Distilled Core Concepts*) were acknowledged and used as a starting point in the creation of the first template (King, 2012).

#### **3.5.9.4 Initial Template and Themes**

The first stage of TA begins with the development of the initial template (King, 2012). The first template was based on a-priori themes that were abstracted from the literature and later as a process re-constructed from interviews and observation records. In this study, the initial template was then applied to the first transcript obtained from the interview with the logistics provider and all other documents (such as, observation records) followed in a sequential order as collected. Photographs and film were selected for analysis at the researcher's discretion, fitting with the aim of the study. The themes were re-defined as an iterative process extracting meaning from the documents providing more depth with reason on the key issues.

TA enabled the flexibility for themes to be inserted, deleted and re-classified throughout the coding process (King, 2004b). Crabtree and Miller (1999: 168) suggest, "it is important to keep in mind that codes can and usually should be flexible and open". The codes were kept open to change and the researcher maintained an open mind for the possibility of new emergent themes (King, 2004b).

King (2012) argues that the process is about the message that is being told and not so much about the code in itself. TA is an iterative process and tasks can be performed and then revisited (King, 2012).

The template derived a scheme of nested codes in an iterative process (King, 2012). The codes were then applied to the other transcripts (e.g., sixth transcript, seventh transcript) changing and adapting the initial template (King, 2012). As such, codes in subsequent documents lead to new themes. The hierarchical organisation of the template enabled the development of nested themes. This was a complex process that drove theorisation.

### **3.5.9.5 Coding**

Simultaneously with the process of creating codes, memos were recorded and coded for insight. TA was used to record and evaluate what the informant alleged, but also other aspects of data richness (e.g., the emotion in speech; influences towards responses; avoidance of certain topics). It was also possible to draw insight from what is omitted. Most times, the quality of the explanation given can be evaluated by looking at issues (Silverman, 2005).

Re-adjustment of the template throughout the first stage of coding enabled emergent themes to become included in the interpretative process (King, 2012) allowing the construction and generation of knowledge, and providing an opportunity to understand (Alvesson and Sköldberg, 2009).

TA uses codes to organise and interpret qualitative data. Codes derived from examined text were applied to sections that relate to a particular theme. Sentence by sentence coding enabled the generation of codes in detail. Coding paragraphs dissipated meaning from the data in contrast to obtaining detail conceptualisations. King (2004b) suggests that codes can be simple and descriptive, or deep and interpretative. Depending on both the phenomenon examined and style of presentation, the templates contained a variety of both. Open coding focused on action and processes using gerunds and maintaining openness towards emergent theoretical direction. Defining the codes using gerunds assisted to maintain a process focused and differentiating between the verb and the noun, such as organising over organisation (Jarzabkowski et al., 2007). Codes enabled the transformation of rich qualitative data into clearly identifiable themes related to the research questions. This concept resulted in the development of a code manual (Template), as a means of organizing text within the larger interpretative process (Crabtree and Miller, 1999).

TA does not establish an explicit distinction between descriptive (e.g., psychological and social factors or attributes) and interpretive (such as, association to a-priori theme), or by hierarchical order (such as, having descriptive codes at the bottom and interpretive codes at the top), and codes can range from being more descriptive to more interpretive (King, 2012).

TA allows parallel coding, the researcher was able to classify the same segment of text with two or more codes (King, 2004b). Through coding, “the template process reduces the amount of data being considered at any one time and brings together related pieces of text earlier in the process, which can facilitate making connections” (Crabtree and Miller, 1999: 167). A second sweep of the initial coding in the records captured some of the codes that did not emerge at first. However, the researcher used judgement to end the iterations once the aim of gaining insight was achieved.

The main concern was how broadly issues were conceptualized (King, 2012) and themes were reviewed, added and repositioned to capture the message being told (The University of Auckland, 2016).

The primary codes were created from the researcher’s preconceived notions related to trade-based tensions and priorities. The codes were organised using an illustration software. Emergent themes and focused codes provided a categorical structure to the dimensional analysis (e.g., environmental; economic; social) using the NVivo<sup>TM</sup> software.

### **3.5.10 Triangulation of Data**

Punch (2005) suggests that triangulation of methods can be achieved by using two or more data collection methods. However, triangulation isn’t limited to methods only, triangulation may also include “... interviewing multiple members of a social setting in order to gain different perspectives of the phenomenon of research interest” (Roulston and Choi, 2018: 360). This took place dynamically in most of the interviews as informants would fact-check each other, in

particular when producers are working in close proximity or are part of the same family. Triangulation was important to re-frame situations and enabled the researcher to achieve a state of mind to interpret events and ways of social life. Triangulation at times takes place informally such as during peer-briefing conversations and reflecting on linkages between events. Further, “the concept of triangulation means that an issue of research is considered – or in a constructivist formulation is constituted – from (at least) two points or perspectives” (Flick, 2018b: 748). Flick (2018b) and Roulston and Choi (2018) allude that triangulation is a means to investigate convergence and more specifically convergence in the findings. In this study, triangulation is used to confirm interpretation of the findings. Specifically, triangulation expanded the breadth and depth of analysis through multiple perspectives to confirm interpretation of the findings. For example, understanding that producers’ premiums across nations are critically lower than they should be based on data from disconnected informants’ accounts. Flick (2018b: 764) posits that “it is about discovering the limits and limitations of single types of data and thus about looking through a critical lens on specific forms of data, their pertinence, and reliability”.

**IMPORTANT** – The process of interpreting raw data in a collective setting and in the natural language of the informants enabled the triangulation of the evidence presented by the individual informants. Informants were able to validate their responses by fact-checking with one another and by reinforcing the existence of events through written documents as the inquiry engagement progressed, namely as a form of contextual validation. In similar way, the researcher was able to establish presence quotes mapped to the coding process, working towards a process on how the interpretation leads to the results through the analysis.

### 3.5.11 Risks, Constraints and Ethics

#### 3.5.11.1 Risks

Risks in this study are three-dimensional. There are risks associated to the informants that participate in this study, risks to the researcher while conducting the study, and risks associated with the ability to conduct the research itself (Flick, 2009).

##### *Risk to Informants*

In reference to risks associated with informants involved in the research process, the research is conducted either through video conferencing technologies, visiting the crafters at their retail store location or at trade events, and visiting the producers at the plantations. Interviews and observations are conducted in the environment of the adult informants that consent to participate. The research process is therefore unlikely to put informants at risk.

##### *Risks to Researcher*

There are several identified risks that are associated with the researcher. These risks include health and safety risks. Most of the interviews are conducted in-situ and outside of the country of residence of the researcher. Security risks are high in Central/South America. Security risks were mitigated by establishing a good relationship with a key informant and the external government agencies, and ensuring that on a daily basis a regular check-in was conducted with key individuals. GPS tracking technology was used to report location of the researcher constantly throughout the research process. Government employees were used to guide the researcher during part of the data collection process in the study.

In Ecuador, the researcher used the same accommodation arrangement throughout the research process. Key informants would pick-up the researcher in the mornings and travel to different parts of the country to meet the producers. At the end of the day, the researcher would return to report on the day routine that was followed and any plans for the following day. At times, there

was no plan for the following day and the researcher had to trust the key informants and the snowballing process. Everything in life has a risk; however, being culturally immersed and speaking the language does have its advantages.

In Costa Rica, arrangements were partially made with a government appointed agency to transfer the researcher from one area to another. This arrangement did not extend to the entire research duration and the researcher had to transfer by rental car to several places. A peer accompanied the researcher for the entire duration of the trip. Research is a lonely business and a companion adds a layer of security and many other beneficial aspects such as, reflecting on the events and debriefing on situations. There were instances where a key informer or producer would arrange to transfer the researcher from one place such as from a Motel to the plantations or collection areas.

Health risks associated with the research process, include exposure to the insect and animal diseases that could arise while conducting observation in plantations and rainforest like settings. These risks were mitigated by following specific healthcare guidance, the use of appropriate protective equipment, and being guided by people who know the land and area.

### *Risks to Study*

Several risks are identified specifically related with the study process.

This includes the ability of the researcher to secure time and resources for the doctoral research process and ability to secure the participation of informants and willingness to cooperate during the data collection process. There was a possibility that data collected may not address the research question. There was also a risk in bias, while the researcher was in charge and either planned or snowballed informants, the informants knew that external/local key informants were involved in the study, and hence, this could have affected some of the responses.

Study related risks are mitigated by monitoring and correcting deviation throughout the study. Informants were selected based on a purposeful sample at first and where possible additional informants were included in the study beyond the expected sample size. Establishing good relationships with all the individuals in the study enabled the activities to be completed within the required scope. Mitigation of risks associated with collecting data that does address the research questions is guided by a semi-structured interview process which rests upon constructs un-earthed from an in-depth literature review. This provided assurance that the research questions posed to the informants do address the research question in this study.

#### **3.5.11.2 Constraints**

There two constraints identified in this study. While these constraints create tensions for managing the research study as a process, they do not pose limitations. The ability of the researcher to conduct international travel during limited days of the week resulting in multiple flights and travel time commitments. Often, the research time available extended into Saturdays and Sundays, limiting the availability of informants. The ability of informants is a constraint that emerges during the snowballing process. While some interviews with producers were planned ahead of time, others were coordinated within hours and were entirely dependent on the informant's availability.

#### **3.5.11.3 Ethics**

The University of Reading (UofR) granted ethics approval on July 11th, 2016 for the purpose to video/audio recording in observation and conducting interviews. Ethics guidance from the Association of Social Anthropologists of the UK and Commonwealth (ASA, 2011) establish ethical procedures for using video recording in public places by a) being overt with the recording equipment, and b) obtaining implied consent from the informants to record.



The ethics process is documented comprehensively and archived for future reference as requested by the UofR ethics advisor. The ethics approval process was followed during this doctoral study.

All research studies have ethical implications (Flick, 2009). The nature of qualitative research leads to this study requiring individuals as a resource for information gathering. In order for the data to become available, the adoption of best practice needs to take place on how that data is collected and managed, and ensuring that possible implications that are associated with the informants do not arise. All data was kept confidential and while informants may consent to have their organization's name included in future publications, the identity of the informants as an individual is protected. In constructivist research this principle not only applies to individual but also extends to their communities (Flick, 2018a).

According to Blaxter et al. (2001) study considerations include: a) ethical issues as part of any research study; b) ethical issues throughout the various stages of the research study from start to completion, echoed by Punch (2005); and, c) researchers facing difficult ethics questions where easy answers aren't readily available. Bell and Bryman (2007: 72) identify eleven principles of ethics into categories. These were considered detailing the mitigation efforts undertaken during this research (*see Appendix L – Ethical Principles in Research Study*).

### **3.6 Quality of the Research in the Constructionist Approach**

The intent of this section is to provide assurance by demonstrating the quality of the research in relation to a constructionist design (Easterby-Smith et al., 2015: 88). According to Easterby-Smith et al. (2015) it is important to explain: a) access to fieldwork, b) informant selection process, c) data creation and recording, d) data summaries and transformation, and e) viewpoint on the research conducted.

Easterby-Smith et al. (2015: 89) suggest that constructionist research “should be believable and, ... should be reached through methods that are transparent”.

The researcher has taken immense care to ensure that perspectives from different informants are presented and has also provided perspectives at the individual level based on the different roles that are adopted by the informants. At times, the perspective of the informants were heard in a group setting. Steyaert and Bouwen (2004: 143) argue that group settings enable a constructionist to hear different perspectives at the same time while condensing the information, including “aligning”, “expanding” and “contrasting” with other informants. While perspectives are important, it is just as important to ensure that perspectives from informants are gathered from sufficient geographical areas to increase diversity. For example, when conducting work in Costa Rica, the researcher has ensured that interviews are conducted in the pacific, northern and Caribbean areas. Similarly in Ecuador, the researcher has conducted research in main cacao growing regions, separated by the well-known junction of the Three-Rivers.

The researcher immersed in the field, spending time with the informants and getting to know them. This ensured that the informants were comfortable with the researcher and did not view the researcher as a complete outsider and in turn, allowed the informants to express themselves freely while allowing the researcher to capture data that would have otherwise been omitted or altered. The fieldwork was not an exercise to collect superficial data, rather, the researcher and the informants engaged in a process to ensure the data gathering fulfilled what the research set out to accomplish in a meaningful way. Strategies were used to allow time during observations and interviews, using a semi-structured questionnaire while allowing time for open questions and welcoming conversations freely. Most times other informants joined the conversation in group settings to enable a process of fact-checking and expand the perspectives. The previous not only reflect on the methods but also on the quality of data collected.

The researcher listened to the conversations and interjections in the natural language of the informants. This led to a process of interpreting raw data that was shaped and re-shaped for understanding. This process allowed the researcher to engage with the informants starting with a pre-formatted set of questions to an open and broad inquiry for attaining depth in areas that were highlighted by the engagement process.

The researcher is familiar with and understood the culture. This enabled a space to understand meaning that would otherwise would not have been appreciated or made possible by an inquirer with little cultural immersion. The researcher was treated as an accepted member rather than a complete stranger, seamlessly integrating and soaking in the local cultural ways of the informants (Guba and Lincoln, 1981).

The research process intensified as the research inquiries progressed from site to site and from nation to nation. Peer briefing demonstrated to be a helpful technique to deal with attaining mental ordering and as a strategy to cope, manage and defuse feelings that were absorbed from the accounts of the informants. This helped to break-away from possible influences and contribute to higher quality in the findings.

The researcher has demonstrated transparency throughout this study by involving the stakeholders at different points.

Guba and Lincoln (1981) suggest that credibility, transferability, dependability, and confirmability contribute to trustworthiness of the data in qualitative research; Amis and Silk (2007: 458) argue that “quality becomes internalized within the underlying research philosophy rather than being something to be tested at the completion of the research”.

### **3.6.1 Credibility**

Credibility refers to how much trust can be placed on the presentation of the findings and that the data represent the perspectives of the informants (Anney, 2014) without undue bias from the researcher.

In this study, the researcher ensured that meaning from the native language was maintained as accurately as possible. Led by cultural preferences, informants allowed the researcher to ask questions and allowed other informants to interject. In these inquiries, informants were able to express themselves freely, asserting events, and fact checking one another as the inquiry process developed. Guba and Lincoln (1981) posit that a process of prolonged engagement is learning the culture, while testing for misinformation that are either introduced by distortion of the actors in order to build trust. Accuracy was ensured in the translation and transcription of the interviews.

The researcher has engaged different strategies to reduce undue researcher' bias, such as peer-debriefing after an interview or towards the end of the day, having conversation with key informants or subject matter experts, reflecting on the events and the information that was gathered.

Peer debriefing allowed the researcher to obtain direction and shape the research inquiry as the research progressed from site to site. Peer debriefing is described by Guba and Lincoln (1981: 308-309) as being “useful in establishing credibility” and “is a useful-if sobering-experience to which to subject oneself; its utility, when properly engaged, is unquestionable”. Debriefers were neither incompetent or brilliant in the area of study. Debriefers had no authority over the researcher nor were they seen as superior or inferior, “a matter of particular note in the case of a doctoral study” (Guba and Lincoln, 1981: 309). This process was supported by key informants between the site visits by recalling key pieces of information for reflection and perspective, and

by the independent observer that showed the researcher throughout the data collection in Costa Rica. For example, debriefing was useful by improving depth in the inquiries, and linking relationships and historical events. Keeping the researcher honest and aligned to the purpose of the inquiries. This is possible by having experienced informants to reflect with and provide an opportunity for the researcher to bring re-alignment of the mind and to make better sense of situations that align to the research purpose.

The research supervisors have been provided sample copies of transcripts, photographs with GEO locations to enable transparency and trust in the work conducted. Key informants were provided a copy of transcripts to ensure the information was captured correctly and a copy of the chapter Presentation of Findings for information purposes only and in hopes that anything not fitting would be reported back to the researcher.

### **3.6.2 Transferability**

Transferability refers to being able to transfer the context to other informants (Anney, 2014).

The researcher can only provide a thick description that allows for evaluation of whether transferability is possible from this study context to another (Guba and Lincoln, 1981) such as where the findings could be transferable to other value chains where the same parameters as this study hold.

Cultural and situational differences may contribute to decreasing transferability in the majority of situations. However, the context of this study may very well provide an opportunity to other scholars and practitioners for evaluating transferability in areas such as where producers are experiencing similar situations. For example, areas of priorities and experienced tensions (*see Chapter 4, Presentation of Findings*) that may be applicable to various trade processes.

The results from this study not only allow for inferences to be made, there is sufficient detail provided by the abstracted constructs and concepts, and, other independent work conducted and

shared with supervisors to demonstrate that there is allowance for relevancy in other settings. For example, while this study is relevant to the cacao and chocolate trade setting, constructs and concepts allow for relevancy in production and trade of vanilla, coffee, and many other luxury products in practice. Hence, as “expected to have an applied output, though underpinned by substantial theory” ( Henley Business School, 2021: Appendix G).

Examining the content provided in this study should provide an indication for independent judgment on whether transferability is possible or not.

### **3.6.3 Dependability and Confirmability**

Guba and Lincoln (1981) suggest that dependability is a process that is able to establish a trail of evidence that enables a reader or evaluator to discern truth in the activities claimed.

In this study, an evidence trail is established by the techniques used such as audio recording of informant interviews, debriefing and other casual conversations that have taken place. Key informant and peer-briefing consent documents attest to the inquiries that have been conducted. In addition, other documents such photographs and video recordings containing geographical coordinates enable for an audit trail process that link the informants account to place and time. As an example, the researcher has provided key informants with a copy of the *Presentation of the Findings chapter* for evaluation in a way that is open to them with out any constraints or compromises. This ensures that reporting on findings is truthful and dependable.

As a process the audit trail enables the traceability of activities planned and unplanned. Guba and Lincoln (1981: 318-327) provide a detail audit process to establish confirmability as a “major technique”.

Confirmability pivots on an audit trail that includes objective evidence. Such evidence includes the activities, documents, quotes, photographs and inquirer’s reflections. The study has taken

several considerations prior to, during, and after the data collection stage. The objective evidence in this study includes:

- Documenting an empirical need based on the scientific literature.
- Designing and documenting the activities required for the study
- Establishing and documenting direction to fulfil a request for a scientific contribution.
- Establishing and documenting communication and relationships with key informants and conducting purposeful sampling of groups of individuals
- Developing and documenting specific agendas to guide data collection with key informants and government agencies
- Documenting the data collection process and evidence of the inquiries
- Archiving signed consent forms from informants, and attestations by peer-debriefers confirming that the inquiries with the informants were conducted in an ethical and professional manner.

In this study and of importance to doctoral research, key objective evidence has been shared with the supervisory committee. This should support a claim for confirmability in such a way that the documentation mirrors the technique of an audit process, providing assurance that the study is credible and consequently dependable (Guba and Lincoln, 1981).

### **3.7 Research Design and Methodology Summary**

This chapter described the methods to address the research questions, which has been proposed based on the business case and the body of theory stated in *Introduction and Literature Review Chapters*. A multiple case study that makes use of a process philosophy and guided by a constructionist epistemology in attempts to gather relevant data to be interpreted, analysed, and discussed through a process that seeks to produce findings that are trustworthy and within accepted scholarly traditions.

## **4 Presentation of Findings**

This study examines the tensions that are surfaced by the informants while dealing with conflicting priorities that arise from constraints in the trade process. These constraints are situated in the areas of natural resources, societal concerns, and the economic resources embodied by the concept of sustainable development. As a bi-product, tensions are formed by expectations and limitations that are encountered by the informants' role and relationship along the value chain.

### **4.1 Chapter Introduction**

In this research, the value chain is demarcated by the case models of direct-trade, consolidator, and logistics provider. The producers, consolidators, logistic providers, and crafters demonstrated different expectations across their roles while engaging in the trade process. The achievement of expectations towards sustainable development may be hindered by the limitations that are encountered in the trade network. This enables a competing environment where the achievement of the objectives across time are shaped by the management of resources to fulfil the expectations of the informants. The analysis of fieldwork data indicates that informants compete for resources while at the same time, engage and cooperate with other informants in the value chain to manage the trade-based tensions that are at the heart of their priorities. The aim is to seek understanding on managing trade as a whole system to align the available resources and expectations of the informants.

**IMPORTANT** – This study frames the research problem as: in what ways do trade-based tensions influence sustainable development in direct-trade network relationships of the fine cacao and chocolate value chain?



## 4.2 Overview of the Data

To answer the research problem, the researcher follows the order of analysis of the data collection (*see Chapter 3 – Research Design and Methodology*).

### 4.2.1 Initial Stages

Initial interviews conducted in Canada provided context. Research in Ecuador provided the foundation for a geographical comparative study with Costa Rica.

### 4.2.2 Response Approach to Research Questions

In this study the research questions are for understanding of how actors make sense of tensions across time based on how these tensions may affect the way actors manage and deal with objectives in order to balance priorities that support and/or hinder sustainable development.

The specific research questions that this study needs to answer are:

*RQ A: In what ways do stakeholders make sense of trade-based tensions?*

*RQ B: In what ways does relational sense making support and/or hinder sustainable development?*

Answering the research questions provides understanding for how informants decide what to do in practice to deal with tensions and construct solutions to balance economic, social and environmental priorities; while at the same time, leading to a better understanding of the relationships between the informants and how their collective sense making supports or hinders sustainable development.

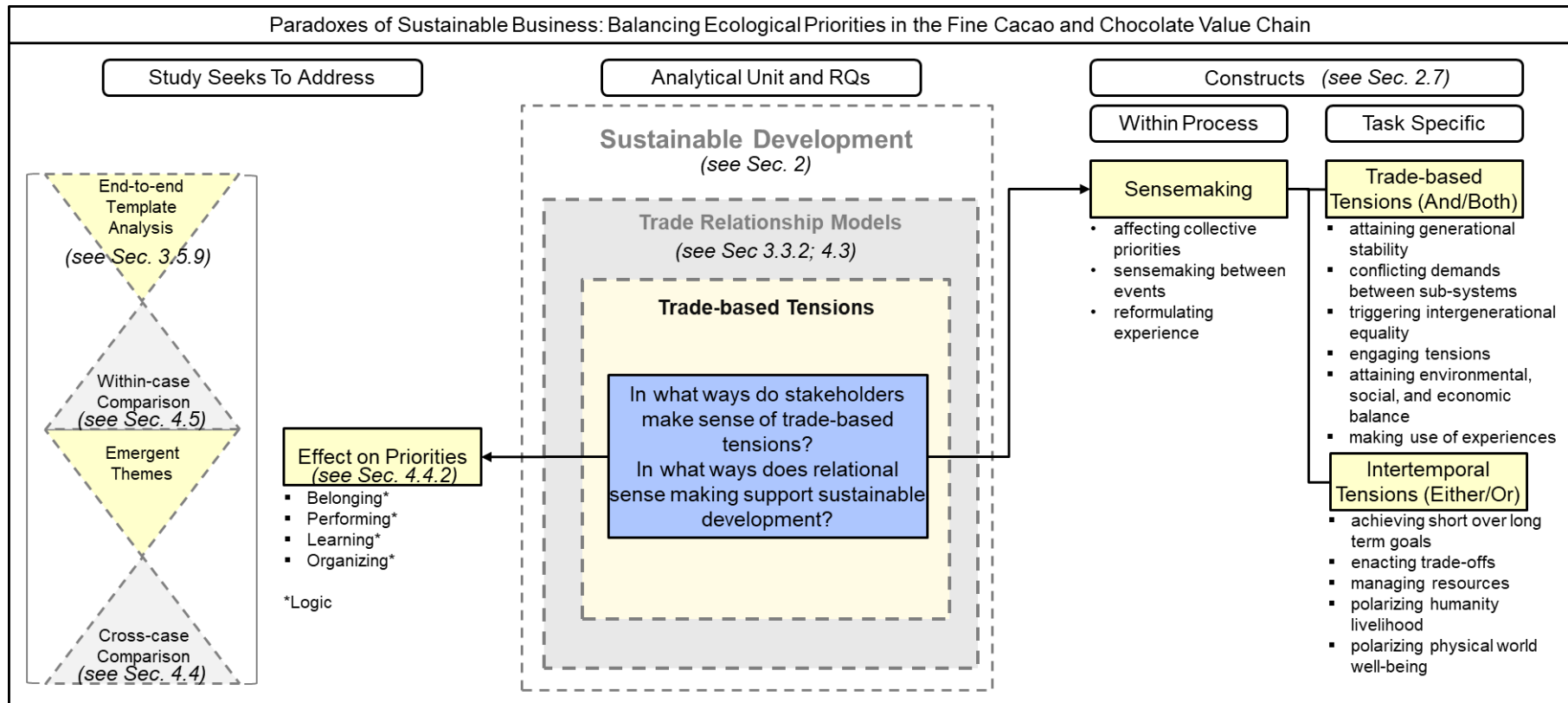
Pratt (2009) suggests the use of figures as an effective way to convey to the reader a summary of data at first and to guide the reader through the details. The findings comprise of a review of

trade-based tensions from different perspectives. Therefore, throughout the findings and analysis section, a top-down approach to illustrate meaning upfront with figures, tables and derived themes was used as the researcher works through the details by balancing meaning and evidence.

**IMPORTANT** – The case relationship model (*see Figure 3.2*) is used in the analytical process to answer the research questions. There are three key areas illustrated in the diagram (*see Figure 4.1*), that led to the examination of the data and the presentation of the findings in the following sections of this chapter.

First, the methods of constant comparison (cross- and within-case) using end-to-end Template Analysis (*see Section 3.5.9*) were useful to address the effects on the informants' priorities. Second, at the center of the illustration, the analytical unit of trade-based tension (*see Figure 3.1*) has been investigated in the roles of the informants and in the context of Sustainable Development (*see Section 2*), leading to the research questions (*RQs; see Section 2.9*). Third, the a-priori constructs (*see Section 2.7*) derived from the literature are incorporated. These constructs were used as a starting point in the initial analysis and were examined via the sensemaking process for specifically related tensions of either/or and in the focus of this study - both/and.

Figure 4.1 Data Analytical Framework



Source: illustrated by author

The following section contribute to addresses the research questions and provides the tensions that are most salient and correspond to informants trading models in the value chain. In order to answer the research questions and derive the tensions, the researcher considered the priorities of the informants, and hence, the tensions are contained in the analysis of such priorities.

**IMPORTANT** – The narrative presents the tensions (*see Section 4.3*) for each trade model (*see Section 4.3.1; 4.3.2; 4.3.3*). These tensions are positioned thematically, containing a set of priorities, including belonging, performing and learning.

*Section 4.4* – the cross case comparison with the tensions provides the answer process to the way stakeholders make sense of trade-based tensions and answers the first research question.

*Section 4.5* – the within case comparison informs about relational sensemaking and answers the second research question.

*Section 4.6* – provides a chapter summary with the answer to the research problem of the ways that trade-based tensions influence sustainable development in direct-trade network relationships.

In the following Table 4.1, the purpose of each section and the corresponding layers of analysis is provided in the appendices to further support the writing in this chapter, provided in a logical and structured way balancing the evidence.

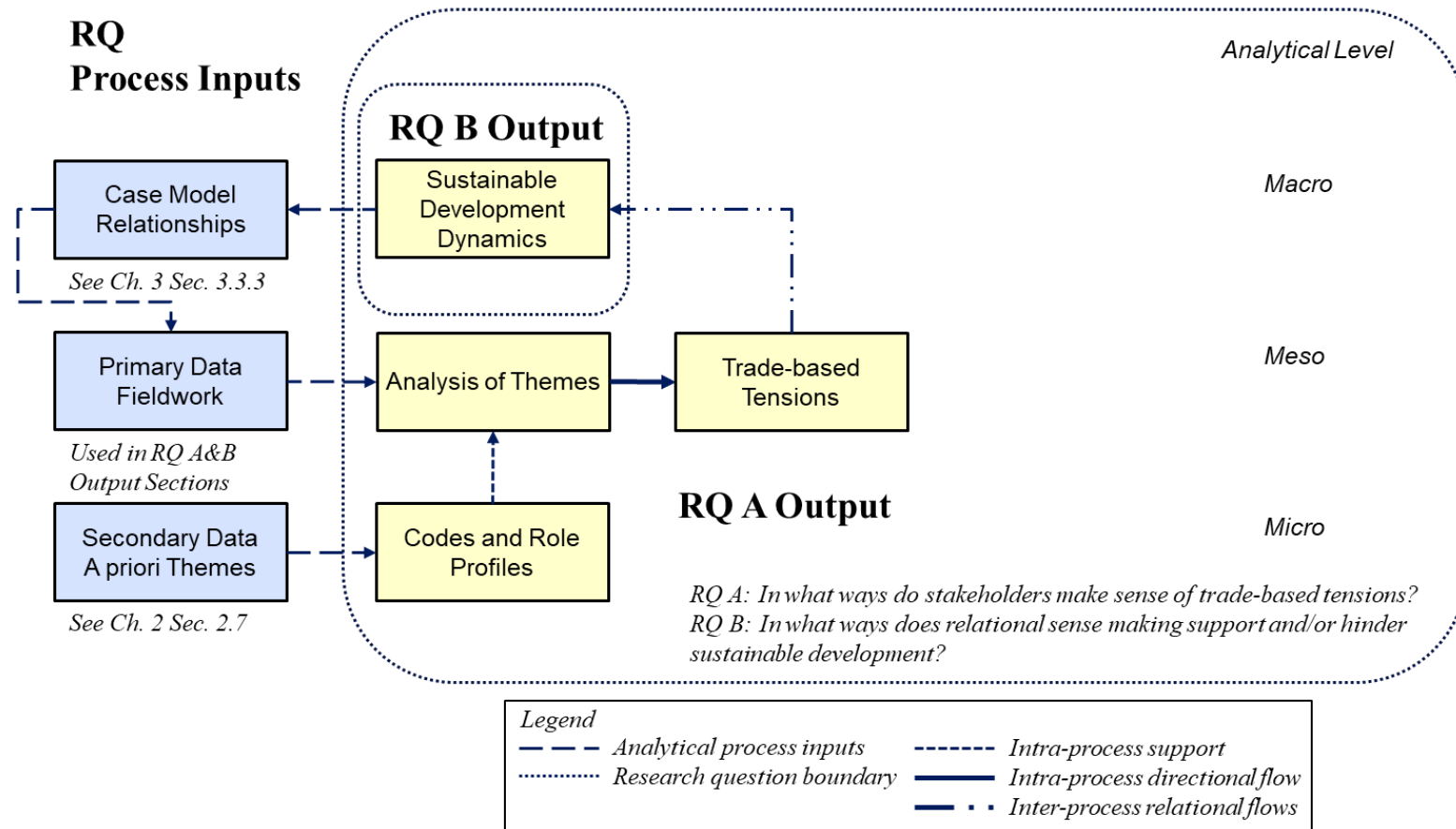
Table 4.1 Structure for the Presentation of Findings

Chapter Section	Purpose (as applicable)	Supporting Data Elements (As applicable)	Appendix Supporting Data Elements (as applicable)
4.1 Introduction			
4.2 Overview of the data	Informs the reader on the initial stages of the analysis and process taken to answer the research questions.	Process Support for RQ Outputs;	<ul style="list-style-type: none"> <li>▪ Example of NVivo™ Coding</li> <li>▪ Matrix of Coded Frequency Grouped by Theme Corresponding to Each Role Profile</li> </ul>
4.3 Tensions Corresponding to the Value Chain Models	What tensions exist in the value chain (the first RQ) and how the narrative explains the background to each category in the model.	Supporting Statements for Trade-based tensions Salient to the Trade Models; Emergent Priorities; Thematic Categories (CGL)	<ul style="list-style-type: none"> <li>▪ Trade-based tensions from Priorities Analysis</li> <li>▪ Supporting Statements for Trade-based tensions Salient to the Trade Models</li> <li>▪ Analysis of the Thematic Priorities</li> <li>▪ List of Transcribed and Translated Informant Statements</li> </ul>
4.4 Cross-case Comparison	How the roles recognise these tensions because they are salient to the informants in their context.	Summary of Relationship Models Conceptual Interaction of Emergent Priority Themes with Supporting Codes Discussion of Logics by theme	<ul style="list-style-type: none"> <li>▪ List of A-priori Codes and Role Profiles</li> <li>▪ List of Informants from Fieldwork</li> <li>▪ Informant Relationship Map</li> <li>▪ Contributions to Constructs from Findings</li> </ul>
4.5 Within-Case Comparison	How the roles and then relationships (the second RQ) affect the both/and, and, either or responses.	Tensional Distribution Model of Organizing (TDMO) Relationship Interaction Patterns Sustainable Development Dynamics	
4.6 Summary			

Source: compiled by author

The Analytical Process (*see Figure 4.2*) is illustrated to provide a logical flow of the relationships amongst the elements that served to answer the two individual research questions using a macro to micro approach.

Figure 4.2 Findings Analytical Process using a Macro-to-Micro Approach



Source: illustrated by author

First, the secondary data and a-priori themes and the case model relationship presented in the *Research Design and Methodology Chapter* are used to work through the primary data as an input to the analytical process. Next, a-priori codes are included and new codes are developed using the NVivo™ Software along with role profiles that are allocated to the informants at the micro level (*see Appendix M – Example of NVivo™ Coding*). The themes and the priorities that are salient to the informants at the meso level are determined. Next, the response to the trade-based tensions of both/and, and, either/or that were embedded in the informants' priorities are identified. Next, what these tensions meant to the informants is made sense of by the researcher, constructively and supporting the dynamics of what sustainable development means at the macro level with the tensions that emerged in the study at the meso level. The analysis at different levels enabled a structured format to output the responses to the research questions. This approach may not be the only way to conduct qualitative analysis, however, the approach taken in the analysis was emergent with immense consideration – as the researcher worked through the details, with a logical process, making progress in the findings.

The process undertaken by the researcher led to answering the research questions as follows:

First, to address *RQ A* the findings and analysis of Both/And - Either/Or tensions are supported by *Thematic Analysis* which considers the a-priori Themes (*see Chapter 2 – Review of the Literature; Appendix N – Matrix of Coded Frequency Grouped by Theme Corresponding to Each Role Profile*).

Next, to address *RQ B* supporting and/or hindering of the dynamics for sustainable development is demonstrated by the evidence of analysis within-case comparison that includes areas of practice and scientific importance and the interaction patterns from the collective tensions which are underpinned by the answer to *RQ A*.

In this study evidence from transcripts and field notes, and the researcher observations converge to interpret the findings. Readers may naturally question whether the evidence presented may be anecdotal. For clarity, an anecdote is “the singular of data” and when data is treated and processed properly in understanding complex systems it is at least as significant for which quantitative data appears to recognize traces of systems (Dorling, 2001: 1335). As per Dr. Sam Ladner “anecdotes are stories, collected without care, stored without a system, shared without analysis. Qualitative research are stories, photos, videos and fieldnotes, collected with precision, sorted systematically, and shared only after immense consideration.”



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*Process to Answer Research Question A (Section 4.3 & 4.4)*

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### 4.3 Tensions Corresponding to the Value Chain Relationship Models

In this section, the researcher answers what tensions exist in the value chain network in relation to each model of direct-trade, consolidator, and logistics provider.

**IMPORTANT** – The writer makes use of a top-down approach, orienting the reader towards the detail. As such, Sections 4.3 and 4.4 provide the details to the first research question of:

*RQ A: In what ways do stakeholders make sense of trade-based tensions?*

In the narrative, the researcher has identified each tension enclosed in square brackets with a letter T followed by a numerical value that may be cross-referenced to the tabulated tensions (see *Appendix O – Trade-based tensions from Priorities Analysis*; *Appendix P – Statements for Trade-based tensions Salient to the Trade Models*). The tension identification does not represent a sequence or ordering of any kind and is only used as a technique of identification to maintain traceability. The tensions are presented in the order that makes sense to the researcher and for the construction of the narrative in a way that makes sense to present the information to the reader.

As already mentioned, the tensions are situated in the priorities of the informants and each one of the tensions is supported by the transcribed statements from the primary data collection (see *Appendix Q – List of Transcribed and Translated Informants Statements*), observations from the fieldwork, and interpretation in the analysis. Statements made by the informants are clearly labeled – enclosed in square brackets, starting with letter I for informant and followed by the informant ID and if applicable their role. For example, [I2CR], where I2 references informant 2 and CR is the reference code for the role of crafter. Similarly, CO means consolidator, LP

means logistics provider, and PR means producer. Transcribed statements are referenced by the model type (C: consolidator; D: direct-trade; L: Logistics Provider) followed by the tension number (e.g., T6) and hyphenated with the informant code and with a sequential letter to maintain traceability. The statement code may be referenced in the previously mentioned appendix (e.g., DT6-I2-A: direct-trade tension 6 – informant 2 – first statement).

The font format of all codes used for cross-reference has been intentionally set to superscript (e.g., <sup>DT6-I2-A</sup>) to improve reading flow and focus on the narrative while maintaining traceability of the data.

The direct-trade relationship model is addressed first, followed by the consolidator and then the logistics provider models. Tabulated summaries (*see Tables 4.2, 4.3 and 4.4*) are provided upfront guiding the reader to the details. The table summaries provide the Tension ID, characteristics of each tension, and links to the applicable priority area as illustrated in Figure 4.3 (*see Section 4.4*).

### 4.3.1 Direct-Trade Relationship Model Tensions

The findings suggest that the producers and crafters that engage in a direct-trade relationship balance several key tensions in the priority areas (e.g., for maintaining relationships; *see Table 4.2*).

Table 4.2 Summary of Tensions for Direct-Trade Model

Tension ID	Influence Characteristics (as applicable)	Influence on Priority Areas (as applicable; see Figure 4.3)
T2	<b><i>Regional Product Characteristics / Process Characteristics</i></b>	<b><i>Ancestry and Belief System</i></b> ; Capabilities
T4	Bioengineered Tree Subsidies / Loss of Quality	Ancestry and Belief System; Capabilities; Knowledge
T6	Cacao Demand / Cacao Supply	Capabilities; Knowledge
T8	<b><i>Relationship Stability / Cacao Premium</i></b>	Capabilities; Personal Values; <b><i>Premiums</i></b>
T9	<b><i>Relationship Capability / Value-add Creation</i></b>	<b><i>Capabilities; Knowledge; Livelihood; Premiums; Relationship</i></b>

T10	<i>Cacao Quality</i> / Cacao Quantity	Capabilities; <b>Knowledge</b> ; Livelihood; Premiums; Structure and Organizing
T11	Domestic Trade Lower Premium / International Trade Control Pricing	Capabilities; Premiums; Relationship; Structure and Organizing
T12	<b>Constrained Supply</b> / <b>Value-add</b>	Capabilities; <b>Livelihood</b> ; Relationship; Structure and Organizing
T17	Over Supply / Market Decline	Capabilities; Personal Values; Structure and Organizing
T28	Bioengineered Tree Subsidies / Loss of Ancestry	Capabilities; Knowledge; Premiums
T29	Cacao Supply / <b>Value-add</b>	<b>Capabilities</b> ; Personal Values; Structure and Organizing
T32	<b>Value-add</b> / Bulk Cacao Supply	<b>Capabilities</b> ; Relationship
Notes: Key influence unique to direct-trade model in <b>bold italics</b> See Tension ID indicated with each description on blue background with solid border.		

Source: compiled by author

Crafters want to carry various cacao origins and they want to help improve the livelihood of the producers while at the same time crafters are unable to procure large amounts at once to sufficiently support the livelihood of one or multiple producers<sup>(T6)</sup>.

Crafters are limited by the financial buying power and purchase quantities of a particular type of cacao for further processing at a single time, and hence, cacao is purchased in small quantities throughout the year enduring the seasonal fluctuation. Most Canadian crafters are unable to import directly as the quantity of cacao to process into chocolate tend to be small orders. As a stated example, ‘it would most likely have to be done collectively’<sup>DT6-I2-A</sup>. Both Canadian and local crafters want to produce a differentiated end product such as a chocolate bar moving away from homogenous chocolate that is sourced from a specific farm or area, telling the story of where the cacao comes from geographically and from whom<sup>DT6-I23-B</sup>. For example, a crafter from Ecuador that highlights the story in the packaging of trading with two producers that are sisters and while they are geographically distant they maintain traditional practices in processing high-quality cacao<sup>DT6-I3-A</sup>. Domestic crafters that source regionally admitted that

quality was hard to come by while only trading from two trusted producers, “only two are really doing a very good job on the fermentation” <sup>DT6-I25-A</sup>. Crafters are often faced with the challenge of whom to award the order regardless of size. Crafters want good chocolate and the relationship with the producer is important <sup>DT6-I2-E</sup>. Establishing a relationship between a crafter and producer has its challenges, partially due to the limited amount of cacao that can be purchased at one time, the challenge is more salient in the domestic markets due to low market premiums generally paid to producers. For example, In Costa Rica the “local markets pay so little” and often it might be “the last and worst” place for producers <sup>DT6-I23-A</sup>. International crafter reach becomes important to improve premiums and quantity and most crafters are mindful of this situation, as stated, the willingness “to spend more for a better product” is important to both the crafters and producers <sup>DT6-I2-G</sup>. However, the search for quality product and establishing relationships has been described as “a jarring situation” by a Canadian crafter <sup>[I2CR]</sup>. Often, producers neglect quality and may feel that a crafter wants the lowest price while having an expectation to sell-off large quantities of cacao <sup>DT6-I2-B</sup>; which at times, involves cacao from multiple producers, increasing the quantity requirement between what is needed from the crafter and what is available from producers <sup>DT6-I2-F</sup> and affecting price. This demonstrates a demand-supply problem that pivots on market pricing. Hence, it has raised the question for crafters, “is it money that’s needed” or are there other incentives that can be provided <sup>DT6-I2-C</sup> such as processing requirements <sup>DT6-I2-D</sup>, including understanding of the international trade process <sup>DT6-I1-A</sup> that hinders the producers ability to export directly to crafters.

*Producers want to ship direct to the crafters, while the same producers establish relationships with other producers to fill orders that exceed their own capacity becoming an intermediary in the process <sup>(T17)</sup>.*

Interviews with the informants have revealed that producers use between 0.5 to 20 hectares for cacao plantations, with some producers having the potential to expand cacao production to 160 hectares <sup>[125]</sup>. Producers manage their plantations by making sense of the resources that are available to them based on their capabilities and through the relationships that are formed in the community. Therefore, when producers are unable to fulfill orders, they reach out to the immediate producer community for extra product. For example, a small-scale producer said, ‘if she tells me I need to complete the container and I keep looking’ <sup>D-T17-I8-A</sup>. Another crafter, demonstrated an established trusting relationship stating “I have two partners [...] separated by geographically but they are the only ones” <sup>D-T17-I25-A</sup>. While a producer looked towards the future and envisioned the fulfilment of orders using the current producer’ network <sup>DT17-I19-A</sup> stating ‘because it would be good if I had someone to buy cacao from me in another country, so I would pay the farmers more here and they would sell me more’ <sup>DT17-I20-A</sup>. This makes the tension more salient as creating more supply does not resolve increasing crafter’ demand and may lower market pricing from over supply and lack of demand. Hence, fieldwork observations witnessing small-producers transporting small sacs of cacao beans confirmed the data in the transcripts, revealing that established producers purchase cacao from other producers <sup>DT17-I45-A</sup>. While the producers are familiar with a direct-trade model <sup>DT17-I40-A</sup>, it appears inevitable that fulfillment of orders leads the same producers to source product from others in the community becoming an intermediary in the process.

*Crafters acknowledge that it is the cacao bean that impacts producers’ livelihood and not chocolate since value-add can be derived from processed chocolate; however, consolidators are willing to export the cacao beans and forgo the value-add generation of income <sup>(T32)</sup> – that works against the crafters efforts to encourage local processing.*

The findings highlight that the processing of cacao beans into further products as a value-add process creates benefits that directly link higher premiums and livelihood improvement.

Informants had different perspectives, from a subject matter expert (SME) standpoint where cacao exports are the main source of business, the key informant reflected by stating ‘so when one says, what is the product that impacts life? it is the cacao bean, not so much chocolate in our case’<sup>DT32-I5-A</sup>. However, many local crafters and in particular producers transitioning into a more vertical integrated role, are experimenting or have implemented processes to create value-add from cacao such as, cacao liquor, chocolate bars, cacao butter and chocolate spread. Some experienced producers stated ‘I give the training it does not cost me much, that is my social value’<sup>DT32-I6-A</sup>. While another SME envisioned unrealized benefits stating, ‘[t]hat they learn better now and with technique now, that they have knowledge both in practice and theory, and that they directly give the added value that we have not yet given.’<sup>DT32-I13-A</sup>. While at the government level structural support was acknowledged as ‘our interest is precisely to support those... each one of those small producers so that they can export directly’<sup>DT32-I55-A</sup>.

This places crafters and consolidators at odds, as the value-add may be realized by converting cacao into chocolate or producing other products that are derived from cacao.

On the other hand, producers want to engage with international crafters to improve business in the longer term; however, producers do not want to provide the raw material as greater financial profits can be made in the short term from added value products produced locally  
(T12).

Producers that are experimenting or transitioning to a crafter role struggle with maintaining relationships, utilizing capabilities by creating structures to drive experience, and the improvement of premiums. As an example, when interviewing <sup>[I43]</sup>, a leader in her community,

she felt a sense of responsibility for her fellow producers and shared some of the struggles. She was adamant, stating that ‘for us [is] very important in which we stop always working only [on] dry cacao beans as [a] raw material’ <sup>DT12-I43-B</sup>. Her reasoning was that:

‘[t]o be able to provide five hundred kilos of cacao to Japan, it took me four years. Four years, visit, visit, visit, six visits, they have made to me, until I was able to send them the five hundred kilos they asked for’ <sup>DT12-I43-A</sup>.

While a four-year investment in a relationship may have yielded benefits, 500 kg of cacao barely provides a gross profit of USD 2,500, and in a very assertive tone she mentioned ‘[s]o we work it for now Bean to Bar [...] that is the part that we are working it that way, for the farmer's own benefit’ <sup>DT12-I43-C</sup>.

Others shared their success to further process cacao into different types of chocolate products such as ‘[w]e sell it at the door, at the door of the house, I take advantage of meetings, I take advantage of and as they know me and people who come exclusively here to buy it’ <sup>DT12-I40-A</sup>.

While others took advantage of reserving their own national [fine] cacao for making products. For example, when interviewing a producer at a family farm the mother who was making chocolate products as well as growing cacao, admitted that her son who was a consolidator only sold CCN-51 cacao from the farm and the family kept the cacao of fine flavour and aroma for their own chocolate <sup>[I19CR]</sup>; while the producer confirmed ‘that's why, the products are made with national [fine] cacao’ <sup>[I17PR]</sup>. This was further supported by the crafter that the son sells CCN-51 cacao <sup>DT12-I3-A</sup>. This successful strategy appeared to have gained support from the municipal government for further processing their own national [fine] cacao and making various artisanal products available such as cacao liquors, cream and spreads. Making reference to the Ministry of Agriculture in Ecuador, the informant <sup>[I19]</sup> mentions ‘they also support us a lot, any [market] fair, anything, and they help me’ <sup>DT12-I19-A</sup>.

The previous, creates a tension in particular for international crafters, whereby the flow of fine cacao may be controlled in a direct-trade relationship by the producers, and more importantly with producers that are transitioning to become crafters.

*Producers transitioning to become crafters work to maintain a relationship with other crafters by providing the crafters with cacao while at the same time holding back cacao and transforming the raw material to derive value-added products <sup>(T9)</sup>.*

Informants perceived that while it is important to maintain and create relationships internationally, integrating further into the value chain by processing the cacao further into products with added-value enabled producers to: a) use the cacao that would have otherwise been discarded ‘because there is not a potential client who asks me for a ton, two tons, three tons, four tons, five tons’ <sup>DT9-I43-A</sup>, b) make use of prior experience and knowledge ‘we bake, we make brownies, seven or eight of different things we do’ <sup>DT9-I45-A & DT9-I45-B</sup>, and c) create financial benefits from ‘exclusive products such as chocolate bars retailing at over EU 600 per 50g.’ <sup>DT9-I41-A</sup>. Furthermore, concern over the pricing inequality and the lack of distinction that exist in the market between national [fine] cacao and bioengineered cacao drives informants to vertically integrate further in the trade system, moving away from trading to derive value-add. For example, ‘here there is a CCN-51 cacao that has nothing to do with cacao with aroma, the national [fine] one has nothing to do with it, so the CCN-51 is worth dry 90 dollars, the one with aroma 90 dollars, the one that goes with monilla 90 dollars, the [one] that goes pure with all of quality requirements, 90 dollars, tell me, there is no variation in price, so people [in trade] don’t bother with quality because it all pays the same.’ <sup>DT9-I6-A</sup>. The lack of having a market-driven distinction in quality cacao incentivises producers to eke out a living by competing in



the market with crafters and holding back product from domestic markets, augmenting a need for international trading.

*Crafters suggest that is difficult to maintain a stable relationship with producers. Crafters believe that a relationship with producers is essential; however, relationship pivots on premiums that command lower costs domestically and higher costs internationally <sup>(T8)</sup>.*

Mixed perspectives were observed during interviews in regards to maintaining a relationship between crafters and producers. While some felt that relationships should be less personal and more community oriented “[we’re trying to get everybody together to go a common direction” DT8-I23-A, others felt that relationships are important for business DT8-I2-C & DT8-I2-A, in particular as mentioned by an informant “with someone who’s growing the product that we use” DT8-I2-B. However, premiums were stated as a being a barrier in establishing good relationships in domestic markets DT8-I5-A.

*Producers must develop relationships to work within the domestic market that pays very little and is the worse resort in the present to develop relationships to get to international markets that has controlled pricing as the best resort in the future <sup>(T11)</sup>.*

Most informants agreed that “[t]he local market pays so little that it’s, I mean, it’s the last and worst resort for them, if they’ve got to sell it to, you know, in a local market.” DT11-I23-A. Others felt that “[f]or small producers, it has always been a problem to sell cacao and mainly to be paid at a good price.” DT11-I42-A. Furthermore, ‘what we see, is exploiting the small producer’ DT11-I42-B. The domestic market low-balls the producers or the international market locks them into a standard market pricing scheme. Some informants claim to have gone beyond their trade responsibilities by establishing associations at no cost to the producers in an attempt to export

cacao in a collective partnership<sup>DT11-I6-A</sup>. In the fieldwork a crafter was observed negotiating pricing with a producer of fine cacao and admitted that ‘depending on the price [set by the producer] I can get more [volume], that’s how things have been, depending on the quality, and if the process has been followed’<sup>DT11-I3-A</sup>. While producers that lack the means to join a collective network appeared to be stuck and unable to break-free from marginalization, feeling desperate to put food on the table. As an example, a producer with very little resources expressed concern and frustration for the lack of mechanisms to establish a local market pricing that was just and fair as he was left with no option but the sell his cacao at a rate that was out of his control:

‘my cacao is like the scale, if it goes down one point, two points, it goes up three, four points and then it goes back down, and we poor people are obliged to sell it, right, is there anywhere else? or where to go?’<sup>DT11-I14-A</sup>.

As such, some producers are living a day at a time as stated, ‘you take your cacao and weigh it and take your money, it's not that I'm going to get paid tomorrow or the day after’<sup>DT11-I14-B</sup>. Hence, lower quality product such as ‘with a little bit of monilla’<sup>DT10-I14-A</sup> and lack of resources encourage an environment where ‘very bad product’ and ‘unethical behaviour’ enters the cacao trade<sup>DT11-I5-A</sup>. The fieldwork observations and findings from multiple informants appear to only emphasize the exploitation of labour, human abuses, and the disengagement of experience by cacao producers in a very complex and vulnerable trade system.

Hence, in a telephone conversation with government officials, support to understand the direct-trade model and provide assistance to facilitate the international trade process was stated as ‘our interest is precisely to support those... each one of those small producers so that they can export directly and that is why our interest in being able to understand the artisanal [direct-trade] model, where we know that the logistics issue is vital’<sup>[I55]</sup>.

*Crafters want quality single-origin cacao beans and source from cooperatives, while at the same time a cooperative may source cacao beans from multiple producers and/or coyotes affecting the origin and the quality of the beans due to the various practices and different varieties of cacao gathered from a community of cacao producers <sup>(T10)</sup>.*

In order to meet the objective few crafters at a larger scale have backwards integrated in the supply stating that “what we do is we source from 400 farmers; we pay them well. We have a very nice product.” <sup>DT10-I5-A</sup>. Structuring a process to collect cacao and process in bulk has resulted in a successful strategy, for example, ‘what we do is we centralize fermentation and drying because it is the way to control quality’ <sup>DT10-I5-B</sup>. While at a smaller business scale informants claim that control of quality is key to success such as ‘[h]e takes the cacao even without trash, because he has a dryer, all the trash falls out and only the clean cacao goes’ <sup>DT10-I17-A</sup>. This enabled a successful trade operation in the domestic market <sup>DT10-I19-A & DT10-I17-B</sup>.

*While cacao origin is attributed by region rather than country for its distinct characteristics from the past, rivalry between the producers and crafters lead to process differences that affect the characteristics of the beans in the future and contradict recognition of the region <sup>(T2)</sup>.*

In Costa Rica there was a strong desire by crafters to recognize the Upala region for its cacao production and quality <sup>DT2-I23-A & DT2-I25-A</sup>, despite the differences in processes already discussed in the previous tensions. While in Ecuador, informants were adamant that ‘Guayaquil is the world capital of fine cocoa [cacao] and Ecuador was and continues to be the largest producer of fine cacao in the world’ <sup>DT2-I3-A</sup>. Despite some rivalry amongst crafters <sup>DT2-I25-B</sup> from Ecuador and Costa Rica, rivalry in each country that arises from processing differences were salient such

as when a producer was demonstrating to the researcher how to test readiness of the cacao bean and in a playful and amusing way he cautiously asked: ‘Did the lady... the lady <sup>[143]</sup> did all those tests down there?’ <sup>DT2-I45-A</sup>. The producer attempted to compare the difference in process quality with those of a competing producer in the local community and was seeking information from the researcher. Hence, bringing to the surface that while cacao producers cooperate with one another in the community, they also compete with each other.

*In order to reduce the variability of cacao bean quality, organizations supported by the government have programs for a cacao renovation strategy, whereby producers are encouraged to replace national trees with modified species to increase harvest resistance to pest and disease; while, the older the trees the greater the resistance <sup>(T4)</sup>.*

Scientific efforts not only in Costa Rica and Ecuador but around the globe have been focused on making cacao trees more resistant to pest, disease, and with higher production yields. This is a result of sweeping infestations that had occurred in 50s which devastated plantation creating severe economic damages <sup>DT4-I23-A</sup>. However, an argument ensues between the new bioengineered cacao varieties in contrast to the fine flavour with aroma cacao that it’s known for its special characteristic. A strategy that replaces national [fine] cacao trees with bioengineer varieties will only lead to national [fine] varieties being lost <sup>DT4-I4-A</sup>, this works in contradiction to preservation of species and biodiversity.

The presence of monocrop plantations was not observed in the fieldwork. That is, plantations that were exclusively dedicated to cacao trees, biodiversity was observed. Bioengineered varieties are produced for monocrop sites by design with the objective of higher product yield and lower risk of product loss <sup>DT4-I21-A</sup>. Informants had different perspectives such as ‘CATIE’s [Tropical Agricultural Research and Teaching Center] are very resistant to diseases, they’re

very good too, but I don't want to say that it's bad, eh' <sup>DT4-I5-A</sup>. Others advocated as a regional representative of CATIE <sup>DT4-I40-A</sup>, admitting that 'I can upload any genetic material, I can sell the seeds and with the National Seed Office' <sup>DT4-I40-B</sup>. However, while the bioengineered varieties were perceived as inferior to national [fine] cacao such as 'it obviously has a differentiation at the level of flavor' <sup>DT4-I21-B</sup>, there has been a recent interest in bringing back original national [fine] varieties <sup>DT4-I5-B</sup> as one of the informants stated '[y]ou have to leave a national [fine] legacy' <sup>DT4-I46-A</sup>. Interestingly, '... all cacao is declared fine with aroma' in Costa Rica, including CATIE's <sup>DT4-I21-B</sup>. However, cacao specialists in Ecuador firmly stated that:

'we verified that [our] the national [fine] cacao is already thousands of years old and it is here, nobody grafted it, nobody brought it, it was already here, instead the other one was introduced, because it is planted here in Ecuador'. <sup>DT4-I4-B</sup>

The introduction of new varieties has led to different positions in perspective between crafters and producers; whereby, producers experience either/or tensions that stem from the commoditization of the cacao beans. As such, some producers chose to replace national [fine] cacao trees with modified types to increase production yield and pest resistance, while modified versions provide two high-yield cycles, national types provide steady but slow production.

*The crafters premiums for fine cacao are three times that of modified cacao due to its fine flavour and aroma. Switching from national [fine] to modified trees is not reversible and once the tree is cut, the genetics are lost, making producers dependent on the modified versions <sup>(T28)</sup>.*

When asked for a comparison between the national [fine] cacao and CCN-51, the producer responded: 'No, well, national [fine] cacao has a good aroma...' <sup>DT28-I16-A</sup>. Some producers admitted to having 'two hectares of national [fine] cacao,' "[a]bout one thousand five hundred

[trees]’ <sup>DT28-I17-A & DT28-I17-B</sup>, and available with other producers <sup>DT28-I20-B & DT28-I20-C & DT28-I20-D</sup>. Further benefits of having national [fine] cacao was articulated by producers for example, ‘[t]hat cacao is good, because if we plant only that cacao [fine], it would increase the price more but people don’t, people look for more...’. While others admitted that ‘here in this area [we have] more of the CCN-51 because the fine aroma cacao I have already seen thrown away’ <sup>DT28-I20-A</sup>. There is not enough volume to separate fine cacao from CCN-51 since it has taken over; therefore, fine cacao is treated like ordinary cacao, and producers are not willing to put the extra work required to harvest fine cacao to obtain the same premiums as CCN-51.

From the perspective of an experienced agronomist and producer, there is value in the preservation of national [fine] cacao, however, investments are required for the proper maintenance of plantations for healthy production cycles <sup>DT28-I13-A</sup>, in contrast to bioengineered varieties.

Many crafters claim that the quality of the modified cacao species lack quality and fails to meet the definition of cacao of fine flavour and aroma. The production of modified cacao suggests that producers are stuck in a market that acknowledges cacao is a commodity while commanding standard market pricing which has profound effects hindering the livelihoods of producers as mentioned by one of the key informants ‘the farmer also has a lack of knowledge, he is... he lives... he lives in his world, he does not see beyond it, and he believes what the people say’ <sup>[14]</sup>. Hence, once in a commodity market, many producers want to break-free from the commodity cycle and cooperate with crafters that want to improve producers’ income by sourcing cacao beans directly but they made a choice for volume not quality and can’t now change it.

*While crafters take away the raw material from producers for crafters to process and convert into added value products, this ultimately helps to improve the producers' own source of income in the future even if it causes financial difficulties for crafters in the present (T29).*

By paying much higher premiums for quality cacao, crafters strongly believe in '[a] good chocolate that recognizes the value of national [fine] cacao' <sup>DT29-I10-A</sup> sourced directly from producers <sup>DT29-I23-A</sup>. As a result of higher quality chocolate, crafters have experienced fast business growth creating challenges such as, "our difficulty is that we grew too fast. We move from nothing to 100 tones. So, from 6, 4 tones, we were using our factory in 2014 so now in 100 tones, so the working capital is always [challenging to balance] ... because we buy today from the farmers" <sup>DT29-I5-A</sup>.

### 4.3.2 Consolidator Relationship Model Tensions

The findings suggest that the consolidators balance *five key tensions* in the priority areas (e.g., Structure and Organizing; see Table 4.3).

Table 4.3 Summary of Tensions for Consolidator Model

Tension ID	Influence Characteristics (as applicable)	Influence on Priority Areas (as applicable; see Figure 4.3)
T7	Volume Purchase / Financial Resources	Capabilities; Livelihood; Personal Values; Premiums; Relationship
T14	Cooperation / Competition	Capabilities; Knowledge; Personal Values; Structure and Organizing
T19	Domestic Market Lower Demand / International Market Higher Premium	Personal Values; Premiums
T20	Higher Premium in Longer Term / Cash in Short Term	Livelihood; Personal Values; Premiums
T22	Relationship / Premium	Personal Values; Premiums; Relationship
Note See Tension ID indicated with each description on blue background with solid border.		

Source: compiled by author

Consolidators integrate themselves as part of the community by establishing strong relationships with producers and domestic and international crafters. Consolidators feel that their role extends beyond product aggregation and as part of the community become contributors to creating capabilities and paying above average premiums to protect society from harm. This position leads to a number of tensions that should be considered on the basis that while consolidators establish themselves in communities comprising of hundreds of small-scale producers, the consolidators capabilities to accept all product is limited by the financial resources available and the physical space required to store and process the product. The first tension deals with creating social value by organizing the collection and acceptance of product from the producers while paying higher premiums for the product.

*Consolidators want a closer relationship between crafters and producers and do not want other intermediaries to retain premiums. When orders are large, they struggle to find product to fill an order, when orders are small, they struggle with the investment to maintain the relationship<sup>(T22)</sup>.*

For example, as a producer stated ‘one day we harvested on this farm and I take everything from this farm to her, the next day we harvested on another farm as well as everything from another farm’<sup>CT22-I8-A</sup>. This helps producers to centralize the delivery of product while collecting premiums that are at times triple that being offered by other intermediaries, such as coyotes – known for their shrewd business practices. While capabilities and financial resources are available the tension is temporarily released; however, the tension is re-engaged once the consolidator is unable to process all the product received due to infrastructure limitations and financial resources to pay producers which become limited, postponing payments a result.



In particular when dealing with national [fine] cacao, consolidators claim that ‘unfortunately you can't get everything to make volume, so we try to mix some of the CCN-51 but a larger quantity of national [fine] cacao, unfortunately it is like that, you cannot complete a container two containers pure of national [fine] cacao because there isn't any, there is not’ <sup>CT22-14-A</sup>. When the cacao variety isn't specific and the regional characteristics of cacao is the focus, consolidators are able to fulfill orders and provide limited traceability. For example, as stated by a consolidator “[w]hen we send the beans to our clients yeah we have everything [to] trace back, documented, and we can say from this lot these are the farmers that's ensure that quantity included in that specific shipment, it can be one sac up to a full container” <sup>CT22-15-A</sup>. However, consolidators do not have exclusive agreements with producers and as an alternative, producers hold back product and decide to trade a portion to other intermediaries even though the premiums received are a fraction of what the consolidators pay, the moneys received helps to meet some of the short-term financial obligations.

*Producers want a stable and better relationship with consolidators to improve premiums in the future and do not favour coyotes, while at the same time some producers sell their cacao to coyotes at less than 20pc of the consolidators premium in the present <sup>(T20)</sup>.*

While there are many producers that sell their cacao to consolidators there are also producers that sell to the coyote <sup>CT20-I28-A</sup>. According to a consolidator, the role of a producer naturally inherits an entrepreneurial vocation to trade, even if the producers foresee losses based on the price to sell their cacao is lower than buying the same cacao, choosing to sell to the coyote and not being at a complete loss with the product <sup>CT20-I27-A</sup>. In other words, selling bellow cost.

According to a logistics provider that has very close relationships with a large group of producers, when producers are less dependent on cacao and have other sources of income, they

opt not to sell their cacao to coyotes and look for other means to meet their financial commitments. This implies, that cacao producers understand the value of cacao in comparison to other revenue sources <sup>CT20-I28-B</sup>.

Furthermore, producers valued the relationship with consolidators by demonstrating preference to sell their cacao to a specific consolidator <sup>CT20-I27-B</sup> and being loyal to the consolidator foreseeing future benefits for the cacao producing community. As an example, when informants were asked ‘how could you better the relationship’, <sup>[I40PR]</sup> an informant stated that ‘the company cannot die’, otherwise producers would be at risk <sup>CT20-I19-A</sup>. Reciprocity between producers and consolidators was observed, a consolidator mentioned that listening to the producer was “deep and [creates] pressure on my shoulders” <sup>[I5CO]</sup>, implying a high level of responsibility for a community of 400 producers. In another case, the findings revealed preferential treatment towards producers, for example, ‘he <sup>[I19]</sup> takes his cacao and the one who buys from him <sup>[Unknown]</sup> gives him a different [better] price than the ones he gives to the rest [producers].’ <sup>CT20-I19-A</sup>

Hence, it was acknowledged that a good relationship has quality of the product at its core, in particular for the national [fine] varieties of cacao <sup>CT20-I16-A</sup>.

The involvement of coyotes as intermediaries appears to be isolated to the flow of product at domestic levels having limited demand. Greater demand is required to fulfill international orders that are normally filled by the consolidators. This enables a relationship between the producers and consolidators as demand for product is known to be higher with international orders while commanding higher premiums.

*Consolidators and producers are able to allocate cacao in domestic markets at lower premiums in the short term while challenges exist in allocating cacao in international markets at higher premiums in the longer term <sup>(T19)</sup>.*

Informants engaged in discussions around the key points of creating export markets, government support, and integrating forward in the trade system to retain value from processed cacao into chocolate.

While consolidators are able to pay triple the premium for high-quality cacao <sup>[I5CO]</sup>, a producer that sources from other producers felt a sense of responsibility for community members and is taking the lead to ensure that market demand opportunities to sell cacao are large enough to source from producers in the community and satisfy their demand to sell their cacao. For example, the producer stated ‘I consider that we are many to... to be able to do this, that is, we are many, we should obtain a fairly large market to be able to place their [producers] product’ <sup>[I43PR]</sup>. Other producers believed that there is lack of government support for exporting activities <sup>CT19-I6-A</sup>; while, more ‘knowledge’ on the export process was mentioned as a requirement <sup>[I19PR; I20CO]</sup>. While some producers are exporting mainly to United States and some product to Canada <sup>CT19-I45-A</sup>, in order to derive further value from the trade process, informants strongly believe that chocolate should be produced in the domestic markets ready for export <sup>CT19-I10-A</sup>.

However, it was acknowledged by a subject matter expert that, we don’t have a quantity problem, rather a quality problem that seeks to meet certain characteristics demanded by the clients in various markets which value cacao for what itself is <sup>CT19-I21-A</sup>.

Hence, while consolidators and producers establish relationships to cooperate, lack of capabilities and financial resources enable intermediaries to thrive. This situation creates a system whereby producers enact competition between the consolidators and other intermediaries as producers mediate between the tensions that arise from product flow and financial flows.

*Informants may hold multiple positions in the value chain where cooperation and competition take place at the same time <sup>(T14)</sup>.*

The fluidity of the roles dilutes power and shifts the balance on the focus of priorities. The findings revealed cooperation and competition between producers <sup>[I13PR]</sup> & <sup>[I14PR]</sup>. Whereby a producer <sup>[I13]</sup> in the role of a subject matter expert with a greater market network was able to draw benefits from government sponsored programs in contrast to another producer <sup>[I14PR]</sup>, even though both had access to the same knowledge base <sup>CT14-I14-A</sup> and being in the role to help fulfill the same requirements <sup>CT14-I13-B</sup>. Other informants experienced a perceived rivalry in the market within the working family business <sup>CT14-I42-A</sup>, competing interests between being an institutional representative and a producer at the same time <sup>CT14-I40-A</sup>.

Consolidators are aware that producers are in dire need to obtain financial resources as quickly as possible and consolidators see themselves as the alternative to a broken trade system while acknowledging their own limitations in being able to resolve the tension from the lack of resources.

*Consolidators want to better integrate and improve the livelihood of the producers in the present, and see themselves as the alternative to coyotes; however, consolidators are unable to provide sourcing guarantees in the future to producers arising out physical space and financial resources <sup>(T7)</sup>.*

Consolidators expressed concern and a level of responsibility for their communities. While consolidators have the best of intentions, because of their tangible business constraints consolidators appear to normalize practices by other intermediaries, providing a license to operate in the market as producers are left with very little options when financial resources are not available and consolidators cannot keep up with supply. For example, as a leader having a heavy responsibility for over 180 producers <sup>CT7-I43-A</sup>, being responsible for the management of

an association without receiving any funding <sup>CT7-I6-A</sup>, and reflecting on undertakings initiatives to benefit communities and balance generational disparity:

“I am now thinking that impacted the next generation in terms of strictly cacao, I can see that the... our cacao farming renovation program is an agricultural regenerative program that impacts the following generations, we are logically searching how to prevent the aging problem that exists, no?, because the female farmers are too old and the male farmers are too old, the average is fifty-four years of age” <sup>CT7-I5-A</sup>

The findings suggested that consolidators struggle with financial resources and infrastructure capabilities. Hence, the lack of resources may have influenced disengagement for younger generations of producers.

### 4.3.3 Logistics Provider Relationship Model Tensions

The findings suggest that the logistics provider balance *two key tensions* that are concerned with the priorities (e.g., capabilities; see Table 4.4).

Table 4.4 Summary of Tensions for Logistic Provider Model

Tension ID	Influence Characteristics (as applicable)	Influence on Priority Areas (as applicable; see Figure 4.3)
T1	Cacao Provenance / Chocolate Process	Ancestry and Belief System; Capabilities; Identity; Knowledge
T18	Logistics Arrangement / Product Fulfilment	Capabilities; Personal Values; Structure and Organizing
Note See Tension ID indicated with each description on blue background with solid border.		

Source: compiled by author

First, logistics providers do not have full visibility of the trade system. In particular, how cacao is produced and under what conditions of production, such as process characteristics and timing. This lack of visibility disables the logistics providers from assuring product provenance and having to source cacao under the assumption that the product is from a specific region and

meeting specific characteristics. Next, while logistics providers source and market the product according to the region, the environmental conditions and practices that are used within the region vary widely leading to different quality levels in the aroma and flavour of the cacao beans. Demand for fine cacao is greater than the supply available, logistic providers focus on filling orders that are traded from a specific origin while at times the producers cooperate to fill the orders using different sources of product and production methods.

*Logistics providers compete in the market by importing cacao from the same regions labeled as the origin while within each region different characteristics arising from producers' practices exist at the same time <sup>(T1)</sup>.*

While logistic providers appear to have good knowledge of the market they operate in, competition in the market appears to lead to structuring business based on intermediation by becoming the middle-man rather than disintermediation or direct-trade, placing the role of the logistics provider at risk of irrelevancy <sup>LT1-II-A</sup>.

Logistics providers appear to be stuck in the middle by sourcing product to sell to crafters at a longer-term <sup>[IILP]</sup> while procurement of product with the producers is not guaranteed in the shorter-term due to the competition with: a) other logistics providers and b) coyotes that pay cash for product to the producers.

*While producers want higher premiums and low or no transportation cost, consolidators arrange logistics of product for improving the relationship; producers do not deliver to the same logistics provider, collectively affecting the capability of logistics providers and continuity of service <sup>(T18)</sup>.*

Logistic providers require product to operate in the market while challenges were stated for the transportation of the product. For example, as stated ‘because when I send the cacao truck to Guayaquil, I not only pay the one hundred and twenty dollars for the truck, but I have to pay one hundred dollars for two custody persons because the vehicle is also diverted and stolen, so I have to send bodyguards.’ <sup>LT18-I6-A</sup>. Similarly, another informant mentioned that ‘we send the trucks to Belga to the farm two three hours we do not charge the freight, that is a help but they [producers] do not value that much’ <sup>LT18-I4-A</sup>. From the perspective of a producer, logistic providers would charge for fees, such as tolls, and these fees would be forced upon the producers <sup>LT18-I14-A</sup>.

As logistics providers aim to satisfy demands from the crafters, the demands are bound to commitments where the product being sourced is free from child labour <sup>[I1LP]</sup>. This creates further tensions in the trade system as most producers live and work with family where the involvement of children may not be necessarily understood outside domestic markets. In particular from a social and cultural perspective in maintaining tradition and learning for younger generations. Hence, creating a further tension in the supply of product by having logistic providers source product from producers claiming that there is no children involvement in the value chain while the involvement of children at cacao plantations is not well understood internationally, placing the supply of product and sourcing activities as a counter-productive effort. For example, when interviewing <sup>[I1]</sup> it was revealed that when sourcing new producers: “my first question was do you have a child, children working there? and they told me, they said no, no, no, we don't have. So okay, because that's one of my priorities.”

Observations in the fieldwork provided no indication of children being at work in any of the plantations visited. However, children often do live with producers, in their own farm house. As a crafter mentioned: “[b]ecause there's always stories coming out about child labor and all

this stuff, you know, and it's been going on for how long is still going on? And that still isn't making an impact”<sup>[12]</sup>. Producers have families and as producer<sup>[18]</sup> mentioned to the researcher, she has been in the farm since she was 5 years old, collecting cacao beans and learning to trade it on Saturdays at the market with her grandparents<sup>LT18-I8-A</sup>. To the producer, this experience was part of her informal education. From the perspective of the researcher, two questions arise, is it ethical to tell crafters that the product is child labour free when at times it is not, and is it ethical to force ones will upon another culture to change the dynamics and harm future generations by robbing them of their traditions and future opportunities? The definition of child labour is not being correctly applied by the informants in this study and it is exacerbating tensions that have negative intergenerational effects for producers based on the involvement of children.

#### 4.4 Cross-case Comparison

In this section, a cross-case comparison is provided by using the data from interview transcripts, researcher's observations and interpretation.

**IMPORTANT** – The writer uses a top-down approach. As such, the Presentation of the Logics is provided at the higher-level first (*see Section 4.4.1*), and the logics are supported by the Analysis of the Thematic Priorities (*see Section 4.4.2*) identifying the tensions at the lower-detail-level (Pratt, 2009). The thematic priorities and tensions are consolidated and linked with a middle-level approach (*see Table 4.7*).

The cross-case comparison addresses *'how the roles recognise the tensions for the models of Direct-Trade (see Section 4.3.1), Consolidator (see Section 4.3.2) and Logistics Provider (see Section 4.3.1) because they are salient to the informants in their context'*.



In following Table 4.5, the three types of models with the relationships are outlined: Model 1: between the logistics provider (LP) and Producers (PR) or Consolidators (CO); Model 2: between the consolidators (CO) and the Logistics Provider (LP) or crafter (CR); and, Model 3 – Direct Trade: between the Producers (PR) and the crafter (CR).

Table 4.5 Summary of Roles and Relationships Models

Model Type	Relationship With	Upstream Value Chain Relationship	Downstream Value Chain Relationship
Model 1 (Logistics Provider)	Logistics provider	Producer; Consolidator	Crafter
Model 2 (Consolidator)	Consolidator	Producer	Logistics Provider; Crafter
Model 3 (Direct Trade)	Crafter	Producer; Consolidator	Retail Consumer (For reference only. Not part of the study)

Source: compiled by author

Each model type corresponds to the business that is of focus in the value chain. The business of focus has upstream and downstream relationships from the producer to the crafter (retail customer not consumer). The producer is central to this study and interacts within all model types.

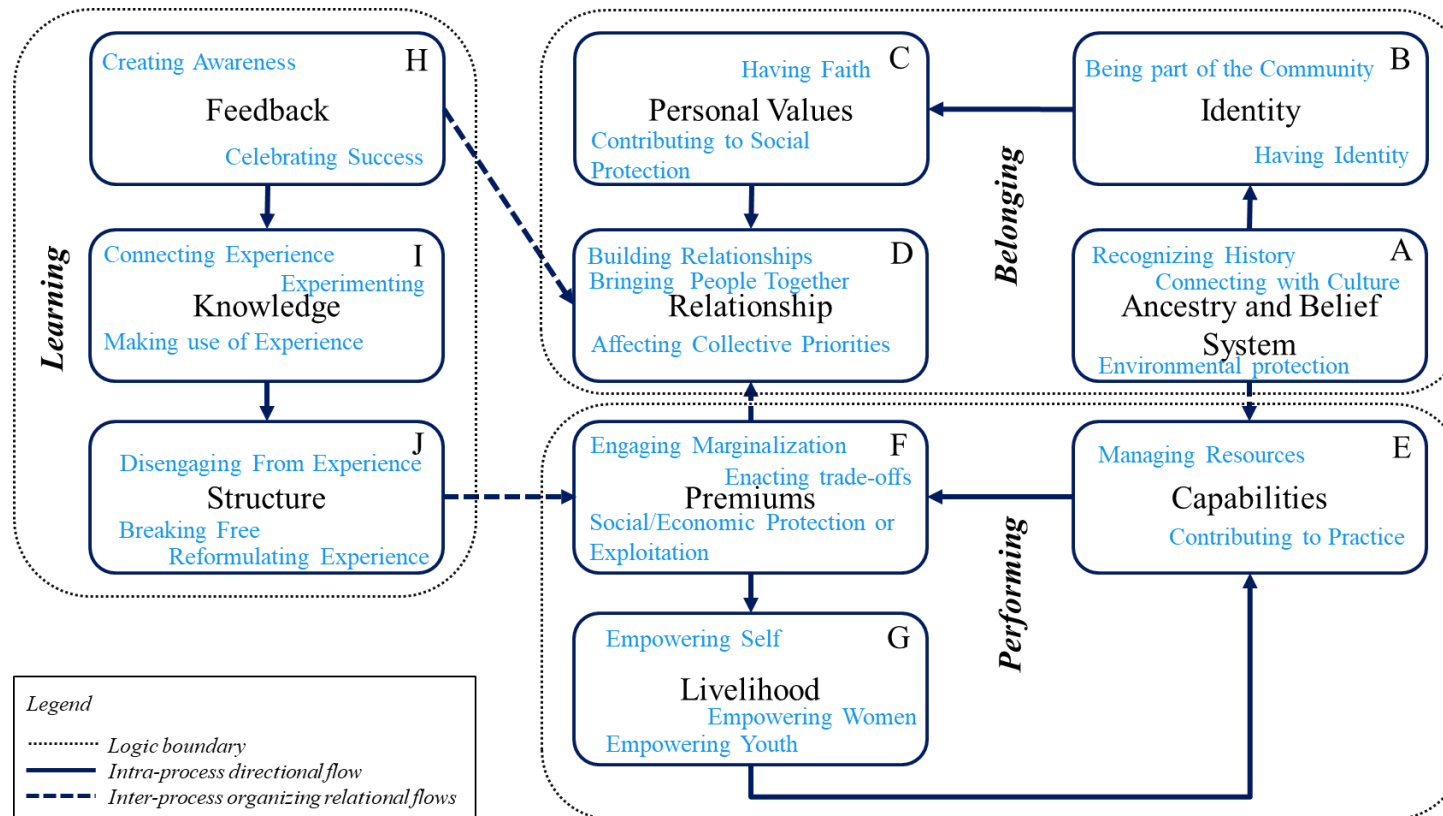
**IMPORTANT** – The focus of this study is on Model 3 – Direct Trade. All other models are used for contrast and comparison.

The data was examined using different constructs a-priori from the literature (*see Appendix R – List of A-priori Codes and Role Profiles*), and, constructs from the data set by analysing the priorities of the informants. While the a-priori constructs have been discussed in the literature review chapter, all of the constructs including the ones identified from the informants' priorities have been organized and structured using a CAQDAS system. Data such as interview transcripts were imported into the NVivo™ software and coded.

Following advice from Smith and Lewis (2011), three logics are identified: a) belonging, b) performing, and c) learning across cases as being salient to the relationships (*see Appendix S – List of Informants from Fieldwork; Appendix T – Informant Relationship Map; Appendix U – Contributions to Construct from Findings*). The logics are of importance to all models (direct-trade; consolidator; logistics provider) and are constructed from multiple priority themes that have been organized in a logical process underpinned by the coding process and the related codes.

In the following figure 4.3, the linkages within the conceptual model and between the thematic priorities supported by the codes is illustrated. Directional arrows indicate the process flow.

Figure 4.3 Conceptual Interaction of Emergent Priority Logics with Supporting Codes



Source: illustrated by author

#### 4.4.1 Presentation of Logics

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##### *Belonging, Performing and Learning*

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The cross-case analysis is discussed within the logics by theme, leading to the trade-based tensions for the three models: a) direct-trade, b) consolidator, and c) logistic provider.

The logics of: belonging, performing and learning are derived from the analysis and groupings of all ten priority themes (*see Section 4.4.2 – Analysis of Thematic Priorities Supporting the Logics Thematically*).

**IMPORTANT** – The ten-themes are underpinned by the blue codes clustered in each of the boxes in the conceptual model (e.g., breaking free) and provide support to the logics.

As previously stated, please reference *Appendix Q – List of Transcribed and Translated Informant’ Statements* for the interpretation of the nested codes in this section (e.g., <sup>cjI3PR</sup>).

##### 4.4.1.1 Belonging

The informants’ accounts demonstrated a strong sense of community <sup>[I5CO; I25CR]</sup> that were perceived as being part of a family <sup>[I3CR; I26PR]</sup>, where the collective effort is made sense of as a service to society <sup>[I43PR]</sup>. Other informants recognized the love for the land <sup>[I7PR; I8PR; I40PR; I41PR]</sup> and the importance of national [fine] cacao trees to past, present, and future generations <sup>[I3CR; I10CR; I20CO; I46PR]</sup>. The ancestry and belief system appeared to be pivotal in establishing capabilities and identity. Unique capabilities are observed by managing resources by traditional methods in practice <sup>[I6PR; I16PR; I17PR; I19CR; I24PR; I40PR/CR; I41PR; I43PR/CR; I45PR]</sup>, leading to high-quality fine-flavour with aroma products <sup>[I6PR; I17PR; I19CR; I24PR; I25PR; I40CR; I42CR; I43CR; I47CR]</sup> having an artisanal value and exceeding market pricing <sup>[I3CR; I5CO; I10CR; I23CR; I25CR; I40CR; I42CR; I45PR]</sup> (*see*

*Figure 4.3, A to E*). A strong personal and community identity (*see Figure 4.3, A to B*) is described by informants regionally (e.g., Arriba, Upala) <sup>[I3CR; I5CO; I23CR]</sup>, topographically (such as from the mountain) <sup>[I6PR; I10CR]</sup>, or by climatical zones (e.g., Caribbean; Pacific) <sup>[I21SM; I43PR; I45PR]</sup>. While some informants claim that traditions are rooted in indigenous culture dating back to the pre-Columbian times such as that of the Mayan's and Aztec's <sup>[I25CR]</sup>; others affirm that being 'Montubio' is the first ethnicity of Ecuador <sup>[I10CR]</sup> and that '[...] the Montubio is the son of the cacao!' <sup>[cjI3PR]</sup>. Several informants articulated their faith by engaging the community and its members with acts of kindness <sup>[I4CO; I17PR; I40PR; I42PR]</sup> such as supporting community infrastructure and donating farm fresh product were other community members perceived giving as receiving <sup>[I17PR]</sup>. For example, 'we were taking again and again and the trees were [always] full [of fruit], it's like God is blessing you' <sup>[clI17PR]</sup>. While others, such as a producer herself stated that 'I am now working for the small agricultural producers so they don't live what we lived' <sup>[ckI43PR]</sup> (*see Figure 4.3, B to C*) and making the business of cacao a social enterprise <sup>[I5CO]</sup>.

This has led the producers to establish relationships with community members and across supply networks (*see Figure 4.3, C to D*); for example, as stated 'we have made an alliance with the small farmers where the one who is there has cacao so they bring it to me, I ferment it and I dry it.' <sup>[czI43PR]</sup>. While at the same time some informants claim to have a personal relationship with the cacao <sup>[I16PR]</sup> and the cacao trees <sup>[I8PR]</sup>. A relationship that leads producers to knowing the uniqueness and requirements of a specific tree among the many trees <sup>[I9PR; I45PR]</sup> and the production differences between them <sup>[I8PR]</sup>. As stated, <sup>[I46]</sup> producers develop a strong relationship with the trees and get to know their individual requirements in detail; for example, 'he [the owner and producer] realizes, because when I cut a cacao leaf [from a tree], I don't know if he has them counted, he comes and he knows' <sup>[cnI46PR]</sup>. As stated by an informant 'the

cacao is such a thing that it is like small child that you can't leave it with strangers.’ [dg16PR]. While relationships appear to revolve around the cacao trees, other type of relationships extend towards the environment supporting biodiversity [I3CR; I8PR; I17PR; I25PR; I41PR; I43PR], and society, by supporting indigenous communities [I3CR; I40PR; I41PR; I42CR; I43PR] and shaping the local community [I5CO; I6PR; I13CO; I17PR; I25PR; I29PR; I40PR; I43PR; I45PR].

#### 4.4.1.2 Performing

The ancestry and belief system played a pivotal role in the observed capabilities of the informants. Traditional methods created unique capabilities for managing resources in practice (*see Figure 4.3, A to E*). It is important not to confuse capabilities with traditional and non-traditional methods, these are not synonymous. Capabilities, include arrangements such as the exchange of services by making use of the relationship, for example “[b]y participating in the Cropping and Nutrition Program Jose receives soil and water analysis services to determine the nutritional balance of his farm” [I5CO]. Traditional methods for processing cacao commanded higher premiums [I3CR; I6CO; I8PR; I42CR], while informants using non-traditional methods demonstrated to be more concerned with production yields [I13CO; I20CO; I35PR; I40PR] and operational costs and profits that ultimately led to trade-offs (*see Figure 4.3 E to F*). For example, some producers were focused on attaining higher-yields by making use of technical controls (such as, fertilizers and aggressive pruning) in cacao plantations [I16PR; I31PR]; while others, embraced working with nature by creating biodiverse ecosystems to attain cacao production yields [I8PR; I14PR; I25PR] that incorporated a production loss factor due to disease or pests [I41PR].

Embracing biodiversity is argued as an effort to protect and co-exist in the environment [I9PR; I25PR; I41PR]. While the attainment of higher production yields becomes increasingly important due to lower market pricing [I5CO], producers that frequently engaged in trade-offs (e.g.,

producing high-volume but lower-quality, so they lose the premium of fine cacao) appeared to be more susceptible to engaging marginalization (e.g., deliberately filtered out from the producer community) <sup>[I14PR; I31PR]</sup>. For example, older generations of producers that while owning the land are unable to work the land and as stated ‘no longer being able to eat very well, soup and cheese, passing by, any little thing, getting by, getting by!’ <sup>[crI14PR]</sup> or ‘It [money] is not enough, here in winter we are full with water; it goes up to my knees in here, look at the refrigerator [corroded from water damage]’ <sup>[csI15PR]</sup>. Some producers have demonstrated a strong focus on monocrop plantations as a medium-term orientation without embedding a shorter-term (such as plantain and yuca) <sup>[I13PR]</sup> and or taking into account a longer-term orientation (such as timber) <sup>[I6PR; I40PR]</sup>.

Nevertheless, it was observed that premiums and off-setting of the premiums (such as, bartering; growing other crops for own consumption) led informants to improve their livelihood and the livelihood of others through relationships (*see Figure 4.3, F to G*). For example, some informants claim to have found purpose in cacao <sup>[I8PR; I43PR]</sup> and as stated ‘It has helped me grow, not only in the emotional part, but in the human part, and I have had better sales, there is more production, more praise for what I do, so it is positive’ <sup>[coI40PR]</sup>. Others worked towards empowering women <sup>[I5; I8; I19; I25; I42]</sup> with a male informant stating ‘they are the bearers for achieving ... social peace, for a family to be healthy depends on the women being strengthened’ <sup>[cpI5CO]</sup>, while others admired the efforts such as ‘she’ <sup>[I43]</sup> won an award, she is the first woman, a cocoa exporter from Costa Rica’ <sup>[cqI21SM]</sup>. In a similar way, informants demonstrated strong support towards empowering youth in practice and academically <sup>[I10; I19; I43; I44]</sup>. Hence within the performing cycle, there is a clear connection between empowering people and building and supporting capabilities (*see Figure 4.3, G to E*).

#### 4.4.1.3 Learning

The fieldwork data suggests that crafters are interested in providing feedback upstream to the producers, while at the same time there was no evidence of producers seeking feedback downstream from the crafters. Fieldwork observations and interview data does suggest that there are different information acceptance levels upstream, from the crafters to the producers. This could be as a result of the distance in the relationship <sup>[I25]; [I43]; [I45]</sup>).

Connecting experiences at the local level may pose challenges for international crafters by receiving less feedback, challenging the acquisition of knowledge due to distant relationships with the land, since some claim that ‘I have lived all my life with cacao and I have, I don't know, it is part of me’ <sup>[dcI10CR]</sup>. Informants that are closer to the land are reluctant to accept feedback from others.

Some crafters insisted that allowing feedback to flow from the crafters to the producers would lead to improvement of knowledge and felt frustrated by the lack of initiative and structure from producers to accept such feedback for learning. For example, “we received one person who wanted to give another sample. So that's when I realized, okay, there's a problem. But I don't know how to fix it” <sup>[I2CR]</sup>.

As mentioned, the priorities were grouped and organized into an interactive model of *belonging, performing and learning* by making use of the research experience and interpretation of the fieldwork.

The themes from the conceptual model were more relevant to some informants than other informants. These themes are tabulated in order of importance and clustered by informant type (see Table 4.6).



Table 4.6 List of Priority Themes by Informant Role

Priority Theme Code	Priority Theme (see Figure 4.3) (Sorted in order of importance)	Producers (PR)	Consolidators (CO)	Logistics Provider (LP)	Crafters (CR)
D	Relationship	●	●	●	●
J	Structure	●	●	●	●
C	Personal Values	●	●	●	●
I	Knowledge	●	●		●
A	Ancestry and Belief System	●			●
E	Capabilities	●	●		
B	Identity	●			●
F	Premiums	●	●		
H	Feedback				●
G	Livelihood	●			

Source: compiled by author

Each priority type is interpreted by triangulating the fieldwork data, differences between geographical zones, relationships between the informants, and key indicators from observed events such as events that highlighted rivalry between informants.

The role of and flow of tensions along with illustrations and linkages to the model by priority code are summarized underneath (see Table 4.7). The temporal flow of the role is demarcated with directional ‘>’ inwards ‘<’ outwards or ‘><’ conflicting or ‘<>’ non-conflicting. The data has been extrapolated from the analysis. As previously stated, the analysis is further supported with Appendix O – Trade-based tensions from Priorities Analysis.

Table 4.7 Summary of Tensions by Informant Role and Tension Flow Mapped to Priority Model with Codes

Informant Role and Tension Flow (see Table 4.6)	Priority Theme Code and [Tension ID] (see Legend; Figure 4.3)	
	Both/And (Focus of Study)	Either/Or
CO<PR	DF [T19]	
CO><CR	DEIJ [T14]	
CO><PR	DFG [T20]	
CO>PR	CDEFG; DEF [T7; T22]	
CR<CO		GF [T32]

CR<PR	DEFGJ; DEGJ [T10; T12]	
CR><PR	BEG; AE [T6; T2]	
CR>CO>PR	DFJ [T21]	
LP>PR	ABEI [T1]	
PR><PR	EGIJ [T25]	
PR<CR		AEF [T28]
PR<CR><CR	AEI [T4]	
PR><CO	DEIJ; DEJ [T14; T18]	
PR><CR	DEIJ; DEF [T14; T8]	
PR><PR	AEI; DEIJ; DEIJ; EFJ; EIJ [T3; T15; T16; T24]	DEJ [T30]
PR>CR	DEFGI; DEFJ; DEJ [T9; T11; T17]	EFH [T31]
PR>CR>PR		DEF [T29]
<p>Legend</p> <p>[ ]: Direct-Trade; [ ]: Consolidator; [ ]: Logistics Provider</p> <p>[ ]: Not Included in Section 4.3; Included in Section 4.4.2 (Derived from Observation and Interpretation)</p> <p>Note: Tension [T14] - Multiple positions for the roles of producer, consolidator and crafter.</p>		

Source: compiled by author

**IMPORTANT** – Inward or outward flows are interpreted when one informant in a role exercises control or pressure over another informant in a role, for example when producers exercise pressure for consolidators to receive product under conditions such as time and money. Having power to make something happen and mapping this to the way certain values and priorities from this section play into the relationships and the related tensions.

Tensions are allocated in the tabulation above as interpreted by the researcher. The narrative and situation of the roles establish the flow between the priorities and within the categorical groupings. For example, considering the flows between the *Consolidator* and the *Producer* - [CO<PR] as it applies to the Priority Theme of *Relationship* and *Premium* - code [DF], persistent tensions of conducting business locally and internationally for *consolidators* underpin importance for the continuity of trading and socioeconomic protection of the producers in time while dealing with multiple premium types as described by the Tension [T19].

The blue codes of *affecting collective priorities, social economic protection and exploitation* (see Figure 4.3) were interpreted in the analysis to support the [D] and [F] thematic priorities in this example.

IMPORTANT – Using a top-down approach and working towards the details, all other blue codes found in the Conceptual Model (see Figure 4.3) are presented in the following section to support each Priority Theme found in the Conceptual Model (see Section 4.4.2).

#### 4.4.2 Analysis of Thematic Priorities Supporting the Logics Thematically

As previously stated, please reference *Appendix Q – List of Transcribed and Translated Informant' Statements* for original statements made by the informants and nested as codes in this section (e.g., <sup>ayI25PR</sup>).

IMPORTANT – Tensions (3; 15; 16; 21; 24; 25; 30; 31) are nested in the following subsections, non-sequential and per priority theme with alphabetical code.

##### 4.4.2.1 Ancestry and Belief System [A]

Producers understood the difference between criollo or nacional cacao and other types of cacaos that have been either adapted or genetically modified to increase resistance to pests, diseases, and production yield such as CCN-51. One informant was proud to have various types of criollo cacaos stating ‘they are all criollos, here there are six, six types of cacaos’ <sup>[ayI25PR]</sup>. While many producers cultivated criollo or nacional cacao <sup>([I6PR]; [I8PR]; [I14PR]; [I40PR]; [I41PR])</sup>, others producers were weighing the difference between the two types <sup>([I16PR]; [I19PR]; [I43PR])</sup> with one producer leaning towards keeping the criollo cacao trees <sup>[I29PR]</sup> yet feeling hesitant and uneasy in deciding what to do (*Tension 4*). [I29PR] suggested to understand the value of national trees yet a decision appeared suspended in time; on the one hand, risking to lose ancestry and steady

production of fine flavour with aroma cacao, on the other hand, being unsure of production yields by the newly planted modified cacao while sacrificing quality (*see Figure 4.4*).

Figure 4.4 Exhibit: Criollo vs. Modified Cacao



(Criollo Left; Modified Right) Source: illustrated by author

Local crafters supported the cultivation of criollo fine cacao versus modified cacao and thought biodiversity was important for ‘getting others to know the cacao how it is, original (*Tension 10*), not as a monocrop that are in existence’ [az110CR].

When a producer was asked what choices were available relative to the crafter’s preference it was stated as ‘I am going to continue, I can see what she [the crafter] wants to do with our cacao not with the other’ [ba119PR].

From various conversation with crafters and in particular with [bb13CR], it was clear that many producers where not made aware of the benefits of keeping their national cacao, ‘I told them, no, this is very important because here we find the genetics of the lost cacao... I’m going to pay you three times more’. Many producers would weight the difference in production cycles of the modified cacao versus continuity in production from the traditional cacao:

‘then, they are going to preserve it because if I have something especial, I will take care of it, I am going to preserve it and for this cacao they are going to pay me more, it’s like if I opened their eyes... in some way they felt proud of what they have’ [bcI3CR].

It appears that there are certain choices that once made are not reversible ‘because it is a cacao forest, if you cut the tree, you will lose biodiversity, you will lose the genetics’ [bdI3CR].

Crafters linked ancestry of the trees to high quality cacao, anchoring the concept to the relationship between crafters, for example: ‘My priorities are that the cacao does not lose its flavour, that she <sup>[I3]</sup>, [a crafter,] does a good job and has success, that way I am also successful’ [cbI10CR]. Similarly, others emphasized “that’s part of why we want to make the name follow, as you know, associated with fine flavoured chocolates” [I23CR]. Hence, the relationship between ancestry and place was highlighted in both Ecuador and Costa Rica by distinct characteristics and providing a competitive advantage based on origin.

#### 4.4.2.2 Identity [B]

Producer Identity appears to be intricately tied to the values and place of the land that producers and their people originate from. Both producers and crafters at different stages of the fieldwork felt that regional differentiation was important (*Tension 2*) such as “a longer term priority would be to get Upala recognized as an origin” [I23CR].

The emergence and differences of subcultures were clear as well as the concerns for loss of cultural richness from past generations to newer generations. While it was suggested that ‘it’s more important that they [new generations of producers] see the biodiversity, that they get to know the reality of the countryside’ [bjI19PR]; others argued that [they are not interested, they believe that staying in the countryside is going back and not forward, back and not forward, when in reality they can live in a wonderful way from what the land gives you, from what nature gives you] [blI3PR]. Across the fieldwork, older generations of producers supported the notion of

being true to the land [I6PR; I16PR; I17PR; I29PR; I34PR; I35PR; I46PR]. However, this was somewhat contradicted by others within the older generation, and while producers felt a strong connection to the land and cacao, they demonstrated frustration and disappointment [I14PR; I30PR; I33PR] in relation to not being able to meet their present and future expectations. Meanwhile, younger generations felt a sense of responsibility and pride tied to the land some felt that ‘of course the countryside is very interesting but the farmer is the maximum because one works to feed the town’ [bkI19PR]. From the perspective of the crafters, ‘if we are Montubios [from the mountain] and now being Montubio is the maximum, everyone wants to be’ [bnI10CR].

In regards to social and economic progress ‘it is worth mentioning that the first bank was made with money from cacao and a businessman based in Guayaquil... The Luzárraga house and that in 1860 became the Luzárraga bank... And it was in Guayaquil, the people of Guayaquil have been pioneers in many things, we have really carried the flag of progress, we have carried the flag of development’ [cdI3CR] ‘and not only thinking about Guayaquil, but also thinking about the rest of the country, remember that with money, money and people, the people from Guayaquil achieved independence’ [ceI12SM].

In a similar way, in Costa Rica, cacao was a main trading currency in the pre-Columbian and colonial times leading to the Central American independence in 1821. It is argued that ‘the cacao was transported from Costa Rica to Mexico across many rivers through Nicaragua’ [cfI41CR].

While there are strong linkages between cacao, the economies and society, some argue that: ‘I always say that they [producers] have to be given an identity, if you know where you come from, you should know where you are going’ [bmI10CR] and that ‘he who does not know the past is condemned to repeat it’ [ccI12SM].

#### 4.4.2.3 Personal Values [C]

Producers in both Costa Rica and Ecuador articulated deep moral principles and commitment to their communities and society. Most producers became involved with the local community to support knowledge building and capacity training. For example, [abl6PR] as stated: ‘I am not rich either but the training does not cost me a great deal, that is my social value’. While other producers (e.g., [I8]; [I17]; [I40]; [I42]) supported this notion. In particular it was emphasized that ‘above all with the respect that they deserve because they are professionals’ [acI19PR].

During a conversation with [I40] it was interesting to hear that valuing others and giving to others:

‘It has helped me to grow, not only in the emotional part, but in the humane part, and I have had better sales, there’s more production, more accolades from what I do, so it’s positive, towards what I do, it happens, I always do it, I always go towards others’ [adI40PR].

Some producers took a strong sustainability stance when questioned about chemical usage, for example providing a business and decisive response: “This used to be a tank for pesticides. Is not used. Not used anymore.” [I25PR] (*see Figure 4.5*).

Figure 4.5 Exhibit: Discontinued Pesticide Tank





Source: illustrated by author

While others appeared to be transitioning towards more sustainable systems such as:

‘I have been dedicated a bit to better what is the environmental production... I make my own fertilizers, and I teach the farmers how to make it, the one that wants [to learn], I don’t expect [it]’ <sup>[aeI40PR]</sup>.

It was interesting to observe a conversation between the producer <sup>[I40]</sup> and his customer <sup>[I5]</sup> in which an organic product was introduced in a pilot study as a replacement for non-organic fertilizer. Contrasting Costa Rica and Ecuador there is common agreement that the use of fertilizer is harmful to the producer’s health and the environment. In particular, producer [I8] had a strong opinion favouring cacao production over banana production due to the chemicals that are used in the process. All producers appear to be well aware that the use of chemicals is harmful and cacao production in comparison to others supports sustainable agriculture yet there were some instances where technical experts recommended to producers the use of fertilizers to improve the production yield of cacao trees <sup>([I5]; [I31]; [I35])</sup>.

Consolidators perceive that ‘we are the alternative to the coyotes... let’s say that it is in our control to change it’ <sup>[afI5CO]</sup>. This arises from the perspective of choice, rather than producers



improving their own income, their choice based on immediate needs leads to their own detriment (*Tension 7*), and ‘for a small farmer is not fair that you take away that you rob them’ [agI4CO]. From a value chain perspective ‘when one says which is the product that impacts life? it is the cacao bean, in our case not so much chocolate’ [ahI5CO]. While this perspective is taken based on a financial operating ratio in the past/present, it neglects benefits that may arise in present/future from the value chain (*Tension 32*).

From a transitional perspective of becoming a consolidator [I13] stated:

‘I value the unity... we the farmers want to maintain the family... the close family provides all the ideas and injects new ideas, new ways of work’ and that It’s important to motivate the producers [aiI13CO]. Other informants felt compelled to their roles ([I14]; [I26]) for example a logistics provider stated ‘the primary thing for me is to do the work... do it well and be like one has to be, like a worker’ [ajI28LP]. While other informants were clearly motivating their workforce to become more, ‘to think like a manager and not a peon’ [I25].

With this mindset some informants took a strong social stance ([I5; I25]) such as: ‘I insist, we are a social enterprise, so then we have to do something, do something for the market, not out of annoyance but differentiated, we sell it expensive the cacao is very expensive’ [akI5CR].

In many instances producers express their frustration of not being appreciated for the efforts ([I13]; [I19]; [I35]). In contrast, it was stated by a consolidator that “what I do is I treat them [the producers] very well... with respect... And that is just different. Because they are, they are not, they’re taken aside” [I5CO].

Logistics providers perceived that “this business is based on trust, and respect, culture respect. And in a long term relationship” [I1LP], and ‘I lean towards the values that you exit your home with that are thought by your parents’ [alI4LP].

Crafters agree that “I think it's all core values, like getting in ourselves, like, this is something that, like, that we, we believe is right, whether chocolate exists or not” <sup>[I2CR]</sup>. While some are focused ‘to keep moving forward, to be able to live and help to maintain everything’ <sup>[amI19CR]</sup>, others see it as ‘the legacy that we can leave behind is sharing, is giving, and not necessarily you can give by gifting, no, you give by just providing an opportunity to that person’ <sup>[anI42CR]</sup>.

While some priorities are short-term or “there's immediate priorities, which is usually I need some product, but it's also the more overall is to give these people [what they] didn't get [,] everybody [,] that they have sources of income because there's a lot of local cacao farmers who really don't have a market for their product. The local market pays so little that it's, I mean, it's the last and worst resort for them” <sup>[I23CR]</sup>. Other crafters engaged priorities as ‘it’s a way of helping, and of earning, equally to the women of this zone that are mothers of a family, that are women that don’t have any [education] degrees’ <sup>[aoI42CR]</sup>.

There is common agreement among the crafters of their contribution since ‘we say it because we understand the triple equilibrium that is true between sustainability, for us it is present, because economically and environmentally and it is the message that is behind each bar of chocolate’ <sup>[apI5CR]</sup> (*see Figure 4.6*).

Figure 4.6 Exhibit: Direct-Trade Sustainable Development Message



Source: illustrated by author

#### 4.4.2.4 Relationship [D]

A main priority for producers, consolidators, logistics providers and crafters appear to be involving people and the maintaining relationships along the value chain. When informants were asked about their priorities relative to their roles, some stated that:

‘Yes, that’s a priority, let’s say a priority is to involve, involve others, not only because they want to introduce cacao, rather because the cacao production is so friendly with the environment’ <sup>[a140PR]</sup>.

Producers with a strong sense of will appear to approach people outside the value chain that could be influential in their efforts of success, for example when there is a ‘new employee in the municipality and I get closer and I make myself available’ <sup>[b119PR]</sup>. Other producers appear to use proximity of relations to ensure they stay abreast of opportunities (*Tension 14*) such as:

‘everyday, I contact madame <sup>[110]</sup> the patroness, how are we doing with the cacao? How are we doing with the chocolates?’ <sup>[c18PR]</sup>.

Whereby, some producers understand that maintaining closer relationship is beneficial to them and argue that: ‘I am telling you the only thing is direct from the owner to the chocolate maker (*Tension 17*), that’s the way, there’s no problem’ <sup>[dl6PR]</sup>. However, it appears that being selective of the type of relationship was important along with the proximity of the relationship (*Tension 22*), ‘No intermediaries, here the intermediaries rain down’ <sup>[el6PR]</sup>.

Consolidators on the other hand believed that being close in the relationship with producers was important (*Tension 15*) ‘to maintain a good relationship with them so they can keep on selling to me, because at the start I began from zero’ <sup>[fl20CO]</sup>. And this notion was taken even further with some attending sessions with producers as ‘in the meetings we are focused on talking and telling the producers that there is hope as long as we string things better’ <sup>[gl13CO]</sup>. Consolidators appear to be positioning themselves as a key stakeholder in the value chain.

The logistics providers demonstrated two perspectives, a local and international focus associated to the relationship. From a local focus in Guayaquil, Ecuador <sup>[hl4LP]</sup> claims that ‘We used to do it [the transport] free, so if we had lots of farmers that would deliver and you could see the difference because they delivered in one place and then they started to deliver in another and then they delivered to us’ (*Tension 18*). Within the region of Upala in Costa Rica, being a logistics provider has created opportunities for employment and self development, as an informant <sup>[il28LP]</sup> stated that: ‘it has given me the opportunity to do things that I thought I could not do’. While from an international focus, it was important to get to know the producers and “[y]ou have to be sure it's a relationship” <sup>[il1LP]</sup>.

Regardless of whether crafters are dealing with producers or logistic providers there is acknowledgment that “without the success of good relationships, there won't be a success of business” <sup>[l2CR]</sup>. While, it was stated that ‘It is difficult to maintain a stable relationship, that is why I don’t hop around’ <sup>[jl3CR]</sup> (*Tension 8*).

In efforts to maintain a good relationship all crafters in the study appear to agree on paying higher than market premiums (*Tension 19*) since “we pay him a good rate. And we, you know, we're trying to get it so that we're we got good relationships” <sup>[I23CR]</sup>. While others have enabled opportunities: ‘and it has been a way to help our indigenous brothers and sisters also’ <sup>[kI41CR]</sup> by involving other communities with cacao production <sup>[I40; I41]</sup> or making artefacts <sup>[I41]</sup> supporting indigenous culture and identity (*see Figure 4.7*).

Figure 4.7 Exhibit: Indigenous Art Work in Connection with Cacao



Source: illustrated by author

#### 4.4.2.5 Capabilities [E]

Capabilities among producers appeared to be divided between the ones that had international experience and the ones with domestic experience only. Producers with international experience conceptualized capabilities in terms of: ‘we should find a market that is broad to position our product in them’ <sup>[beI43PR]</sup>. Some producers <sup>([I6PR]; [I43PR]; [I45PR])</sup> felt that there are too many producers with product, so the niche market does not appear to provide sufficient demand to fulfill the direct-trade relationship between the producers and the individual international crafters. When a direct-trade opportunity was presented, it often took as long as 4 years to

develop with several visits to the plantation that evaluated the producer capabilities, including the producer's commitment to quality. More experienced producers were concerned with technical aspects in order assure exporting requirements (such as organic) and emphasizing that technical aspects need to be address in longer-term (such as three to five years) in contrast to the common perception of being a short-term task (such as eight days <sup>[I6PR]</sup>).

Producers with domestic experience only appeared to be more concerned with operational aspects such as 'if I had [money] I would have installed a pump, that was my hope, but there was no money, there was no money to drill a well' <sup>[bfI14PR]</sup>. Others were focused on increasing production yield: 'to produce more to live, for one's benefit, for our grandchildren, our children, for them to be well incentivised' <sup>[bgI16PR]</sup>.

From a consolidator perspective, it appeared important that producers maintain various crops 'because if they only sow something they keep themselves to that only, in contrast, there are different product they can develop' <sup>[bhI20CO]</sup>. While others emphasized value added products to increase capabilities <sup>[I13CO]</sup>.

Consolidators appeared concerned about having 'a drying process that is uniform and to process a good quality, that's what I see, because in practice they dry on the road sometimes in sacs or in plastic' <sup>[biI13CO]</sup> (*see Figure 4.8*).

Figure 4.8 Exhibit: Observed Uncontrolled Practices



Source: illustrated by author

#### 4.4.2.6 Premiums [F]

Not surprising, cacao premiums were of central concern to producers with some arguing that: ‘we don’t need to better anything, only one thing, the price, and with the cacao everything gets better’ <sup>[boI8PR]</sup>. Similarly, observing a discussion between a producer and a crafter, the producer <sup>[II6]</sup> appeared to welcome a significant increase in premiums from the current price of \$100 per cwt (hundredweight - US).

Cacao is an economic engine for producer and their families, and when there is good quality cacao ‘we all work, we have a good payment and we have everything the family has money, like he says, he shares with everyone, money is to be shared with the family, the money of the cacao, from the one that is on the way to the biggest one’ <sup>[bpI8PR]</sup>. While there is a collective sense of agreement that the cacao premiums need to increase <sup>[I31PR]</sup> and <sup>[I35PR]</sup>; producers argued that: ‘we are no longer waiting only on the cacao, or anything else’ <sup>[bqI18PR]</sup>. Some producers stated that: ‘I have colleagues that already cut part of the cacao to sow something else, because it does not yield, at this time it does not yield, for me there’s yield because I do a bit of this, I sell dry to chocolate makers I have three chocolate maker friends, that I sell my product dry’

[brl40PR]. While the cost of fertilizer appears to be the culprit in generating a profit, not everyone was willing to part ways with cacao due to premiums, some producers [I8PR; I19PR; I41PR; I43PR] refuse to grow anything else (*Tension 21*) due to the risk of chemicals required (such as, plantain) and their concerns for their well-being and that of the environment [I8PR; I41PR]. Other producers [I40PR] shared similar concerns and while investing in organic fertilizers may be costly, better premiums can be realized by growing organic cacao. Most importantly, there appears to be a knowledge gap between producers, recognizing that fertilization is important, some producers were dependent on the non-organic fertilizers while others demonstrated deep levels of knowledge on producing their own organic fertilizers [I25PR; I26PR; I40PR; I41PR], the differences between micro and macro nutrients [I40PR; I41PR], and the relation between pruning and fertilization practices [I5SM]. The fieldwork demonstrated that producers that were able to leverage knowledge in relation to the technical aspects of cacao growing are able to benefit from and obtain better premiums while at the same time improving production yield and quality (*Tension 25*).

From the producer perspective it was suggested that some consolidators [I20] ‘...pays them [the producers] justly and then they see who pays them more’ [bsI19CR]. This provides choice to producers for consolidating their product at higher premiums. However, ‘the cacao needs to be dried properly, because if it dries too much the weight drops’ [btI20CO] and then consolidators are unable to balance the premiums paid to producers versus market prices to crafters or exports. Hence, maintaining high-quality yields and broadening market access appears to be a priority to producers and consolidators as the domestic market is limiting performance, as suggested: ‘because it would be good if I had someone to buy my cacao in another country which I would pay more to the farmers here and they would sell more to me and keep increasing the production



so they can buy more there and the farmers would be good because the price of the cacao increases’ [buI20CO].

#### 4.4.2.7 Livelihood [G]

The fieldwork enabled the emergence of three types of producers in Ecuador and Costa Rica, the producers that purchased land [I7PR; I18PR; I40PR; I41PR], the producers that were awarded land by the government dividing the acquired land from other large land-owners into smaller parcels [I14PR; I23PR; I25PR; I45PR], and the producers without land that are working for land-owners [I8PR; I26PR; I44PR]. All groups of producers appear to struggle in keeping up with their expectations for their livelihood. While there are some success stories amongst the older generation of producers such as: ‘When we started with this, when I came here [over 45 years ago], I said from here I am going to start working with my husband I am going to start working, and move forward’ [bwI17PR] and have built their plantations and home from the ground up (*see Figure 4.9*).

Figure 4.9 Exhibit: Producer and Land-owner



Source: illustrated by author

Other producers appear to be concerned about being able to up-keep their properties and livelihood as [I14PR] stated ‘it worries me, I would like to fix my house but it is not enough, it is not enough’ [bvI14PR] (*see Figure 4.10*).

Figure 4.10 Exhibit: Producer Living Conditions



Source: illustrated by author

Nevertheless, when producers were asked what their priorities are, many responded with similar statements such as: ‘to work, to keep going, to keep moving forward, and for one to live and help in maintaining everything’ <sup>[bx117PR]</sup>. Producers are in common agreement that while maintaining production provides for better livelihood, the cost of maintaining has exceeded their expectations <sup>([I29PR]; [I31PR]; [I35PR])</sup>. As admitted by a producer, ‘what I want you to understand with this, the living cost in all senses, in agriculture or what we are living is exceedingly high’ <sup>[byI35PR]</sup>. Despite a producer <sup>[I18PR]</sup> being 86 years of age, a main priority is to keep working and to do the maintenance himself as the cost of labour is high in the present in contrast to the past 42 years.

Some producers decided to experiment with the introduction of new crops <sup>[I17PR; I25PR; I26PR; I35PR; I40PR]</sup> in order to make a difference in contrast to what is being produced in the zone and in turn, improve livelihood. As one of the producers stated: ‘then, one puts more love into this, so this can rise and produce, and it can be better, from what is available’. <sup>[bzI26PR]</sup>

It appears that experimenting was important to improving livelihood. While some suggest that ‘we need to get back to the land, we can live from the land, I live surviving of the land, always and when my north is the same... we always need to wake up on the morning with a positive attitude, an attitude of the north’ [caI40PR]. Other producers [I19PR; I35PR] took a more strategic approach based on past events and made choices to diversify into other type of luxury crops to ensure longer-term survival and improve livelihood (*Tension 6*). For example:

‘Many years ago, this town... was called Yeverde. There are eleven farmers to plant bananas. When that banana began to produce, they began to see the money... Of course, they were the only ones who had bananas, so they sold bananas at a good price, what does this mean? Everyone, planted the same, they broke everything [the system]. If we do not start... Because maybe there is cacao not only here. In other places they also have cacao, so the cacao production will be overpopulated.’ [ciI26PR]

#### 4.4.2.8 Feedback [H]

It is important to distinguish between two types of crafters, the international and domestic. Language barriers, geographical distance and closeness in the relationship between producers and international crafters appear to act as common barriers in the transfer of information or perspectives with producers [I2CR; I49CR; I50CR]. While domestic crafters generally do not experience the same barriers as international crafters [I3CR; I5CR; I10CR; I19CR; I23CR; I25CR; I40CR; I42CR; I43CR; I47CR] it is suggested that:

“a lot of these guys have grown up on the land and grow up doing this. And they know, a hundred times more than I'll ever know about the cacao tree... But you can go out there and you can give a different perspective on different aspects of it... then that can open up... their understanding.” [I23CR]

While some find that “I think being totally open with everyone. And honest, is a huge part of our mission” <sup>[I2CR]</sup>. It appears that producers that are successful are also able to exercise greater acceptance of feedback as alluded:

“the farmers that I'm successful with that we work with, and I always give them positive feedback and say, Hey, you know, these people really liked your product and stuff like that... you try and incentivize them to keep trying to improve.” <sup>[I23CR]</sup>

And while domestic crafters have more direct access to producers, international crafters felt that access and establishing communication channels with producers is difficult even with the help of local contacts <sup>[I20CR]</sup>. Conversations are suggested to be based on basic elements such as price and quantity, for example:

“we arrived to this house. And we turn the corner at this home. And there's a whole bunch of guys sitting there... it came across almost as if they felt we were trying to get the cheapest price from them, umm... they wanted to know the price that we want to pay them immediately... And that threw me off. Hmm, but also, it's just the lack of umm like receiving our feedback.” <sup>[I2CR]</sup>

While at first the statements by the crafters were surprising, the fieldwork enabled understanding that producers are not just interested in rudimentary information. During several interviews with producers some consolidators demonstrated interest in establishing good relationships in the trade process <sup>[I5CO; I13CO; I40PR]</sup>. However, a consolidator stated that some producers feel that “they’re taken aside” <sup>[I5CO]</sup>. Producers in Ecuador and Costa Rica appear to value a relationship beyond price, quality and quantity <sup>[I25PR; I43PR; I45PR]</sup>, and want to be socially valued beyond a business transaction. Crafters and producers appear to agree on having a good relationship and the importance of feedback (*see Figure 4.3 H to D*). As an international crafter clearly stated “why wouldn't it be important to have a relationship with someone who's growing

the product that we use? It's like, that is the core chocolate without that. And you have nothing so I find this hugely important” [I2CR]. While a producer anxiously awaiting feedback from a cacao trial run felt a sense of urgency to act: ‘and I told him even if there is no feedback, I am going to do my own experiment in a tree’ [dfI40PR].

A requirement for creating awareness was perceived by experienced crafters with the intent ‘that these people do something good in relation to the motivation that I started to create, it is “awareness”’ [ctI3CR]. The lack of awareness amongst the producers creates urgency to ‘first open their eyes, you have a special cacao, second I'm going to pay you more (*Tension 31*) but if you do what you are supposed to’ [cuI3CR]. While consolidators commonly share that “we constantly motivate the farmer to supply the best quality and only the best” [I5CO]. Some, crafters prefer to operate collectively, such as “my idea is to go with this market of people that understand[...] the commitment that we have with the ecology and with the social part” [I25CR]. This alluded requirement for producers to demonstrate being open to feedback and greater awareness to pressing issues to meet future commitments.

For some crafters this was viewed as it “is providing the proper feedback. being okay with a fluctuation quality, obviously, to a certain point, and that ties into feedback as well, and I don't know celebrating the successes of long term relationship.” [I2CR] (*see Figure 4.3, H to I*).

Producers appeared to be encouraged by the relationship with the crafters and the related expectations, with some producers aspiring to ‘being the best supplier of [I10] with her chocolate company and I being the best supplier. (laughs).’ Other producers, echoed this sentiment throughout the relationship with the intention to ‘take care of the plantation and assist her to have a great success’ [cyI35PR].

Producers with greater experience related celebrating success to their accomplishments and the intergenerational legacy that they created, such as, ‘I have succeeded, God has given me

strength to continue forward and not go backwards.’ [cw117PR]. While other producers felt a sense of pride by having their efforts recognized by government agencies, such as ‘Procomer has made me feel very big [...] he [I21] has already seen me at the fairs, in the BTM that makes me feel so great that I am all happy’ [da143PR]. The closeness of the relationship created reciprocal value between informants were consolidators felt that ‘our difference is that we try to be elite, to be the best of the best’ [cx15CO] and crafters acknowledging that this “has an even higher meaning. Okay, and that will make these people actually more proud of what they are doing” [I25CR].

#### 4.4.2.9 Knowledge [I]

The fieldwork revealed that producers share knowledge and collaborate with one another to build better practice in the community. Although, within a regional zone of Costa Rica a sense of competition and rivalry between two producers and crafters was observed [I5&I25; 143&145]. The millennial generation of producers relies on the support of older generations, including new sources of business and openness to learning. For example, ‘she calls us, one thing, she teaches us, the good thing about her is that she shares what she knows with us’ [aq18PR]. However, there was mixed-sense of pessimism and optimism amongst older producers as: ‘in the future we don’t know, because he knows that he is going up and we are going down, I hope that he has luck and continues his studies, the studies are more worthwhile than the [farm] work’ [ar114PR]. Education is important to the older generation as common agreement prevails with other producers [I17]. However, education was perceived as disconnected from agricultural work by the oldest generation of producers. While the millennial generation of producers perceived this as a priority to resolve problems and improve practice (*Tension 16*): ‘to the farmers... teach them because many times they don’t know the disease that the cacao has, they don’t know’ [as120PR]. Older generations of producers prioritized the knowledge as a ‘transfer [of] what we

have been doing, and I always invent something, I mix one cut that's different to another lot, to see' <sup>[I40PR]</sup>. In other words, experimenting was perceived as valuable in improving knowledge and practice.

Consolidator shared a similar priority in that some perceived that 'for me there are two elements of them the lack of family financial education that could be much better and two productivity' <sup>[auI5CO]</sup>.

Crafters appear to believe in educating themselves, in particularly by learning what goes on in the value chain, "[s]o I think by educating myself, and really making sure that's the priority of mine, I'm able to pass that off slowly to people" <sup>[I2CR]</sup>. And in doing so, educating people to be a part of the ecosystem <sup>([I10CR]; [I19CR])</sup>.

As stated by a crafter 'I have always said that we need more education, the peak of being conscientious towards supporting small business has not been reached, in particular for those that are collaborating towards the environment' <sup>[avI42CR]</sup>.

And while learning was seen as an important aspect, it was interesting to observe a Costa Rican producer-crafter be involved in teaching a master student as the informant stated:

'the universities have been very important for me since I came to realize that while the students are doing their theses, I am not just the one being studied, I am also a master in harvest and agriculture' <sup>[awI43PR]</sup>.

While crafters, in particular within the local producing communities, have a good grasp on crosspollinating knowledge, <sup>[axI5CR]</sup> stated that 'I believe that the consumer should be conscious that the social subject is grave even if they are millennials'. The general sentiment towards informing consumers about social issues in the supply but more importantly how consumers can positively contribute appears to be of importance <sup>([I2CR]; [I3CR]; [I5CR]; [I24CR]; [I25PR]; [I50CR])</sup>.

Crafters with an international perspective appear to be connecting experiences to pass on knowledge to consumers, such as “[s]o I I’ve been trying to learn what I can say, in this short span of like a breath. So, people grasp what we’re doing” <sup>[I2CR]</sup>. While at the same time emphasising the importance of direct trade relationships with producers. For example, “usually what I say is like we’re bean to bar chocolate makers, which means that we’re actually sourcing the raw product to make chocolate from different farms around, around the world.” <sup>[I2CR]</sup>. However, connecting of experiences isn’t limited to social aspects, crafters associate experiences to the land. A key difference between international crafters and domestic crafters is being able to distinguish between the terroir or different parts of the land. For example, domestic crafters claim that ‘You already have that memory, and you say Wow, um! It seems to me that this is lime, it seems to me that this is mamey [zapote], oh no! But this seems [like] reddish mamey [zapote], we say this in Cartagena it is different, the guava is different, this one here is such thing, it is memory’ <sup>[dbI10CR]</sup>. This may suggest an advantage to domestic in contrast to international crafters by way of being able to associate experience and knowledge in the trade process. As such domestic crafters have a more refined capacity to make distinctions with cacao origin and quality.

Relationships that are closer to producers benefit from collaboration in experimenting. For example, [I5CO] stated that ‘we are doing an experiment of applying some enzymes to cacao to see if they resist due to drought’ <sup>[deI5CO]</sup> with [I35PR]. Similarly, other producers having a relationship to [I5CO] stated, ‘So we are going to show now which one is going to give more in harvest, this or that one’ <sup>[ddI29PR]</sup>.

Relationships that are further away from the producers appear to be frustrated for making use of experience. For example, “I want to see firsthand what’s going on, get a feel for it” <sup>[I2CR]</sup>. Making use of experience is perceived as important to crafters, as stated “to have an effective



direct trade relationships at this scale of our business. We have 7 right now, we need to start with one really good one, and then transfer that model to the other” [I2CR].

Most producers and consolidators appear to be set in their own ways, making use of experience that has been past on from one generation to the next. For example, a consolidator [II3CO] gained his experience at eight years of age from his grandfather in the 1960s. Asserting that his experience was passed on from a third generation at a very young age that pivots on the collective know-how of many generations rather than an individual.

Producers generally make use of their experience without common agreement. For example:

“some people swear it has to be banana leaves on top of the fermentation pile. Other people say burlap sacks. Other people use newspapers, you know, some people leave it open for the first 10 hours you know, I think it's there's a whole range of just little minute things” [I23CR].

While some producers experiment with other crops such as ‘Nobody plants vanilla because vanilla is difficult, vanilla is difficult, I am investing in vanilla, I am looking for a way, I have already done it in several different ways’ [dhI40PR]; it appears that cacao is central to the knowledge base, and experimenting and making use of experience means being able to disengage from experiences when challenges arise (*see Figure 4.3, I to J*). For example, ‘and I returned to cacao here, and here we are with cacao’ [diI45PR].

#### 4.4.2.10 Structure [J]

The need to organize systems and processes through norms appeared to emerge as a secondary priority across all roles. From the producer’s perspective there was a general sentiment that ‘there’s lack of structure, it’s a very corrupt country, the authorities are very corrupt, from top to bottom’ [II6PR].

Consolidators appear to share this sentiment acknowledging that “[w]e have access to very

lousy and very bad and hmmm, legal framework” <sup>[I5CO]</sup> and that ‘then it’s hard, there is no help, there’s not help from the government’ <sup>[mI4CO]</sup>.

However, not all producers agreed and some took advantage of lower level of government support to involve themselves in potential opportunities such as: ‘I always attend the meetings in the municipalities’ <sup>[nI19PR]</sup>. Whereby, some producers <sup>([I19]; [I41]; [I41]; [I43])</sup> expressed their gratitude towards the various government support programs that provided structure to improving capabilities and providing export opportunities by establishing relationships with international businesses (*Tension 11*). Producers in Costa Rica were incentivised by the efforts of government programs such as through Procomer, Ministerio de Agricultura (MAG) and other local subsidy agencies. Therefore, it appears that structuring does play a role for attaining premiums by enabling capabilities (*see Figure 4.3 J to F*).

Subsidy programs for the producers were welcomed ‘because in agriculture we should work to short, medium and long term’ <sup>[oI40PR]</sup>. ‘The agriculture of timber is long term, the cacao is medium term and before the three years, before the two years, we produced plantain and yuca within the cacao’ <sup>[pI40PR]</sup>. Producers in Costa Rica <sup>([I19]; [I40]; [I41]; [I43])</sup> claimed to be in receipt of financial subsidies to support short-, medium-, and long-term agriculture. While, subject matter experts refrained from denying the existence of financial government programs, obtaining financial support remained challenging as collective effort requirements were in place (*Tension 24*). Hence, <sup>[qI40PR]</sup> suggested using a proactive approach stating ‘I ask my colleagues, we have to do this and that, because we have to do it this way, let’s work like this, then they are all on alert with me’ (*Tension 30*). The previous tension, illustrates that while incentives do exist to work collectively, not all the producers are onboard to invest time and effort. As a further example, a producer <sup>[I40PR]</sup> had worked in partnership with a university to investigate treatment of cacao tree diseases and he was asked by another informant <sup>[I5CO]</sup> to set aside some of the

cacao pods on the trees and harvest the pods just before it was time to deliver, he had the experience of how many cacao pods were required, he immediately made sense of the situation and corrected the requesting informant on how many cacao pods were required to be used in the upcoming experiment. The informant <sup>[I40PR]</sup> used his past experience to project into the future in a living present and to structure the situation to meet the partnership goals. Structuring collective participation is described as challenging as organizing producers in the area may be an ongoing and persistent task.

From a soil management perspective, producers enrich the soil to obtaining higher cacao yields while claiming that ‘if we take care of the cacao fertilizing it every twenty one days every two months the cacao does not stop, it does not stop’<sup>[r135PR]</sup>.

From a land management perspective, producers’ section the land to support cacao production while protecting the trees from damage (*Tension 3*), [I40PR] claims:

‘And we also have controlled shades, for the cacao, the cacao takes up shade, then the timber grows thirty meters, those thirty meters in between ten meters, in the thirty meters that I have is a barrier with the other barrier in the morning it generates shade on this side and in the afternoon it generates shade on the other side, the other lot, it’s not just timber is longer term agriculture, rather is everything, it’s all a schema that helps us to control in protection of the same cacao’ <sup>[sI40PR]</sup>.

Consolidators expressed concern over global trends with cacao describing it as a social problem:

‘because the cacao system, not [just] in Costa Rica, in the whole world, is a subject primarily of child labour, enslaved children, very low income, remote zones without access to basic services, that’s the cacao problem’ <sup>[t15CO]</sup>.

Fieldwork provided no indication of the involvement of child labour. Instead, the cultivation of

cacao was seen in many instances as a family and an after-school activity [I8], linking culture ([I3]; [I8]), and identity [I10]. Similarly, other informants in Costa Rica clearly supported the development and involvement of children in cacao to compliment primary schooling requirements ([I42]; [I43]; [I44]). In various conversations with informants ([I8]; [I25]; [I29]; [I39]; [I42]; [I43]) benefits of shaping the education of children with cacao at an early age to maintain involvement at a later age in the business was perceived as important. For example, as described by the informant, ‘he says [the child] when all three of you are old, I’m going to do all of this that my mommy and daddy do, because for him we are his parents’ [cmI47CR].

From an environmental perspective ‘I feel that in cacao the environmental part the cacao makes it for being how it is’ [uI5PR]. In other words, cacao is a biodiverse crop. This statement appears to be more relevant to cacao plantations that are rich in biodiversity, more common with smallholder farmers in contrast to monocrop plantations (such using the land to grow a single type of crop). However, it was interesting to hear some consolidators present and future perspective regarding shifts from monocrop to biodiverse agriculture:

‘it’s going to change because that’s what we are working on, before the farms where alternative, cacao, tropical fruit, citrus and everything else, banana, those are the farms that are now coming back... right there we have our food’ [vI13CO].

Overall, structuring biodiversity rich plantations appeared to be a common agreement amongst the informants.

While consolidators appear to pledge “our commitment to the farmer is that we receive all they have, all the time... that is a sense [of] comfort because we are not use that and we don’t claim or ask for exclusivity” [I5CO]; during peak seasons, some producers were turned away due to lack of space at the consolidation center, leaving producers with little choice of where to sell their cacao to or falling victim to local coyotes that commonly pay a premium of 50pc or less

from the market price <sup>(I15; I127)</sup>, at times resulting in premiums that are less than 20pc of the consolidator's average premiums (*Tension 20*).

While consolidators appear to pledge their commitment to producers, there are instances described as 'la viveza criolla' the creole smartness, whereby some producers in efforts to gain more for their cacao trade arrange their cacao sacs with foreign objects or differences in the expected quality of the beans. As such, logistic providers described these situations as (*Tension 1*):

‘you go under the truck there is a level of humidity, on top another humidity, and when you grab you can’t grab from the bottom rather you grab from about the top, so they have it designed how the cacao is placed’ <sup>[wI4LP]</sup>.

Crafters have expressed their willingness to get involved deeper into the cacao process and closer to the producers, “part of the idea of trying to make a model where smaller farms can be financially successful” <sup>[I23CR]</sup>, as an example: “what are the steps we have to do to a) organize ourselves b) get in a system of controls to where we're, we can say, you know, between farm A, B, and C, we're all doing, not necessarily the exact same process, but a process within a certain range of parameters” <sup>[I23CR]</sup>. While from a local to an international perspective, some believe that “I think for me, for us, we've set aside the time when we're in these community meetings, that's when the time to start talking about [...] these bigger issues and stuff... for example, the forming the cooperative and, and the idea of getting Upala recognized as an origin of chocolate” <sup>[I23CR]</sup>. In contrast to Ecuador, geographical recognition might play a key role in opening new markets and establishing better premiums for cacao and chocolate.

While some are privately joining efforts to better the operations, other crafters have reached out to government agencies for assistance in exploring new international markets, for example: ‘Procomer has been giving me great support... what I am doing now as a self initiative, is

getting the government to listen on added value' [x143CR]. It appears that more producers are realizing that there is value in furthering the cacao processing (*Tension 12*). These are transitions from being a producer to becoming a crafter as international clients are requesting cacao paste, a process outside the boundaries of a producer (*Tension 9*). Structuring a system to learn and apply the knowledge appears to be key to some new local crafters to tap into added value, for example:

‘I need to get to know first, how is the cacao paste, what is the cacao paste, what flavour it has, what aroma it has, how much temperature, how much time, and so on’ [y143CR].

Contrasting the realization of value-added processing between Ecuador and Costa Rica, smaller size crafters in Ecuador have been involved in value added products for some time (*see Figure 4.11*).

Figure 4.11 Exhibit: Producer Crafted Cacao Product Derivates



Source: illustrated by author

Both, smaller crafters from Ecuador and Costa Rica, emphasise that they use the relationship to position their value-added products by trading directly with consumers and through eco-tourism visitors ([117]; [119]; [140]). For example: ‘We commercialize it to the door of the house, I

make use of meetings, I make use and because they know me and people come exclusively here to buy it' <sup>[zI40CR]</sup>. This is particularly important for crafters that are also producers as since there is less dependency on cacao premiums and greater financial benefits from value added products. There appears to be an urgency in ensuring that cacao products are available, <sup>[aaI40CR]</sup> states that 'I have to have a lot prepared because everything I have, the customers take it'.

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*Process to Answer Research Question B*

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## 4.5 Within-case Comparison

Following advice from Pratt (2009), the information presented first using a top-down approach, guiding the reader towards the details.

**IMPORTANT** – The second research question is: *In what ways does relational sense making support and/or hinder the dynamics for sustainable development?*

The question is addressed by examining the tension temporal flows across the relationships and in relation to the conceptual priorities model (see Figure 4.3). The previous model was used for answering the first research question RQ A (*see Section 4.3 & 4.4*). Data supporting or hindering the dynamics for sustainable development are tabulated corresponding to the pattern, including, the role of the informants, tension flow, priority code and tension' trigger.

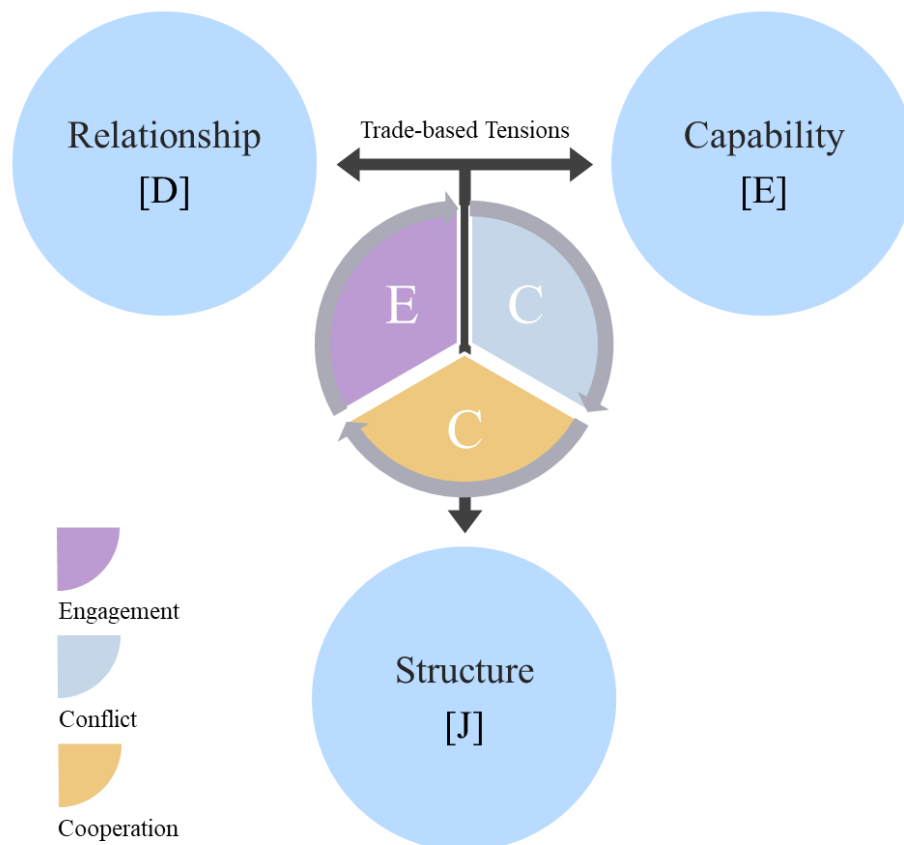
Thus, the findings and analysis provide evidence that in all three patterns the views or actions in response to the trade-based tensions of informants may at times do both, support and hinder the dynamics for sustainable development, greater emphasis on support is demonstrated by the collective sensemaking. The analysis suggests that informants prioritize decisions in the trade process by engaging, cooperating and conflicting with one another in the relationship and across the roles that are implicit in the trade process.

**IMPORTANT** – Within the logics of belonging, performing and learning the data suggests that the key priority themes of relationship [D], capability [E], and structure [J] actively play a role in almost all the identified trade-based tensions. The three themes serve as key connection points within priority categorization and between the logics.



Relationship and capability exhibit greater proximity to each other than structure – having less proximity (*see Figure 4.12*). Patterns of engagement, conflict and cooperation are discussed in this section.

Figure 4.12 Tensional Distribution Model of Organizing (TDMO)



Source: illustrated by author

Examples from the data are presented based on the collective sensemaking. Individuals can play multiple roles; hence, being more open to the different trade-based tensions enables balancing of the priorities. The different tension flows discussed earlier (such as, inwards, outwards or conflicting or non-conflicting) assisted as a technique to reframe previously identified trade-based tensions in *RQ A*. In addition, examining of the trade-based tension intersecting the informant's roles and by juxtaposing the tension flows allocated as discussed

in the patterns provides evidence for supporting or hindering the dynamics for sustainable development as tabulated (*see Table 4.8*). The tabulation has been sorted in order by pattern and most importantly where tensions are present at the start of the tabulation. Tensional triggers are identified by the grouping of the tensions and the priorities in relation to the trade models discussed in the answer to *RQ A*.

While the informants accounts provide support for sustainable development with emphasis on the areas of financial resources, livelihoods and education; the review of regulation and strengthening of labour and trade and the preservation of bio-diverse ecosystems is understood in the findings to be of importance.

Table 4.8 Sustainable Development Dynamics Tabulated Analyses

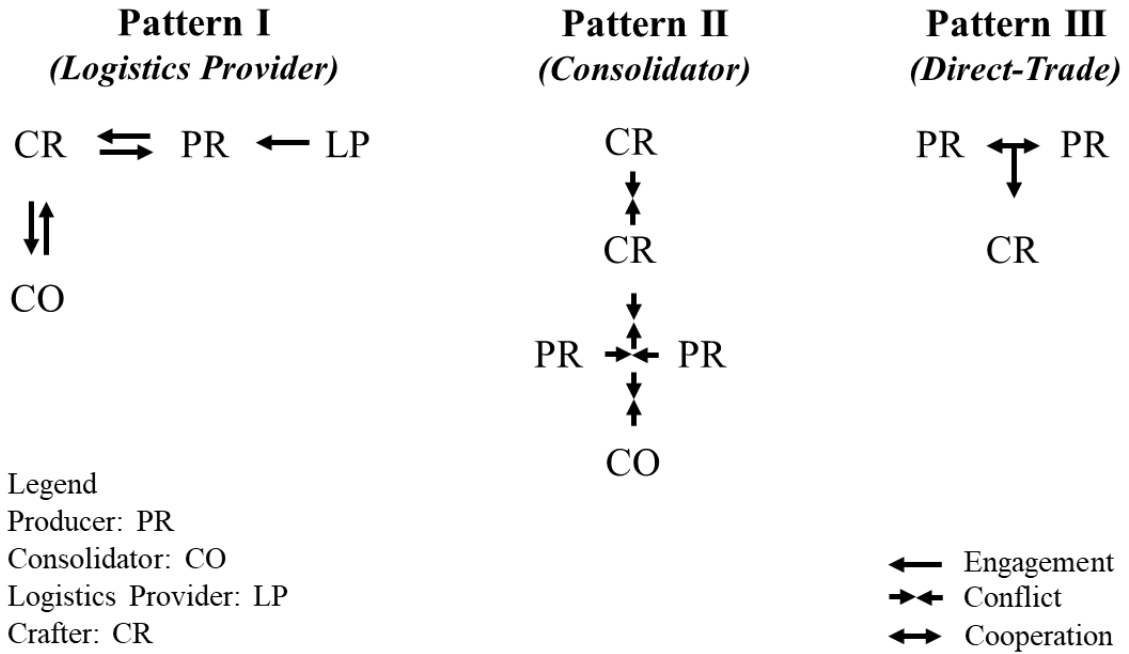
Pattern	Role and Tension Flow	Tension	Tensional Triggers	Priority Code (D:E;J highlighted)	Sustainable Development Dynamics	
					Supports	Hinders
I	PR>CR	9; 12; 17; 21; 31	Financial resources; exploitation	DEFGI; DEGI; DEJ; DFI; EFH	●	
I	CO<PR	19; 7; 22; 19	Livelihood; Trade	CDEFG; DEF; DF		●
I	CR<PR	10	Financial resources; exploitation	DEFGI		●
I	PR>CR	11	Financial resources; trade	DEFI		●
I	LP>PR	1	Involvement of Children	CDEF	●	●
I	PR>CR	29	Value-add processes	DEF		●
I	CR<CO	32	Value-add products; international markets	GF	●	
II	PR><PR	16; 26	Technical education	DEII; EI		●
II	CR><PR	6; 8	Financial resources; exploitation	DEFH		●
II	PR><PR	15	Financial resources	DEII		●
II	PR><PR	30	Financial resources	DEJ	●	

II	PR><CO	18	Production capacity	DEJ		●
II	CO><PR	20	Regulation	DFG		●
II	PR><PR	24	Regulation	EFI		●
II	CR><PR	2	Product origin	AE		●
III	PR<CR	4; 3; 28	Bio-diversity; ancestry	ABDEF; AEI; AEF	●	
III	PR<>PR	25	Technical education	EGIJ	●	

Source: compiled by author

The analysis revealed three distinct patterns across the roles: I) engagement, II) conflict, and III) cooperation. The patterns are identified by examining the position of the individuals in collective participation across the relationship (*see Figure 4.13*). The position is underpinned by the flow of the tension (such as, ‘>’ inward, ‘<’ outward or ‘><’ conflicting or ‘<>’ non-conflicting) stemming from the position of the informant in the relationship. The directional flow of the tension indicates where the pressure lies such as, from having power in the relationship arising from a position of dominance. As stated at the start of the chapter, the role of the informants is codified to demonstrate interpretation through the perspective that informants adopted (Producer: PR; Consolidator: CO; Logistics Provider: LP; Crafter: CR). Within each pattern discussed, the analysis maps the informant and role (e.g., IILP), the flow of the tension (e.g., >), identified tension (e.g., *T1: Tension 1*) and the area of priority (e.g., E; capabilities) with a coded sequence (e.g., CDEF), maintaining traceability to the data, and supporting and/or hindering support to answer the second research question (*RQ B*).

Figure 4.13 Relationship Role Interaction Pattern



Source: illustrated by author

#### 4.5.1 Pattern I – Relational Engagement with Logistics Provider

Pattern (I) exemplifies engagement across the roles where informants trade or exchange goods and services through the logistics provider. As an example, while competing within local markets <sup>(Tension 1)</sup> in which the involvement of children is of concern, the logistics provider <sup>[11LP]</sup> imposes requirements on producers such as, requiring producers to refrain against child-labour-for-profit practices [LP>PR]. As stated by the informant <sup>[11]</sup> the perspective is that “they need help so the kids have to work in the farm and sacrifice sometimes school so about that sometimes it's part of the culture”; while at the same time, “my criteria always has been against child labour”. This requirement is being imposed upon producers while acknowledging that “I know that co ops and I went to companies that would see that [child labour] all over the place” <sup>[11]</sup>. Hence, the complexity of priorities exemplified can promote while at the same time hinder sustainable development as the dynamics between managing resources [E] and protection or exploitation [F] can lead to marginalization [F] or social protection [C] of the producers that

affect the collective priorities [D] (*see Figure 4.3, CDEF*). Identified as a persistent collective tension [CDEF] creates conflicting requirements between consolidators and producers (e.g., *Tension 19*) at the local level as [CDEFG] affecting livelihood [G] in the areas of belonging and performance (*see Table 4.7 and 4.8*).

#### 4.5.2 Pattern II - Relational Engagement with Consolidator

As exemplified earlier Pattern (II) can arise from Pattern (I) situations. Pattern (II) exemplify tensions where conflicting and opposing views are interplayed between and within the roles of crafters, consolidators, and producers. For example, from a collective perspective of crafters [I2CR; I23CR] being able to provide feedback to producers (*Tension 6*) is of importance to improve capabilities and obtain higher-premiums (*Tension 8*); however, producers do not want crafter feedback as producers know what capabilities are required in order to improve lower-premiums from the crafters. While in isolation this paradox can be viewed as [DEIJ] by affecting the collective priorities to create socio-economic protection by reformulating experience through the creation of awareness [I23CR]. This conflict led the crafter [I2CR] to not knowing how to create awareness [H] leading to a collective [D] such as “But I don’t know how to fix it” [I2CR], conflicting and persistent tension of a low-premium market that allows for socio-economic exploitation [F] as the best and worst resort for producers [I23CR] and also affects crafters in managing resources and contributing to practice [E] (*see Figure 4.3; [DEFH]*). Hence, hindering the dynamics for sustainable development. However, this interpretation is once again contradicted (*Tension 25*) whereby, producers cooperate [PR<>PR] and collectively want to better understand the technical aspects that improve yield and quality (*see Figure 4.3; [EGIJ]*). A unique situation where the equilibrium of the tensions is altered by the intertwined paradoxes of performing and learning (Jarzabkowski et al., 2022).

While conflicting tensions are found across different roles, within the collective, tensions of conflict exist within the same role such as between producers and between crafters (*Tension 10*). For example, the vicious cycle of government subsidies (*Tension 24*) is primarily shaped by the participation of producers selling their cacao to coyotes for lower-premiums [EFJ]; while at the same time, the same producers would rather obtain higher-premiums for their cacao. The conflicting views between the producers hinder the dynamics for sustainable development by creating a market for coyotes to continue operating and deepening the divide between protection and exploitation of the socio-economic environment [F] by lack of managing the resources [E] and being unable to break-free [J] from the present situation towards future virtuous cycles (*see Figure 4.3; [EFJ]*).

On the other hand, the rivalry between crafters at the international and local levels [<sup>I5CR</sup> and <sup>I25CR</sup>; <sup>I49CR</sup> and <sup>I50CR</sup>] leads to conflicts within the role, between pairs of crafters, and conflicting requirements for producers and consolidators in practice. For example, a crafter [<sup>I25CR</sup>] was adamant in not sharing contributions to practice [E] or how the experience was being used [I] with other crafters such as another rival crafter [<sup>I5CR</sup>] (*see Figure 4.3; [EI]*); while at the same time, the crafter was not willing to share knowledge [<sup>I25CR</sup>] advocated with many contributions to social protection [C], empowering women and youth [G], being part of the community [B] and becoming an agent for change to reformulate experience [J] (*see Figure 4.3; [BCGJ]*). In an interview, a crafter [<sup>I50CR</sup>] recalled being rejected by another more experienced crafter [<sup>I49CR</sup>] when inquiring about best practices in the business. Within the role of a crafter, the informant [<sup>I50</sup>] wanted to empower self [G] by building relationships [D] and making use of experiences [I] to contribute to practice [E]; however, this led to a temporary disengagement of experience [J] (*see Figure 4.3; [DEGIJ]*). In a similar yet contradicting scenario, the crafter with more experience [<sup>I49CR</sup>] advocated for creating awareness [H] and contributing to social protection [C]

while contributing to practice [E] (*see Figure 4.3; [CEH]*). While all crafters advocated for support in sustainable development, the rivalry amongst crafters hindered sustainable development by way of partnership (*Tension 14*).

### 4.5.3 Pattern III – Relational Engagement: Producer and Crafter (Direct-Trade)

Pattern (III) exemplify tensions where cooperating views play out between producers and between producers and crafters, namely as a direct-trade process. While producers are encouraged to replace ancestral with genetically modified trees (*Tension 4*), producers agree that there is value in maintaining ancestral trees [I6PR; I8PR; I17PR; I29PR; I41PR; I43PR] and share practices with one another to maintain production yield and quality rather than quantity [I6PR and I8PR; I25PR and I26PR; I40PR and I41PR]. The producers' views are shared by most crafters [I3CR; I10CR; I19CR; I42CR; I43CR] whereby, managing the resources [E] towards the environmental protection [A] and the connections to culture [A] are part of the identity [B] that affect the collective priorities [D] and contribute to socio-economic protection [F] supporting the dynamics for sustainable development (*see Figure 4.3; [ABDEF]*). In regards to practices, producers demonstrated willingness to advance their collective knowledge (*Tension 25*). For example, a producer [I40PR] shared how to incentivise other producers, bringing people together [D] in the area to connect experience [I] as a way to empower people [G] and break free [J] from socio-economic exploitation [F] (*see Figure 4.3; [DFGIJ]*). The previous view is also shared between producers [I6PR; I7PR I13PR; I29PR; I31PR; I35PR] and crafters [I3CR; I5CR], whereby managing resources [E] collectively and making use of experience [I] is critical for socio-economic protection [F] (*see Figure 4.3; [EIF]*). Crafters agree that producers should be paid higher premiums for a higher quality product (I3CR; I5CR; I10CR; I25CR; I49CR; I50CR), supporting the dynamics for sustainable development.

The next chapter section provides a summary of the findings.

## **4.6 Presentation of Findings Summary**

In this chapter, relevant findings from the data collection to answer the research questions have been presented with immense care using an interpretive approach.

The different chapter sections provide input to the Discussion Chapter for answering the research questions through a process of discussion based on the outputs of:

- The tensions that exist in relation to the trade models, a cross-case comparison between the models supports the trade-based tensions by way of focusing on the emergent priorities;
- Thematic categories that have been presented recognizing the tensions that are salient to the informants supported by a conceptual model with priority themes and related codes;
- Relationship interaction patterns that illustrated how the roles and the relationship affect both/and, and, either/or responses;
- A tensional distribution model of organizing (TDMO) that illustrated the underlying linkages between the key priorities and the patterns between the models; and,
- Sustainable development dynamics that emphasized how the tensions support and/or hinder what it means to sustain.

A consistent method of analysis of the data has been followed, demonstrating understanding in what ways do trade-based tensions influence sustainable development in trade network relationships of the fine cacao and chocolate value chain, based on the three different trade models:

### *Model 1 – Logistics Provider*



Producers and logistics providers worked together in a relationship that was at arms-length and with very little sense of belonging in the relationship. The balance of capabilities was much less for the producers as cacao was consolidated with that of other producers, making it untraceable and without influence on responsibility. Producers required basic structuring of process as quantity was more important with less processing requirements which led to less cooperation and more conflict since choices were based on trade-offs and short-term outcomes. As such, the approach had minimal contribution to sustainable development.

#### *Model 2 – Consolidator*

Producers and consolidators worked together in a relationship that was not at arms-length but with some sense of belonging, where the balance of capabilities was less for the producers and more for the consolidators as they gained further control of quality requirements. Producers had less visibility in the process and as such their responsibility was limited to filling orders based on quantity, where the quality characteristics were determined by the consolidators and influenced the premiums which led to less engagement, some cooperation and conflict. While some compromises were made, tensions often appeared to interplay between the contradictory objectives. As an approach, there were less than optimal contributions to sustainable development.

#### *Model 3 – Direct-Trade*

Producers and crafters felt a strong sense of belonging by being in a relationship that required them to make use of their capabilities to satisfy high-quality cacao that is fine with aroma. While the informants acquired knowledge from the different end-to-end value chain perspectives, the success of the relationship rested on how they structured a process for the

realization of the objectives. As an approach, structuring led to embracing contradictory objectives and transcendence of the tensions in the direct-trade model. The approach led to more engagement, more cooperation and less conflict, optimizing the contribution to sustainable development.

In the next chapter, the findings are discussed in reference to the literature review to offer data implications and outcomes for research, determine conclusions and make any necessary recommendations.

## 5 Discussion

The purpose of this chapter is to provide high-level conceptual knowledge that is derived from the findings while parsing the theoretical view presented in the literature review in relation to the established research questions (*see Section 2.9*).

### 5.1 Chapter Introduction

The discussion offers managerial and theoretical contributions that as a result of the research will lead to conclusions and recommendations.

**IMPORTANT** – The writer makes use of a macro to micro approach, guiding the reader through the details (Pratt, 2009), answering the question up-front, providing key insights from the study working through the following sections of Hybrid-Organizing Logics and Paradoxical Perspectives (*see Section 5.2*), Paradoxes (*see Section 5.3*), the Action System for Both/and Thinking (*see Section 5.4*) and concluding with a Discussion Summary (*see Section 5.5*).

The study sought to address the effect on priorities related to sustainable development (such as of environmental, social and economic nature) by using a combination of methods to draw data and techniques to offer cross- and within-case comparisons. Studies that have researched tensions situated within institutional logics often neglect the actors' role in the process (Besharov and Smith, 2014). In reference to past studies that have researched cacao production, “few have examined the supply chain and how it can contribute to enhanced trade and mutual market benefits to producers in Central America and consumers in North America... [inclusive of] social and environmental benefits” (Haynes et al., 2012: 1468). As cited in Ruales (2013: xxi) and stated by the Honourable Minister of Agriculture – Ecuador, Javier Ponce Cevallo ‘we can affirm that cacao is the cultivar with the greatest social reach’.

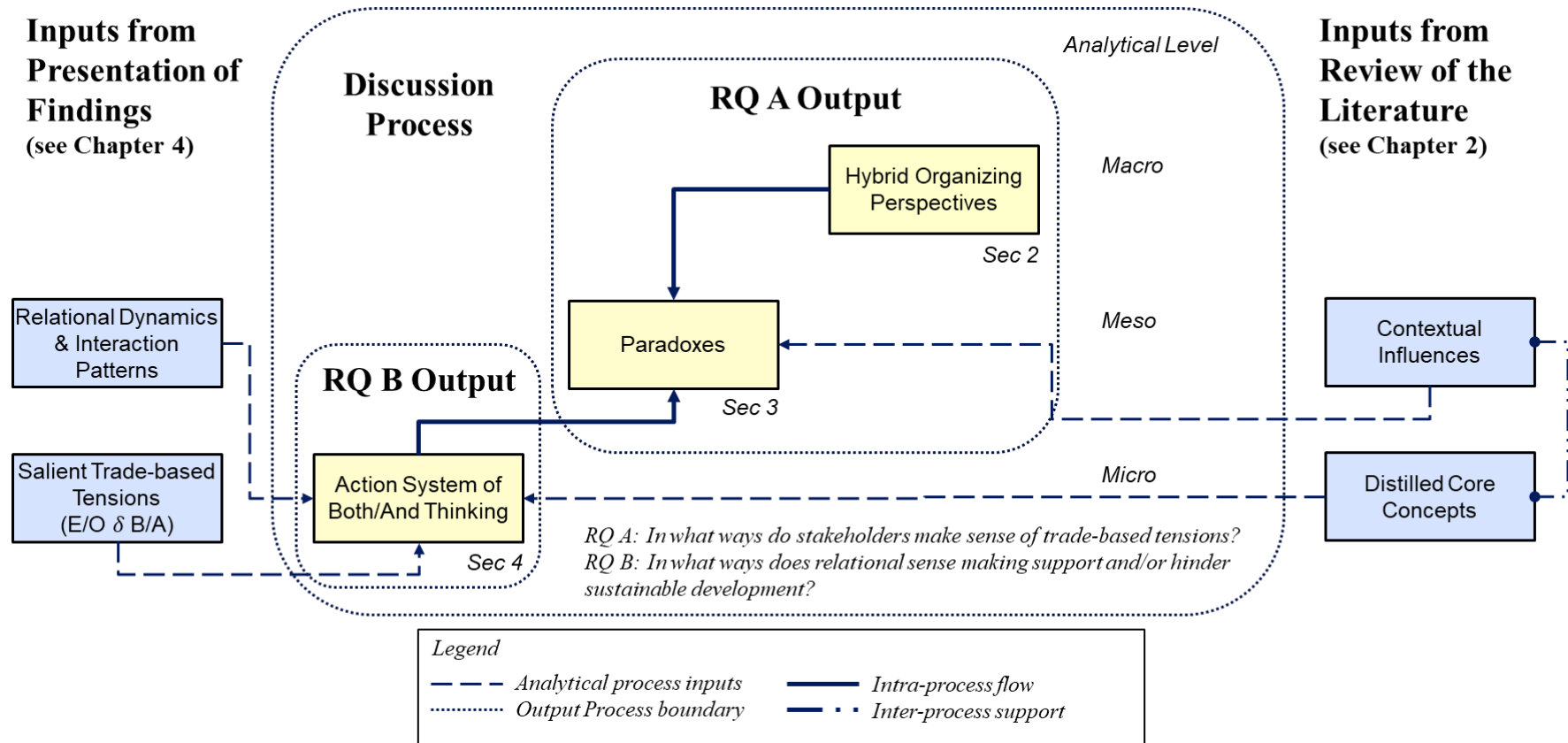
The study followed a natural inquiry process. The researcher developed a network of relevant key informants and the relationships between the informants were explored. The inquiry revealed multiple roles assumed by the informants. The study identified a set of priorities which cradled the trade-based tensions by examining the evidence presented in the relationships of the informants in the trade process (*see Figure 4.12 - Tensional Distribution Model of Organizing (TDMO); Figure 4.13 - Relationship Role Interaction Pattern*).

The data was organized and analyzed following the approach of King (2004b) and Woolf and Silver (2018). The methods of interview and observation assisted in drawing data that led to analytical codes, constructs and concepts, some having been identified a-priori through the literature. The literature review provided support for the established theories inclusive of sensemaking, trade-based tensions and paradoxes, contextual influence on decisions and the role of time in the context of the social-business case in the fine cacao and chocolate value chain.

The researcher proceeds by making the connections to the literature and through the already presented data. The literature becomes a crystal, a metaphor as stated by Richardson (2000) whereby “symmetry and substance with an infinite variety of shapes, transmutations, multidimensionalities, and angles of approach” (Amis and Silk, 2007: 465) allow a variety of windows on reality. Richardson (2000: 934) suggests “[w]hat we see depends on our angle of repose... . We know more and doubt what we know. Ingeniously we know there is always more to know”. This chapter is organized to provide the reader understanding that pivots on theory and practice by using the literature as the angle of repose and drawing out the implications of the findings for theory. The writer provides a discussion starting with a social-construction perspective and progressing towards organizational theory and paradoxes, and, the management of tensions that emerged in the empirical findings (*see Chapter 4 Presentation of Findings*).

This chapter structure includes: a) hybrid-organizing perspectives in relation the contextual sustainable development and the direct-trade position of the study (*see Section 2*), b) interwoven paradoxes that are tied to the empirical data informed by the theoretical underpinnings (*see Section 3*), c) the thematic convergence that emerged from the informants priorities and analysis of the findings, interwoven with d) the trade-based tensional shifts from a trade-off perspective (either/or) towards embracing multiple objectives as an action system of both/and thinking (Smith and Lewis, 2022; *see Section 4*) – demonstrated in the findings, and, supported by the literature in this chapter (*see Figure 5.1*).

Figure 5.1 Discussion Analytical Process using a Macro-to-Micro Approach



Source: illustrated by author

In the next section, the writer presents a set of hybrid-organizing perspectives and its relationship to paradox metatheory in the context of this study. Next, underpinning the nature of hybrid-organizing, key paradoxes grounded in the study are discussed supported by the characteristics of contradicting yet interrelated objectives that enable a paradox approach.

The font format of all codes used for cross-reference has been intentionally set to superscript (e.g., <sup>Tension 22</sup>) to improve reading flow and focus on the narrative while maintaining traceability of the data.

Statements that make reference to the informants are clearly labeled – enclosed in square brackets, starting with letter ‘I’ for informant and followed by the informant ID and if applicable their role. For example, <sup>[I2CR]</sup>, where ‘I2’ references informant 2 and ‘CR’ is the reference code for the role of crafter. Similarly, ‘CO’ represents consolidator, ‘LP’ represents logistics provider, and ‘PR’ represents producer.

## 5.2 Hybrid-Organizing Logics and Paradoxical Perspectives

In this study, all of the informants interviewed exhibited an entrepreneurial orientation where the balance of social, environmental and economic priorities were in flux. For example, protecting the environment long-term while sustaining the business in the short-term <sup>[I17PR; I41PR]</sup> or searching for international markets for future sales while protecting the social structure of hundreds of producers within the community in the present <sup>[I6CO; I43CR]</sup>. Direct-Trade incorporates the hybrid logics (Slawinski and Bansal, 2017) and in this study, informants demonstrated and insisted that their business is a social enterprise <sup>[I3CR; I5CR; I6CO]</sup>, reinforcing the notion of hybrid-organizing and having to manage the flux between the business and the social case. For example, ‘I insist, we are a social enterprise, so then we have to do something, do something for the market, not out of annoyance but differentiated’ <sup>I5CR</sup>. The previous was further elaborated by the informant, stating that the ‘cacao farming renovation program is an

agricultural regenerative program that impacts the following generations, we are logically searching how to prevent the aging problem that exists' <sup>[15]</sup>. Empirically, there is a growing concern that within the producers' community, younger generations are not entering agriculture and are choosing other industries that provide better economic incentives. This has led to an aging generation of producers that calls for change for a future generation of producers that may never exist. While hybrid-organizing often attends to competing goals, the competing paradoxical temporal aspects have seldom been explored in sustainable development studies (Slawinski and Bansal, 2017).

**IMPORTANT** – In this study, the organizing of a sustainable value chain requires that hybrid-organizing logics are addressed, including: a) belonging and performing, b) learning and belonging, and c) performing and learning.

These independent yet interrelated logics have been presented in the findings following the structure from Smith and Lewis (2011: 383) on the categorization of tensions within businesses as a result of a twenty-year study by the authors on organizational tensions that surveyed the available literature at the time. While hybrid-organizing logics may concur with one another, logics often contradict one another having paradoxical aspects. The paradoxes within social enterprises are described by Reinecke and Ansari (2015: 638) as “seeing different temporal orientations as contradictory”. In this study, the writer makes use of temporal orientations to gain insight and surface differences on how informants made sense of their priorities, including focus (such as, past versus present versus future) and depth (such as, short term versus long term). For example previous studies have focused on the identification of strategies to manage contradictory and interrelated aspects of choice within the organization (e.g., Hahn et al., 2015) and differences in management of contradictory aspects dealing with poverty and inequality



between partnerships of business and nongovernment organizations (e.g., Slawinski and Bansal, 2015). Recent research has focused on competing hybrid-organizational logics between corporate sustainability reaching beyond the purpose of the business case (Hahn et al., 2018; Jarzabkowski et al., 2022) and addressing the paradoxical aspects of a social and environmental agenda while fulfilling financial obligations.

Social enterprises maintain a delicate balance between fulfilling the economic requirements of the business and the aspirations to fulfill a social value proposition (Reinecke and Ansari, 2015). As an example, while assisting and supporting the producer community, an informant admitted to ‘creating an association for producers that required access to markets to sell their product and not charging the producers any fees for the operation of the business association’<sup>16CO</sup>. In the prior example, the balance was obtained by the absorption of economic costs to support an association while maintaining a sense of belonging within a community that has very little resources. The previous approach makes use of the relationship between local crafters and producers and has similarities with the case study by Battilana and Dorado (2010), contrasting the generation of business profit and meeting the needs of communities. As such, the informant in this study was receptive to striking a balance between the value chain tensions and the contradictions that have persisted over time.

As suggested by Smith and Tushman (2005), a paradox approach enables temporary separation of objectives where actors may emphasise one objective over another such as the generation of social value versus commercial profitability. In relation to this study, hybrid-organizing with opposing logics inherits interdependencies among elements that align with paradox theory.

In the next section, the paradoxes of belonging, performing, and learning are discussed as being inter-dependent. Next, the writer slightly departs from the traditional view of *organizing* as an inter-connected paradox towards positioning *organizing* as an inherent and knotted paradox that

intensifies the other paradoxes of belonging, performing and learning – making the tensions more salient and amplified (Sheep et al., 2017), shifting the equilibrium across the inter-dependent paradoxes (Jarzabkowski et al., 2022).

### 5.3 Paradoxes

The findings revealed trade-based tensions distributed across four types of paradoxes: belonging, performing, and learning, and, organizing as being knotted (*see Presentation of Findings, Figure 4.3*). Paradoxes are opposing yet interrelated poles that are in constant flux as they are navigated by the informants. Haffar and Searcy (2019) posit that there is a requirement for future research to address the salient tensions in practice and how businesses respond to them; according to Slawinski and Bansal (2017) addressing some of the sustainable development challenges faced by organizations is a difficult undertaking, while navigating the complexity and broadness of sustainability.

The following sub-sections addresses the paradox taxonomy (Lewis, 2000; Smith and Lewis, 2011) of this study. The insights consider the balance of priorities that are of importance to the community of science and practice.

#### 5.3.1 Paradoxes of Belonging

Smith and Lewis (2022) suggest that paradoxes of belonging embrace tensions of identity for answering questions of ‘who’ (Miron-Spektor et al., 2018) that define actors and their characteristics with and from others (Garnelo-Gomez et al., 2022). In this study, the informants were part of the end-to-end value chain and held one or more roles.

The findings in this study identified four priority areas within the paradoxes of belonging.

The first priority area of *Ancestry and Belief System* embraced the connections to culture, recognition of historical events and linkages to environmental protection based on a system of

beliefs (Ehrenfeld, 2008a). For example, informants <sup>[I3CR, I10CR, I40PR, I41PR, and 43PR]</sup> described their connections to pre-Columbian times, indigenous roots and ancestry (Escobar, 2006; Ruales, 2013) acknowledging the past but also living the traditions in the present (Granqvist and Gustafsson, 2016). In their study of Fogo Island, Slawinski et al. (2021) found that working through place-based tensions enhances well-being, capacity, and ecological respect. This finding agrees with the transformation of people and nature into monetized-economies (Escobar, 2006).

In relation to ancestry and genetic diversity, many types of cacaos have been identified, these are normally classified by their characteristics such as, fine flavour and aroma, resistance to pest and disease, and productive yield (Ruales, 2013). Depending on the origin of cacao, informants referred to the different types as criollo (local variety), forastero (non-local variety), trinitario (a hybrid between local and non-local varieties). While different types of cacaos have evolved naturally, bioengineered varieties such as CCN-51 or genetically improved versions such as CATIE were found during the fieldwork. Bioengineered versions have created an adoption divide between producers <sup>[I8PR; I16PR; I29PR; I43PR]</sup> that are primarily concerned in obtaining higher production yields <sup>[I16PR; I29PR]</sup> versus the producers <sup>[I8PR; I41PR]</sup> and the crafters <sup>[I3CR; I25CR]</sup> that are concerned about quality characteristics. Hence, the pressures exerted by funded institutional and government programmes for producers to increase production yields <sup>[I5CO; I13CO, I45PR]</sup> have led to a greater push for the adoption of bioengineered varieties at local levels (Haynes et al., 2012; Melo and Hollander, 2013); while crafters require production, quantity is not representative of quality and does not command higher premiums that benefit producers. This has led producers to question the adoption of bioengineered varieties <sup>[I8PR; I29PR]</sup>. Similarly, Haynes et al. (2012) describe how cacao producers use traditional methods in agroforestry systems in Costa Rica coupled by organic certifications. Melo and Hollander

(2013) explored the linkages of ancestral or the ‘heirloom’ cacao market within Ecuador. Crafters are constantly searching for speciality cacao and in the process, crafters advocate for conservation of older ‘ancestral’ trees <sup>[I3CR; I10CR]</sup>. Some crafters refer to ancestry as ‘the seeds that grandpa had’ <sup>[I5CR]</sup> in contrast to the saplings that can be readily sourced locally. Crafters are aware that once the ancestral trees are removed, they can never be replaced and the traditional cacao quality characteristics are lost forever <sup>[I3CR; I10CR]</sup>, while at the same time creating negative effects for producers by hindering livelihood opportunities that are based on better economic gains than that of the bioengineered varieties <sup>[I6PR; I29PR; I41PR]</sup>. This places producers in a pricing status-quo position in the market without differentiation and leading to loss of competitive advantage; as such, cacao premiums are paid based on market pricing in contrast to negotiated pricing which is often valued by crafters at triple the market price <sup>[I3CR; I5CR]</sup>. In their study, Melo and Hollander (2013) interviewed individuals that admit higher premiums for specific varieties; however, the market appears unwilling to pay the higher premiums for higher quality cacao. It has already been established that high-quality cacao is under threat (Blowfield and Dolan, 2010), postulating an ecological crisis (Escobar, 2006) as already experienced with similar cultivars that have negative consequences for supporting biodiversity (Karp et al., 2013). The writer theorizes that lack of economic premium differential, as an artificial trade gate, arises from established global market pricing cascading from multinational corporations and large government bodies giving way to profound effects, exposing producers at global levels and exerting pressure at local levels.

**IMPORTANT** – Despite most people in the value chain understanding the beneficial ecological and social legacy of indigenous fine flavour cacao it is hard to hold true to the local roots when there is pressure for volume and solutions like bioengineered varieties that satisfy financial and

commercial pressures. As such, the crafters have an uphill struggle to maintain their niche market in the bean-to-bar sector.

The second priority area of *Identity* dealt with the individual while being a part of the community and the connections to their role in the trade process (such as, being a crafter, consolidator, logistics provider and producer, while adopting other roles to participate in the alternative trade process). As suggested by Melo and Hollander (2013: 251) “[a]lternative trade is seen as a tool that connects producers and consumers in a way that transforms the daily act of consumption into an exercise in ecological or ethical global citizenship”. In this study, there were many informants that adopted different roles, the most striking informants <sup>[I40PR, I41PR and 43PR]</sup> had a troubled past, growing up enduring sacrifices in life and while becoming a leader in the community, they demonstrated a strong desire to help others, such as admitting ‘so they [eighty-five producers] don’t have to undergo the same circumstances’ <sup>[I43PR]</sup>. The identity of the informants was underpinned by how they identified with themselves personally and with the social community by taking on responsibility (Garnelo-Gomez et al., 2022). In a consultative government report, González (2017) outlined a framework which included steps towards better governance that dealt with improvement of the cultural aspects and identity of the people of Costa Rica. This framework enacted between the years of 2015-2030 brings together various stakeholders to allow a reform of related financial inequalities, social, cultural, and environmental issues that are affecting the inhabitants and cacao producers of various regions. In Ecuador, Valdez (2019) highlights the importance of cacao in connection to the identity of the Ecuadorian people since pre-Columbian times. Smith and Lewis (2011) posit that in belonging paradoxes, the actors’ identity seeks to satisfy both the individual and the collective. According to Albert and Whetten (1985) as cited in Smith and Lewis (2011) when

dealing with hybrid organizations, there is inconsistency in types of identities and actors find ways to attend to multiple roles at once. For example, in this study, for some individuals' identity includes being in the role of a producer and a crafter. The writer theorizes that having a hybrid role helped the informants to address the tension of belonging by understanding their position along the trade process.

The third priority area of *Personal Values*, demonstrated a strong focus on faith such as informants being thankful to God but also having hope for the future <sup>[I17PR]</sup>, and the ability to contribute to social protection such as, assisting others in the local community <sup>[I19CR; I42CR]</sup>, supporting sustainable development. For example, an informant described how nuns of the local community would come to her plantation to collect fruits from the tree to distribute food to the poor and how she perceived it as a blessing since even though so much was given to charity yet so much more remained and that she was blessed multi-fold, the more they took the more she had <sup>[I17PR]</sup>. In a similar way, another informant described how being successful and a leader in the community enabled her to give to charity and fund a school in the local community <sup>[I6PR]</sup>. Slawinski and Bansal (2015) found that personal values were helpful in aligning stakeholder commitment to a sustainability agenda by looking forward into the future and using the opportunities to propel the individual.

Despite some informants expressing global concerns on child labour practices in cacao plantations <sup>[I11LP; I5CR; I23CR]</sup>, it needs to be made clear that observations in the fieldwork of this study did not surface any use of child labour taking place across the various sites of inquiry in Costa Rica or Ecuador. Global concerns have created pressures at local levels; and as such, crafters <sup>[I2CR; I49CR; I50CR]</sup> acknowledge that producers are asked to sign documents attesting against the involvement of children in their own plantations. As an example, a logistic provider

[I1LP] admitted requesting producers to sign documents as a managerial practice that appeases concerns temporarily against using children to work in plantations [I2CR; I50CR], and, based on the immersive field experience of the writer, it can be theorized that many producers that comply with the managerial requirement: a) may not understand documentation due to illiteracy level, b) do not have access to proper counsel, c) may not be aware of the implications, d) may be coerced into situations that arise from pressures based on low economic resources, and e) may face exacerbated livelihood implications in the longer-term that stem from opportunistic sourcing strategies in the short-term. Imposing and enforcing managerial practices to vulnerable populations contradicts the social-business case logics and raises questions related to ethics and the application of such practices upon the south nations that questions for who's benefit (Blowfield, 2005).

The fourth priority area of *Relationship* dealt with building relationships and bringing people together as a *collective force to fulfill priorities and solve problems* (Fan and Zietsma, 2017; Gladwin et al., 1995b; Poole and van de Ven, 1989; Sundaramurthy and Lewis, 2003). The most striking cases were of two informants as they described sincere interest in helping hundreds of producers to group and to attain greater potential as a collective rather than an individual [I3CR; I5CO].

The findings suggest that informants want to be a part of the community while at the same time acquire a sense of self-accomplishment. Lewis (2000) observed that individuals experience paradoxes of belonging by being able to express themselves while at the same time being a part of a community, the individual and the collective. As such, informants are better able to recognise and address the trade-based tensions and identify sustainable development solutions. Consolidators [I4CO; I28CO] and crafters [I3CR; I5CR] that approach producers' associations to buy cacao face challenges at the local level due to corruption. Some municipal officials that are also

leaders in the associations have requested financial commissions, as an example, for each kilogram of cacao traded. When commissions are not paid, municipal leaders spread misinformation to damage the reputation of the consolidators and crafters, a form of bribery that stems from institutional failure as outlined by Acheson (2006) and forcing informants to pay fees to corrupt government officials. At the same time, consolidators and crafters are fearful of exposing these circumstances as corrupt officials can and will retaliate. It is undeniable that corruption leads to lack of equal opportunities for producers while being dependent on collectives or associations for their livelihood. Corrupted officials hinder producers of opportunities to improve their living conditions for which they play a key purpose in collective action. As an alternative, consolidators and crafters purchase cacao directly from producers; however, not all producers benefit due to lack of: a) access in rural zones <sup>[I14PR]</sup>, b) availability of information <sup>[I16PR]</sup>, and c) technical knowledge <sup>[I6PR; I13CO; I29PR-I38PR]</sup> and knowledge on the application of best practice <sup>[I13CO; I20PR; I40PR]</sup>.

While crafters have argued that political financial support for producers shifts with elected political parties <sup>[I3CR; I10CR]</sup>, some producers and crafters <sup>[I17PR; I19CR; I42CR; I43CR]</sup> have argued that at the municipal level efforts are being made to support activities in technical education and training, business opportunities (such as expos), and integration into collective decisions that impact community initiatives. These opportunities provided by municipalities are pursued on an individual basis rather than as a collective. Further, producers and crafters <sup>[I3CR; I19CR; I43CR]</sup> are provided recognition in the market at local, national, and international levels <sup>[I21]</sup>; as it was corroborated through informal conversations between the researcher and government agencies. In particular, the fieldwork data revealed that support and recognition for women in business appeared to be a priority driving government initiatives with stronger support in Costa Rica rather than Ecuador.



In regards to the relationship that cacao has with its environment, ancestral cacao trees support habitat for vegetation and wildlife. Observations in this study indicate that ancestral cacao trees are planted by the producers with a mindset to encourage biodiversity <sup>[I8PR; I14PR; I18PR; I25PR; I41PR; I43PR]</sup> or a productive environment simulating a monocrop structure <sup>[I16PR; I40PR; I45PR]</sup>; while some producers mediated between the two approaches <sup>[I24PR; I29PR; I35PR]</sup>, others appeared to be divided over the approach without being able to resolve the conflict. Producers that encouraged a productive environment focused on the application of fertilizers along with high-maintenance techniques <sup>[I30PR-I38PR; I40PR]</sup>, while producers that encouraged biodiversity refrained from using fertilizers, pesticides and herbicides and allowed nature to balance productive capacity coupled by maintenance techniques <sup>[I8PR; I25PR; I41PR; I43PR]</sup>. The findings in this study revealed that plantations following an organic approach that did not simulate a monocrop site and did not make use of fertilizers were more biodiverse, supporting more wildlife and vegetation, including restoring biodiversity that had been previously lost <sup>[I25PR; I41PR]</sup>. The producers that followed a biodiverse approach appear to have better financial returns and better relationships with the crafters. In addition, crafters <sup>[I3CR; I10CR; I25CR]</sup> valued the fine flavour with aroma characteristics which commands three-times the market pricing in comparison to the ordinary cacao that are harvested from non-organic methods. As such, biodiversity is a solution that satisfies economic needs, social roots and environmental sustainability.

### 5.3.1.1 Summary

Ancestral cacao and its connection to indigenous roots are intertwined in a monetized economy. While government programmes in Ecuador and Costa Rica promote increasing production yields with bioengineered varieties, the approach (if not revisited) can lead to ecological resource decline by weighing quantity over quality and ultimately affecting biodiverse ecosystems. In contrast, native cacao varieties provide higher-quality characteristics that not

only are desired by crafters at domestic and international levels but also provide competitive advantage at the world stage for these two nations. An approach that focuses on biodiversity conservation by safeguarding ancestral cacao contributes to better livelihood for producers. The differences between the bioengineered and the ancestral varieties are obvious (such as, aroma and flavour); however, producers struggle between maintaining their traditions by cultivating ancestral cacao at the individual level, while improving livelihood in a community influenced by collective practices which are rooted in high-yield, low-quality initiatives.

Attempts to further commoditize cacao hinders sustainability and will only lead to the dilution of cultural identity that is engrained in the traditions and relationships that people have developed over thousands of years with cacao. Supporting ancestry, enables a biodiverse ecology that is rooted in indigenous traditions and that favours higher-quality of cacao and encourages holding onto cultural identity.

Informants that have endured life struggles due to poverty appear to embrace giving and receiving as fundamental for being a good citizen and contributing to society, and as such, they value being a member of society while feeling valued by their community for supporting sustainability.

Imposing requirements and rules that are not well understood at local levels enables hypocrisy to thrive in the social-business case. The solution does not rest on appeasing concerns at international levels, instead taking meaningful action to get to the root cause of the problem. The concern that children are involved and working in plantations stems from poor economic incentives from the same international markets that seek to resolve it at local levels without the proper context and understanding of the livelihood requirements of marginalized producers. The time has come for international businesses to realize that marginalized communities can be supported by prioritizing equity over equality and thriving communities over localized business

controls. As an approach, enabling progress at the international level by moving from a position of hindering to supporting the social-business case. At local levels, government programmes for both Ecuador and Costa Rica are taking steps on expanding business opportunities to youth and women in the cacao and chocolate business sectors, supporting sustainable development efforts.

### 5.3.2 Paradoxes of Performing

Performing paradoxes deal with competing demands (Smith and Lewis, 2022) that answer questions of ‘why’ (Sundaramurthy and Lewis, 2003). Actors seek divergent objectives for attaining success to uphold obligations (Smith and Lewis, 2011). For example, investment on products that generate greater profit versus investment in processes that lead to efficiencies, or attaining profits to satisfy shareholders versus satisfying a social cause through its stakeholders. While performance has mainly focus on the generation of profits, Smith and Lewis (2022) suggest engaging performance goals to fulfil hybrid-organizing logics such as business and environment. The creation of value should embrace the interests of multiple stakeholders, driving the business case and inherent sustainable aspects. Hahn et al. (2014) suggest that actors should embrace contradictory objectives by adopting both/and thinking.

This study identified three priority areas within the paradoxes of performing.

The first priority area of *Capabilities* arises from the management of resources that are available to the informants and decisions that contribute to practice. For example, the findings show that while logistics providers have low levels of capability, they depend on the resources of other informants to increase their own capabilities such as the producers, securing product type, quality, and quantity <sup>[11LP]</sup>. In their study with business and NGOs, Sharma and Bansal (2017) found that cooperation between the stakeholders enabled finding ways to increase overall capacity while meeting goals in practice. In another example from this study, an informant <sup>[15CO]</sup>

makes use of the capabilities of others <sup>[I40PR]</sup> for product testing and development to increase production yield and quality. While some producers have genuine human and environmental concerns on the use of agrochemicals such as fertilizers <sup>[I8PR, I25PR]</sup>; other producers appear to have a dependency <sup>[I30PR-I38PR]</sup> on the use of agrochemicals for increasing production yields - polarizing the environment (Gladwin et al., 1995b) despite the elevated costs <sup>[I35PR]</sup>. The findings revealed that producers and crafters engage in collaborating practices to either replace agrochemicals with green solutions <sup>[I5CR; I40PR]</sup> or eliminate the use of additives assuming a production loss of ten-percent <sup>[I25CR; I26PR]</sup>. Similarly, Pretty et al. (2008) as cited in Hahn et al. (2014) found that actors making extreme reduction in the use of fertilizers were able to move away from over using fertilizer and utilize the success of such practice into marketable stories to promote the business and ecological case.

The second priority area of *Premiums* dealt with trade-off approaches were informants appeared compelled with either/or choice in order to protect their social and economic well-being, for some informants, the empirical data suggested to engage marginalization; such as, living one day at the time <sup>[I28LP]</sup> and ironically an informant and producer not having sufficient food – ‘soup and cheese... getting by’ <sup>[I14PR]</sup>. Other informants highlighted differences in the relationship that led to establishing difference in premiums such as ‘he pays me well, not like the others [producers]’ <sup>[I20PR]</sup>. Informants in this study have admitted that administrators of cooperatives and associations have retained funds from producer’ members and that they have disappeared with large sums of funds intended for operational activities such as technical training <sup>[I5CR]</sup>. Baland and Platteau, 1996 and Wade, 1982, 1985 as cited in Acheson, 2006 suggest there does not seem to be an explanation about the relation between corruption and resource management in developing countries. Hence, the United Nation’s Principles for Responsible Management Education established initiatives to understand what is going on in

order to promote sustainable development for the future (Escudero et al., 2010). While administrators may not have the same amount of political influence as government officials, administrators that commit fraud place producers in a position of vulnerability affecting their livelihoods and leading to lack of trust in future administration and collective cooperation <sup>[I3CR; I5CR; I10CR]</sup>. Administrative fraud weakens the social fabric and disables initiatives that are based on the principles of equality and equity. In their study, Reinecke and Ansari (2015) found that producers were at risk of losing premiums as the association's markets would become inaccessible from actors abusing the system, pointing to the paradoxical gap between the socio-development case in the south and the business-credibility case in the north contradicting one another. To strengthen collective cooperation among cacao producers, consolidators and crafters <sup>[I6CR; I24CR; I25CR; I27CO; I43CO]</sup> have created programs for producers that function on the basis of credits such as: a) providing training and financial assistance for fertilization and the acquisition of tools <sup>[I26PR; I30PR-I38PR]</sup>, b) experimental projects with organic fertilizers and tree flowering density patterns <sup>[I40PR]</sup>, and c) partnerships with universities to gain technical expertise <sup>[I19PR; I40PR; I41PR]</sup> and engineering support with equipment <sup>[I5CO; I6CO; I27CO]</sup>. Findings in this study have revealed that while producers are concerned about their present financial situation, some producers <sup>[I26PR]</sup> in collaboration with crafters <sup>[I25CR]</sup> have developed and implemented systems to mitigate financial uncertainty in the future. Some producers are able to participate collectively in the production of other luxury products such as orchards; whereby seventy-five percent of the sales is invested towards a group pension fund and the remaining portion is used to cover costs of operations. This novel system, enables producers to break-free from dependency of government subsidies and the low-premium public pension system. While these types of systems have been widely unknown to the literature and affect pricing (Robbins et al., 2015), alternative trade systems appear to allow producers retain higher profits.

The third priority area of *Livelihood*. Haynes et al. (2012) argue that producers have endured devastating events that have affected livelihood in the distant- and recent past, which include fluctuating pricing in the market, crop disease, low production yields, and others. While the empirical data demonstrates that some informants had genuine concerns for eking out a *living* [I8PR; I31PR; I35PR;], others and in particular younger generations [I20PR] and women appeared to have gained a sense of self empowerment with future oriented thinking, towards fulfilling their ambitions that arise from their struggles in business. For example, being a woman amongst a male dominated market [I3CR; I10CR; I19CR; I42CR; I43CR]. Similarly, Sharma and Bansal (2017) investigated differences in hybrid-organizing projects and found that women were able to gain a sustainable source of income to maintain their livelihood by feeling empowered and meeting their goals. In this study, a crafter [I3CR] felt a sense of responsibility for the producers even thought her purchasing capacity would be unable to provide for all producers, while another informant felt proud to be leading a community of over eighty producers and admitted with much humility to being in the process of learning and developing [I43CR]. Aggregation practices of ordinary and premium cacao due to high-demand leads to generic market pricing [I14PR, I20PR], where fine cacao with aroma is treated by some consolidators as ordinary [I4CO; I28CO], shifting the power away from producers to sell a premium cacao that commands higher pricing for lower pricing. Market pricing as a base line, limits the ability of producers to negotiate in international markets [I43PR; I45PR]. This shifts the negotiation power in relationships towards the international buyers rather than the producers [I6CO; I43PR]. Shifting the power away from the producers takes away from improving livelihoods. According to Schad et al. (2018) shifting the tensional power contributes to disequilibrium from one pole to another and may reflect reality. Producers agreed that they should be able to dictate and negotiate their own pricing at the individual or a collective level such as per region [I3CR; I5CO; I23CR; I25CR] rather than being pressured by international market

mechanisms, promoting a more democratized and liberalized trading agenda. Hence, in a study conducted by Mills (2003) as cited in Maitlis and Christianson (2014) from a sensemaking perspective, dominance by one actor led to privileges of one actor having more than the other, meaning a shift in control in the relationship that could place the most vulnerable actor at risk by another actor taking advantage of a given situation.

### **5.3.2.1 Summary**

Most informants associated increasing capability with the use of resources that contradict ecological well-being (e.g., fertilizers) and maximize economic returns (e.g., higher-yield). Few informants have demonstrated that it is possible to increase production yields by working with nature rather than against it. As such, supporting biodiverse ecosystems and improving livelihood.

Producers that have focused on quick economic returns, such as product for cash, struggle to balance longer-term priorities that provide stability for their livelihood.

Managing resources to improve operations are less than ideal, when subsidies are available. As such, unscrupulous officials have gained benefits that were intended to help their own communities, instead some officials have helped themselves. Producers struggle to get subsidies and when subsidies are available, they struggle to gain access to them. Subsidies appear to support producers in the short-term but hinder sustainable development in the long-term due to opportunistic behaviour at local levels.

Informants have found ways to deal with securing financial resources for the future due to lack of economic resources in the present. Combined ecological and economic solutions have helped producers to improve livelihood while securing intergenerational financial stability for the future, supporting sustainable development.

Cacao trade propels the younger generation and women in attaining sustainable livelihoods. Alternative trade and the bean-to-bar enable relationships in the industry at local and international levels that help to build communities and empower individuals supporting sustainable development. As such, the bean-to-bar focuses on higher-quality cacao, having higher than commodity market pricing, supporting sustainable development.

### 5.3.3 Paradoxes of Learning

Learning paradoxes embed a temporal focus enabling actors to innovate and develop over time (Smith and Lewis, 2022). This study identified three priority areas within the paradoxes of learning.

The first priority area of *Feedback* dealt with creating awareness across the roles and in practice (such as, technical requirements) but also being able to celebrate the successes (such as, collectively celebrating new business). For example, a crafter was concerned that producers would not want to hear the feedback <sup>[12CR]</sup>, after all, the informant felt that as a crafter and a customer – why wouldn't anyone want to hear the feedback! As another informant described, producers on the other hand, believed that they don't need the feedback since they have been growing cacao all of their lives 'but sometimes we just need to listen and maybe we learn something' <sup>[123CR]</sup>, as another crafter mentioned. This created flux in the relationships between all informants but in particular with crafters and producers, and, the situations raise barriers for learning from processes in the value chain (such as from harvesting cacao to processing chocolate). In their study, Reinecke and Ansari (2015) found that feedback becomes important for organizations to recombine and reconfigure processes (Money et al., 2017) that are aimed at achieving long-term success and as a way to balance centralization and decentralization. As such, the lived experiences of the producers (such as, previous negative or positive business outcomes) could restrict what feedback is provided downstream to the crafter.



The second priority area *Knowledge* captured the connected experiences, experimenting, and making use of their experience in practice. For example, an informant <sup>[I13SM]</sup> was observed repeatedly describing to a producer <sup>[I14PR]</sup> how to fix the problems of sunlight, humidity, and air flow with his plantation in order to obtain greater yield, what type of technical applications were needed, and why these techniques matter by using examples from other producers that followed the advice and achieved success. While the informant <sup>[I14PR]</sup> receiving the advice appeared to be hearing, he may not have been listening as the conversation was derailed and diverted several times as observed by the researcher. The writer theorizes that the informant <sup>[I14PR]</sup> appeared to be grappling with tensions. According to Walsh (1995) as cited in Hahn et al. (2014), while the way actors frame situations may limit decisions, it can be useful for creative problem solving. However, knowledge and experience may collide as informants grapple with personal values and what they may know in practice versus what is unknown to them through the acquisition of new knowledge (Garnelo-Gomez et al., 2022), and while experience and knowledge may be at odds, Rothenberg (1979: 244) as cited in Lewis (2000) states, “[a]s old opposites are overthrown, new ones arise in a never ending spiral of self-generation paralleling the spiral of increasing knowledge”.

The findings in this study suggest that educating newer generations is a priority. While producers expected that their proceeding generations would contribute to work in the plantation <sup>[I14PR; I17PR]</sup>, many informants were supportive of the next generation attending university studies <sup>[I19CR; I25CR; I29PR; I41PR]</sup> and pre-university studies <sup>[I8PR; I31PR; I43PR; I46PR]</sup>. Some informants were directly involved and championed fieldwork experience for students in partnership with local <sup>[I43CR; I44PR]</sup> and international <sup>[I5CO; I40PR]</sup> universities. Informants from Costa Rica exhibited greater focus on formal education efforts. Preceding generations of producers and crafters felt that it is important to involve, teach and provide practical experiences to next generations at a

young age <sup>[I8PR; I25CR; I26PR; I31PR; I43CR; I46PR; I47CR]</sup> using the experience to connect and strengthen the relationship with culture <sup>[I43CR; I44PR]</sup> and family life <sup>[I8PR; I17PR; I31PR; I42CR]</sup>. Technical training efforts in Costa Rica and Ecuador were seen as extremely important to informants, in particular for producers, (e.g., González, 2017 for technology, disease treatment, production and processing; and, Melo and Hollander, 2013 for finance, infrastructure and production). Organized technical training for producers are conducted through government and private industry efforts. While some producers <sup>[I14PR; I6PR]</sup> claim lack of government support in Ecuador for technical training; other informants have acknowledged the availability of technical training as a localized resource at municipal levels <sup>[I13CO; I19CR]</sup> including training for value-add services (such as, processing cacao into chocolate products). In Costa Rica, technical training and industry support is provided at different levels as demonstrated by the work of González (2017). As such, government agencies connect local producers to international businesses <sup>[I21SM]</sup> that operate at local programmes provide assistance and funding for producers to improve their practices and facility infrastructure <sup>[I19CR; I42CR; I43PR]</sup>. In addition, the fieldwork data supports that Costa Rica is focused on sustainable practices <sup>[I25CR; I26PR; I40PR]</sup> and sustainable infrastructure <sup>[I25CR; I45PR]</sup>. In line with sustainable initiatives, Costa Rica is investing and promoting formation programmes for ‘women in business’ <sup>[I42CR; I43CR]</sup> and training for short-, medium-, and long-term environmental programmes based on credits such as longer-term sustainable lumber <sup>[I40PR]</sup> in contrast to privatized sale of lumber in Ecuador <sup>[I6PR]</sup>. Together, cacao and timber production have been examined in other parts of the world and findings revealed lack of commitments to social and cultural responsibility (Blowfield, 2004).

Lastly, the third priority area of *Structure* identified the process of breaking free from situations, disengagement and reformulation of experience. For example, learning from past experience and applying that experience in the present or for future (Smith and Lewis, 2011) in measured

steps. As a process, a measured approach in the acquisition of experience enabled actors to answer questions of ‘when’ (Miron-Spektor et al., 2018), for example, structuring short-middle- and long-term harvesting cycles in time (Smith and Lewis, 2022). In this study, informants demonstrated connecting experiences by making use of current experience and reformulating experience in a future time (*see example from empirical data, Section 4.4.2.10 – Structure*). Although, Maitlis and Christianson (2014) argue that discrepancies between expectations and reality are important triggers for sensemaking, Guiette and Vandembemt (2016) emphasize that the images are construction of the past that are projected onto a possible future, and that future perfect thinking remains anchored in the past making use of a retrospective temporal orientation that is based on beliefs which are taken for granted (Sandberg and Tsoukas, 2015). The learning assisted in attaining multiple goals such as, learning from nature in order to eradicate pests and innovating processes of fermentation by the application of controls and testing routines. Therefore, in the example provided (*see Section 4.4.2.10 – Structure*), the informant <sup>[I40PR]</sup> was guided by assumptions that the experiment would be duplicated without considering changes in process or techniques, grounded in past experience and as the informant projected onto a possible future while reinforcing beliefs. Lewis (2000) suggests that when learning is self-reinforcing, actors may be trapped by the limitation of how much knowledge the individual holds, creating tensions between the current knowledge and the generation for newer knowledge. This was clearly articulated by a newer generation producer as the informant emphasised that while older generations pass on knowledge to newer generations, the informant needs to ‘teach the older generation because they do not always know what they are doing’ <sup>[I20PR]</sup>; as the producers make sense of the situation in the present by using their past experience, their framing appears to be more relevant to managing past events in contrast to current-present or near-future events which may incorporate the change of time

from past to present and onto a possible future. Berkes (2004) suggests that traditional ecological knowledge is passed down from one generation to the other; however, the writer theorizes the passage of time along with differences in market operating requirements provides an opportunity for younger generations to re-invigorate agriculture with up-to-date knowledge and know-how. The examples from the findings provided above show that search for knowledge acquisition to balance structure allude to the use of the concept of exploring and exploiting by the informants; exploring allows connecting experiences, while, exploiting enables leveraging experience, being specific to achieve a desired outcome. The fieldwork data demonstrated that both, exploring and exploiting where used in experimentation of practices. Tushman and O'Reilly (1996) argue that organizations need to be ambidextrous, for example doing both exploring and exploiting opportunities for growth at the same time; while, Hahn et al. (2018) posit that from a sensemaking perspective, organization use the concept of exploring and exploiting to attain sustainable innovation. Engaging the paradox of explore and exploit leads to the generation of creativity and innovation (Miron-Spektor et al., 2011). In this study, informants operate independently while at the same time they are part of a process that aims to create value across the chain by engaging, conflicting and cooperating with other informants (*see Section 4.5; Figure 4.12 Tensional Distribution Model of Organizing*). While informants operate independently, they also have to coordinate activities to meet common objectives and adopt multiple positions across the value chain, enabling the informants to meet the overarching goals and to create benefits and support sustainable development.

#### **5.3.3.1 Summary**

The value chain should operate with the aim of generating benefits for everyone. Some producers are locked into certain ways of thinking due to their upbringing and traditions that may be difficult to change. While some producers adopt multiple roles (such as, producer and

crafter), others have one role, which creates implications for the understanding of international markets. In a similar way, crafters have limitations on understanding local markets; hence, consolidators and logistics providers capitalize on the lack of knowledge to bridge the gap between local and international markets, justifying their position in the value chain. Bridging this gap becomes an important consideration for creating relationships that operate with a direct-trade model, between the producer and the crafter.

While producers may be stuck in time in their own ways, they want the next generation to succeed, even if it is at the expense of losing the intergenerational traditions that holds them together. Programmes that are offered through government organizations appear not to be equally distributed across communities. These initiatives may lack community reach and awareness by the producers that most need them to improve livelihoods, hindering support for sustainable development.

Informants made use of their experience to reformulate a future based on assumptions from lived experiences, while being limited by knowledge of business requirements. This created implications for the generation of new knowledge. In order to offset these implications, informants used exploration and exploitation approaches to come up with innovative solutions to current problems.

#### **5.3.4 Organizing as a Knotted Paradox**

Organizing paradoxes enable answering questions of ‘how’ (Smith, 2014; Smith and Lewis, 2011) dealing with inter-process flows and the coordinating characteristics that are found in structures (Smith and Lewis, 2022), dominance between actors, and arrangements (Smith and Lewis, 2011). In this study, organizing paradoxes emerged with knotted characteristics where the balance of tensions in one paradox offsets the balance of tensions in another paradox

(Jarzabkowski et al., 2022; Sheep et al., 2017). Analysis from the empirical findings suggests that organizing creates influence on the other paradoxes of belonging, performing and learning.

**IMPORTANT** – This study identified four key linkages between priority areas within the paradoxes of organizing (*see Section 4.4; Figure 4.3 Conceptual Interaction of Emergent Priority Logics with Supporting Codes*): a) Ancestry and Belief System and Capabilities [A&E], b) Premiums and Relationship [D&F], c) Structure and Premiums [J&F], and, d) Feedback and Relationship [H&D].

For example, crafters claim that ancestral trees provide higher quality cacao for premium chocolate in contrast to the bioengineered varieties (*see Tension 4 and 28*). This not only connects the informants with ancestral traditions of cacao growing practices (Ruales, 2013), but also increases their capabilities of being able to provide a product that has greater value in the market (Melo and Hollander, 2013). In turn, ancestry and greater capabilities enables producers to obtain higher premiums that are specifically negotiated with crafters through the relationship (*see Tension 11 and 29*). On the other hand, international crafters are only able to obtain premium cacao that originates from ancestral trees by establishing relationships with the producers or other local crafters with already pre-established relationships with the specific producers, who also have the ancestral trees. This situation emphasises that *Ancestry, Capabilities, Premiums and Relationship* enable an equilibrium between the paradoxes of *Belonging and Performing*, and for which, changes in the priorities would tip the balance between the two paradoxes – having the characteristics of knotted paradoxes.

As a further example of the findings, while producers developed their knowledge (*see Tension 4 and 25*) using techniques to improve the fermentation process leading to better *Capabilities* to increase *Premiums* with buyers, organizing to position premium cacao enable pivoting between

markets that valued premium quality cacao with higher prices <sup>(see Tension 8 and 21)</sup> versus markets that accepted the premium cacao for the price of ordinary cacao – known as market pricing. In this example, an interaction between the paradoxes of *Learning* and *Performing* is at play, being dependent on the organizing characteristics that compete between *Structure and Premiums* and *Feedback and Relationships*.

IMPORTANT – The empirical findings emphasized three key priority areas that were most common in the identified tensions and within each paradox: *Relationship (Belonging)*, *Capabilities (Performing)* and *Structure (Learning)* that are in flux between the three paradoxes and that appear in most of the tensions (see Section 4.5, Table 4.8 - Sustainable Development Dynamics Tabulated Analyses – Priority Codes: D; E; J).

Within Organizing as a knotted paradox, underlying coordination challenges (Smith and Lewis, 2022) were salient in this study such as between engagement-and-disengagement, cooperation-and-competition, and, conflict-and-harmony (see Section 4.5, Figure 4.12 – Tensional Distribution Model of Organizing).

IMPORTANT – As a result, the findings demonstrate patterns of engagement, cooperation and conflict that take place between the priorities of *Relationship and Capability*, *Structure and Relationship*, and *Capability and Structure*, showing the latent tensions that are not being recognised in the whole sustainable development process.

These latent tensions emerge as a result of complex systems that arise from the flux of engaging multiple paradoxes – knotting. For example, producers that struggle to maintain livelihoods through premiums, while the government provides subsidies to producers to improve their operations (*Capabilities*). As such, producers struggle between maintaining ancestry by holding

onto their identity and valuing the relationship within their community, as producers enact trading of their premium cacao; coyotes appear to have been given an economic license to operate in the market while at the same time devaluating subsidies of the producers as they sell their cacao at lower than market prices, creating further government subsidy dependency for the same producers <sup>(Tension 24)</sup>. Further, while producers argue that cacao premiums are low in the present and many have diversified to other crops in the past/present <sup>[I6PR; I8PR; I35PR; I40PR; I41PR]</sup>, producers are not willing to give up cacao as some consolidators <sup>[I4CO; I5CO]</sup> and crafters <sup>[I3CR; I10CR; I25CR; I49CR; I50CR]</sup> pay triple market premiums in the present/future <sup>(Tension 21)</sup>. Although producers are encouraged to replace ancestral trees with modified bioengineered species to increase resistance to pest and disease <sup>(Tension 4)</sup>, producers are holding on to the ancestral trees as these trees have value – engaging and making the paradoxes of *Belonging and Performing* knotted.

#### 5.3.4.1 Summary

Preservation of ancestral cacao seems to be a key requirement for mediating the tensions of capability, premiums and relationships.

Experimenting with techniques has enabled actors to increase their capabilities and market a higher-valued product that is currently under-valued in both the domestic and the international market.

The distinction between premium cacao and ordinary cacao as a commodity (lower-quality) is not fully recognized in the current marketplace, giving way to opportunistic behaviour on ancestral cacao (higher-quality) and other negative consequences (such as, low premiums, livelihood effects) affecting the producers that attempt to differentiate themselves in the marketplace. As such, forcing the producers that want to stand out in the marketplace to lower the quality standard and creating further dependency on the use of government subsidies.



### **5.3.5 Key Points**

In this section, the writer extracts key learning from ‘Paradoxes’ having parsed the fieldwork findings and literature. The key points are sorted using a macro-to-micro approach working towards the detail and informing the research problem and questions at the levels of System: Problem, Relationship: RQB, and Individual: RQA.

#### **5.3.5.1 System**

- Institutional failure can lead to resource maintenance failure by pressures at the collective level that as a result causes livelihood implications to the producers.
- Government support at local levels may not be equally distributed to most that need it and lack the resources for informants to pursue opportunities.
- Fine cacao with aroma supports biodiversity at local levels. The lack of recognition of ancestral cacao leads to livelihood implications for present and future.

#### **5.3.5.2 Relationship**

- The relationships in cacao trade supports the identity of informants by adopting roles at the individual level for gains that are reached collectively.
- Increasing overall capacity requires informants to engage in collective forms of cooperations while dealing with conflicting objectives of global opportunistic sourcing strategies and the exerted pressures at local levels.
- Market premiums limits and shifts power in the relationship from local to global economies and created flux between ancestry, resources and capabilities, and, process structure, knowledge and relationships.

### **5.3.5.3 Individual**

- The cultural aspects and ecological capacity of cacao enabled informants to create economic benefits for self sustenance.
- Contributing to a sustainability of livelihoods empowered informants for attaining benefits from collective organizing while feeling rewarded.
- Ecological approaches increased market opportunities that allowed decreasing production for quality to gain access to markets that pay higher-premiums.
- Informants that had a longer-term focus made use of experience to reconfigure processes for achieving sustainable objectives.
- Informants that did not recognize value along the chain had difficulty reconciling influences from past experience for attaining a sustainable future.
- The cacao and chocolate value chain enabled opportunities for newer generations to acquire knowledge that connected tradition and culture and supported sustainable development.
- Cacao production as medium-term agriculture, bridges the gap in maintaining livelihoods between short-term crops and long-term resources (e.g., lumber), mediating the business, ecological and cultural case.

## **5.4 Action System for Both/and Thinking**

Following the paradox system framework proposed by Smith and Lewis (2022: 39) to enable a both/and thinking approach; the writer makes use of the framework supported by the literature to discuss the empirical findings. In doing so, the writer provides a structured format on the discussion and analysis of the findings against the literature while providing organization and

synthesis of the both/and system tools. As such, the empirical findings of this research obtain fit and are guided by the framework – emphasising the performance and effectiveness of the both/and system tools and framework for this study.

The paradox system framework are tools as described by Smith and Lewis that support contribution to theory answering the questions of what, how, why, and who, when, where (Whetten, 1989). These tools include two axes, *context* that deals with the situation of the business case balancing the short-term versus long-term or past, present and future (Jarzabkowski et al., 2022; Slawinski and Bansal, 2017), and, *people* that enable sensemaking as process to obtain alignment by scanning, interpreting and responding to situations (Hahn et al., 2014). These two axes are divided into two areas each with opposing poles, for a total of four areas. The axis of *context* runs vertically and embraces boundaries and dynamics where the opposing forces of stability and change foster synergies, while the axis of *people* runs horizontally and embraces assumptions and comfort, engaging conflicting poles such as emotions and knowledge. As a system, the axes support a paradoxical both/and thinking approach to manage contradictory yet interrelated objectives that are guided by the context areas of: a) boundaries on how actors approach situations (such as, structuring) and containing the tensions (*see Section 5.4.1*), across b) dynamics related to how actors enable and adapt to practice (such as, experimenting and learning; *see Section 5.4.2*), and, c) assumptions that deal with shifts on how actors think and adopt a both/and approach (such as, knowledge and priorities; *see Section 5.4.3*), across d) comfort, based on how actors feel (such as, discomfort and perspective; *see Section 5.4.4*).

In the following sections, the writer makes use of the four areas as described earlier of: a) boundaries, b) dynamics, c) assumptions, and d) comfort allowing the empirical findings to

emerge and obtaining fit within the paradoxical framework through a set of leadership tasks that embeds *context* and *people* (Smith and Lewis, 2022).

#### 5.4.1 Boundaries to Contain Tensions

As per Smith and Lewis (2022) business leaders grapple with managing challenges that are inherent of interrelated and contradictory objectives. A classic example of businesses exploring and exploiting is presented by O'Reilly and Tushman (2008); as such, the authors investigate the consequences of unique capabilities and the ability of businesses to explore and exploit opportunities at the same time. In this study, informants made use of exploring and exploiting opportunities to improve products (such as, cacao quality, yield and disease resistance), processes (such as, trade, transportation, harvesting techniques, land management and soil erosion management), technologies (such as, product processing, value-add products and payment methods) and systems (such as, supplier payment systems and worker pension systems). Navigating between explore-exploit contradictory objectives may be challenging for businesses as too much exploring may lead to lack of realization and too much exploiting might lead to intensification of assets (Kunisch et al., 2017). Leaning too closely towards either objective affects the opposite. Hence, making use of the prior example, informants created boundaries (Jarzabkowski et al., 2022; Smith and Lewis, 2022) to ensure a balance between the opposing poles was maintained, such as for managing both processes of exploring and exploiting. Boundaries are useful tools for managers to navigate the tensions by establishing guardrails that allow separation of the interrelated objectives without going too far against one pole or the other. As an example, a producer <sup>[140PR]</sup> explored increasing tree flowering by applying changes to soil management but the experiment was limited to a set number of tree rows and not the whole plantation. While poles can be separated temporarily, tensions were persistent and contradictions remained; therefore, reconnecting the tensions enabled harmony

in the tensions through a process of equilibrium and for the tensions to be subsequently managed. Following the previous example, the producer <sup>[I40PR]</sup> focused on increasing flowering to increase production yield by making use of the same resources (*see Section 5.4.3.2*).

#### 5.4.1.1 Connecting tensions

Smith and Lewis (2022) suggest connecting the tension of the business by giving individuals a higher-purpose by connecting holistic strategies and creating synergies for linking people and the business case (Smith and Tushman, 2005).

For example, when interviewing an informant <sup>[I40PR]</sup>, the writer noticed that the informant was grappling with the business case but also the personal case. In the interview, the informant suddenly and out-of-the-blue mentioned ‘I get my energy from my mother... she died nine months ago’. While a number of business tensions were at play, the informant admitted that being successful in the cacao plantation was connected to his mother that had passed away – yet being alive:

‘she is alive and gives us energy, when I am sowing something, I already remember her, and I remember her saying that everything you do is fine, that is great, then this is going to work out well for me, and it works for me’. <sup>[I40PR]</sup>

The informant demonstrated a deep level of personal grief while being content with his entrepreneurial business (*social-commercial logics*), admitting that:

‘she liked to come here [the cacao plantation], and she did not get to know this [the change], and that is another reality she did not get to know, but in her mind, she took it [by perceiving the future], she took me and she believed in all of this that I am doing’. <sup>[I40PR]</sup>

As suggested by Smith and Lewis; Smith and Tushman (2022; 2005) establishing purpose assists in navigating paradoxes by: a) providing stimulus for striving with competing demands

(Smith and Lewis, 2011), b) enabling a process of interpreting contradictions as being interrelated such as “to effectively embrace, rather than avoid, contradictions” (Smith and Tushman, 2005: 533), and c) providing future orientation to align short-term decision towards long-term outcomes (Maitlis and Christianson, 2014) such as those of society and financial business needs (Slawinski et al., 2021). As such, an informant as a community leader <sup>[I6CO]</sup> was able to support an association for the local producers at her own expense, despite enduring financial difficulties at the time.

#### **5.4.1.2 Separating and connecting interrelated and contradictory objectives**

Embracing contradictions requires separating and connecting of the interrelated poles in tensions (Smith and Tushman, 2005). This allows a paradoxical frame that treats tensions with acceptance in the business case (Hahn et al., 2014), linking context and people (Smith and Lewis, 2022). In the most challenging situations separation of practices, exploration of independent goals, and allowing for different decision processes enabled informants to deal with tensions that were intertwined and at first appeared difficult to separate (Smith and Lewis, 2022). In this study most informants assumed multiple trade roles, for example, being a producer and a crafter <sup>[I40]</sup>, and, a producer and a consolidator <sup>[I6]</sup>. Informants were able to make sense by adopting multiple roles to understand multiple positions in the value chain to better deal with the tensions and shift from and either/or to both/and approaches. For example, while observing two informants <sup>[I3CR and I16PR]</sup>, a crafter and a producer negotiated the terms of cacao processing and the quality expected, the crafter was able to communicate how she expected the producer to ferment and dry the cacao. She used her experience (Smith, 2014) as a producer and this enabled her to make sense of the situation by framing the producer’s resources that were available while recasting the methods and obtaining alignment to her expectations as a crafter. This reframing and shift from individual effort to collective problem solving (Ancona,

Goodman et al., 2001; Kunisch et al., 2017; Smith, 2014) effort allowed satisfying a negotiation agreement for demand and supply of the product in the trade relationship.

Slawinski and Bansal (2017: 386) state that “researchers have not explored the mechanisms that allow for trade-based tensions to be transcended”. This means that researchers have not critically examined how actors are able to embrace multiple priorities in contrast to trading off one priority for another across time; a process of acceptance and engagement (Lewis and Smith, 2014).

***KEY INSIGHT – Using the above empirical example of negotiation in the relationship from the findings of this study suggests that adopting multiple positions along the value chain enables actors to embrace and transcend problem solving tensions.***

#### **5.4.1.3 Establishing guardrails**

While embracing contradictions requires separating and connecting of contradictory poles, these tasks may introduce separation and isolation; as such, pulling the poles apart too far leads to isolating one pole over another. This isolation creates implications that hide “synergies and connections” (Smith and Lewis, 2022: 143) and disabled transcending as a process between the imbalances of the polarities (Jarzabkowski et al., 2022) such as, iterations of alternatives of short-term versus long-term objectives (Slawinski and Bansal, 2017) to enable unification of opposites (Smith and Lewis, 2011). In addition, isolation may lead to vicious cycles by suppressing an opposing pole by applying defensive responses (Lewis, 2000); instead, actors should focus on the creation of virtuous cycles (Jarzabkowski et al., 2022), enabling responses that are integrated and that oscillate between opposing poles simultaneously over time (Andriopoulos and Lewis, 2009; Jarzabkowski et al., 2013; Jay, 2013; Smith, 2014). Virtuous cycles are particularly important to achieve effectiveness between the business case and social

causes (Hengst et al., 2020; Jay, 2013). For example, Sharma and Bansal (2017) demonstrate a successful approach of integrating opposing poles simultaneously as both/and in contrast to either/or by exploring the paradox of the business case and social value. The exploratory case, provides strategies on problem solving and workarounds on accommodating the needs of the actors in the context of the business and the NGO. Similarly, using the findings from this study regarding the involvement of children in cacao plantations, when interviewing a logistic provider <sup>[I1LP]</sup> it was admitted that producers are required to sign a document to participate in the trade process; while in other interviews, concerns on child labour were raised by several informants <sup>[I5CO; I23CR; I50CR]</sup>. The logistic provider employed a guardrail to satisfy crafters that are concern about child labour practices by having producers sign documents against the use of children working on plantations. More specifically, the guardrail is a mechanism, in physical form it is the document that contains the attestation text and is signed and dated by the producers. This mechanism, allows logistic providers to purchase cacao from producers enabling sourcing guarantees to crafters while at the same time reducing the liability and increasing their ethical commitments. However, the guardrail may prove to be intermittent as logistic providers do not, in practice, persistently examine the producers' practices, rendering the process unenforceable most of the time. In their study, Wilhelm et al. (2016: 43) problematize this practice as “merely ceremonial compliance” since upstream actors may defy the agreed terms of engagement in the relationship with the customer. While this guardrail provides a temporary means to manage the tension that is salient, it raises a latent tension as providing sourcing guarantees for multiple producers, across multiple countries, becomes a challenging task as the logistic provider is unable to monitor practices in space and time – leading to vicious cycles (Ropo and Hunt, 1995 as cited in Lewis, 2000) as the number of producers expands in the trade process. In a similar way, Wilhelm et al. (2016) posit that in



complex global supply chains, companies that source product in internationalized markets experience challenges in monitoring sustainable business compliance of supplier networks. As admitted by an informant <sup>[I5CO]</sup>, ‘child labour is a global concern’ <sup>[I5CO]</sup>. Smith and Lewis (2022) suggest engaging stakeholders while setting goals that are relevant to the role of the actors.

**KEY INSIGHT – Theoretically, the diverse actors working together are better at meeting all the sustainable development objectives and avoiding neglecting ones that have future implications.**

### 5.4.2 Enabling Dynamics

Smith and Lewis (2022) suggest businesses need tools that create dynamism to unleash the tensions. Dynamism includes actions that leads businesses towards advantages (O’Reilly and Tushman, 2008) that propels learning (Lewis, 2000) by reducing ambiguity (Maitlis and Christianson, 2014; O’Reilly and Tushman, 2008), enables adaptation (O’Reilly and Tushman, 2008; Reinecke and Ansari, 2015; Smith and Lewis, 2011), and encourages oscillation between the competing demands (Hahn et al., 2014; Smith and Lewis, 2011). Hahn et al. (2014) argue that accepting competing demands may not be sufficient for organizations to manage the tensions; rather, the interplay between actors that pivots on awareness of the tensions appears to be of importance as actors navigate known and unknown tensions to solve conflict between sub-systems, such as lack of economic resources in the present and pension systems for the future <sup>[I25CR; I26PR]</sup> (Smith and Lewis, 2011). Informants found alternatives while making sense of a situation, for example, by interplaying salient and latent tensions during experimentation for the creation of a new product <sup>[I5CR; I19CR]</sup>, (Hahn et al., 2015) and, serving as reinforcing learning cycles <sup>[I41PR; I43PR]</sup> (Lewis; Lewis and Smith, 2000; 2014) in exploring and exploiting opportunities <sup>[I25CR; I19CR; I43PR; I40PR]</sup> (Smith and Lewis, 2011).

### 5.4.2.1 Experimenting

Lewis and Smith (2014: 131) suggest that “learning involves experimenting” in a quest to find novelty and capabilities. However, engaging current skills in the present while acquiring new skills for the future appeared to be challenging for some producers as some informants sought information <sup>[I45PR]</sup> from another competing producer <sup>[I43PR]</sup>. Smith and Lewis (2022) suggest breaking larger steps into smaller and more achievable objectives (such as, learning to make chocolate paste <sup>[I43PR]</sup>), testing new ideas with low-cost initiatives (such as, testing organic fertilization <sup>[I40PR; I5CO]</sup> ) and obtaining feedback from others allows informants <sup>[I2CR; I23CR]</sup> to move forward from a position of uncertainty towards certainty <sup>[I16PR; I3CR]</sup>. For example, in this study informants <sup>[I5CO and I40PR]</sup> were observed collaborating on experimenting with tree growth and flowering density patterns by using a new type of organic fertilizer. The consolidator <sup>[I5CO]</sup> provided exploring by researching and sourcing available options that adhered to organic requirements and being of relative low cost, while the producer <sup>[I40PR]</sup> used the trees in his cacao plantation by segregating a row of trees to apply the fertilizer and monitor flowering density patterns with minimal cost. While the tension of exploring and exploiting was active, both informants engaged by up-taking a role in the relationship and the experimentation and managing each opposing end of the tension (*see Section 5.4.1, Boundaries to Contain Tensions*). This experimental activity provided a further opportunity for the two informants to leap from practice and process to learning and adaption, moving towards a stage of preparing for serendipity.

### 5.4.2.2 Preparing for serendipity

Fine and Deegan (1996) define serendipity as the interaction outcome rooting from a combination of insight and cycles of chance. Smith and Lewis (2022) posit that being open to engage new opportunities unlocks potential for innovation and change through purposeful

exploration. In this study, informants grappled with tensions such as finding new ways to improve livelihood to bring back how ‘life used to be’ <sup>[I31PR]</sup> and trying new ways to derive value from raw material to reduce market pricing dependency <sup>[I19CR; I40CR]</sup>. This included driving solutions that involved practice and process while being able to apply learning and adaption. While interviewing a technical expert and consolidator <sup>[I13CO]</sup>, he recalled the case of a producer <sup>[I14PR]</sup> that would not take his advice to improve production yields. He stated that in Ecuador there is a greater focus on producing cacao and lesser focus on increasing value-add opportunities of other products that can be derived from cacao. According to Ruales (2013) only twenty-percent of the exports are based on processed cacao, such as cocoa powder. While some other informants made good use of exploring those opportunities and have been successful at creating products <sup>[I19CR; I42CR]</sup> by adding value to the cacao beans, other producers held back and only focused on cacao production <sup>[I14PR; I15PR]</sup> leading to a decrease in the number of opportunities available in the market. In contrast, when interviewing a producer <sup>[I43PR]</sup>, she admitted that she was in the process of experimenting and that her process to make cacao paste was still in progress (Hahn et al., 2015; Reinecke and Ansari, 2015). She was waiting for serendipity, as being in a producer role for many years she did not have the practice-process knowledge of a crafter to elaborate a cacao paste that was consistently smooth – not grainy, and that it would not crumble as observed by the researcher; she was engaging the process of learning-to-unlearn by tracing back her steps in the process and recasting the steps once again (Smith and Lewis, 2011) but with a different process formulation (Shipp and Jansen, 2021).

**KEY INSIGHT – Learning encourages business towards sustainable development as the processes reshapes and enhances understanding by embracing a learning paradox that aims for a better future.**

### 5.4.2.3 Learning to unlearn

Smith and Lewis (2022: 191) define learning to unlearn as “findings ways to let go of our old mental models to make space for new ones, allowing us more flexibility in navigating paradoxes”. In turn, this allows balancing the acceptance of uncertainties, discarding certainties by making sense of the situation (Smith and Lewis, 2011). In this study, informants practiced single-loop learning; whereby, decisions were made purposefully such as through experimentation and obtaining feedback <sup>[I2CR; I40PR]</sup>.

Following on the previous empirical example of making cacao paste, the informant <sup>[I43PR]</sup>, was willing to learn and adapt the process to get it right as she stated ‘this is my first attempt, it’s not what I prefer but it’s an opportunity for us to stop working only with the raw material – the cacao beans’ <sup>[I43PR]</sup>. The informant had made sense of the situation and with much humility admitted that the results were not as anticipated. Making sense was enacted as the cacao paste crumbled in the presence of the informant and the writer, the informant’s expectations were not met. The informant’s willpower to realign her expectations and reformulate the application of practice and process (Hengst et al., 2020; Jay, 2013; Poole and van de Ven, 1989; Schad et al., 2016) by learning and adapting prepares the informant for serendipity – producing a cacao paste that is smooth and consistent. However, the informant <sup>[I43PR]</sup> appeared to be in a state of learning described as single-loop, without questioning the assumptions of what caused the cacao paste to not meet her expectations. In contrast, double-loop learning allows actors to question the assumption and may provide clues to manage the tensions, while engaging virtuous cycles increasing the outcomes (Lewis and Smith, 2014). Such as, the case of the younger producer realizing that the older and more experienced generation needs to be taught ‘because they don’t always know’ <sup>[I20PR]</sup>.

**KEY INSIGHT - Double loop learning is something that theoretically is unlikely to arise spontaneously in disintermediated value chains, which makes it problematic for addressing trade-based tensions as a both/and approach.**

Smith and Lewis (2022) suggest encouraging experimentation by: a) having low-cost experiments, b) decisions that are based on desired results, and c) being able to shut-down failure. As already discussed through an earlier empirical example of a producer experimenting with flowering patterns, the informant <sup>(140PR)</sup> was willing to keep trying, regardless of what anyone else's opinion was, he was willing to shut down failure by tweaking methods and through experimenting, and getting it right.

Next, the writer engages into discussing either theoretical or practical recommendations by considering where the both/and approach has worked and where it has failed in the disintermediated supply chain, with considerations of why that might be. The approach is supported by the trade-based tensions, dynamics and interaction patterns (*see Chapter 4 Presentation of Findings*) and the contextual influences of the case.

### 5.4.3 Shifting to Both/And Assumptions

Smith and Lewis (2022) argue that problems need to be reframed to question the underlying assumptions of how to manage the tensions, moving from dichotomous thinking (such as, narrow or binary choices; Friedman, 1970) towards integrative approaches that allow both/and paradox thinking (such as, appreciation of contradictions and mutual reinforcement; Smith and Tushman, 2005). These approaches are affected by the extent of the tensions experienced and the extent of adoption of a paradox mindset. Hence, Smith and Lewis (2022) suggest that increased tensions are experienced in settings that have: a) faster rather than slower change, b) higher rather than lower plurality, and c) faster rather than slower scarcity. As such, the cacao

and chocolate value chain are embedded in a dynamic trade system, where the informants assume multiple roles across the relationship in an environment that cuts across the dimensions of sustainable development.

#### 5.4.3.1 Accepting knowledge as containing multiple truths

Lewis (2000) posits that paradoxical tensions are constructions from actors that are subject to biases. Informants attempted to deal with ambiguities by framing contradictions through a process of alignment of logic that is bounded by knowledge (Smith and Tushman, 2005; Tushman et al., 2011). For example, crafters <sup>[I2CR; I3CR; I50CR]</sup> were inclined to pay higher premiums to producers if the quality of the cacao was better as it decreases crafter labour cost and wastage in the future <sup>(Tension 31)</sup>. Producers are not willing to receive feedback from crafters, so while producers want to earn more, the increase in premiums is conditional on the satisfaction of the crafter that is willing to provide feedback. This tension exemplifies differences in perceptions and while both producers and crafters may argue to be right about product quality, the informants operate with different truths. This suggests that the framing may have inconsistencies and the saliency of contradictions may differ across informants based on different experiences and knowledge. For example, two informants demonstrated holding different constructions of tensions such as how much to profit versus how much charity monies to disburse <sup>[I17PR; I6CO]</sup>, the business case versus the social cause. Weick (1979) suggests that actors cognitive frames undergo a process of filtering and explanations of truth are based on experiences as actors attempt to obtain fit when reconciling differences (Smith and Tushman, 2005; Tushman et al., 2011). Therefore, Lewis and Smith (2014) conclude that a paradox perspective does not attempt to uncover truth, instead, actors' cognitions and social constructions enable a process in which understanding emerges over time by weighting the differences between contradictions. As such, some informants <sup>[I28LP; I40PR]</sup> demonstrated how

they dealt with a present reality based on a constructed future that originated from feelings of grief and guilt.

#### **5.4.3.2 Framing resources as abundant**

Smith and Lewis (2022) posit that paradox mindsets view resources in abundance rather than as being scarce by seeking value and opportunity. For example, an informant <sup>[I29PR]</sup> was grappling with the tension of introducing bioengineered cacao varieties or keeping the ancestral cacao trees. When the informant was asked what were her intentions for the future in keeping one or the other, the informant replied that ‘[s]o we are going to show now which one is going to give more in harvest, this one or that one, which one is going to give more in yield’ but she also stated that ‘the ancestral trees provided a benefit which was already paid for, but with much pain in her soul, she would cut the tree’. However, while she weighted the differences in years to come regarding which tree provides a higher yield, the informant came to the conclusion that the tree was healthy and as a proposed solution to resolve the tension she admitted: ‘and knowing what we are going to do, to plant a little one that will last for years’, effectively keeping both types of trees, without having to sacrifice the genetic material of one or the other. In her mental model, the tension was temporarily solved by prospectively grafting, a technique used to keep genetic material by cloning trees, or alternatively by creating a sapling from the same ancestral cacao tree. However, while the informant attempted to balance certainty against uncertainty, the tension remains as persistent and continuous to be unsolved.

While scarcity enables triggers that surface latent paradoxical tensions as salient due to resource limitations (Smith and Lewis, 2011); framing resources as abundant rather than scarce, enables possibilities to manage demands in novel ways by redefining resource value (Ehrenfeld, 1987; Ehrenfeld, 2008b, 2016; Gladwin et al., 1995b; Sharma and Bansal, 2017), including, natural

resources (Bansal and DesJardine, 2014), financial resources (Barnea and Rubin, 2010), social resources (Ludwig, 2001), and cultural resources (Berkes et al., 2000).

### 5.4.3.3 Problem solving as coping

A paradox mindset shifts the approach for the treatment of tensions from a position of controlling to coping (Smith and Lewis, 2022). Controlling implies favouring one pole of the tension over another; while, the other pole is unattended leading to downward spirals and loss of control. This approach is closely related to reduction of uncertainty (Hahn et al., 2015; Slawinski and Bansal, 2017) as actors attempt to gain an understanding of what is going on (Maitlis and Christianson, 2014); however, it is not synonymous with acceptance of unresolvable tensions. Research conducted by Reinecke and Ansari (2015) on temporal brokerage surfaces the tensions from informants of increasing certainty while grappling with unresolved tensions when evaluating suppliers. In a similar way, in this study, consolidators described feeling a responsibility guided by ‘control’ to change <sup>[I5CO]</sup> the conditions of how coyotes operate in the market that pays producers extremely low premiums <sup>(Tension 7)</sup>. As stated by the consolidator ‘for a small farmer is not fair that you take away that you rob them’ <sup>[I4CO]</sup> polarizing humanity livelihood (Gladwin et al., 1995b) and hence contributing to economic exploitation (Crane, 2012). While it is difficult to disagree with the prior statement made by the informants, the trade system has allowed for this unresolvable tension to persist over time and control appears to be less than more of an option; however, change might become a possibility.

**KEY INSIGHT – Surfacing the tension is the first step to finding balance between the opposing poles of: consolidators wanting a closer relationship with producers that do not want intermediaries to retain premiums. When orders are large, they struggle to find product to fill an order, when orders are small, they struggle with the investment to maintain the relationship <sup>(Tension 22)</sup>.**



As these two tensions are intertwined, Tension 7 is unable to resolve due to Tension 22. As such, enabling capacity and financial resources will provide balance from decisions (Lewis, 2000; Putnam et al., 2016; Schad et al., 2016; Sundaramurthy and Lewis, 2003) that contribute to market practice and premiums to producers. In their work, Lüscher and Lewis (2008) describe the approach to coping as a ‘workable certainty’; as such, actors that face intricate situations may never fully grasp situations (Weick, 1995) and rather than facing resistance, actors shift towards a continuous process of experimenting through learning and adapting (O’Reilly and Tushman, 2008), eliminating paralysis (Hahn et al., 2018), accepting the tensions without a resolution (Lewis and Smith, 2014) and enabling a process for change.

Smith and Lewis (2022) suggest surfacing the underlying tension by naming them (*see Section 4.3*) and describing the paradoxical nature; while connecting the demands and fostering a paradox mindset among actors that embrace the tensions (*see Section 4.4.1; Table 4.7*).

#### **5.4.4 Comfort in Discomfort**

Smith and Lewis (2022) suggest that finding comfort in being open to tensions also means accepting the discomfort that arises from uncertainty. This enables the use of emotions as a resource that engages our ‘heart’ with our ‘mind’ to manage complex and conflicting tensions. In this study, informants grapple with the discomfort of price guarantees that spiral from market uncertainty from less than modest to very low premiums. Producers argue that cacao premiums are low in the present and many have switched to growing other crops; yet, producers are not willing to give up cacao since some crafters pay triple the market premiums <sup>(Tension 21)</sup>. This tension creates uncertainty for livelihoods as managing resources (Teng and Cummings, 2002) to cultivate in the present may not hold value in the future. As described by producers as ‘living a day at a time’ <sup>[I14PR]</sup> in a situation that is no longer bearable <sup>[I31PR]</sup>, yet it is ongoing. Other

producers <sup>[I20PR; I26PR]</sup> are lessening the uncertainty by finding new ways following their passion with community-based approaches, such as growing other luxury product <sup>[I20PR]</sup> and creating private pension systems <sup>[I25CR]</sup> to alleviate financial burden in the future <sup>[I26PR]</sup>.

In their study, Haas and Cunningham (2014) found that the level of uncertainty is moderated by amount of threat, an increase in the level of threat leads to greater uncertainty. According to Smith and Lewis (2022), reduction of uncertainty is accomplished by emphasising either/or thinking, creating a defensive reaction which leads to vicious cycles. Hence, acceptance of emotions in dealing with uncertainty by the informants has led towards finding comfort in discomfort in order to accept and respond to competing demands. Smith and Lewis (2022) suggest three tools to address uncertainty and discomfort through acceptance and finding comfort: a) building in a pause, b) accepting discomfort, and c) broadening perspective.

#### **5.4.4.1 Building in a pause**

Smith and Lewis (2022: 157) describe ‘building in a pause’ as “the initial stimulus and the ultimate response”. While a pause enabled informants a moment to reflect and digest the situation at hand, a pause may be triggered by the sensemaking process of sense breaking by questioning the underlying assumptions by reconsidering sense (Maitlis and Christianson, 2014). Sense breaking is defined as involving “the destruction or breaking down of meaning” (Pratt, 2000: 464). Some producers have found comfort by evaluating options, for example a producer decided not to give up cacao but rather to reduce the uncertainty by becoming a consolidator <sup>[I20PR]</sup>. In particular, it was interesting to observe the interaction between a producer <sup>[I20PR]</sup> and a crafter <sup>[I3CR]</sup> as they engaged in a discussion to answer sources of ancestral cacao in the area. The now producer-consolidator was able to point the crafter to new sources of ancestral cacao and in turn, securing financial resources for himself and other members of the cacao producing community. When faced with discomfort, a pause allows for evaluating a situation

and making sense at the individual level while enabling a process to move from individual perspectives towards collective feedback cycles (Blowfield and Dolan, 2010); for example, in conversations taking place amongst multiple informants (Maitlis and Christianson, 2014) and adopting flexible approaches that are driven by purpose and that arise from discomfort of dealing with tensions. Following on the earlier empirical example, the producer <sup>[I20PR]</sup> further described how he is searching for an export market to position his cacao directly. When the writer asked what benefit would that bring, the producer stated that ‘it would provide benefits to other producers in the area’ alluding to adopting a community approach rather than focusing on the individual self.

**KEY INSIGHT - *Comfort comes from collectively addressing the tensions.***

#### 5.4.4.2 Accepting discomfort

Reconsidering the underlying assumptions by building a pause enables acceptance of discomfort while allowing emotions to subside over time rather than emotions becoming stronger; as such, the acceptance of emotions is at times easier to accomplish with others rather than oneself (Smith and Lewis, 2022).

In this study, accepting the discomfort led other producers to new ways of thinking. As an example, a crafter <sup>[I25CR]</sup> and his worker – the producer <sup>[I26PR]</sup>, both were leading a private pension system using a luxury product. The producer <sup>[I26PR]</sup> acknowledged by projecting into the future that while being thirty-seven years of age, the government pension at sixty-five years of age would not be enough to maintain livelihood. Therefore, the producer and crafter engaged in a four-year project whereby the financial proceeds of the luxury product would be invested towards the workers’ pension. The product in question grows in the proximity of the cacao trees where both cultivars provide benefits to one another, besides generating a financial benefit for

the workers. The initiative was possible by broadening the perspective as the informant <sup>[I26PR]</sup> stated ‘in this area everybody used to grow plantain, so at first the market pricing was good and people saw the money, but eventually as more people grew plantain the market declined and everyone went broke. So, we have to do something different, not just growing cacao because everyone else does the same’.

**KEY INSIGHT - *In a disintermediated value chain, addressing sustainable development and managing the trade-based tensions can be done with creative future thinking ideas that use short term gains for different purposes by broadening the perspective and making sense of a possible future.***

#### 5.4.4.3 Broadening perspective

When tensions are entangled with positive emotions, accepting the discomfort enables shifting from either/or to both/and approaches as navigating the paradoxes shift from being narrow towards becoming more expansive (Smith and Lewis, 2022) through the generation of ideas and alternatives (Fredrickson, 2001). Hence, making use the of the previous example with the private pension system, positive emotions allow perspectives to broaden and contribute the generation of ideas and creative thinking (Smith and Lewis, 2022). During the interview with a crafter <sup>[I25CR]</sup> and a producer <sup>[I26CR]</sup>, the crafter described that one of the main worries of the producer was his young son and that shifting the mindset allows options for the people of the countryside to forge a new future, so when questioning what will this young person become, the producer <sup>[I26PR]</sup> is now able to provide him with a future by making use of the planned business and attaining generational stability and equality (Gladwin et al., 1995b). Gioia et al. (1994: 378) referred to the notion of “prospective sensemaking” where “the conscious and

intentional consideration of the probable future impact of certain actions, and especially nonactions, on the meaning construction processes of themselves and others”.

Smith and Lewis (2022) suggest honoring the discomfort by welcoming vulnerability and inviting workers to contribute with solutions to reduce fear, discomfort and uncertainty, and, training leaders with the skills to harness benefits from conflict. In the empirical example offered, the crafter acted as a coach, asking questions to his worker and guided him towards an approach that balanced the tensions, not by eliminating the conflict rather than introducing boundaries to contain the tensions projecting onto a possible future by making sense of past situations in the present.

In the next section, the writer provides a chapter summary.

### **5.4.5 Key Points**

In this section the writer extracts key learning from ‘Action Systems for Both/and Thinking’ having parsed the fieldwork findings and literature. The key points are sorted using a top-down approach working towards informing the research problem and questions at the levels of System: Problem, Relationship: RQB, and Individual: RQA.

#### **5.4.5.1 System**

- Guardrails acted as a mechanism that while dealing with salient tensions raised latent tensions in space and time that may be unable to transcend in the longer-term.
- Coping with coyotes might be an intermediary step to solving the low-market premiums and government subsidies as these informants mediated the system tensions in the trade network.

**5.4.5.2 Relationship**

- Informants interplayed sustainable demands to unleash and balance tensions by solving situations using their experience to explore and leveraging the experience by exploiting.
- Producers and crafters should avoid locking-in their mental frames to mediate tensions.

**5.4.5.3 Individual**

- Informants were able to reframe situations by using their experience for problem solving and attaining collective objectives that contributed to sustainable development.
- Informants made use of low-tech experiments to attain novelty from a position of uncertainty moving towards certainty in the process.
- Informants engaged in process of learning to unlearn by attaining sustainable objectives rather than being stuck in old ways of thinking.
- Informants engaged learning as a process to move from the conventional chain to a disintermediated value chain that provided more benefits.
- Latent tensions may become salient by using prospective sensemaking to ground a future that can be lived in the present, yet distant at the moment of reframing.
- Accepting comfort in discomfort may lead to reduction of uncertainty, however, informants need to broaden their perspective to avoid stagnation in the future.
- Informants reconsidered their mental models by making sense of influence at the individual level and casting towards collective approaches.

- Informants transcended tensions by accepting discomfort and projecting into the future by broadening their perspective.

## 5.5 Discussion Summary

In this study, it was important to understand how informants attempt to balance priorities that lead to long-term benefits in the future rather than priority trade-offs that while may seem rational in the present may lead to short-term outcomes (Maitlis and Christianson, 2014; Putnam et al., 2016; Schad et al., 2016). These priorities are managed by choice based on how informants make sense of the situation through a process of social construction. The writer has presented an in-depth discussion using a macro- to a micro-perspective, starting with hybrid-organizing logics that engages the business case with the ecological causes, followed by a taxonomy of paradoxes that emerged as operational in the disintermediated value chain (such as, belonging, performing and learning, and organizing as knotted).

This enabled understanding within context and people, by providing insights for addressing the tensions in proactive ways and embracing the contradictory objectives in the cacao and chocolate value chain.

The writer engaged Smith and Lewis (2022) both/and thinking system framework to: a) synthesize while at the same time enrich the framework with further support of the literature, b) provide a discussion that is based on the presentation of the findings chapter, c) make use of the system framework in such way that empirical data from this study is positioned within the principles of paradox theory and framework in the context of the trade relationships across a value chain, and at the same time, d) provide rich evidence for the framework to surface its potential for future research with the use of this study's empirical data. Finally, key points were constructed and sorted to assist in answering the research questions and problem (*see Section 5.6*).

## 5.6 Answer to the Research Questions and Problem

Following the research design outlined in the ‘Introduction’ Chapter (*see Section 1.4*), the associated research questions are answered:

Answering the first research question (*RQ A*) required judgement and evidence across the intra- (*Individual* – the roles that are assumed) and inter-subjective (the collective) on how the roles and then relationships affect the both/and, and, either/or responses.

*RQ A: In what ways do stakeholders make sense of trade-based tensions?*

*ANSWER: Stakeholders made sense of trade-based tensions through their experiences and weighting the balance of priorities that are based on short-term and long-term outcomes. As such, informants recognized traditional and cultural aspects to create economic benefits, determined that there was value in differentiated processes and products, and reversed and reconfigured processes to relearn and attain sustainable objectives with low-tech experiments, moving towards certainty. Most importantly, informants focus on natural methods of production to increase the quality of the cacao and move the value creation closer to the local production to create a premium product of higher-value.*

*Informants adopted various positions along the value chain that helped them to gain understanding on contradictory perspectives to mediate tensions. While relationships in this study were guided by the models (logistics provider, consolidator, direct-trade), the most successful engagements cooperated in the areas of Relationship, Capability and Structure (*see Figure 4.12*); hence, direct-trade was the relationship that demonstrated engagement and cooperation, while the other relationships demonstrated engaging in conflict. Producers and crafters in a direct-trade relationship were able to understand each other's temporal concerns and use the relationships and capability to come up with new solutions that satisfy the both/and of the business and ecological case, while the other relationships made choices based on*



*individual preferences, working towards an opposing end of the contradiction. (see Section 4.3; 4.4; 5.3; 5.4)*

*Direct-Trade connected purpose and outcomes in the cacao and chocolate alternative trade network, enabling informants to work closer, mediate tensions and leverage opportunities in an end-to-end value chain, demonstrating that informants are able to transcended trade-based tensions by accepting the discomfort from 'getting by' to projecting into the future with a broader perspective for attaining better business and ecological outcomes. (see Section 5.3; 5.4)*

Answering the second research question (*RQ B*), required focus in the priorities across the 'Relationship' that emerge to support and/or hinder environmental, social and economic dimensions.

*RQ B: In what ways does relational sense making support and/or hinder sustainable development?*

*ANSWER: Informants worked together across the relationship to meet multiple objectives and avoid neglecting the ones that have livelihood implications for the producers by adopting multiple positions along the value chain, embracing and transcending tensions; the closer the informants were to one another suggested to better support sustainable development objectives since there was more cooperation between them and they were better able to respond to both/and demands, while the further apart the informants were, suggested to hinder sustainable development progress since there was more opportunity for conflict and opportunism, responding less favourably to both/and situations. (see Section 4.5)*

*The relationship between the informants and fine cacao supports the cultural identity of the individuals in the south nations that are able to reach gains collectively, transcending local*

*and global pressures. Some informants with closer relationships aligned their thinking to interplay sustainable demands, surfacing new tensions and managing the contradictions by using their experience and leveraging that experience by exploiting low-tech solutions. (see Section 5.3; 5.4)*

While the discussion suggests that the wicked problem for informants to interplay demands needs more minds that study the problem with a paradox mindset. A paradox lens that focuses on sustainable concerns acknowledges the tensions with desirable objectives that are interdependent and sometimes conflicting, differing in logics (Fan and Zietsma, 2017).

As such, the research study sought to understand the ‘System’ problem of *in what ways do trade-based tensions influence sustainable development in direct-trade network relationships of the fine cacao and chocolate value chain?*

*ANSWER: In contrast to operating in a conventional network, the informants working in an alternative direct-trade relationship were able to transcend the tensions by combining their knowledge and capabilities to overcome the disconnects in understanding that arise due to the distance between the lives of producers and the crafters, while preserving ancestry and beliefs, for better premiums and the improvement of livelihood. In doing so, informants provided better quality cacao that has regional characteristics and that is processed with traditional methods in smaller batches, resulting in a value-add product for higher economic returns while attaining social and environmental benefits towards meeting sustainable development objectives. (see Section 4.3.1; 5.4).*

*Governments have an opportunity to support the fine cacao niche market with investments to break-up opportunistic profiteering, in a trade system that should be guided by livelihoods for the benefit of the producers in contrast to a commodity-driven market. (see Section 5.3)*

*In order to close the divide between the north and south, recognition of fine cacao with aroma provides incentives for a higher-premium market that prevents opportunistic practice by bringing the end-to-end value chain closer for the benefit of the producers in a direct-trade and disintermediated system. In contrast, lack of recognition provides incentives to a current low-premium market that operates with opportunistic practices in an intermediated supply chain at the expense of the producers and government subsidies. (see Section 5.4)*

## 6 Conclusions

The purpose of this chapter is to provide an overview of the key research insights, the research contributions, limitations and recommendations of the study. In addition, the writer provides concluding remarks and a personal reflection.

### 6.1 Chapter Introduction

To satisfy the requirements of the research study, a ‘literature review’ (*see Chapter 2*) was conducted exploring: a) sustainability in business, b) the role of time and priorities, c) paradoxes and trade-based tensions in sustainable development, d) contextual influences on decisions across time, e) the fine cacao and chocolate value chain, and f) sensemaking in the disintermediated value chain. The literature review provided guidance for navigating broad and complex knowledge domains such as sustainable development and paradoxes, while at the same time, enabling the contextualization of the cacao and chocolate value chain business case, situated in the literature and leading to distilled core concepts. The study proceeded with the research design and methodology (*see Chapter 3*), being mindful of the complexity of the study and flux, a process philosophy was followed, setting the stage for interpretive research using a social constructionist epistemology with methods that would enable emergent data in natural language acquired by immersion and in-situ with the informants. The study provided the ‘Presentation of the findings’ (*see Chapter 4*), using a cross- and within-case comparison from empirical data acquired in Canada, Costa Rica and Ecuador, outlining, naming and illustrating the tensions (Smith and Lewis, 2022) that emerged from the priorities of the informants using an in-depth and rich descriptive approach. Lastly, a ‘Discussion’ (*see Chapter 5*) presented the findings guided by the literature using a top-down approach, engaging the Both/and thinking

framework from Smith and Lewis (2022) and answering the two research questions and problem.

## 6.2 Overview of Key Research Insights

The key research findings were presented in great detail (*see Chapter 4*), while the discussion chapter (*see Chapter 5*) interpreted the findings with the aim to contribute to new knowledge guided by the literature (*see Chapter 2*) in the management of tensions that arise from sustainability priorities within the alternative trade paradigm.

This study provided key insights:

- Informants that worked collectively in the trade system were better able to embrace and transcend the tensions by adopting multiple positions along the value chain. As an approach, this enabled the informants to understand the issues and work towards sustainable development objectives to manage their priorities.
- Diversity in the roles of the informants enabled understanding of processes from multiple perspectives and hence, avoided neglecting goals with future implications.
- While informants understood the consequence of a longer – conventional chain, the disintermediated value chain provided managing opportunities for dealing with the tensions with creative approaches that used short-term gains for different purposes.
- Since the disintermediated value chain is shorter, it enabled the informants to be closer to the problems, and allowed the informants to manage the tensions between the opposing poles in relation to their priorities.
- The tensions were embraced by the informants while they worked towards multiple objectives of the business and social-environmental causes. As an approach, to

managing the flux in the process, the informants demonstrated engaging paradoxes of learning working for a better future.

- Lastly, informants appeared to have gained comfort from addressing the tensions, collectively. While there was some conflict between the informants, there was always a sense of engagement and cooperation with and for the community.

In this study, the key research insights were constructed from a combination of approaches in the analysis that included:

- Conceptualizing and illustrating a model interaction of emergent priority logics with supporting codes (*see Figure 4.3*);
- Tabulating of the tensions corresponding to the trade models (*see Table 4.7*);
- Analyzing the codes and themes in-depth with immense care (*see Section 4.4.2; Appendix O and P*);
- Presenting a tensional distribution model with the key themes of relationship, capabilities and structure intertwined in a process of engagement, conflict and cooperation (*see Figure 4.12*);
- Organizing the findings within a paradox taxonomy that included the interaction of organizing as a knotted paradox (*see Section 5.3*);
- Engaging the Both/and Thinking System from Smith and Lewis (2022) to provide synthesis and use the system to frame the tensions found in this case study (*see Section 5.4*).

### 6.3 The Research Contributions

In relation to the call for research of normative aspects of paradoxes (Hahn et al., 2018), this study was able to offer insight for understanding the informants experiences as they immersed in multiple roles (such as, a producer might also be a crafter; Schad et al., 2016). The study was able to juxtapose value across the multiple dimensions for achieving sustainable outcomes by identifying and naming the tensions (Smith et al., 2016; Smith and Lewis, 2022).

#### 6.3.1 Theoretical Contribution

This study has contributed to sustainable development and the paradox knowledge base. In the context of searching for value in the cacao and chocolate value chain, according to Haynes et al. (2012: 1468) there aren't too many researchers that have conducted studies in sustainable development with cacao producers that contribute to better trade benefits. Additionally, this contribution answers Wilhelm et al. (2016: 55) call for research in complex supply chain studies to delve into implementation of practices that are experienced in South nations.

As suggested by Slawinski and Bansal (2017), while hybrid-organizing perspectives often deals with competing goals, the competing paradoxical temporal aspects have seldom been explored in sustainable development studies; and while this may be a difficult undertaking within the sustainability discussion, this study has addressed the call for research. In addition, as suggested by Haffar and Searcy (2019) on addressing the salient tensions in practice and how businesses respond to them, this study has provided evidence and analysis including naming the tensions (Smith and Lewis, 2022), contributing with specificity in relation to the paradox taxonomy (*see Section 5.3*), tensional distribution model (*see Section 4.5*), priorities model (*see Figure 4.3*), and trade model (*see Section 3.3.2*).

While studies that examine paradoxical tensions have been conducted by several authors (e.g., Hahn et al., 2015; Lewis, 2000; O'Reilly and Tushman, 2008; Reinecke and Ansari, 2015; Sharma and Bansal, 2017; Slawinski and Bansal, 2012; Smith and Lewis, 2011), this study has contributed to tensions that arise from the informants being in a certain role while adopting multiple roles at different trade levels (Schad et al., 2018). Next, priorities were identified that cradled the tensions, which guided the development of logics in hybrid-organizing. Lastly, the writer engaged the both/and thinking system framework developed by Smith and Lewis (2022) and contributed to the use of the framework theoretically as guided by the literature. The framework was used in such a way that the empirical findings provided early evidence of the way the framework can be applied and therefore evaluate the performance on the use of the framework and its components within the context of this study.

**IMPORTANT** – The author does not claim any methodological contribution to paradox theory.

The writer engaged Smith and Lewis (2022) both/and thinking system framework to provide synthesis while adding richness to the framework with further support of the literature, and use the system as a technique to frame the grappling of the tensions found in this case study in hopes to surface greater future research potential, including:

- Attending to the what, how, why, and who, when and where (Whetten, 1989);
- Managing paradoxes by coping and working through the tensions to answer 'what' (Lüscher and Lewis, 2008; Putnam et al., 2016);
- Demonstrating dynamism across paradoxes to answer the 'how' (Lewis and Smith, 2014; Smith and Lewis, 2011);
- Discussion and exemplification through the empirical data of vicious and virtuous cycles, answering 'why' (Sundaramurthy and Lewis, 2003);



- Demonstrating differences across the capacity of individuals by the adopted roles and their position in the trade system and the value chain, answering ‘who-when-where’ (Miron-Spektor et al., 2018).

### **6.3.2 Implications for Practice**

This study draws on understanding the findings for gaining insight from an empirical and theoretical perspective to illustrate the implications for practice. Haynes et al. (2012) suggests that few studies have examined the cacao and chocolate trade for value, inclusive of ecological benefits. Hence, this study contributes to practice by outlining the value that could be realized from understanding how the informants managed the tensions that are cradled in their priorities. The saliency of the tensions surfaced structural elements for which actors in the trade system may find of value to improve or reinforce current business processes.

First, sustainable development efforts are demonstrated across several areas in Costa Rica and Ecuador. Costa Rica appears to take a wholistic view that incorporates the environment, social, and economic dimensions by enacting ecological practices in the value chain that are supported at various levels by government programmes, partnerships with local and international institutions and that appear to be embedded or cascade to the informants operating through a process of structuring of initiatives. In Ecuador, while sustainable development efforts are salient and evidence of municipal government support have been demonstrated through the fieldwork findings, these efforts appear to shift over time. However, the empirical data from the fieldwork has demonstrated that Ecuador holds very strong connections to ancestral traditions, keeping with ecological values, and respecting the indigenous origins that have placed it as a world leader in the production of fine cacao and chocolate (Ruales, 2013).

The fieldwork data confirmed that there is an aging generation of cacao producers and the younger generations appear to be reluctant to enter agricultural work in cacao production. This

has led to an aging generation of producers that calls for change (Ehrenfeld, 2008b) for a future generation of producers that may never exist. The empirical data appears to suggest that market pricing is the culprit supported by the work of Melo and Hollander (2013) that is driving newer generations to other industries. Market pricing as a baseline at international levels of cacao trade has imposed limits to the ability of producers to negotiate their own pricing in international markets creating a cascading effect to the local market, global versus local trading. The empirical data suggest that power in the relationship of local trading partners has shifted towards international buyers that demand higher quality, lower pricing, and product sourcing guarantees that hold conflicting views of the world in ‘cocoa’ production versus the ‘cacao value chain’ in Central and South America. This conflicted views have cascading effects, mainly towards the producers by taking away from improving livelihoods that are based on pricing and sourcing guarantees. Tensional power contributes to a disequilibrium in the value chain which reflects the interpreted reality lived by the informants in this study (Schad et al., 2018).

***KEY INSIGHT – Greater efforts should be made at the world stage to differentiate fine cacao with aroma from others, since, agricultural practices, traditions, and the connection to culture are vastly different (Ruales, 2013; Valdez, 2019) and products are geared towards different markets (Coe and Coe, 2013). Fine cacao with aroma is no ordinary cacao and different organization strategies should be adopted to manage the flux.***

Paradoxes examined in this study have led to understanding of practical implications based on affects of organizing on other areas of belonging, performing, and learning. As informants face struggles in the market, the findings demonstrate that informants are actively seeking new ways to restructure a sustainable value chain, including:

- Assuming multiple roles enabled the informants to make sense of the situation in the trade process; enabling informants to embrace and transcend tensions (Lewis and Smith, 2014; Slawinski and Bansal, 2017);
- Generating private novel solutions to low-paying pension systems and regeneration systems to secure financial sources for the future (Robbins et al., 2015);
- Adopting alternative trade networks that allows producers to bypass standard market pricing mechanisms and retain greater economic gains (Melo and Hollander, 2013);
- Adopting and adapting leadership roles increasing the presence of women in business within a market that has traditionally been male dominated (González, 2017);
- Learning about new perspectives with acceptance and engagement (Lewis and Smith, 2014), such as, younger generations contributing with new knowledge to invigorate agricultural practices.

A paradox perspective does not seek to uncover truth, instead, actors' perceptions of how they see the world and make sense of it enable a process in which the understanding emerges over time by weighting the differences between the contradictions (Lewis and Smith, 2014).

## 6.4 Limitations of the Research

The researcher made considerable efforts to ensure that this study was conducted responsibly and with immense care, ensuring that the data presented is worthy of being defensible. Substantial interdisciplinary research was conducted to identify a call for science and a need in practice that aligned with the purpose of the doctoral thesis requirements as outlined in the Introduction (*see Chapter 1*). Iterations of literature reviews were conducted within broad and complex knowledge domains that are presented with good amount of detail in the Literature Review (*see Chapter 2*). A research design was carefully put together to ensure that the research

questions, design methods and data collection could be achieved successfully and in a way that is trustworthy (*see Chapter 3*). Overall, the research was conducted by a person based on interviewing and observing interactions between human subjects and it is bound to have flaws which limits the research by:

#### **6.4.1 Generalizability**

Research interviews were conducted in Canada, Costa Rica, and Ecuador where cultural differences and the north and south perspectives are persistent and different in the ways of life of the informants. All interviews followed a natural language process. Most interviews were conducted in Spanish and some in English. Natural language also led to some conversation to be carried in Spanglish. Across Costa Rica and Ecuador, a total of fourteen regions were covered and while this provided for diversity in the samples, it also provided for different ways of life being enacted by the informants, such as weighing differences between Caribbean versus other regions. A total of forty-six individuals participated in this study through interviews and informal conversations, fifteen females and thirty-one males. Therefore, the generality of the data is constrained to what has been provided by the sample size.

#### **6.4.2 Reliability**

The researcher sensed that greater consistency with time spent with the informants would have been favourable. For example, some interviews were conducted on a sixty minute timeframe; while others took considerably longer due to cultural expectations of the informants, including plantation and facility tours that lasted over four hours. For example, taking time for the researcher to immerse with the culture and become an extension of the community by gaining trust, and in turn, contributing to more reliable data. Most importantly, this study dealt with real people and real world problems (Flick et al., 2004). Overall, informants were never placed in a

position to face pressure and time spent varied with each individual as the researcher adjusted to the needs of each informant.

### **6.4.3 Methodological**

The researcher set out to collect data in order to answer the research questions of: in what ways do stakeholders make sense of trade-based tensions? And, in what ways does relational sense making support and/or hinder sustainable development? In a broad and complex multidisciplinary study, much of the data collected took considerable time to translate and transcribe, and then analyze using Template Analysis within the NVivo software by coding manually. Over fourteen-hundred transcribed pages were manually coded by the researcher in search of themes and patterns that were spread across different roles that the informants assumed in the trade process. Template analysis is a forward moving strategy to code and while it is suggested that coding iterations are not necessary; the researcher had to complete iterations as new codes emerged in newer transcripts not captured in older transcripts, taking considerable time to capture the codes. Naturally, the researcher may have missed certain codes in which the coding process in itself was very much dependent on the angle of repose, the view and interpretation of the writer at the time the coding process was taking place.

### **6.4.4 Methodological Trustworthiness**

As described in the limitations of the research, the data collection was completed by a person on other human subjects, therefore, researcher bias cannot be ignored. A key limitation with interpretive research should point to the main source of information, in this study, the limitation points to the interviews and more specifically, on the information provided by the informants to the researcher and the process of interpretation. The empirical data collected contained information that extends beyond the research questions with accounts that are reflective on the

informants' priorities, beliefs, experiences, perspective of the world and perception of time. The data from informants were fact-checked between the members and were given meaning (Roulston and Choi, 2018), increasing trustworthiness by using a rigorous and logical process – a view supported by Gray (2004). Therefore, the findings may be transferable to similar contexts, based on context and sample size of the study, emergent logics and paradoxical themes that cradle the tensions do converge and are supported by the literature including the a-priori constructs derived from the literature review.

## 6.5 Recommendations for Future Research

While future research opportunities abound, the limitations discussed earlier create opportunities for future research that are linked to human and ecological progress (*see Appendix V – Sustainable Development Dynamics to Goals Reference*). Therefore, it is important to gain a further and a deeper understanding at different levels of the areas of belonging, performing, learning, and in particular how organizing may create affects that are linked to:

- Trade-based tensions that are specific to sub-systems;
- Agricultural regeneration programmes;
- Women and youth leadership programmes;
- Privatized economic and social benefit programmes;
- A critical review of the process of economic premiums and the distribution of benefits by organizations that operate under certification banners.

There is also a need to realize the intrinsic value that may be offered by the competing forces (such as, social, environmental, economic). Further, consideration should be given towards how these forces could serve to inform normative approaches (e.g., recognition of value in the forces own right) and instrumental approaches (e.g., linkages between the forces, tensions, and

outcomes). The previous approaches offer opportunities to possibly embrace a mindset that moves away from traditional thinking on economic focus, allowing for greater balance of social and environmental values.

There's a possibility to further explore whether the model of relationships capabilities and structure (*see Figure 4.12 Tensional Distribution Model of Organizing*) managed through the process of engagement with tensions co-operation and conflict is useful in other contexts.

Lastly, the themes and tensions could be further explored with another set of informants in the same market. Furthermore, the rich descriptions may be useful to guide future research in very similar markets such as, transposing the learning to vanilla and other luxury products that exhibit similarities with cacao growing, processing and trade.

## 6.6 Concluding Remarks

In conclusion, from gaining a research focus in sustainable business to examining the literature and drawing research questions in relation to the cacao and chocolate value chain, the writer collected and analyzed data surfacing paradoxes of trade-based tensions in relation to sustainable development priorities of a disintermediated trade system.

The data collection and analysis led to understanding the organizing logics, the paradox taxonomy and the interrelatedness of the priorities as constructed by the informants that cradled the tensions. The discussion of the data findings used the both/and thinking framework to comprehensively make sense of the data while outlining the connections between people and context. This led to the conclusion that informants grapple with trade-based tensions that are persistent, and, embracing contradictory objectives is suggested as the approach to manage the tensions and therefore the priorities.

While cacao trade has been around for over four-hundred years, alternative systems are recently emerging with few studies being conducted using different perspectives. All of the findings in

this research deserve further exploration to gain understanding of the complexities involving the priorities of the actors.

As a multidisciplinary and exploratory case, this study, draws upon rich theoretical knowledge on sustainability, time, paradoxes, and sensemaking, leading to distilled concepts as a foundation to immerse into fieldwork. A process philosophy was adopted aligning with a study that is in a constant state of flux. Interviews and observations provided rich data to understand the complexity of the case and to answer the research questions. Presentation of logics and paradoxes provided a system in which the both/and thinking framework from Smith and Lewis (2022), enhanced by the literature, was deployed to make sense of the empirical findings by connecting people and context and enabling the commercial-social business logic.

Therefore, the objectives of this research have been met by having answered the research questions (*see Section 4.3 & 4.4 – RQA; Section 4.5 – RQB*) and providing contributions to theory and implications for practice.

## **6.7 Personal Reflection**

Prior to engaging in doctoral studies, the writer had been immersed in practice through professional business services, including the implementation of organizational standards and continuous improvement projects. Effectiveness in business practice was partially achieved by obtaining benefits from completing MBA studies at Manchester Business School, and as such, it created much desire for understanding the process for the acquisition of knowledge. The DBA programme at Henley Business School enabled opportunities to further explore a professional and academic interest to conduct research related to international trade systems and the sustainable food chain. Much to the writer's surprise, the knowledge domain areas were broad and complex and required much focus for the study to become a manageable journey. Many literature reviews were conducted to seek out the call for science that were particularly relevant



to the context in practice, and much of it was seen through a quantitative lens. As the writer dived deeper into issues both in theory and practice, that thrived with complexity, the need for qualitative work began to emerge. Learning and adapting from quants to mixed-methods over to a qualitative process design that allowed the flux to exist with multiple truths that appeared contradictory to what the writer had been previously trained for was a learning on its own right. However, it was during the qualitative workshop provided by Dr. Claire Collins, with much appreciation, that illuminated a pathway, and the answer was simple, complexity must be first unravelled in order to understand and attend to world's toughest problems. This journey was possible thanks to having both Dr. Jane McKenzie and Dr. Peter McManners as an amazing supervisory team, and the support of others (*see acknowledgements*) that provided much advice with sincere interest and commitment. It has been an enjoyable journey and the closer the end appears; it is perceived as just the beginning.

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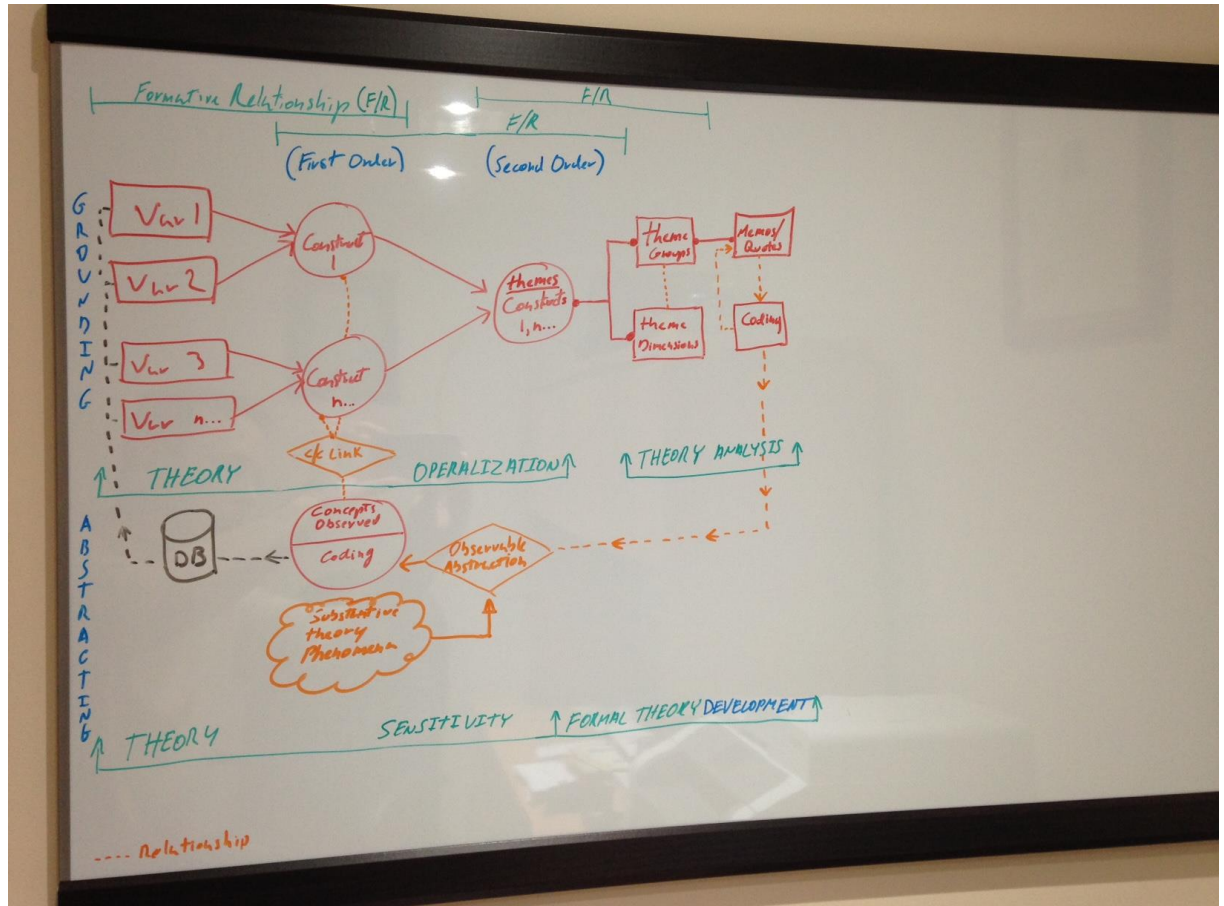
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## Appendix A – Construct Development and Thematic Integration Plan



## Appendix B – Construct Distillation and Coding

transform to ind coding

### Intermediate Research Reflection

RQ: How the *sensemaking of intertemporal tensions* affect the balance of *sustainability priorities* in the *tree-to-bar decision-making*?

Keywords: Alternate Trade; Chocolate; Intertemporal; Livelihood; Sensemaking; Sustainability; Tensions.

### *Abstract*

Sustainability is an ill-defined term and a common agreement remains outstanding. The commoditization of time in business has led to implications for the earth's physical resources creating pressures that are likely to affect the future of humanity.

Agriculture may be subject to food demands that are higher than its capability to supply due to population growth. Economically, the 'South Nations' have less than the 'North Nations' and food equality is a priority that requires balancing of the resources.

The cacao industry in the 'South Nations' displays an economic, equality, and justice divide, and appears to have been exploited for economic gains at the expense of humanity. With chocolate becoming a 'luxury' food, consumers have ignored or left unnoticed abuses linked to chocolate.

The food chain is fragmented with multinational companies having a large footprint, where commitment to a sustainable path is contradicted by lack of action. Higher demand for chocolate may create implications with ability to supply. Better integration to balance the system as a whole is required for a supply chain that is ethical and more liberalized, with a focus on improving small-scale farmers' livelihood.

Alternative trade models are emerging and aim to counteract implications of unsustainability by allowing greater decision-making to actors upstream in the tree-to-bar and balancing tensions. This should provide greater choice and flexibility in the local context, breaking away from a conventional food chain and providing small-scale farmers a voice in the international community.

### *Sustainability*

Sustainability has been echoing in the business world since the 1960s. Environmental disasters have caused advocates to voice concerns over corporate practices and question the balance of *environmental, social, and economic priorities, namely as sustainability priorities*. Scholars and practitioners have since begun to debate what sustainable development and sustainability mean. Scholars attempt to quantify benefits or disbenefits and the order of priorities. Other scholars claim that a *mind-shift* is needed to envision and enact a sustainable future that is first attainable by transitioning from unsustainability towards sustainability, and balancing of priorities across time.

However, the problem at hand is argued as increasingly severe as humanity witnesses past and current

mind shift  
change

attain  
change

relax priorities

Prioritization  
across time



Degradation of resources

Resource negative effects

issues such as climate change and degradation of resources, and how these implications of the present may affect the future.

System holistic balance

Idealistically, sustainability priorities should be balanced when viewed as a whole system; however, research emphasises that current practice in business is out of balance and mostly unsustainable providing for a debate that questions the drivers of unsustainability that are influenced by the normal evolution of humanity and the order of priorities to create sustainable outcomes.

Sustain change

[JMG: Sustainability has been subject to mixed meanings through time and by different stakeholders where a common agreement is desirable.]

[JM: Is an ill-defined term so open to interpretation.]

## Sustainability and Business

Resource utilization

Value creation

Resource degradation

Scholars argue that the monetary attachment to time where benefits are derived by utility maximisation such as in a shorter time period for monetary gains have led to over utilization and exploitation of resources. This resonates with capitalist structures that thrive on consumerism but also encroach within the very foundations of justice and equality for humanity and the physical world.

[JMG: Money and time have created negative consequences for the earth's physical resources, and these are likely to affect the future of humanity.]

[JM: There are pressures to pay attention to short term + resource maximisation.]

Industry influence on effects

Moreover, some industries are better able to capture the effects of sustainability implications and limitations than others, for example in agriculture, supply chains witness effects first-hand by production of food, from land preparation to distribution of the produce. The echelons of the food chain traverse all dimensions of sustainable development, environmental, social, and economic.

Capture end-to-end supply chain effects

Capture all dimensions of sustainable development

[JMG: The agricultural industry is adequate to research sustainability.]

Critically important is that as the world's human population continues to increase and resources are required to maintain the very same population growth that depends on finite resources both living and non-living, this creates a requirement for balancing how these resources are managed.

Maintaining resources

Balancing resources

[JMG: Not managing resources could affect the future of generations.]

Balancing Resource Management

While current discussions are centred on feeding an additional 2-billion people by 2050; any effort to sustain population growth could be restricted by the limited natural resources of the earth itself, not only for supporting human life but also for maintaining many ecological systems that make planet earth habitable. The exploitation and competition for natural resources between nations and

Maintaining Natural Resources

### Competing for Natural Resources

### Regenerating Resources

economies could negatively affect the ability for the ecological systems to regenerate at a pace required to attain a sustainable future for all of humanity.

[JMG: Imbalances of resources may not sustain population growth as resource demand is likely to be higher than supply.]

[JM: But population growth increases resource pressure.]

### Paradoxes of Time

#### Enabling livelihood

#### Supplying humanity basic needs

At the very basic level, these questions the livelihood of humanity including physiological needs such as, the supply of food, water, shelter, and clothing. However, at present not all of humanity is experiencing livelihood issues and there is a visible economic divide between the 'North' and 'South' nations. Whereby the 'North' has too much and the 'South' has too little. The United Nations has emphasised 'too little' as 'poverty' where 836 million people are living in 'extreme poverty'. While small-scale farmers supply most of the food that is traded in the world, FAO estimates that one in four small-scale farmers lives in poverty. However, the World Bank estimates that over 75% of the people that are experiencing poverty live in rural areas and work in agriculture. Poverty discourages intergenerational equality, meaning that future generations of small-scale farmers will pursue other means to maintain livelihoods. This not only creates implications for maintaining or increasing food resources in the future, it also contradicts a rational approach to efforts undertaken for the reduction of poverty in the present.

The United Nations suggests that significant progress has been made in the reduction of poverty through the rapid growth of economies. While progress is accounted through past economic growth in certain nations, this does not translate to poverty reduction for all nations in the present. In addition, United Nations poverty reduction estimates do not account for Latin America and Caribbean, and do not consider people that enter or re-enter poverty. Therefore, while attempts are made towards a future poverty reduction case, an accountability exercise can only represent the past, lacking ambition and the necessary action to eradicate poverty in the present and future.

The poverty case drives hunger as an ancillary consequence. While the United Nations conceptualizes hunger relative to food waste, reduction of food waste does not equate to reduction of hunger. In other words, assuming that food waste could be reduced this will not lead to distribution of the wasted food to populations that suffer from hunger. Furthermore, it is inconceivable that while most of the people living in poverty are involved in agriculture supplying food produce to the world, at the same time experience hunger. Therefore, efforts towards the eradication of small-scale farmer poverty should have an effect and contribution to the eradication of hunger. Although United Nations states



that poverty and hunger are independent sustainable developmental goals, these are ought to be developmental priorities that should not be treated in isolation. These issues become salient not only in the present for the 'South Nations' but also for the future of all of humanity, and begins to surface tensions of how resources of the physical world should be managed in attempts to improve livelihoods and towards the attainment of sustainability.

[JMG: Economically, the 'South Nations' have less than the 'North Nations' driving the poverty case. Food equality is a priority that requires balancing of resources. Inequalities in food may affect all of humanity in the future.]

[JM: An economic divide exists between North + South.]

[HS: Paradox of time debate related to different generations.]

[JMG: Tensions engage both improvement of livelihood and sustainability.]

### Paradox as Metatheoretical Lens

Commodities such as cacao and coffee have shown symptoms of an economic divide that polarizes humanity's livelihoods and the well-being of the physical world. This divide is characterised by the paradoxical 'South Nations' dependency of demand from the 'North', and the 'North Nations' dependency of supply from the 'South'. This perspective as a whole system surfaces tensions for achievement of short- and long-term goals that are dependent on sustainability sub-systems of the economic (e.g., commodity market premiums or farmer premiums), social (e.g., maintain current generation while provide opportunities for future generations), use of conventional or alternate trade structures, and environmental (e.g., using resources without degrading resources), priorities or ideal outcomes.

Paradox as a metatheoretical lens accentuates iterations between the tensions and outcomes. For example, the cacao industry has been subject to human slavery for about four hundred years, and in some parts of the world the labourers that are compensated monetarily at present eke out a living on less than \$0.50/day which is less than 30% of the rate set as the international poverty line. While this illustration would increase tensions that are of economic nature, complexity increases as iterations to achieve an immediate goal of economic stability may raise new tensions such as aspects of livelihood to enable a future that is equitable and just. Similarly, in complex systems, tensions may not be restricted to their sub-systems and may transcend across. For example, tensions that arise from maintaining or degradation of natural resources may synergistically link with tensions of social prosperity or social marginalization, illustrative of conflicting demands between sub-systems within sustainability viewed as a whole system. Therefore, a paradox perspective enables dimensions of



sustainability to be assessed independently while at the same time being interdependent of one another within the system.

This complexity may also extend across echelons of the supply chain. For example, while 'North Nations' consider chocolate a luxury commodity and are willing to pay multinational corporations for the processing of cacao into a consumer-packaged goods such as a candy bar, stakeholders are also involuntarily contributing to the neo-classical economic exploitation of the physical world and humanity carried on by some large organizations that operate at international levels through the conventional food system. This not only raises further tensions but also inspires learning cycles that contrast a conventional and a disintermediated supply chain that aim to achieve economic gains while at the same time <sup>trying to achieve</sup> social and environmental responsibility.

Paradox as a metatheoretical lens is not limited to competing forces and may enable a strategy for theorizing by juxtaposing decision-making theories from sustainability such as marginalization and degradation, poverty and resource degradation, and local livelihood and protected areas to question assumptions, alternatives, and <sup>us</sup> develop a more holistic understanding.

[JMG: The cacao industry in the 'South Nations' displays an economic, equality, and justice divide even though cacao, a raw form of chocolate as a luxury commodity is available. The cacao industry appears to have been exploited for economic gains at the expense of humanity. With chocolate becoming a 'luxury' food, consumers have <sup>us</sup> ignored or left unnoticed abuses in the cacao industry.]

[JM: The cacao industry is a relevant case where the N/S divide is large because chocolate is "luxury".]

### Decision-Making and Business Trade Perspectives

The conventional food system is comprised of many actors such as producers, cooperatives, processors, and distribution. Each actor typically focuses on a process of the cacao production. Multinational corporations may operate at many echelons of the supply chain and at multiple locations. For example, while Nestlé Global is headquartered in Switzerland, it has a strong presence in the United States of America, production facilities are also located near cacao plantations such as in Dominican Republic where about 300 small-scale farmers are located in its vicinity. This model enables an agile and efficient supply chain while exerting control over the raw produce at local levels. While some multinational corporations have a tentative sustainable development path in writing such as the 'Nestlé Creating Shared Value Framework', the media reports that for example Nestlé has

admitted to child labour practices in 2016 and continues to face lawsuits. These issues are the tip of the iceberg for the cacao commodity within a conventional food system.

*[JMG: The food industry is fragmented and multinational companies have a large footprint in the industry. Commitment to a sustainable path is questionable as events contradict intentions.]*

New models such as Fairtrade have been introduced as a business case to provide assurance to small-scale farmers and producers for fair-market pricing (if commodity price is higher) while contributing to these communities. Consequentially, Nestlé as an example has recently adopted Fairtrade in 2017 as a global strategic initiative for all sourced products such as cocoa, sugar, and vanilla. Under the Fairtrade mark, cacao producers should have some ability of deciding how community and business investments are conducted. While Fairtrade admits that growing cacao is a difficult task and claims to make growing cacao more sustainable, the Fairtrade model is centred on price premiums and the effect of the price premiums on communal investment decisions to reduce poverty. This model acts as an insurance policy to producers and attempts to provide price premiums guarantees paid to the producers that are not below market pricing. However, it does not consider wider sustainability implications related to tensions that arise from the environmental and social dimensions such as the condition of the land and the effects of social tensions that arise from distribution of benefits to the non-Fairtrade community members.

*[JMG: New business models aim to counteract implications of unsustainability by allowing greater decision-making to actors upstream in the food supply. Most models hinge on price premiums and while this addresses the economic dimension, these models lack balance leaving the social and environmental aspects mostly unattended while tensions are unnoticed and unaccounted.]*

Fairtrade initiatives appear to have low producer participation rates due to lack of engagement and misallocation of benefits. Suggestively, this stems from the Fairtrade mark utilizing a hierarchical structure for decisions made within groups that are controlled through committees and also dispersing benefits to the wider community (e.g. producers and non-producers); hence the literature suggest that Fairtrade deters most producers from participating.

*[JMG: Models that are solely based on price premiums are of little interest to the farming community.]*

In essence, Fairtrade functions as a large cooperative within the conventional food chain that may or may not be morally justified as the intent to bring farming communities out of poverty may lead to



further marginalization of small-scale farmers, decreasing intergenerational equality. This further negatively contributes to the cacao industry experiencing an aging population, where younger generations lack economic incentives and pursue other work as a result.

[JMG: Current models tend to support the conventional food supply, adding another echelon in the chain. Unavailability of solutions drive new generations away from the industry.]

[JM: Some large western chocolate producers have attempted to bring in more stakeholder concerns into decisions. Fairtrade may not be as effective as it looks.]

The present situation in the cacao industry has started to postulate a crisis for cacao production as chocolate demand is set to outstrip supply by 2021. While the 'South Nations' are harvesting cacao, most of the production is consumed by the 'North Nations'. Hence, there is a requirement to attain better integration between the poverty and business case in order to improve producers' livelihoods, procure demand and supply balance, and attain balance of the environmental, social, and economic priorities that are relative to the chocolate industry. The 'North' should have a moral responsibility to improve livelihoods in the 'South'.

[JMG: Higher demand for chocolate may create implications with the ability to supply. Better integration to balance the system as whole is required.]

### Alternate Trade and Decisions in the Food Chain

New business models have slowly emerged linking cacao small-scale farmers to consumers in the confectionary segment of the bean-to-bar, namely the tree-to-bar. These business models have originated in the 'North Nations' through entrepreneurial initiatives advocating for an ethical and disintermediated supply chain.

[JMG: New business models advocate for an ethical and more liberalized supply chain.]

The actors that integrate the tree-to-bar include the crafter and small-scale farmer being synonymous with producer. Examples of crafters include Hummingbird Chocolate Maker in Canada, Divine Chocolate in the United Kingdom, and Theo's Chocolate in the United States of America. The latter being a pioneer in advocating for the improvement of cacao producers' livelihoods.

[JMG: Crafters focus on improving small-scale farmers' livelihood.]

Although, tree-to-bar crafters could transact with producers that are part of Fairtrade, these crafters are not limited by certification schemes. Incentives to producers include equal or higher than commodity market prices which are based on produce characteristics such as species and quality. Some crafters and producers may opt for other certifications such as UTZ and Rainforest Alliance which have

recently created a partnership for stronger impact in sustainability including economic, social and environmental dimensions. In January 2018, the partnership created aims to provide producers a framework to improve livelihoods and protect the land to work and live.

[JMG: Crafters consider other factors besides price premiums to provide equitable benefits and improve livelihoods.]

Crafters such as Theo's Chocolate and Hummingbird Chocolate Maker have gone beyond certifications by devoting time in the lives of the small-scale farmers and by enabling producers to thrive by establishing trust and developing direct relationships, namely an alternate trade business model. Specifically, Erica Gilmour, founder of Hummingbird Chocolate Maker states that farmers obtain better price premiums than Fairtrade, and Gilmour advocates for ethically sourced cacao without child labour.

[JMG: Crafters develop relationships with farmers, and focus on human rights and equitable compensation.]

In 2016, Hummingbird Chocolate Maker received the Golden Bean award from the UK-based Academy of Chocolate. This was possible through careful processing of artisanal chocolate sourced from ecological organic cacao beans in cooperation with ÖKO Caribe, a cacao producer with relationships with over 160 small-scale farmers in San Francisco De Macoris, Dominican Republic. Similar to Hummingbird chocolate Maker, ÖKO Caribe founders' Gualberto Torrejon and Adriano Rodriguez work closely with other small-scale farmers for training and funding. Recently, ÖKO Caribe founders have established a chocolate processing educational facility in Dominican Republic to bring community awareness and teach children how chocolate is prepared. The founders argue that the majority of 'raw' cacao is exported and there is a need to bring greater awareness on local processing of cacao beans into chocolate tablets which can then be exported, and the consumption of 'local' processed cacao into 'chocolate' as opposed to importation of ready-to-eat chocolate from other countries for which ironically are sourced from 'North Nations'.

[JMG: Crafters find success in business by forming on relationships. Crafters and producers make sense of requirements (price and resources) and establish awareness in communities. Producers make sense of opportunities to improve local business and break away from conventional dependency. Producers want a more liberalized and democratic system that enable choice.]

This should support both a business case for sustainability and a case for improving livelihoods and the reduction of poverty. The business case is possible by increasing industrious practice in the local



context and disintermediating the current conventional supply chain and creating a more liberalized trading system where actors are able to exercise choice at the local echelons of the supply chain in contrast to the fragmented process found in the conventional supply chain that is ultimately dominated by Multinational corporations and leads to market-driven resource decline.

[JMG: Alternative trade models could change and improve livelihoods. This contrast with the having shorter supply chain conventional supply chain being shorter, and with greater choice and flexibility in the local context, breaking away from industry domination.]

Similarly, Hummingbird Chocolate Maker engages small-scale farmers in the nearby region of Bicknell's Thrush Reserve (Reserva Zorzal). This scientific reserve is privately funded by the small-scale farmers to be 70% forever-wild. Small-scale farmers participate in land and biodiversity conservation while at the same time make use of the land to harvest the world's finest organic cacao native to the environment. This engagement involves several stakeholders including small-scale farmers, government agencies, scientists, not-for-profit organizations, chocolate crafters and investors.

[JMG: Crafters engage farmers and the community of stakeholders in environmental conservation.]

[JMG: New business models that go beyond certification + build relationships in shorter less fragmented supply chains are emerging.]

While crafters and some producers claim that this alternate trade business model improves sustainability and livelihoods, and therefore the reduction of poverty, agreement or rejection of the claim from small-scale farmers is absent.

[JMG: Small-scale farmers require a voice in the world community.]

### Temporal Sensemaking and Decisions in Alternate Trade

Therefore, this raises questions primarily within the local context for the small-scale farmers, including, how these stakeholders 'make sense' of priorities considering a past and present orientation in order to make decisions for the future. Whereby, the 'making sense' namely as sensemaking, is defined as a process prompted by interruptions that fail to conform to expectations.

[JMG: There is a requirement to enquire what priorities mean in the local context. Sensemaking is a process prompted by Interruptions of divergent expectations.]

These interruptions are characterized in experiences, each interruption contains a beginning and ending that are truncated in temporal phenomena of past, present, or future. The interruptions are casted in experiences.

[JMG: Temporal sensemaking is grounded in events, whether experienced or not.]

Divergent <sup>ing</sup> expectations from events arise from differences of the anticipated results. Making sense occurs through the use of cues that subjectively interlink temporal dimensions and the transitory spaces as a continuous <sup>reflecting continuously</sup> reflective process; whereby, some scholars refer to this concept as 'sequence'. However, sequence in itself provides a false meaning as these transitory spaces enable the reformulation of experience by providing flow between temporalities rather than demarcating the experience by the temporal orientation of the interruption. The reformulation of experience is enacted <sup>ing</sup> and re-enacted <sup>ing</sup> to make sense of the interruption by realignment of order in expectations serendipity or until the reformulation is abandoned. As a process sensemaking could be influenced by fallacies as the realignment of order in expectations may be subject to logic that is constructed with information that is either omitted or unknown. Logic that may not always be salient to the small-scale farmers or crafters having a dependency on what level of involvement exists and to what extent <sup>relationships</sup> relationships are held in the disintermediated supply chain. More specifically, what and how <sup>making</sup> decisions are made (individual or collective) and; what and how are <sup>managing</sup> priorities managed including environmental, social, and economic.

[JMG: Sensemaking is a continuous process and reformulation of experiences are not limited by temporality. Formulation logic could be independent of awareness and subject to biases, and therefore subject to abandonment.]

[HS: How is reformulation measured or captured?]

[JMG: Capturing reformulation to be possibly addressed in methods.]

The level of involvement between small-scale farmers and crafters could vary and exert influence in the dyadic <sup>varying relationships</sup> decision-making approach, presuming that one exists this could lead to coordinated action based on consensus. Dialectically this suggests that <sup>each having</sup> implications and limitations should exist, and resolving tensions could be moderated by the type of dyadic relationship. Whereby, a better or worse relationship could result in very different sensemaking dynamics, leading to increased complexity of how the different dyads approach the decision-making process and having influence on how small-scale farmers ultimately manage the implications for labour, property rights and resource management such as workers, land, and trees. Furthermore, this considers the implications and limitations of an alternate trade model on the ability to make decisions that are democratic and by own choice within a certain future oriented temporal depth.





[JMG: A research requirement may exist to contrast groups.]

This leads to greater complexity in theorization of sensemaking, whereby evidence of <sup>embodying</sup> thematic transformation between the crafter and small-scale farmer may surface. Thematic transformation may shape how actors and dyads add experience to the sensemaking process by re-conceptualizing events which are being cyclically re-shaped through iterations, and therefore, adapted re-conceptualizations are then re-iterated. While this semantic transformation isn't empirical, it paves the way for understanding an extraction and interpretative process of sensemaking between events and experiences. <sup>relationship between</sup>

[JMG: The relationship between crafter and farmer may re-shape how these actors <sup>make sense</sup> of priorities for the decision-making. Collective influence <sup>unknown</sup> may enable greater understanding of sensemaking.]

This transformation process further enables mechanisms that may be responsible for creating new flux and could break the schism between conventional thinking towards innovative modes of thought that could serve a future oriented temporal depth. For example, theoretical propositions that attempt to balance small-scale farmer's livelihoods by evaluating options that are available within different sustainability dimensions such as social and economic.

[JMG: Thematic transformation may surface mechanisms that could be explored in future research.]

While this process may utilize cross-temporal orientations, one that is mostly claimed as retrospective sensemaking by making use of past and present experiences that projects into a possible future or prospective sensemaking as claimed by other scholars, where retrospective embeddedness predominates; this thought moves towards sensemaking becoming a continuous process. From an interpretative phenomenological perspective, this enables grounding of conventional practice, experiences and events that have taken place empirically; while, generating alternative modes of thought for sensemaking that take place at the cognitive level and may further surface tensions that have gone unnoticed.

[JMG: Sensemaking research enables new <sup>the unobservable</sup> understanding that may not be observable by experiences only.]



## Appendix C – Construct Identification and Classification

Constructs are classified as [A], [B], [C], and [D] in a sequence of preference. Where [A] constructs are preferred over [B], or [B] over [C], or [C] over [D]. All constructs are linked to a primary literature perspective. These include, Sustainability Priorities [SP], Trade-based tensions [IT], and, Sensemaking [SM]. Where the value [TRUE] signifies the construct is interpreted as existing for the given dimension, and [FALSE] signifies the construct is not – in contrast to [TRUE].

List and analysis of [A] constructs...

[A] Constructs			DIMENSION		
ConceptSourceName	ConstructID	ConstructName	SP	IT	SM
Sustainability Priorities	1	engaging tensions	TRUE	TRUE	TRUE
Sustainability Priorities	22	managing resources	TRUE	TRUE	TRUE
Inter-trade-based tensions	73	polarizing humanity livelihood	TRUE	TRUE	TRUE
Inter-trade-based tensions	74	polarizing physical world well-being	TRUE	TRUE	TRUE
Inter-trade-based tensions	75	achieving short and long term goals	TRUE	TRUE	TRUE
Inter-trade-based tensions	76	conflicting demands between sub-systems	TRUE	TRUE	TRUE
Inter-trade-based tensions	77	contributing to economic exploitation	TRUE	TRUE	TRUE
Inter-trade-based tensions	78	attaining environmental, social, and economic balance	TRUE	TRUE	TRUE

Inter-trade-based tensions	79	triggering intergenerational equity	TRUE	TRUE	TRUE
Sense-making	175	affecting collective priorities	TRUE	TRUE	TRUE
Sense-making	176	affecting individual priorities	TRUE	TRUE	TRUE
Sense-making	177	attaining generational stability	TRUE	TRUE	TRUE
Sense-making	178	enacting trade-offs	TRUE	TRUE	TRUE
Sense-making	179	making use of experiences	TRUE	TRUE	TRUE
Sense-making	180	reformulating experience	TRUE	TRUE	TRUE
Sense-making	181	sensemaking between events	TRUE	TRUE	TRUE
Sense-making	182	sensemaking between experiences	TRUE	TRUE	TRUE

List and analysis of [B] constructs...

[B] Constructs			DIMENSION		
ConceptSourceName	ConstructID	ConstructName	SP	IT	SM
Sustainability Priorities	33	mindshift change	TRUE	FALSE	TRUE
Sustainability Priorities	34	preventing resource negative effects	TRUE	FALSE	TRUE
Sustainability Priorities	35	influencing effects	TRUE	FALSE	TRUE
Sustainability Priorities	36	reducing poverty in present	TRUE	FALSE	TRUE

Sustainability Priorities	37	experiencing hunger	TRUE	FALSE	TRUE
Sustainability Priorities	38	surfacing tensions	TRUE	FALSE	TRUE
Sustainability Priorities	39	advocating for ethically sourced cacao	TRUE	FALSE	TRUE
Inter-trade-based tensions	143	prioritizing ideal outcomes	TRUE	FALSE	TRUE
Inter-trade-based tensions	144	linking social prosperity	TRUE	FALSE	TRUE
Inter-trade-based tensions	145	linking social marginalization	TRUE	FALSE	TRUE
Inter-trade-based tensions	146	enabling assessment of sustainability	TRUE	FALSE	TRUE
Inter-trade-based tensions	147	ignoring abuse in industry	TRUE	FALSE	TRUE
Inter-trade-based tensions	148	considering sustainability wider implications	TRUE	FALSE	TRUE
Inter-trade-based tensions	149	lacking engagement	TRUE	FALSE	TRUE
Inter-trade-based tensions	150	going beyond certifications	TRUE	FALSE	TRUE
Inter-trade-based tensions	151	conceptualizing the end	TRUE	FALSE	TRUE
Sense-making	183	bringing awareness on local processing	TRUE	FALSE	TRUE
Sense-making	184	bringing community awareness	TRUE	FALSE	TRUE
Sense-making	185	contributing to prioritization	TRUE	FALSE	TRUE
Sense-making	186	having a moral responsibility	TRUE	FALSE	TRUE

Sense-making	187	having influence on small-scale farmers	TRUE	FALSE	TRUE
Sense-making	188	influencing collectively	TRUE	FALSE	TRUE
Sense-making	189	making sense of priorities	TRUE	FALSE	TRUE
Sense-making	190	making sense of requirements	TRUE	FALSE	TRUE

List and analysis of [C] constructs...

[C] Constructs			DIMENSION		
ConceptSourceName	ConstructID	ConstructName	SP	IT	SM
Sustainability Priorities	2	attaining change	TRUE	TRUE	FALSE
Sustainability Priorities	3	prioritizing across time	TRUE	TRUE	FALSE
Sustainability Priorities	4	balancing system holistically	TRUE	TRUE	FALSE
Sustainability Priorities	5	sustaining change	TRUE	TRUE	FALSE
Sustainability Priorities	6	creating value	TRUE	TRUE	FALSE
Sustainability Priorities	7	maintaining resources	TRUE	TRUE	FALSE
Sustainability Priorities	8	balancing resources	TRUE	TRUE	FALSE
Sustainability Priorities	9	supporting human life	TRUE	TRUE	FALSE
Sustainability Priorities	10	maintaining ecological systems	TRUE	TRUE	FALSE
Sustainability Priorities	11	competing for resources	TRUE	TRUE	FALSE
Sustainability Priorities	12	regenerating resources	TRUE	TRUE	FALSE
Sustainability Priorities	13	supplying humanity basic needs	TRUE	TRUE	FALSE
Sustainability Priorities	14	supplying food	TRUE	TRUE	FALSE
Sustainability Priorities	15	maintaining livelihoods	TRUE	TRUE	FALSE
Sustainability Priorities	16	maintaining food resources	TRUE	TRUE	FALSE

Sustainability Priorities	17	increasing food resources	TRUE	TRUE	FALSE
Sustainability Priorities	18	re-entering poverty	TRUE	TRUE	FALSE
Sustainability Priorities	19	reducing poverty in the future	TRUE	TRUE	FALSE
Sustainability Priorities	20	sustaining development	TRUE	TRUE	FALSE
Sustainability Priorities	21	treating in isolation	TRUE	TRUE	FALSE
Sustainability Priorities	23	attaining sustainability	TRUE	TRUE	FALSE
Sustainability Priorities	24	improving sustainability	TRUE	TRUE	FALSE
Sustainability Priorities	25	enabling to provide producers a framework	TRUE	TRUE	FALSE
Sustainability Priorities	26	protecting the land	TRUE	TRUE	FALSE
Sustainability Priorities	27	sourcing from ecological cacao	TRUE	TRUE	FALSE
Sustainability Priorities	28	working with small-scale farmers	TRUE	TRUE	FALSE
Sustainability Priorities	29	providing funding	TRUE	TRUE	FALSE
Sustainability Priorities	30	processing local chocolate	TRUE	TRUE	FALSE
Sustainability Priorities	31	increasing industrious practice	TRUE	TRUE	FALSE
Sustainability Priorities	32	participating in bio-diversity conservation	TRUE	TRUE	FALSE
Inter-trade-based tensions	95	demanding from the north	TRUE	TRUE	FALSE
Inter-trade-based tensions	96	supplying from the south	TRUE	TRUE	FALSE
Inter-trade-based tensions	97	depending on economic subsystem	TRUE	TRUE	FALSE
Inter-trade-based tensions	98	maintaining current generation	TRUE	TRUE	FALSE
Inter-trade-based tensions	99	providing future generation opportunities	TRUE	TRUE	FALSE
Inter-trade-based tensions	100	using conventional or alternative trade	TRUE	TRUE	FALSE

Inter-trade-based tensions	101	using resources without degrading resources	TRUE	TRUE	FALSE
Inter-trade-based tensions	102	living on unfair wages	TRUE	TRUE	FALSE
Inter-trade-based tensions	103	earning below poverty line	TRUE	TRUE	FALSE
Inter-trade-based tensions	104	achieving equity	TRUE	TRUE	FALSE
Inter-trade-based tensions	105	arising tensions from degradation	TRUE	TRUE	FALSE
Inter-trade-based tensions	106	exploiting the physical world	TRUE	TRUE	FALSE
Inter-trade-based tensions	107	exploiting humanity	TRUE	TRUE	FALSE
Inter-trade-based tensions	108	achieving economic gains	TRUE	TRUE	FALSE
Inter-trade-based tensions	109	achieving social responsibility	TRUE	TRUE	FALSE
Inter-trade-based tensions	110	achieving environmental responsibility	TRUE	TRUE	FALSE
Inter-trade-based tensions	111	being a fragmented industry	TRUE	TRUE	FALSE
Inter-trade-based tensions	112	providing assurance to small-scale farmers	TRUE	TRUE	FALSE
Inter-trade-based tensions	113	enabling strategic initiative	TRUE	TRUE	FALSE
Inter-trade-based tensions	114	growing more sustainably	TRUE	TRUE	FALSE
Inter-trade-based tensions	115	providing price premium guarantees	TRUE	TRUE	FALSE
Inter-trade-based tensions	116	tensions arising from distributing benefits	TRUE	TRUE	FALSE
Inter-trade-based tensions	117	bringing farming communities out of poverty	TRUE	TRUE	FALSE
Inter-trade-based tensions	118	enabling intergenerational equity	TRUE	TRUE	FALSE
Inter-trade-based tensions	119	lacking economic incentives	TRUE	TRUE	FALSE
Inter-trade-based tensions	120	experiencing an aging population	TRUE	TRUE	FALSE
Inter-trade-based tensions	121	driving generations away from industry	TRUE	TRUE	FALSE

Inter-trade-based tensions	122	producing demand and supply balance	TRUE	TRUE	FALSE
Inter-trade-based tensions	123	advocating for an ethical and disintermediated supply chain	TRUE	TRUE	FALSE
Inter-trade-based tensions	124	considering effects of seasonality	TRUE	TRUE	FALSE
Inter-trade-based tensions	125	considering effects of harvesting	TRUE	TRUE	FALSE
Sense-making	243	balancing tensions	TRUE	TRUE	FALSE
Sense-making	244	balancing tensions across time	TRUE	TRUE	FALSE
Sense-making	245	managing priorities	TRUE	TRUE	FALSE
Sense-making	246	providing incentives to producers	TRUE	TRUE	FALSE
Sense-making	247	serving future oriented depth	TRUE	TRUE	FALSE

List and analysis of [D] constructs...

[D] Constructs			DIMENSION		
ConceptSourceName	ConstructID	ConstructName	SP	IT	SM
Sustainability Priorities	51	capturing end-to-end effects	FALSE	TRUE	TRUE
Sustainability Priorities	52	balancing management of resources	FALSE	TRUE	TRUE
Sustainability Priorities	53	enabling livelihood	FALSE	TRUE	TRUE
Sustainability Priorities	54	preventing economic divide	FALSE	TRUE	TRUE

Sustainability Priorities	55	balancing needs of nations	FALSE	TRUE	TRUE
Sustainability Priorities	56	pursuing needs	FALSE	TRUE	TRUE
Sustainability Priorities	57	creating rapid growth	FALSE	TRUE	TRUE
Sustainability Priorities	58	creating economic growth	FALSE	TRUE	TRUE
Sustainability Priorities	59	eradicating poverty	FALSE	TRUE	TRUE
Sustainability Priorities	60	involving in agriculture	FALSE	TRUE	TRUE
Sustainability Priorities	61	developing priorities	FALSE	TRUE	TRUE
Sustainability Priorities	62	becoming salient	FALSE	TRUE	TRUE
Sustainability Priorities	63	improving livelihoods	FALSE	TRUE	TRUE
Sustainability Priorities	64	enabling producers to thrive	FALSE	TRUE	TRUE
Sustainability Priorities	65	reducing poverty	FALSE	TRUE	TRUE
Sustainability Priorities	66	engaging small-scale farmers	FALSE	TRUE	TRUE
Sustainability Priorities	67	involving stakeholders	FALSE	TRUE	TRUE
Inter-trade-based tensions	80	surfacing tensions	FALSE	TRUE	TRUE
Inter-trade-based tensions	81	accentuating iterations between tensions and outcomes	FALSE	TRUE	TRUE
Inter-trade-based tensions	82	transcending tensions across	FALSE	TRUE	TRUE
Inter-trade-based tensions	83	considering chocolate luxury	FALSE	TRUE	TRUE



Inter-trade-based tensions	84	raising further tensions	FALSE	TRUE	TRUE
Inter-trade-based tensions	85	juxtaposing decisions	FALSE	TRUE	TRUE
Inter-trade-based tensions	86	becoming a luxury food	FALSE	TRUE	TRUE
Inter-trade-based tensions	87	contributing to communities	FALSE	TRUE	TRUE
Inter-trade-based tensions	88	deciding on community and business investments	FALSE	TRUE	TRUE
Inter-trade-based tensions	89	affecting communal investment	FALSE	TRUE	TRUE
Inter-trade-based tensions	90	dispersing benefits to wider community	FALSE	TRUE	TRUE
Inter-trade-based tensions	91	attaining better integration between the poverty and business case	FALSE	TRUE	TRUE
Inter-trade-based tensions	92	succeeding in business	FALSE	TRUE	TRUE
Inter-trade-based tensions	93	disintermediating	FALSE	TRUE	TRUE
Inter-trade-based tensions	94	cooperating between actors	FALSE	TRUE	TRUE
Sense-making	191	adopting trade-based tensions	FALSE	TRUE	TRUE
Sense-making	192	balancing small-scale farmers' livelihoods	FALSE	TRUE	TRUE
Sense-making	193	being cyclically re-shaped	FALSE	TRUE	TRUE
Sense-making	194	being dependent on relationships	FALSE	TRUE	TRUE
Sense-making	195	bringing in more stakeholders' concerns	FALSE	TRUE	TRUE
Sense-making	196	considering implications of alternative trade	FALSE	TRUE	TRUE
Sense-making	197	considering limitations of alternative trade	FALSE	TRUE	TRUE
Sense-making	198	contrasting position of alternative trade	FALSE	TRUE	TRUE
Sense-making	199	contrasting tensions	FALSE	TRUE	TRUE
Sense-making	200	creating awareness	FALSE	TRUE	TRUE
Sense-making	201	creating new flux	FALSE	TRUE	TRUE

Sense-making	202	diagnosing with crafters	FALSE	TRUE	TRUE
Sense-making	203	diverging expectations	FALSE	TRUE	TRUE
Sense-making	204	enabling flexibility in decisions	FALSE	TRUE	TRUE
Sense-making	205	enabling mechanisms	FALSE	TRUE	TRUE
Sense-making	206	evaluating options	FALSE	TRUE	TRUE
Sense-making	207	exerting influence in decisions	FALSE	TRUE	TRUE
Sense-making	208	failing to conform to expectations	FALSE	TRUE	TRUE
Sense-making	209	having implications	FALSE	TRUE	TRUE
Sense-making	210	having limitations	FALSE	TRUE	TRUE
Sense-making	211	increasing complexity	FALSE	TRUE	TRUE
Sense-making	212	influencing decision making	FALSE	TRUE	TRUE
Sense-making	213	integrating the tree-to-bar	FALSE	TRUE	TRUE
Sense-making	214	linking past present and future	FALSE	TRUE	TRUE
Sense-making	215	making sense of relationships	FALSE	TRUE	TRUE
Sense-making	216	making sense of interruptions	FALSE	TRUE	TRUE
Sense-making	217	moderating tension resolution	FALSE	TRUE	TRUE
Sense-making	218	providing flow between temporalities	FALSE	TRUE	TRUE
Sense-making	219	realigning expectations	FALSE	TRUE	TRUE
Sense-making	220	reconciling tensions	FALSE	TRUE	TRUE
Sense-making	221	resolving tensions	FALSE	TRUE	TRUE
Sense-making	222	surfacing tensions	FALSE	TRUE	TRUE
Sense-making	223	utilizing cross-temporal orientations	FALSE	TRUE	TRUE

## Appendix D – Construct Merger and Identification to Key Literature

List of constructs identified and matched to key literature, primarily to *'The Academy of Management'* publications (coloured in green).

Concept/ID	Blue = Merged Constructs			References (Green = Academy of Management ...; White = Other)													
	Construct	Merge with	keyword used in database	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Actors engage processes to meet short term goals that are prioritized over long term goals	achieving short over long term goals		short-term; long-term	Reinecke, Das, T. K. a	Schad, J., I	Smith, W. Smith, W. Wright, C.											
The relationship between actors may shape how the actors make sense of information for decision-making that is based on collective priorities.	affecting collective priorities		collective; priorities	van Bomm	Fan, G. H.	Staudenm	Ivory, S. B	Moon, J.,	Gladwin, I	Sundaram	Felin, T., F	Poole, M.					
The relationship between actors may shape how the actors make sense of information for decision-making that is based on individual priorities.	affecting individual priorities	affecting collective priorities	individual; priorities	Fan, G. H.	Felin, T., F	Poole, M.	Slawinski,										
Actors make sense of how to balance sub-system requirements that transcend across dimensions that include the environmental, social, and economic.	attaining environmental, social, and economic balance		balancing; both/and; interplay	Smith, W.	Miron-Spe	Sundaram	Slawinski,	Jarabkow	Cameron,	Putnam, L	Schad, J., I	Crossan, N	Lewis, M.	Sharma, G			
Actors use sense making as a process to make decisions that aim towards attaining opportunities in the food chain for future generations.	attaining generational stability		generational equity	Hahn, T., F	Hahn, T., F	Bolis, I., M	Gladwin, T.										
The environmental, social, and economic subsystems create competing demands for actors	conflicting demands between sub-systems		conflicting demands; between sub-systems	Smith, W.													
Demand and supply of product in the conventional food chain contributes to economic exploitation of actors upstream.	contributing to economic exploitation		economic exploitation	Crane, A.	(Tregear, A												
Actors may enact either/or trade-offs as a result of decision making in the short term rather than long term.	enacting trade-offs		enact; trade-offs	Orlikowski	Lüscher, L	Besharov, Maitlis, S.	Poole, M.	Putnam, L	Schad, J., I	Wright, C.							
Decisions between economic, social, and environmental aspects give rise to tension	engaging tensions		engage; tension	Putnam, L	Andriopoulos, van de Ven, van c	Wright, C.	Smith, W. Smith, W. Schad, J., I	Reinecke, Putnam, L	Mitchell, F	Kunisch, S	Granqvist, Fan, G. H.						
Past and present experiences enables making sense of a possible future.	making use of experiences		making use; experience	Smith, W.	Stigliani, I												
Trade-offs of economic resources, human resources and time	managing resources		managing resources	Teng, B.-S													
Economic divide between nations leads to polarization of livelihoods.	polarizing humanity livelihood		humanity; livelihood	Gladwin, T													
Increase demand of commodity from North Nations creates resource demands in the South that polarizes the physical world.	polarizing physical world well-being		polarizing; physical world; well-being	Gladwin, T													
Actors re-conceptualize making sense of experiences as a cyclical process to project onto a future.	reformulating experience		morphogenetic; dialectical; synthesis	Poole, M.	Jay, J. (201	Schad, J., I											
Understanding and extracting information between events, enables making sense as an iterative process.	sensemaking between events		between events	Ancona, D	Hernes, T.	Blueborn,	Kunisch, S										
Understanding and extracting information between experiences, enables making sense as an iterative process.	sensemaking between experiences	sensemaking between events	sensemaking; between experience	Smith, W.													
Competing tensions for resources amongst actors affects the balance of intergenerational equity upstream.	triggering intergenerational equity		intergenerational equity; generational	Chapardar	Gladwin, T	Slawinski,											

## **Appendix E – Sampling: Characteristics and Identification of Informants**

### *Establishing the Characteristic of Different Models of Trade for Sampling*

#### *Purposes*

As mentioned earlier, the movements that lead raw-product to semi- or final-product states are categorized as bean-to-bar, farm-to-bar, and tree-to-bar. The last is also known as ‘radical chocolate’. While in practice, movement demarcation is blurred, understanding movement differences in the value chain by the market stakeholders becomes important for *Target Sampling Identification and Selection* (Proceeding in the next two sections). For example, a producer that grows cacao and processes the cacao into a final chocolate bar belongs to the tree-to-bar movement; in contrast, a crafter that sources cacao from a consolidator and creates a chocolate bar for sale, belongs to the bean-to-bar movement. These movements are helpful for demarcating the involvement of informants in the sampling process and potentially illustrating that multiple roles may be at play be one informant.

The bean-to-bar movement has inspired entrepreneurial activity for chocolate start-ups that source cacao beans considering ethical and sustainable principles. While some crafters source the cacao beans from specific regions and specific producers; crafters, may also source beans through an importer that acts as the logistics partner, or a consolidator which have a direct relationship and access to various producers. Crafters use the sourced cacao beans for the production of retail chocolate products. The bean-to-bar term is often contrasted by crafters as ‘not a candy bar’ as the bean-to-bar products tend to use pure and natural ingredients, and are processed with a high degree of manual labour, typically in small batch size quantities.

The farm-to-bar movement is comprised of crafters that own and manage a cacao plantation and make use of the cacao beans by importing the product and using the product in the chocolate making process for retail. While, the farm-to-bar movement advocates for ethical and sustainable principles, a farm-to-bar product is clearly identified on a business card, website, and or the product packaging as opposed to being a bean-to-bar product.

The tree-to-bar movement is not likely to exist in the *north nations*, as this type of movement belongs exclusively to the producers that own and manage cacao plantations in the *south nations*, and make use of the harvested cacao beans to produce retail chocolate products locally.

The tree-to-bar movement is known in the market as ‘Radical Chocolate’. Products are often retailed at domestic levels, while some are exported. An example of such unique approach is the Granada Chocolate Company led by Mott Green, located in St. Patrick, Granada. Yet, the Granada Chocolate Company identifies itself within the bean-to-bar movement. In addition, Nina located in Chazuta, San Martín, Perú is yet another example, where cacao farming, processing, and chocolate making and packaging is conducted on-site. Nina identifies itself as a tree-to-bar operation.

In general, these three movements provide an interpretation of proximity or closeness to the land. For example, the tree-to-bar movement is closest to the people and the land, the bean-to-bar movement is relatively farthest from the land, however, close to the producers.

While these movements are acknowledged in this study, informant identification within each movement enables a more structured data collection planning process and contribute to the trustworthiness of the study by establishing a clear identification and selection process; however, it does not imply that informants will be fitted into these categories. As mentioned in practice, the demarcation between movements is blurred by the activity enacted by each informant in the value chain.

### *Crafter Target Identification for Sampling Purposes*

I utilized a variety of inquiry techniques for the identification of crafters for sampling purposes. This included: a) internet searches; b) visits to local Canadian retail outlets, and c) attending the 2019 Chocolate Winter Fest Show. The latter provided a unique opportunity to get to know almost all of the crafters across Canada, under one roof. Prior to attending the 2019 Chocolate Winter Fest event, I had pre-screened the crafter businesses by performing an internet search and assessing the potential for each crafter to participate in the study. On February 2<sup>nd</sup>, 2019 the Winter Chocolate Show was hosted in Toronto, Ontario. This was the first event held for bean-to-bar chocolate makers (see <https://www.thewinterchocolateshow.com/exhibitors/>). This event provided a unique opportunity to meet each crafter and establish informal communication. Each crafter was assessed for a purposeful sample qualification. The inquiry process criterion included identifying the: a) movement type, b) where and how the cacao beans were sourced; and c) where and how the chocolate was crafted. Information pertaining to the crafters was collected such as, light researcher notes, photos, and, pamphlets and company information, and product packaging which are considered artefacts in this study.

One of the crafters, namely 'Tribe Chocolate', introduced the researcher to a logistics provider (I1) attending the 2019 event. The logistics provider was very well known by the majority if not all the crafters and sponsors of the event. This led the researcher to establish informal relationships with the crafters and the importer.

After conducting a face-to-face interview with the logistics provider, I utilized information from websites, informal conversations and observations at some of the local retail shops to classify crafters as an attempt to narrow the potential informants for the study.

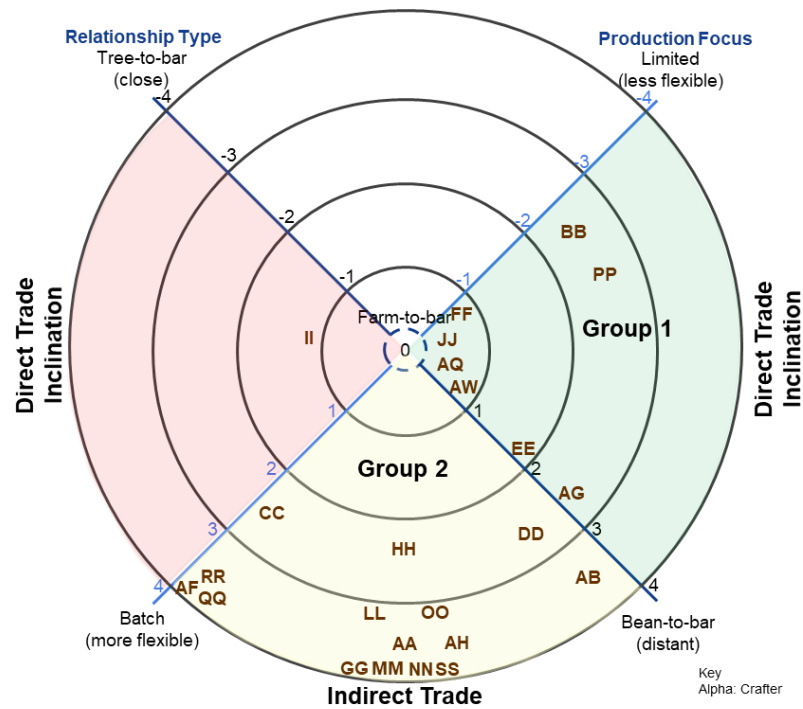
The informants in this study may identify themselves as being part of a movement or as having an established role within the value chain. From a hierarchical perspective, movements precede role and need to be considered. In this study, informants' identification may lead to different views on concerns and how these are interpreted.

Logistics providers are of particular importance as this type of stakeholder knows the crafters and the producers in many countries and regions.

The target case selection for sampling purposes in this study takes the alternative trade movement type into consideration; whereby, each actor takes on a role such as the producer, consolidator, logistics provider, or crafter.

This characterization may influence how the actors perceive 'ownership' of processes along the value chain (see Figure 1) and hence, this may affect the priorities and choices.

Figure 1 Crafter-Producer Relationship Radar



Source: illustrated by author

The relationship and production focus were mapped against one another on a nine-point scale to cluster the types of relationship and produce the radar diagram. The scale assumes [0] as a neutral position or an intermediate position to relationship type and production focus. Whereby, [-4] indicates a greater proximity to the producer and therefore the land, and [4] least amount of proximity to the producer and the land. Therefore, providing an interpretation of inclination towards a certain movement and approximation of a focus that pivots on whether a crafter leans towards a constructed reality that suggests a more business-oriented view or social activity, interpreted as a way to promote social and environmental good or in other words, sustainable development.

A second identification criteria is the production focus. Crafters appear to associate amount or quantity of production of the final product with amount of involvement and therefore, proximity or closeness to producers. For example, some crafters such as [RR] tend to be on a pursuit for sourcing beans through importers to satisfy a larger rather than small production batch. While



others, such as [BB] specifically focus its sourcing efforts on four producers by not only sourcing cacao beans directly but also sourcing additional ingredients such as vanilla beans or cardamom to provide an economic uplift to the producer. The production focus incorporates limited at one end of the criteria to batch at the opposite end of the criteria. Logically, this reflects that batches could be composed of cacao beans from various producers; while limited, is suggestive of originating from a single producer. Therefore, the amount of involvement between the crafter and producer is higher towards the ‘limited’ extent of the criteria as opposed to the batch extent of the criteria. *During the sampling criteria the tree-to-bar movement was theorized; however, there weren’t any potential informants that fitted into the tree-to-bar category and the quadrant of the Crafter-Producer Relationship Radar was intentionally left blank.*

The relationship type and production focus have been determined as I have already discussed earlier in this section by plotting each company name into a radar chart as interpreted. This has led to a tabulation of crafters for sampling purposes (*see* Table 1) linking the codes to the name of the businesses.

Table 1 Crafter Group Analysis for Sampling Purposes

Company Name	Crafter Unique Identifier	Type	Relationship Type	Production Focus	Case Group
Kin+Pod Chocolate	AA	Crafter	4	4	2
Sirene Chocolate	BB	Crafter	2	-3	1
Aschenti Cocoa	CC	Crafter/Importer	0	3	2
Petite Patrie Fine Chocolate	DD	Crafter	3	3	2
Hummingbird Chocolate	EE	Crafter	2	0	1
Tribe Chocolate	FF	Crafter	-1	0	1

Ultimately Chocolate	GG	Crafter	4	4	2
Cóco Chocolate Company	HH	Crafter	3	3	2
Chocosol Traders	II	Crafter/Importer	-2	1	3
Soma Chocolatemaker	JJ	Crafter	2	2	1
DesBarres Chocolate	LL	Crafter	3	4	2
Center and Main Chocolate Co.	MM	Crafter	4	4	2
Sweetness Chocolate	NN	Crafter	4	4	2
Habitual Chocolate	OO	Crafter	3	4	2
Avanaa	PP	Crafter	3	-3	1
Cacao 70	QQ	Crafter/Importer	4	4	2
Palette de Bine	RR	Crafter	4	4	2
Chocolats Monarque	SS	Crafter	4	4	2
Qantu	AW	Crafter	1	1	2
Choklat	AB	Crafter	4	1	1
Coco-Labo aka Coconama	AF	Crafter	4	4	2
East Van Roasters	AG	Crafter	3	0	2
Kasama	AH	Crafter	3	4	2
Soul Roasters	AQ	Crafter	1	0	1

Source: compiled by author

### *Primary Group*

The crafters in group one identifies themselves with the origins and aroma of the heirloom cacaos. The businesses primarily operate as a couple (such as, with a spouse). This group recognizes the land, the relationship with the cacao plantations and the closeness associated with producers. While the businesses identify themselves with philanthropic works and have a commitment to improving livelihoods, these businesses have obtained significant business growth over the last few years. The businesses work with importers and small producers through direct trade and support the concept of sustainable agricultural practices. This heightens the importance of sourcing cacao and other ingredients ethically, fairly, and sustainably. While

the concept of single origin is important to these businesses, other origins are available which enables some flexibility in product selection while at the same time having access to limited or exclusive cacao beans that are sourced from specific producers in specific regions, such as scientific or indigenous reserves.

The businesses highlight the consistent high-quality of cacao beans provided by the small producers. In addition, the businesses tend to promote the production of ‘criollo’ or ‘national’ cacao moving away from bioengineered species such as CCN-51.

### *Secondary Group*

Crafters in group two suggest a batch focus with greater flexibility and a distant bean-to-bar relationship. The businesses in the secondary group are not wedded to sourcing cacao beans from producers only and may use importers or logistics provider to source the product, including cooperatives. The businesses are less concerned with tensions upstream in the value chain and tend to focus downstream towards the customer base. The relationship is based on a transactional approach, appearing as an arm’s length relationship with the farming community and its producers.

While some businesses claim transparency, integrity, and passion, the businesses in this group are known for a bold and pragmatic approach on how issues are made sense of through the website blog material. Businesses allude to sourcing of beans from small scale producers; while, some purchase full containers from a specific origin such as Ecuador, or associate themselves with eco-tourism locations. These businesses place less emphasis on relationships and have a greater production focus which highlights a profit-driven orientation rather than an ecological one.

### *Analytical Summary of Groupings*

Crafters that participated in the 2019 Winter Chocolate event are assigned a unique two-same-letter code (such as AA), other crafters are assigned a unique two-distinct-letter code (such as AB). This enables a simplified method to categorize crafters in research related activities. Should crafters become informants upon actual participation in the study, new identification codes are assigned.

There are two distinct groups of crafters identified (1 and 2] and a single trader and crafter [II] that suggests a deep level of involvement with cacao producers in various regions of Latin America. The single trader-crafter is isolated in the left region of the radar and does not form a group; however, this group has a direct-trade inclination based on trade practice. Four crafters appear to have a close relationship with the producers and are categorized as the Primary Group [1]. These crafters source cacao beans directly from producers and some combine sourcing of additional products from the same producers. Therefore, having a direct-trade inclination. While, fourteen crafters suggest a relationship that moves away from the producers and are categorized as the Secondary Group [2]. These crafters may source some cacao beans directly; however, most beans are sourced through a trader or importer. Therefore, an indirect trade inclination.

While crafters relationship or focus may be re-interpreted during the study, new crafters are added as the research progresses.

Group one is comprised of the primary informants of interest to the study and the investigation uses primary and secondary data; while group two serves as secondary informants for comparison purpose and uses secondary data to inform the study. Differences between groups pivots on the relationship type and focus. This is expected to elicit understanding of tensions that are based on priorities within a sustainable context.

# Appendix F – Semi-Structured Questions, Constructs and Data Sources

List of constructs and abstracted themes that are linked to initial semi-structured interview questions. This appendix includes linkages to secondary and other sources for data gathering.

Dimension	Theme	Construct	Description	Question Group	Sequence	Question Type	Question	Secondary Sources	Other Techniques
<i>Experienced Tensions</i>	Both/And Dilemmas	attaining generational stability	Actors use sense making as a process to make decisions that aim towards attaining opportunities in the food chain for future generations.	1	1	<i>Tour</i>	Walk me through, a decision that you think could have implications for future generations. How did it deliver on current priorities? How might it affect future generations?	Mission/Vision statement; Website; news paper/magazine/website articles	Narrative (stories)
<i>Experienced Tensions</i>	Both/And Dilemmas	conflicting demands between sub-systems	The environmental, social, and economic subsystems create competing demands for actors	1	2	<i>Example</i>	Please outline an example of a decision that seemed to you to be good for the environment, good for the people involved and met the financial goals of the two organizations?	Email correspondence; internal documents; personal notes	Snowball interview
<i>Experienced Tensions</i>	Both/And Dilemmas	triggering intergenerational equity / engaging tensions	Competing tensions for resources amongst actors affects the balance of intergenerational equity upstream.	1	3	<i>Prompt</i>	Could you take the most recent experience dealing with a decision that involved resource constraints on one or both sides . Can you describe how you managed that and what was accomplished?	Email correspondence; Internal documents	Snowball interview / Follow-up in-depth interview
<i>Semantic Transformation</i>	Collective Problem Solving	affecting collective priorities	The relationship between actors may shape how the actors make sense of information for decision-making that is based on collective and individual priorities.	2	4	<i>Tour</i>	Walk me through, could you outline how does your organization reach out to partners for some of the decisions? Could you describe why would that be?	Email correspondence; personal notes	Follow-up in-depth interview; Narrative (stories)
<i>Semantic Transformation</i>	Reformulation	reformulating experience	Actors re-conceptualize making sense of experiences as a cyclical process to project onto a future.	2	5	<i>Example</i>	Could you outline a time when your organization and a partner relied on past experience towards making a decision for the future? How was that decision agreed upon by the two of you? Why was that important for meeting future priorities?	Email correspondence	Interview with partner
<i>Semantic Transformation</i>	Collective Problem Solving	sensemaking between events	Understanding and extracting information from events and experiences, enables making sense as an iterative process.	2	6	<i>Prompt</i>	Could you describe how the information from the experience was used to make sense of the situation at hand. How was that helpful in coming to some sort of resolve for making decisions?	Internal documents; personal notes	Interview with partner; follow-up in-depth interview
<i>Decision Practice</i>	Decision Pattern	attaining environmental, social, and economic balance	Actors make sense of how to balance sub-system requirements that transcend across time that include the environmental, social, and economic.	3	7	<i>Tour</i>	Walk me through, when decisions involve economic, social, or environmental requirements, could you describe what are the steps your organization takes?	News paper/magazine/website articles; email correspondence	Snowball interviews; Narrative (stories)
<i>Decision Practice</i>	Decision Pattern	making use of experiences	Past and present experiences enable making sense of a possible future.	3	8	<i>Example</i>	Could you outline an example of a time when the organization got involved in improving the living conditions of a partner? What decision was made, why?	News paper/magazine/website articles; email correspondence	Snowball interviews
<i>Decision Practice</i>	Decision-Making Context	contributing to economic exploitation	Demand and supply of product in the conventional food chain contributes to economic exploitation of actors upstream.	3	9	<i>Prompt</i>	Could you describe how this example could be used for making future decisions on a similar situation? How does this echo within your organization?	Internal documents; personal notes	In-depth follow-up interview
<i>Experienced Tensions</i>	Either/Or Dilemmas	enacting trade-offs	Actors may enact either/or trade-offs as a result of decision making in the short term rather than long term.	4	10	<i>Tour</i>	Walk me through, what view does your organization take on decisions that are based on short-term outcomes? Does your organization consider long-term outcomes, or both? How do you manage these types of decisions?	News paper/magazine/website articles; email correspondence	Snowball interviews; Narrative (stories)
<i>Experienced Tensions</i>	Either/Or Dilemmas	achieving short over long term goals	Actors engage processes to meet short term goals that are prioritized over long term goals	4	11	<i>Example</i>	Could you outline a time when long term goals were prioritized over short term goals?		
<i>Experienced Tensions</i>	Either/Or Dilemmas	managing resources	Trade-offs of economic resources, human resources and time	4	12	<i>Prompt</i>	Does your organization view these situations as trade-offs? And, could you describe how does that affects the management of resources such as money, people, and time?	Grey literature; peer-review articles	Interview with partner
<i>Experienced Tensions</i>	Either/Or Dilemmas	polarizing humanity livelihood	Economic divide between nations leads to polarization of livelihoods.	5	13	<i>Prompt</i>	This leads to my final two questions. Could you describe if there is a role for chocolate demand from consumers at play in relation to other people's lives? What position does your organization take, and would this be of any importance? Is it meaningful for supporting people's lives or communities?	News paper/magazine/website articles; grey literature; peer-review articles	Interview with partner
<i>Experienced Tensions</i>	Either/Or Dilemmas	polarizing physical world well-being	Increase demand of commodity from North Nations creates resource demands in the South that polarizes the physical world.	5	14	<i>Prompt</i>	and my last question, could you describe if there is a role for chocolate demand from consumers at play in relation to the environment where cacao is harvested? What position does your organization take? Could this be of importance?	News paper/magazine/website articles; grey literature; peer-review articles	Interview with partner

## Appendix G – Informed Consent

### Ethical understanding

Juan Marcelo Gomez has explained to me the requirement to conduct interviews with producers and exporters for his project and any questions have been answered to my satisfaction.

Due to the differences in culture and language it may not be possible to obtain explicit consent from each person that Juan Marcelo Gomez will visit and speak with, therefore:

I agree to make the necessary arrangements and advice the potential producers or exporters included in the routing plan that:

1. Participation is entirely voluntary and that they may withdraw from the interview at any time.
  2. Interviews and any observation activities may be video/audio recorded.
  3. The primary data collected is retained securely and might be used in publications directly related to this research.
- 
6. I have received a copy of this consent form and of the accompanying information sheet.
  7. I am aged 18 or older.

**Name of official:** \_\_\_\_\_

**Agency:** \_\_\_\_\_

**Signed:** \_\_\_\_\_

**Dated:** \_\_\_\_\_

Contact details of Researcher:

**Name of researcher:** Juan Marcelo Gomez

**Email address:**

**Mobile number:**

## Appendix H – List of Thematic Semi-structured Interview Questions

Initial list of question developed for thematic semi-structured interviews.

**Table 1 Semi-structured Question Design**

Question Group	Sequence	Question Type	Question
1	1	<b>Tour</b>	Walk me through, a decision that you think could have implications for future generations. How did it deliver on current priorities? How might it affect future generations?
1	2	Example	Please outline an example of a decision that seemed to you to be good for the environment, good for the people involved and met the financial goals of the two organizations?
1	3	Prompt	Could you take the most recent experience dealing with a decision that involved resource constraints on one or both sides. Can you describe how you managed that and what was accomplished?
2	4	Tour	Walk me through, could you outline how does your organization reach out to partners for some of the decisions? Could you describe why would that be?
2	5	<b>Example</b>	Could you outline a time when your organization and a partner relied on past experience towards making a decision for the future? How was that decision agreed upon by the two of you? Why was that important for meeting future priorities?
2	6	Prompt	Could you describe how the information from the experience was used to make sense of the situation at hand. How was that helpful in coming to some sort of resolve for making decisions?
3	7	Tour	Walk me through, when decisions involve economic, social, or environmental requirements, could you describe what are the steps your organization takes?
3	8	<b>Example</b>	Could you outline an example of a time when the organization got involved in improving the living conditions of a partner? What decision was made, why?
3	9	Prompt	Could you describe how this example could be used for making future decisions on a similar situation? How does this echo within your organization?
4	10	Tour	Walk me through, what view does your organization take on decisions that are based on short-term outcomes? Does your organization consider long-term outcomes, or both? How do you manage these types of decisions?

4	11	<b>Example</b>	Could you outline a time when long term goals were prioritized over short term goals?
4	12	Prompt	Does your organization view these situations as trade-offs? And, could you describe how does that affects the management of resources such as money, people, and time?
5	13	Prompt	This leads to my final two questions. Could you describe if there is a role for chocolate demand from consumers at play in relation to other people's lives? What position does your organization take, and would this be of any importance? Is it meaningful for supporting people's lives or communities?
5	14	Prompt	and my last question, could you describe if there is a role for chocolate demand from consumers at play in relation to the environment where cacao is harvested? What position does your organization take? Could this be of importance?



Table 2 Semi-structured Question Design

Dimension	Theme	Construct	Description	Group	Sequence	Question Type	Question (Informants)	Secondary Sources	Other Techniques
<i>Experienced Tensions</i>	Both/And Logic	attaining generational stability	Actors use sense making as a process to make decisions that aim towards attaining opportunities in the food chain for future generations.	1	1	<i>Tour</i>	Walk me through, a decision that you think could have implications for future generations. How did it deliver on current priorities? How might it affect future generations?	Mission/Vision statement; Website; news paper/magazine/website articles	Narrative (stories)
<i>Experienced Tensions</i>	Both/And Logic	conflicting demands between sub-systems	The environmental, social, and economic subsystems create competing demands for actors	1	2	Example	Please outline an example of a decision that seemed to you to be good for the environment, good for the people involved and met the financial goals of the two organizations?	Email correspondence; internal documents; personal notes	Snowball interview
<i>Experienced Tensions</i>	Both/And Logic	triggering intergenerational equity / engaging tensions	Competing tensions for resources amongst actors affects the balance of intergenerational equity upstream.	1	3	Prompt	Could you take the most recent experience dealing with a decision that involved resource constraints on one or both sides. Can you describe how you managed that and what was accomplished?	Email correspondence; Internal documents	Snowball interview / Follow-up in-depth interview
<i>Semantic Transformation</i>	Collective Problem Solving	affecting collective priorities	The relationship between actors may shape how the actors make sense of information for	2	4	<i>Tour</i>	Walk me through, could you outline how does your organization reach out to partners for some of the decisions? Could you describe why would that be?	Email correspondence; personal notes	Follow-up in-depth interview; Narrative (stories)

Dimension	Theme	Construct	Description	Group	Sequence	Question Type	Question (Informants)	Secondary Sources	Other Techniques
			decision-making that is based on collective and individual priorities.						
<i>Semantic Transformation</i>	Reformulation	reformulating experience	Actors re-conceptualize making sense of experiences as a cyclical process to project onto a future.	2	5	Example	Could you outline a time when your organization and a partner relied on past experience towards making a decision for the future? How was that decision agreed upon by the two of you? Why was that important for meeting future priorities?	Email correspondence	Interview with partner
<i>Semantic Transformation</i>	Collective Problem Solving	sensemaking between events	Understanding and extracting information from events and experiences, enables making sense as an iterative process.	2	6	Prompt	Could you describe how the information from the experience was used to make sense of the situation at hand. How was that helpful in coming to some sort of resolve for making decisions?	Internal documents; personal notes	Interview with partner; follow-up in-depth interview
<i>Decision Practice</i>	Decision Pattern	attaining environmental, social, and economic balance	Actors make sense of how to balance sub-system requirements that transcend across time that include the environmental, social, and economic.	3	7	<i>Tour</i>	Walk me through, when decisions involve economic, social, or environmental requirements, could you describe what are the steps your organization takes?	News paper/magazine/website articles; email correspondence	Snowball interviews; Narrative (stories)

Dimension	Theme	Construct	Description	Group	Sequence	Question Type	Question (Informants)	Secondary Sources	Other Techniques
<i>Decision Practice</i>	Decision Pattern	making use of experiences	Past and present experiences enable making sense of a possible future.	3	8	Example	Could you outline an example of a time when the organization got involved in improving the living conditions of a partner? What decision was made, why?	News paper/magazine/website articles; email correspondence	Snowball interviews
<i>Decision Practice</i>	Decision-Making Context	contributing to economic exploitation	Demand and supply of product in the conventional food chain contributes to economic exploitation of actors upstream.	3	9	Prompt	Could you describe how this example could be used for making future decisions on a similar situation? How does this echo within your organization?	Internal documents; personal notes	In-depth follow-up interview
<i>Experienced Tensions</i>	Either/Or Logic	enacting trade-offs	Actors may enact either/or trade-offs as a result of decision-making in the short term rather than long term.	4	10	<i>Tour</i>	Walk me through, what view does your organization take on decisions that are based on short-term outcomes? Does your organization consider long-term outcomes, or both? How do you manage these types of decisions?	News paper/magazine/website articles; email correspondence	Snowball interviews; Narrative (stories)
<i>Experienced Tensions</i>	Either/Or Logic	achieving short over long term goals	Actors engage processes to meet short term goals that are prioritized over long term goals	4	11	Example	Could you outline a time when long term goals were prioritized over short term goals? How was that situation managed?	Email correspondence	Snowball interviews
<i>Experienced Tensions</i>	Either/Or Logic	managing resources	Trade-offs of economic resources, human resources and time	4	12	Prompt	Does your organization view these situations as trade-offs? And, could you describe how does that affects the management of resources such as money, people, and time?	Grey literature; peer-review articles	Interview with partner

Dimension	Theme	Construct	Description	Group	Sequence	Question Type	Question (Informants)	Secondary Sources	Other Techniques
<i>Experienced Tensions</i>	Either/Or Logic	polarizing humanity livelihood	Economic divide between nations leads to polarization of livelihoods.	5	13	Prompt	This leads to my final two questions. Could you describe if there is a role for chocolate demand from consumers at play in relation to other people's lives? What position does your organization take, and would this be of any importance? Is it meaningful for supporting people's lives or communities?	News paper/magazine/website articles; grey literature; peer-review articles	Interview with partner
<i>Experienced Tensions</i>	Either/Or Logic	polarizing physical world well-being	Increase demand of commodity from North Nations creates resource demands in the South that polarizes the physical world.	5	14	Prompt	and my last question, could you describe if there is a role for chocolate demand from consumers at play in relation to the environment where cacao is harvested? What position does your organization take? Could this be of importance?	News paper/magazine/website articles; grey literature; peer-review articles	Interview with partner

## Appendix I – Interview Questions

Group	Sequence	Question	Pregunta	Pregunta (Agricultor)
1	1	Walk me through, a decision that you think could have implications for future generations. How did it deliver on current priorities? How might it affect future generations?	Recuérdame, una decisión que crees que podría tener implicaciones para las generaciones futuras. ¿Cómo cumplió con las prioridades actuales? ¿Cómo podría afectar a las generaciones futuras?	¿Podría compartir conmigo una decisión que haya tomado y que tenga una conexión con las próximas generaciones? ¿La decisión funcionó en ese momento? ¿Cómo afecta a las próximas generaciones?
1	2	Please outline an example of a decision that seemed to you to be good for the environment, good for the people involved and met the financial goals of the two organizations.	Por favor, describa un ejemplo de una decisión que le pareció buena para el medio ambiente, buena para las personas involucradas y que cumplió con los objetivos financieros de las dos organizaciones.	Comparta conmigo un ejemplo de una decisión que crea que fue buena para el medio ambiente, la gente y que satisfizo las necesidades financieras.
1	3	Could you take the most recent experience dealing with a decision that involved resource constraints on one or both sides. Can you describe how you managed that and what was accomplished?	¿Podría tomar la experiencia más reciente relacionada con una decisión que involucró restricciones de recursos en una o ambas partes? ¿Puede describir cómo logró eso y lo que se logró?	¿Podría tomar la experiencia más reciente sobre una decisión en la que no hubo suficientes recursos? ¿Puedes describir cómo te deltas con eso y cuál fue el resultado?
2	4	Walk me through, could you outline how does your organization reach out to partners for some of the decisions? Could you describe why would that be?	Recuérdeme, ¿podría describir cómo su organización se acerca a los socios para tomar algunas de las decisiones? ¿Podrías describir por qué sería eso?	¿Podría explicar cómo llega su organización a los socios para tomar algunas de las decisiones? ¿Podrías describir por qué sería eso?

2	5	Could you outline a time when your organization and a partner relied on past experience towards making a decision for the future? How was that decision agreed upon by the two of you? Why was that important for meeting future priorities?	¿Podría indicar algún momento en el que su organización y un socio se basaron en experiencias pasadas para tomar una decisión para el futuro? ¿Cómo fue la decisión acordada por ustedes dos? ¿Por qué fue tan importante para cumplir las prioridades futuras?	¿Podría compartir cuándo usted y un socio usaron su experiencia previa para tomar una decisión para el futuro? ¿Cómo llegaste a un acuerdo? ¿Por qué era tan importante cumplir con las prioridades futuras?
2	6	Could you describe how the information from the experience was used to make sense of the situation at hand. How was that helpful in coming to some sort of resolve for making decisions?	¿Podría describir cómo se utilizó la información de la experiencia para dar sentido a la situación actual? ¿Qué tan útil fue esto para llegar a algún tipo de resolución para tomar decisiones?	¿Podría compartir cómo usó la experiencia para dar sentido a la situación? ¿Qué tan útil fue esto para llegar a una resolución para tomar una decisión futura?
3	7	Walk me through, when decisions involve economic, social, or environmental requirements, could you describe what are the steps your organization takes?	Recuérdame, cuando las decisiones involucran requisitos económicos, sociales o ambientales, ¿podrías describir cuáles son los pasos que toma tu organización?	Cuando tiene necesidades económicas, ambientales o para la gente, ¿cuáles son los pasos que se toman?
3	8	Could you outline an example of a time when the organization got involved in improving the living conditions of a partner? What decision was made, why?	¿Podría describir un ejemplo de un momento en que la organización se involucró en mejorar las condiciones de vida de un socio? ¿Qué decisión se tomó, por qué?	¿Podría compartir un ejemplo de un momento en que estuvo involucrado en mejorar las condiciones de vida de un compañero o trabajador? ¿Qué decisión se tomó, por qué?
3	9	Could you describe how this example could be used for making future decisions on a similar situation? How does this echo within your organization?	¿Podría describir cómo se podría usar este ejemplo para tomar decisiones futuras en una situación similar? ¿Cómo se refleja esto en su organización?	¿Cómo podría usarse este ejemplo para tomar decisiones futuras en una situación similar? ¿Qué podrían pensar otros de esto?

4	10	Walk me through, what view does your organization take on decisions that are based on short-term outcomes? Does your organization consider long-term outcomes, or both? How do you manage these types of decisions?	¿Qué opinión tiene su organización sobre las decisiones que se basan en resultados a corto plazo? ¿Su organización considera resultados a largo plazo, o ambos? ¿Cómo maneja este tipo de decisiones?	¿Qué piensa usted de las decisiones que satisfacen únicamente las necesidades actuales? ¿Consideras decisiones para el futuro, o ambas cosas? ¿Como manejas esto?
4	11	Could you outline a time when long term goals were prioritized over short term goals?	¿Podría delinear algún momento en el que se priorizaron los objetivos a largo plazo sobre los objetivos a corto plazo?	¿Podrías compartir un momento en que una decisión para el futuro fuera más importante que el presente?
4	12	Does your organization view these situations as trade-offs? And, could you describe how does that affects the management of resources such as money, people, and time?	¿Su organización ve estas situaciones como concesiones? Y, ¿podría describir cómo afecta eso a la administración de recursos como el dinero, las personas y el tiempo?	¿Crees que estabas renunciando a algo por otro? Y, ¿cómo afecta esto la situación del dinero, las personas y el tiempo?
5	13	This leads to my final two questions. Could you describe if there is a role for chocolate demand from consumers at play in relation to other people's lives? What position does your organization take, and would this be of any importance? Is it meaningful for supporting people's lives or communities?	Esto lleva a mis dos últimas preguntas. ¿Podría describir si la demanda de chocolate de los consumidores juega un papel en relación con la vida de otras personas? ¿Qué posición toma su organización, y esto sería de alguna importancia? ¿Es significativo para apoyar las vidas o comunidades de las personas?	¿Crees que las personas que compran chocolate pueden hacerlo mejor? ¿Es esto importante? ¿Es significativo para su gente o comunidad?
5	14	and my last question, could you describe if there is a role for chocolate demand from consumers at play in relation to the environment where cacao is harvested? What position does	y mi última pregunta, ¿podría describir si hay un papel para la demanda de chocolate de los consumidores en relación con el ambiente donde se cosecha el cacao?	Y, ¿cómo podría esto ser significativo para la tierra donde cultivas el cacao? ¿Crees que esto podría ser importante?

your organization take? Could this be of importance?

¿Qué posición toma su organización?  
¿Podría esto ser importante?

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## Appendix J – Open Interview Questions

Question Group	Question Number	Question - Simplified (Farmer)	Pregunta: simplificada (Agricultor)
Tour	1	What are your priorities when working directly with a chocolate maker?	¿Cuáles son sus prioridades cuando trabaja directamente con un fabricante de chocolate?
Tour	2	What are your priorities for future generations? What do you try to do about it, or what help do you get that is valued?	¿Cuáles son sus prioridades para las generaciones futuras? ¿Qué intenta usted hacer al respecto o qué ayuda obtiene que sea valora?
Tour	3	When you are working with cacao, what are some of the important decisions that you make?	Cuando usted trabaja con cacao, ¿cuáles son algunas de las decisiones importantes que usted toma?
Tour	4	How do you see yourself in the future, do you expect your life to change?	¿Cómo usted se ves en el futuro, espera que su vida cambie?
Tour	5	What are the day to day challenges that concern you?	¿Cuáles son los desafíos diarios que le preocupan?
Tour	6	Does a relationship with the buyers help you? What do you do to influence that relationship?	¿A usted le ayuda una relación con los compradores? ¿Qué hace usted para influir en esa relación?

## Appendix K – Thematic Codes by Model Role and Informant Country Code

All= All column values combined within each Model Role

Country Codes: CA= Canada; EC= Ecuador; CR= Costa Rica

Themes (Export from NVivo)	Consolidator			Crafter				Logistics Provider				Producer			Row Total
	All			All				All				All			
		CR	EC		EC	CA	CR		CA	CR	EC		EC	CR	
1 : [A] Priorities	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
2 : adhering to core values	7	6	1	17	4	2	11	2	0	0	2	7	3	4	66
3 : contributing to diversity	1	0	1	7	3	0	4	0	0	0	0	5	1	4	26
4 : Contributing to the relationship	9	6	3	16	6	4	6	4	2	2	0	22	15	7	102
5 : Crosspollinating knowledge	19	13	6	31	12	5	14	5	0	5	0	32	9	23	174
6 : improving capabilities	9	7	2	10	4	0	6	1	0	1	0	13	6	7	66
7 : Improving livelihoods	10	8	2	23	10	1	12	2	0	2	0	20	13	7	110
8 : making a difference	11	9	2	18	4	2	12	2	0	0	2	10	3	7	82
9 : providing opportunities	2	2	0	7	0	0	7	2	0	2	0	6	0	6	34
10 : [B] Task Specific Trade-based tensions	124	99	25	204	77	30	97	88	28	19	41	262	110	152	1356
11 : Both_And	82	66	16	135	52	18	65	47	15	12	20	162	69	93	852
12 : 06. engaging tensions	15	14	1	28	8	10	10	13	6	2	5	33	13	20	178
13 : 07. conflicting demands between sub-systems	26	19	7	30	14	7	9	19	4	2	13	44	19	25	238
14 : 08. triggering intergenerational equality	13	10	3	24	6	0	18	7	3	4	0	34	15	19	156
15 : 09. attaining generational stability	17	14	3	22	14	1	7	5	2	2	1	24	14	10	136

16 : triggering ecological equality	8	7	1	26	12	0	14	3	0	2	1	28	8	20	130
17 : triggering political equality	6	4	2	8	0	0	8	0	0	0	0	3	1	2	34
18 : Either_Or	51	42	9	75	27	16	32	45	16	8	21	107	41	66	556
19 : 01. managing resources	11	7	4	11	4	1	6	5	2	1	2	28	7	21	110
20 : 02. enacting trade-offs	17	15	2	22	6	10	6	8	5	1	2	32	15	17	158
21 : 03. polarizing humanity livelihood	15	13	2	22	10	1	11	23	3	4	16	33	13	20	186
22 : 04. polarizing physical world well-being	0	0	0	5	2	0	3	2	1	1	0	7	1	6	28
23 : 05. achieving short over long term goals	3	2	1	11	7	0	4	6	3	1	2	5	3	2	50
24 : achieving long over short term goals	5	5	0	7	0	4	3	3	2	0	1	6	3	3	42
25 : [G] Enacting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 : breaking free	4	4	0	7	0	5	2	1	0	1	0	9	1	8	42
27 : Actions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 : Objective	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 : Calculating	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
30 : Leaving in time	0	0	0	2	1	1	0	1	0	1	0	1	0	1	8
31 : Measuring	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 : Subjective	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 : Interpreting	2	2	0	1	0	1	0	2	0	0	2	2	0	2	14
34 : Perceiving	0	0	0	4	2	0	2	4	1	1	2	10	0	10	36
35 : Traveling through time	0	0	0	10	0	1	9	3	0	0	3	22	1	21	70
36 : Commercialization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 : Consolidation	4	4	0	1	1	0	0	0	0	0	0	1	0	1	12
38 : Direct-trade	3	3	0	7	1	0	6	0	0	0	0	6	4	2	32
39 : Vignette	50	38	12	94	41	7	46	18	2	1	15	103	54	49	530
40 : Within Process	187	154	33	420	153	53	214	98	28	20	50	445	212	233	2300

41 : [C] Choice Pattern	76	66	10	142	55	27	60	35	9	10	16	179	81	98	864
42 : 10. making use of experiences	8	5	3	11	2	4	5	6	3	1	2	24	9	15	98
43 : attaining balance	37	35	2	55	22	8	25	19	6	6	7	62	24	38	346
44 : 11a. attaining environmental balance	3	3	0	11	1	4	6	0	0	0	0	15	7	8	58
45 : 11b. attaining social balance	9	9	0	10	6	1	3	3	2	1	0	1	1	0	46
46 : 11c. attaining economic balance	25	23	2	33	15	3	15	16	4	5	7	46	16	30	240
47 : Building relationships	4	2	2	20	9	3	8	2	0	0	2	28	17	11	108
48 : connecting experience	4	3	1	16	7	6	3	1	0	0	1	15	7	8	72
49 : connecting with culture	0	0	0	16	8	0	8	1	0	1	0	4	3	1	42
50 : disengaging from experience	8	7	1	19	5	6	8	6	0	2	4	26	14	12	118
51 : engaging marginalization	6	5	1	4	2	0	2	0	0	0	0	10	10	0	40
52 : experimenting	10	10	0	2	0	0	2	0	0	0	0	13	0	13	50
53 : [E] Decision-Making Context	59	48	11	157	47	13	97	34	10	5	19	132	76	56	764
54 : 12. contributing to economic exploitation	15	8	7	15	5	3	7	15	6	1	8	28	17	11	146
55 : being part of the community	3	3	0	10	0	0	10	0	0	0	0	7	0	7	40
56 : bringing people together	0	0	0	7	3	0	4	0	0	0	0	11	6	5	36
57 : contributing to environmental exploitation	0	0	0	6	3	0	3	0	0	0	0	6	5	1	24
58 : contributing to environmental protection	2	2	0	18	5	2	11	4	4	0	0	7	3	4	62
59 : contributing to non-economic means	1	1	0	9	1	3	5	0	0	0	0	7	3	4	34
60 : contributing to political motivation	5	5	0	13	6	0	7	6	0	0	6	9	7	2	66
61 : Contributing to practice	9	7	2	24	8	1	15	2	0	1	1	28	13	15	126
62 : Contributing to social exploitation	5	5	0	2	0	1	1	1	0	0	1	8	8	0	32
63 : contributing to social protection	5	5	0	7	1	0	6	0	0	0	0	7	5	2	38
64 : creating awareness	2	2	0	12	7	1	4	1	0	0	1	0	0	0	30
65 : empowering self	0	0	0	2	0	1	1	0	0	0	0	2	1	1	8

66 : empowering women	7	7	0	24	8	0	16	1	0	1	0	8	6	2	80
67 : empowering youth	3	2	1	10	0	1	9	2	0	2	0	5	2	3	40
68 : Reducing risk	2	1	1	3	1	1	1	2	0	0	2	0	0	0	14
69 : Sensemaking	69	56	13	153	59	26	68	33	11	5	17	164	62	102	838
70 : [D] Collective Problem Solving	49	42	7	86	22	18	46	24	9	0	15	111	39	72	540
71 : 13. sensemaking between events	6	5	1	18	7	5	6	9	1	0	8	26	16	10	118
72 : 14. affecting collective priorities	32	26	6	32	13	5	14	11	8	0	3	51	17	34	252
73 : celebrating success	2	2	0	11	0	1	10	0	0	0	0	12	5	7	50
74 : structuring	11	11	0	25	2	7	16	4	0	0	4	21	1	20	122
75 : [F] Reformulation	5	3	2	17	9	6	2	3	2	0	1	11	1	10	72
76 : 15. reformulating experience	5	3	2	17	9	6	2	3	2	0	1	11	1	10	72
77 : following tradition	0	0	0	4	4	0	0	0	0	0	0	7	5	2	22
78 : having entity	0	0	0	1	0	1	0	0	0	0	0	3	0	3	8
79 : having faith	5	2	3	6	2	0	4	4	0	3	1	16	7	9	62
80 : having identity	6	5	1	25	13	2	10	4	0	1	3	7	2	5	84
81 : Recognizing history	7	6	1	22	13	0	9	2	0	1	1	14	8	6	90
Column Total	1216	998	218	2380	861	346	1173	675	202	141	332	2664	1159	1505	

## Appendix L – Ethical Principles in Research Study

**Table 1 Ethical Principle and action**

Ethical Principle	Action
Ensuring <i>No harm</i> to informants	All informants were invited to participate in this research and provided documentation in their native language or had the purpose of the research conveyed verbally and then provided written documentation relevant to the research study and participation.
Ensuring <i>Informed Consent</i> is obtained from informants	Informed consent was attained from all informants.
Assuring <i>Anonymity</i> of research informants and other research participants	All informants in this research have been identified with a unique code that cannot be deciphered and any reference to the information provided is therefore, masked.
Respect the <i>dignity</i> of informants and other research participants	At no time were informants asked to enact anything that would otherwise compromise their self-respect.
Protecting the <i>Privacy</i> of research informants	When participating in the research, all informants were afforded a one to one communication channel with the researcher. When informants participated in groupings, informants were provided with an opportunity to express themselves privately.
Ensuring <i>Confidentiality</i> of the research data	All data collected in this research is treated confidentially. At no point, any portion of the data compromises a research informant. This exempts pictures or videos where the informants have provided their consent to acknowledge their participation in the research.
Declaration of <i>Affiliations</i> , funding sources and conflicts of interest	There are no conflict of interest arising from this research study to the informants or any other participant. At no point in time were economic motives or rewards used in the study.
<i>Honesty and transparency</i> in the communication process of the research study	All communication with informants was directed in a comprehensive manner with openness, clarity, and in good faith.
Avoiding <i>Deception</i> about the nature or aims of the research study	The nature of this study was provided to informants in the consent forms and study cover sheet. The name and contact information of the researcher and research supervisor is provided to all research informants.
Avoiding <i>Misrepresentation</i> of the facts and findings in the study	At all times, the identity of the researcher and the purpose of the study have been made explicit to all research informants in its true form. All research findings are stated as reported by the informants in their own natural language and reported by the researcher to the best of the allowable language capability when interpretation and/or translation is required.

Ensuring <i>Reciprocity</i> is genuine and in the interest of society	All research activities and events that took place between the researcher and the informants and other participants are conducted with the aim to contribute and enhance the scientific knowledge.
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Adapted source: (Bell and Bryman, 2007: 72)

## Appendix M – Example of NVivo™ Coding

Example of coded files and file classifications

The screenshot displays the NVivo 12 Plus software interface. The main window shows a list of files with columns for Name, Codes, References, Modified On, Modified By, and Classification. The left sidebar contains a navigation pane with sections like Quick Access, Data, Codes, Cases, and Notes. The bottom status bar indicates 105 items.

Name	Codes	References	Modified On	Modified By	Classification
P20190427-1628F11CA-L-BN	39	495	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20190618-1211F11CA-C-EN	55	928	2020-12-28 4:10 PM	JMG	F11_Interview Transcript
P20190708-0855F11CR-C-ES	52	588	2020-12-29 2:37 PM	JMG	F11_Interview Transcript
P20190926_1205F11EC-P-ES	38	278	2021-05-05 11:54 AM	JMG	F11_Interview Transcript
P20190926_1401F11EC-P-ES	62	719	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20190926_1443F11EC-P-ES	18	246	2020-12-30 9:20 AM	JMG	F11_Interview Transcript
P20190926_1509F11EC-P-ES	33	258	2020-12-30 10:33 AM	JMG	F11_Interview Transcript
P20190926_1612F11EC-P-ES	37	260	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20190927_1000F11EC-C-ES	24	98	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20190927_1042F12EC-C-ES	11	68	2020-12-23 7:08 PM	JMG	F12_Observation Transcript
P20190927_1418F11EC-P-ES	31	218	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20190927_142105F04EC-P-ES	4	4	2021-01-03 8:51 PM	JMG	F04_Image
P20190927_142305F04EC-P-ES	0	0	2021-01-03 8:51 PM	JMG	F04_Image
P20190927_1431F11EC-P-ES	18	106	2020-12-30 6:39 PM	JMG	F11_Interview Transcript
P20190927_143402F04EC-P-ES	0	0	2021-01-03 8:51 PM	JMG	F04_Image
P20190927_143405F04EC-P-ES	0	0	2021-01-03 8:51 PM	JMG	F04_Image
P20190927_1441F11EC-P-ES	43	538	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20190927_151803F04EC-P-ES	1	1	2021-01-03 8:51 PM	JMG	F04_Image
P20190927_153356_BURST005F04EC-P-ES	3	3	2021-01-03 8:51 PM	JMG	F04_Image
P20190927_1534F11EC-P-ES	35	286	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20190927_153648F04EC-P-ES	3	3	2021-01-03 8:51 PM	JMG	F04_Image
P20190927_153701F04EC-P-ES	3	3	2021-01-03 8:51 PM	JMG	F04_Image
P20190927_1554F11EC-P-ES	34	164	2020-12-31 11:11 AM	JMG	F11_Interview Transcript
P20190927_1607F11EC-P-ES	42	222	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20190929_101058F04EC-P-ES	0	0	2021-01-03 8:51 PM	JMG	F04_Image
P20190929_1015F12EC-P-ES	15	729	2020-12-23 7:08 PM	JMG	F12_Observation Transcript
P20190929_103353F04EC-P-ES	0	0	2021-01-03 8:52 PM	JMG	F04_Image
P20190929_1057F11EC-P-ES	63	1307	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20190929_1225F12EC-P-ES	12	99	2020-12-23 7:08 PM	JMG	F12_Observation Transcript
P20190929_1247F11EC-P-ES	53	631	2021-01-02 2:17 PM	JMG	F11_Interview Transcript
P20190929_134051F04EC-P-ES	5	5	2021-01-03 8:51 PM	JMG	F04_Image
P20190929_140124F04EC-P-ES	0	0	2021-01-03 8:51 PM	JMG	F04_Image
P20190929_2203F11EC-C-ES	64	1097	2021-01-02 3:28 PM	JMG	F11_Interview Transcript
P20191010_1403F12CR-S-ES	18	178	2021-01-05 3:00 PM	JMG	F12_Observation Transcript
P20191010_1651F11CR-C-ES	55	508	2020-12-23 7:07 PM	JMG	F11_Interview Transcript
P20191011_1036F12CR-C-ESN	57	566	2020-12-23 7:08 PM	JMG	F12_Observation Transcript



## Example of cases and case attributes, and case sets

DBA.nvp - NVivo 12 Plus

File Home Import Create Explore Share

Paste Cut Copy Merge Clipboard Properties Open Memo Link Item Add To Set Create As Code Create As Cases Query Visualize Explore Code Auto Code Range Code Uncode Case Classification File Classification Detail View Undock Sort By Navigation View List View Find Workspace

Quick Access

- Files
- Memos
- Nodes

Cases

- Cases
- Case Classifications
  - Consolidator
  - Crafter
  - Informant
  - Logistics Provider
  - Producer
  - Researcher
  - Subject Matter Exper
  - Temporary-Excluded
  - Temporary-Sorting

Notes

Search

- Queries
- Query Results
- Node Matrices

Sets

- I1 - Logistics Provide
- I10
- I10 - Crafter
- I10 - Producer
- I11 - Producer
- I12 - SME
- I13 - Consolidator
- I14 - Producer
- I15 - Producer
- I16 - Producer
- I17 - Producer
- I18 - Producer
- I19
- I19 - Crafter
- I19 - Producer
- I2 - Crafter

Producer

Name	Location	Files	References	Modified On	Modified By
I9	Cases\\C9\\		1	28 2021-05-05 10:16 AM	JMG
I8	Cases\\C8\\		1	180 2021-05-05 10:15 AM	JMG
I7	Cases\\C7\\		1	1 2021-05-05 11:54 AM	JMG
I61	Cases\\C61\\		1	6 2021-05-05 10:17 AM	JMG
I60	Cases\\C60\\		1	1 2021-05-05 10:17 AM	JMG
I6	Cases\\C6\\		2	152 2021-05-05 11:54 AM	JMG
I45 (2)	Cases\\C45\\		1	274 2021-05-05 10:14 AM	JMG
I45	Cases\\C45\\		1	208 2021-05-05 10:14 AM	JMG
I44 (2)	Cases\\C44\\		1	3 2021-05-05 10:13 AM	JMG
I44	Cases\\C44\\		1	8 2021-05-05 10:13 AM	JMG
I43 (3)	Cases\\C43\\		1	162 2021-05-05 10:13 AM	JMG
I43	Cases\\C43\\		1	145 2021-05-05 10:13 AM	JMG
I41 (2)	Cases\\C41\\		1	416 2021-05-05 10:12 AM	JMG

Attribute

Attribute	Value
Age	53
Sex	M
Nationality	CR
Country	CR
City	Guatuso

New Attribute

Name	Location	Files	References	Modified On	Modified By
I40 (5)	Cases\\C40\\		1	13 2021-05-05 10:10 AM	JMG
I40 (4)	Cases\\C40\\		1	88 2021-05-05 10:10 AM	JMG
I40 (3)	Cases\\C40\\		1	23 2021-05-05 10:10 AM	JMG
I40 (2)	Cases\\C40\\		1	268 2021-05-05 10:10 AM	JMG
I39 (2)	Cases\\C39\\		1	2 2021-05-05 10:09 AM	JMG
I39	Cases\\C39\\		1	2 2021-05-05 10:09 AM	JMG
I38	Cases\\C38\\		1	3 2021-05-05 10:09 AM	JMG
I35 (2)	Cases\\C35\\		1	37 2021-05-05 10:07 AM	JMG
I35	Cases\\C35\\		1	145 2021-05-05 10:07 AM	JMG
I34	Cases\\C34\\		1	22 2021-05-05 10:06 AM	JMG
I33 (3)	Cases\\C33\\		1	12 2021-05-05 10:06 AM	JMG
I33 (2)	Cases\\C33\\		1	19 2021-05-05 10:06 AM	JMG
I33	Cases\\C33\\		1	11 2021-05-05 10:06 AM	JMG
I31 (2)	Cases\\C31\\		1	2 2021-05-05 10:05 AM	JMG
I31	Cases\\C31\\		1	85 2021-05-05 10:05 AM	JMG
I30 (2)	Cases\\C30\\		1	25 2021-05-05 10:04 AM	JMG

JMG 51 Items

## Example of case sets linked to cases

DBA.nvp - NVivo 12 Plus

File Home Import Create Explore Share

Paste Cut Copy Merge Clipboard Properties Open Memo Link Item Add To Set Create As Code Create As Cases Query Visualize Explore Code Auto Code Range Code Uncode Case Classification File Classification Detail View Undock List View Sort By Navigation View Find Workspace

Quick Access

Files

Memos

Nodes

Sets

I1 - Logistics Provide

I10

I10 - Crafter

I10 - Producer

I11 - Producer

I12 - SME

I13 - Consolidator

I14 - Producer

I15 - Producer

I16 - Producer

I17 - Producer

I18 - Producer

I19

I19 - Crafter

I19 - Producer

I2 - Crafter

I20

I20 - Consolidator

I20 - Producer

I21

I21 - Logistics Provid

I21 - SME

I22 - SME

I23 - Crafter

I24 - Consolidator

I25

I25 - Consolidator

I25 - Crafter

I25 - Producer

I25 - Producer

I26 - Producer

I27 - Consolidator

I28 - Logistics Provid

I29 - Producer

I3

I25

Name	In Folder	Created On	Created By	Modified On	Modified By
C25\I25 (3)	Cases	2020-11-15 12:08 PM	JMG	2021-05-05 10:49 AM	JMG
C25\I25 (5)	Cases	2020-12-05 4:27 PM	JMG	2021-05-05 10:40 AM	JMG
C25\I25 (4)	Cases	2020-12-03 11:17 PM	JMG	2021-05-05 10:40 AM	JMG
C25\I25	Cases	2020-11-11 5:23 PM	JMG	2021-05-05 10:40 AM	JMG
C25\I25 (2)	Cases	2020-11-15 12:06 PM	JMG	2021-05-05 10:01 AM	JMG

JMG 5 Items

## Example of overall coded nodes

DBA.nvp - NVivo 12 Plus

File Home Import Create Explore Share

Paste Cut Copy Merge Clipboard Properties Open Memo Link Item Add To Set Create As Code Create As Cases Query Visualize Explore Code Auto Code Range Code Uncode Case Classification File Classification Detail View Sort By Undock Navigation View List View Find Workspace

Quick Access

- Files
- Memos
- Nodes

Codes

- Nodes
- Sentiment
- Relationships
- Relationship Types

Cases

- Cases
- Case Classifications
  - Consolidator
  - Crafter
  - Informant
  - Logistics Provider
  - Producer
  - Researcher
  - Subject Matter Exper
  - Temporary-Excluded
  - Temporary-Sorting

Notes

Search

- Queries
- Query Results
- Node Matrices

Sets

- I1 - Logistics Provide
- I10
- I10 - Crafter
- I10 - Producer
- I11 - Producer
- I12 - SME
- I13 - Consolidator
- I14 - Producer
- I15 - Producer
- I16 - Producer

Nodes

Name	Files	References	Created On	Created By	Modified On	Modified By
[01] Priorities	1	1	2020-05-08 8:35 PM	JMG	2021-06-09 9:52 AM	JMG
adhering to core values	17	31	2020-12-28 11:50 AM	JMG	2021-06-07 10:22 AM	JMG
contributing to diversity	9	13	2020-12-30 11:30 AM	JMG	2021-04-10 8:12 PM	JMG
Contributing to the relationship	21	48	2020-12-27 5:56 PM	JMG	2021-06-07 10:13 AM	JMG
Crosspollinating knowledge	23	74	2020-12-27 8:15 PM	JMG	2021-06-06 12:12 PM	JMG
improving capabilities	16	33	2020-12-30 9:26 AM	JMG	2021-06-07 12:16 AM	JMG
Improving livelihoods	22	55	2020-12-28 3:05 PM	JMG	2021-06-08 9:46 AM	JMG
making a difference	17	40	2020-12-30 11:20 AM	JMG	2021-05-04 10:02 PM	JMG
providing opportunities	7	16	2021-01-05 3:49 PM	JMG	2021-04-11 1:07 PM	JMG
[02] Task Specific Intertemporal Tensions	45	666	2020-05-18 9:45 AM	JMG	2021-06-09 9:53 AM	JMG
Both_And	42	389	2020-05-08 8:21 PM	JMG	2020-12-28 9:55 PM	JMG
Either_Or	30	277	2020-05-11 11:14 PM	JMG	2020-12-28 9:55 PM	JMG
[07] Enacting	0	0	2021-06-09 9:57 AM	JMG	2021-06-09 9:57 AM	JMG
breaking free	9	21	2021-01-06 12:03 PM	JMG	2021-05-05 11:26 AM	JMG
Actions	0	0	2020-12-27 12:13 PM	JMG	2020-12-27 12:13 PM	JMG
Commercialization	0	0	2020-12-30 12:01 AM	JMG	2020-12-30 12:01 AM	JMG
Vignette	30	102	2020-12-27 6:21 PM	JMG	2021-06-07 9:16 AM	JMG
Within Process	53	1230	2020-05-18 9:45 AM	JMG	2020-12-28 9:56 PM	JMG
[03] Choice Pattern	41	416	2020-05-08 8:20 PM	JMG	2021-06-09 9:53 AM	JMG
[05] Decision-Making Context	39	366	2020-05-18 9:34 AM	JMG	2021-06-09 9:54 AM	JMG
Sensemaking	40	448	2020-05-18 9:45 AM	JMG	2020-12-28 9:56 PM	JMG
[04] Collective Problem Solving	35	281	2020-05-18 9:30 AM	JMG	2021-06-09 9:53 AM	JMG
affecting collective priorities	31	124	2020-05-08 8:38 PM	JMG	2021-05-04 12:55 PM	JMG
celebrating success	15	25	2020-12-27 8:33 PM	JMG	2021-04-11 4:35 PM	JMG
sensemaking between events	23	60	2020-05-08 8:38 PM	JMG	2021-05-05 11:54 AM	JMG
structuring	18	61	2020-12-30 11:04 AM	JMG	2021-06-07 10:02 PM	JMG
[06] Reformulation	15	36	2020-05-08 8:20 PM	JMG	2021-06-09 9:54 AM	JMG
reformulating experience	15	36	2020-05-08 8:38 PM	JMG	2021-05-04 1:37 PM	JMG
following tradition	6	11	2020-12-29 9:46 PM	JMG	2021-04-11 4:24 PM	JMG
having entity	2	4	2021-01-08 5:36 PM	JMG	2021-05-04 1:32 PM	JMG
having faith	10	30	2020-12-30 7:09 PM	JMG	2021-04-11 4:24 PM	JMG
having identity	19	44	2020-12-30 12:23 PM	JMG	2021-05-04 1:08 PM	JMG
Recognizing history	16	42	2020-12-28 9:01 PM	JMG	2021-04-11 11:30 AM	JMG

JMG 81 Items

## Example of coded node

The screenshot displays the NVivo 12 Plus interface. On the left, the 'Quick Access' pane shows 'Nodes' selected. The 'Nodes' list on the left includes 'breaking free', 'Actions', 'Commercialization', 'Vignette', 'Within Process', '[03] Choice Pattern', '[05] Decision-Making Context', 'Sensemaking', '[04] Collective Problem Solving', '[06] Reformulation', 'following tradition', 'having entity', 'having faith', 'having identity', and 'Recognizing history'. The 'Within Process' node is expanded, showing its sub-nodes. The 'structuring' node is selected, showing 18 files and 61 references. The main pane displays the 'structuring' node's references, which are categorized by coverage percentage: Reference 1 (0.48%), Reference 2 (0.21%), Reference 3 (0.13%), Reference 4 (0.20%), Reference 5 (0.07%), and Reference 6 (0.17%). The coding density chart on the right shows the distribution of codes across the references, with a peak at 130 for the 'structuring' node.

Node Name	Files	References
breaking free	9	21
Actions	0	0
Commercialization	0	0
Vignette	30	102
Within Process	53	1230
[03] Choice Pattern	41	416
[05] Decision-Making Context	39	366
Sensemaking	40	448
[04] Collective Problem Solving	35	281
[06] Reformulation	15	36
following tradition	6	11
having entity	2	4
having faith	10	30
having identity	19	44
Recognizing history	16	42

Reference 1 - 0.48% Coverage

el asunto del cacao lo que es este corta el cacao, manejo del cacao, chapea de cacao porque el me enseño muy estricto, el cacao no se había incado, había que agachar en un saco, porque ese cacao en vez de estar bien las casetas los carros entonces tenía que estar ocho días en la mazorca mientras se oreaba un poco, porque era demasiado cacao entonces

Reference 2 - 0.21% Coverage

porque mi trabajo era cortar en dos horas, con ayuda, yo empezaba a amontonar y a contar y a poner los montones, después contarla y llevarla a otro montón

Reference 3 - 0.13% Coverage

Estamos muy caros, que nos dan, ayudan económicamente el gobierno da una beca, s dan una ayuda

Reference 4 - 0.20% Coverage

nosotros hacemos una compra a la cooperativa y ustedes hacen entregas a la cooperativa, entonces eso es como un área oscura y gris que no saben ellos

Reference 5 - 0.07% Coverage

sino cada vez que entregan yo les hago una factura

Reference 6 - 0.17% Coverage

pero como le digo si nosotros cuidamos el cacao abonándolo cada veintún día cada dos meses el cacao no se para, no se para

## Example of coded image

DBA.rvp - NVivo 12 Plus

File Home Import Create Explore Share

Paste Cut Copy Merge Clipboard Properties Open Memo Link Item

Query Visualize Explore Code Auto Code Range Code Uncode Coding

Case Classification File Classification Classification

Detail View Sort By Undock Navigation View List View Find Workspace

Quick Access Files Memos Nodes

Data File Classifications Externals

Codes Nodes Sentiment Relationships Relationship Types

Cases Cases Case Classifications Consolidator Crafter Informant Logistics Provider Producer Researcher Subject Matter Expert Temporary-Excluded Temporary-Sorting

Search Queries Query Results Node Matrices

Sets I1 - Logistics Provider I10 I10 - Crafter I10 - Producer I11 - Producer I12 - SME

Files Search Project

Name	Codes	References
P20190929_1015F12EC-P-ES	15	729
P20190929_103353F04EC-P-ES	0	0
P20190929_1057F11EC-P-ES	63	1307
P20190929_1225F12EC-P-ES	12	99
P20190929_1247F11EC-P-ES	53	631
P20190929_134051F04EC-P-ES	5	5
P20190929_140124F04EC-P-ES	0	0
P20190929_2203F11EC-C-ES	64	1097
P20191010_1403F12CR-S-ES	18	178
P20191010_1651F11CR-C-ES	55	508
P20191011_1036F12CR-C-ESN	57	566
P20191011_1219F11CR-C-ESN	17	54
P20191011_122803F04CR-C-ES	3	3
P20191011_1229F11CR-C-ESN	40	203
P20191011_123823F04CR-C-ES	3	3
P20191011_1249F11CR-C-ESN	28	258
P20191011_145833F04CR-C-ES	3	3
P20191011_1534F11CR-C-ESN	51	553
P20191011_162258F04CR-C-ES	4	4
P20191012_0935F11CR-C-ESN	39	487
P20191012_094217F04CR-C-ES	0	0
P20191012_094524F04CR-C-ES	0	0
P20191012_095533F04CR-C-ES	0	0
P20191012_1022F11CR-CS-ES	65	637
P20191012_1105F12CR-CS-ES	19	120
P20191012_1124F11CR-P-ES	75	1540
P20191012_1250F11CR-P-ES	21	235
P20191012_1334F11CR-P-ESN	20	103
P20191012_1341F12CR-S-ESN	41	453
P20191012_1448F11CR-S-ES	71	1224
P20191012_1614F11CR-S-ES	14	61
P20191012_1621F12CR-S-ESN	13	201
P20191012_162344F04CR-C-ES	3	3
P20191012_162453F04CR-C-ES	3	3
P20191012_1642F12CR-S-ESN	13	82

P20190929\_134051F04EC-P-E

Click to edit

Region	Content
	<p>La Asociación de agricultores y productores formaron su directiva</p> <p>Agricultores productores en asamblea general de la JRD MJC</p> <p>Nueva directiva con Santos Quintana</p> <p>Don José Menduza y el Ing. Edgar Rodas en conferencia con Agricultores y productores</p>

Coding Density

19

Within Process

Sensemaking

[04] Collective Problem Solving

affecting collective priorities

Image Log

JMG 105 Items

Code At affecting collective priorities (Nodes\Within Process\Sensemaking\04] Collective Problem Solving)

## Appendix N – Matrix of Coded Frequency by Theme to Role

Matrix Coding - Coded Themes	Producer (PR)	Consolidator (CO)	Logistics Provider (LP)	Crafter (CR)
	Number of codes			
1 : [A] Priorities				
5 : Crosspollinating knowledge	32	19	5	31
7 : Improving livelihoods	20	10	2	23
4 : Contributing to the relationship	22	9	4	16
8 : making a difference	10	11	2	18
2 : adhering to core values	7	7	2	17
6 : improving capabilities	13	9	1	10
9 : providing opportunities	6	2	2	7
3 : contributing to diversity	5	1	0	7
10 : [B] Task Specific Trade-based tensions				
11 : Both_And	162	82	47	135
13 : conflicting demands between sub-systems	44	26	19	30
14 : engaging tensions	33	15	13	28
16 : triggering intergenerational equality	34	13	7	24
12 : attaining generational stability	24	17	5	22
15 : triggering ecological equality	28	8	3	26
17 : triggering political equality	3	6	0	8
18 : Either_Or	107	51	45	75
23 : polarizing humanity livelihood	33	15	23	22
21 : enacting trade-offs	32	17	8	22
22 : managing resources	28	11	5	11
20 : achieving short over long term goals	5	3	6	11
19 : achieving long over short term goals	6	5	3	7
24 : polarizing physical world well-being	7	0	2	5
25 : [G] Enacting				
26 : breaking free	9	4	1	7
27 : [C] Choice Pattern				
28 : attaining balance	62	37	19	55
29 : attaining economic balance	46	25	16	33
35 : disengaging from experience	26	8	6	19
32 : Building relationships	28	4	2	20
38 : making use of experiences	24	8	6	11
33 : connecting experience	15	4	1	16

30 : attaining environmental balance	15	3	0	11
37 : experimenting	13	10	0	2
31 : attaining social balance	1	9	3	10
34 : connecting with culture	4	0	1	16
36 : engaging marginalization	10	6	0	4
39 : [E] Decision-Making Context				
42 : contributing to economic exploitation	28	15	15	15
47 : Contributing to practice	28	9	2	24
52 : empowering women	8	7	1	24
46 : contributing to political motivation	9	5	6	13
44 : contributing to environmental protection	7	2	4	18
40 : being part of the community	7	3	0	10
53 : empowering youth	5	3	2	10
49 : contributing to social protection	7	5	0	7
41 : bringing people together	11	0	0	7
45 : contributing to non-economic means	7	1	0	9
48 : Contributing to social exploitation	8	5	1	2
50 : creating awareness	0	2	1	12
43 : contributing to environmental exploitation	6	0	0	6
54 : Reducing risk	0	2	2	3
51 : empowering self	2	0	0	2
55 : [D] Collective Problem Solving				
56 : affecting collective priorities	51	32	11	32
59 : structuring	21	11	4	25
58 : sensemaking between events	26	6	9	18
57 : celebrating success	12	2	0	11
60 : [F] Reformulation				
61 : reformulating experience	11	5	3	17

## Appendix O – Trade-based tensions from Priorities

### Analysis

Details of the both/and trade-based tensions are presented underneath (*see Table 1*). Each tension is identified by [ID], encoded with the thematic priority area, placed at the end of the statement in square brackets and mapped to the conceptual model along with the role and flow the tension described earlier.

**IMPORTANT** – Tensions are non-sequential. The research refinement process has led to delisting of some tensions, for example tension twenty-three (T23) has been removed and its ID 23 has not been replaced by another tension to maintain traceability in the data.

Table 1 List of Both/And Situational Findings Encoded with Priority Categories

ID	Tension	Full Description	Commentary (as appropriate)
		Roles/Flows	
7	CO>PR	COs want to better integrate and improve the livelihood of the PR in the present, and see themselves as the alternative to coyotes; however, COs are unable to provide sourcing guarantees in the future to PRs arising out physical space and financial resources. <i>[CDEFG]</i>	
9	PR>CR	PRs transitioning to become CRs work to maintain a relationship with other CRs by providing the CRs with cacao while at the same time holding back cacao and transforming the raw material to derive value-added products. <i>[DEFGI]</i>	



- 10 CR<PR CRs want quality single-origin cacao beans and source Cooperatives  
from cooperatives, while at the same time a cooperative and  
may source cacao beans from multiple PRs and/or coyotes consolidators  
affecting the origin and the quality of the beans. *[DEFGJ]* are constrained  
by time to fill  
orders.
- 1 LP>PR LPs compete in the market by importing cacao from the  
same regions labeled as the origin while within each  
region different characteristics arising from producers'  
practices exist at the same time. *[ABEI]*
- 11 PR>CR PRs must develop relationships to work within the  
domestic market that pays very little in the past/present  
and is the worse resort in the present to develop  
relationships to get to international markets that has  
controlled pricing as the best resort in the present/future.  
*[DEFJ]*
- 12 CR<PR PRs and CRs want to engage with international CRs to  
improve business in the longer term; however, PRs do not  
want to provide the raw material as greater financial  
profits can be made in the short term from added value  
products. *[DEGJ]*
- 14 PR><CR; Informants may hold multiple positions in the value chain  
PR><CO where cooperation and competition take place at the same  
CO><CR time. *[DEIJ]*
- 15 PR><PR While older generations of PRs claim to pass on  
knowledge and market share to younger generations of

		PRs; younger generations of PRs are compelled to push their cacao through the established networks of older generations of PRs due to lack of access to the same market. <i>[DEIJ]</i>	
16	PR><PR	While older generations of PRs want to transfer their knowledge and experience to younger generations; newer generations of PRs claim that older generations many not always be aware or make sense of how to manage cacao diseases. <i>[DEIJ]</i>	Maintaining livelihood conflicts with the passage of time and know-how.
25	PR<>PR	Understanding the technical aspects of cacao growing in the present allows PRs to improve products on yield and quality while at the same time obtain better premiums in the future. <i>[EGIJ]</i>	
3	PR><PR	Being successful in cacao means that one must give up part of the land that cacao trees grow in the present giving way to other trees that provide shade and protect the cacao trees in the future. <i>[AEI]</i>	
4	PR<CR>< CR	Producers are encouraged to replace national trees with modified species to increase harvest resistance to pest and disease; while, the older the trees the greater the resistance. <i>[AEI]</i>	Resistance suppresses disbenefits temporarily, yet persists over time.
6	CR><PR	CRs want to carry various cacao origins and they want to help improve the livelihood of the PRs while at the same	

time CRs are unable to procure large amounts at once to sufficiently support the livelihood of one or multiple PRs.

*[BEG]*

- 8      PR><CR      Domestic CRs suggest that is difficult to maintain a stable relationship with PRs. Internationals CRs believe that a relationship is established with PRs; however, 'relationship' pivots on premiums that command lower costs domestically and higher costs internationally. *[DEF]*
- 17     PR>CR      PRs want to ship direct to the CRs, while the same PRs establish relationships with other PRs to fill orders that exceed their own capacity becoming an intermediary in the process. *[DEJ]*
- 18     PR><CO      While PRs want higher premiums and low or no transportation cost, COs arrange logistics for improving the relationship; PRs do not deliver to the same LP, collectively affecting the capability of LPs and continuity of service. *[DEJ]*
- 20     CO><PR      PRs want a stable and better relationship with COs to improve premiums in the future and do not favour coyotes, while at the same time some PRs sell their cacao to coyotes at less than 20pc of the COs premium in the present. *[DFG]*
- 21     CR>CO>P      While PRs argue that cacao premiums are low in the present and many have diversified to other crops in the past/present; PRs are not willing to give up cacao as some

R

- COs and CRs pay triple market premiums in the present/future. *[DFJ]*
- 22 CO>PR COs want a closer relationship between CRs and PRs and do not want other intermediaries to retain premiums. When orders are large, they struggle to find product to fill an order, when orders are small, they struggle with the investment to maintain the relationship. *[DEF]*
- 24 PR><PR While government subsidies are provided to PRs to improve their operations, coyotes have been given an economic license to operate in the market while at the same time devaluating subsidies as PRs sell their cacao beans at lower than market prices creating further government subsidy dependency. *[EFJ]*
- 26 PR><PR The newer generation of PR is willing to learn and work in the farm, while the older generation hopes that the education received by the younger generation sets them onto a better path, while at the same time having expectations for the newer generation to manage the affairs of the farm. *[EIJ]*
- 2 CR><PR While cacao origin is attributed by region rather than country for its distinct characteristics from the past, rivalry between the PRs and CRs lead to process differences that affect the characteristics of the beans in the future and contradict recognition of the region. *[AE]*
- 19 CO<PR COs and PRs are able to allocate cacao in domestic markets at lower premiums in the short term while

challenges exist in allocating cacao in international markets at higher premiums in the longer term. *[DF]*

Source: Own

Details of the either / or tensions are presented underneath (see Table 2). For reference, each tension is identified by [ID], encoded with the thematic priority area, placed at the end of the statement in square brackets. These bracketed codes are mapped in the conceptual model and the temporal flow is indicated.

Table 2 List of Either/Or Situational Findings Encoded with Priority Categories

ID	Roles/Flows	Full Description	Commentary (as appropriate)
28	PR<CR	PRs chose to replace national cacao trees with modified types to increase production yield and pest resistance, while modified versions provide two high-yield cycles, national types provide steady continuous production. The CR premiums for fine cacao are three times that of modified cacao due to its fine flavour and aroma. Switching from criollo to modified trees is not reversible and once the tree is cut, the genetics are lost, making PRs dependent on the modified versions. <i>[AEF]</i>	
29	PR>CR>P R	While CRs want to improve PRs income by sourcing cacao beans directly, CRs take away the raw material from PRs for them to process and convert into added value products to improve the PRs own source income in the	

		future even if it causes financial difficulty for crafters in the present. <i>[DEF]</i>	
30	PR><PR	Qualifying for financial aid as a collective while not having enough PRs to participate in the program. <i>[DEJ]</i>	
31	PR>CR	CRs are inclined to pay higher premiums to PRs if the quality of the product is better as it reduces the cost of labour (e.g., sorting) for the CRs in the future. <i>[EFH]</i>	Providing feedback [H] to PRs is important for CRs to improve process.
32	CR<CO	Local CRs acknowledge that it is the cacao bean that impacts livelihood and not chocolate while value-add can be derived from processed chocolate; meanwhile, COs are willing to export the cacao beans and forgo the value-add generation of income. <i>[GF]</i>	

Source: Own

## Appendix P – Statements for Trade-based tensions to the Trade Models

Details of the both/and trade-based tensions are presented underneath in the table that follows. Each tension is identified by [ID], encoded with the corresponding model type, and, the informant's translated and transcribed statements between single quotes or transcribed in its original form in double quotes. Each transcribed statement includes the informant's identification placed at the end in square brackets. The reference code is used for cross-referencing.

**IMPORTANT** – Tensions are non-sequential. The research refinement process has led to delisting of some tensions, for example tension twenty-three (T23) has been removed and its ID 23 has not been replaced by another tension to maintain traceability in the data.

Table 1 List of Both/And Situational Findings Encoded with Priority Categories

Tension ID	Model	Full Transcription with Reference Code
7	Consolidator	<p>CT7-I43-A            'What we have been looking for because by being a representative, I am going to be a representative of so... so... so many small farmers because it is not one or two or three, we are adding together with the different associations we are one hundred and eighty five farmers' [I43]</p> <p>CT7-I6-A            'We have an association here, I was the president, I don't charge them a penny, I don't know if they have told you, I never charge them, for nothing, for nothing, the company is there, I cover all the expenses, I don't ask them for a penny, nothing' [I6]</p> <p>CT7-I5-A            "I am now thinking that impacted the next generation in terms of strictly cacao, I can see that the... our cacao farming renovation program is an agricultural regenerative program that impacts the following generations, we are logically searching how to prevent the aging</p>

- problem that exists, no?, because the female farmers are too old and the male farmers are too old, the average is fifty four years of age” [I5]
- 9      Direct      DT9-I43-A  
          -            ‘because since there are so few customers, we are losing much cacao in  
          Trade      the field, myself, because I have had cacao for so long, and I myself  
                     have had to throw away cacao although I have already paid the farmer  
                     because there is not a potential client who asks me for a ton, two tons,  
                     three tons, four tons, five tons’ [I43]
- DT9-I45-A  
          ‘because I work, I’m a baker, and I’m also a chocolatier until next year,  
          I’m giving up where I am and I’m going to dedicate myself to them to  
          see if we can survive from everything we do here, because we make a  
          lot of other types of products, you see all this and we do what, we bake,  
          we make brownies, seven or eight of different things we do’ [I45]
- DT9-I45-B  
          “We have coco butter, we make it right here. So everything we make  
          here nut mix. with different seeds” [I45]
- DT9-I41-A  
          ‘This chocolate bar, if you do a study, says that in one part of Europe, I  
          don’t know where, they sell the bar for six hundred and eighty euros, a  
          bar of fifty grams, it’s top quality.’ [I41]
- DT9-I6-A  
          ‘here there is a CCN-51 cacao that has nothing to do with cacao with  
          aroma, the national one [cacao] has nothing to do with it, so the CCN-51  
          is worth to tell the dry one 90 dollars, the one with aroma 90 dollars, the  
          one that goes with monilla 90 dollars, the [one] that goes pure with all of  
          quality requirements, 90 dollars, tell me, there is no variation in price, so  
          people [in trade] don’t bother with quality because it all pays the same.’  
          [I6]
- 10      Direct      DT10-I17-A  
          -            ‘He takes the cacao even without trash, because he has a dryer, all the  
          Trade      trash falls out and only the clean cocoa goes’ [I17]
- DT10-I14-A  
          ‘Well, there where Sánchez doesn’t demand anything of me, since he  
          goes and buys it, with a little bit of monilla, what he does is weigh, the  
          engineer knows the prices as they are’ [I14]
- DT10-I19-A  
          ‘My mom also sells to him, I also sell to him, here the neighbors sell to  
          him, like this’ [I19]
- DT10-I17-B



‘Some sell him fifteen jars, twenty jars, everyone around him comes to let him know on the weekend and they come to let him know about cacao and then he goes to buy’ [I17]

DT10-I5-A

“what we do is we source from 400 farmers we pay them well. We have a very nice product.” [I5]

DT10-I5-B

‘what we do is we centralize fermentation and drying because it is the way to control quality’ [I5]

1 Logist  
ics - - Derived from analysis - -

LT1-I1-A

“If I approach it to the farmers and say, I want to buy from you and all that, I already start working with the Co Op. So you have to be very honest. And don't cross that line. So people approached me said you already buy from them, can you buy from me? And I would say no. Because umm

I have to promote the Co Op and the farmers. So when you promoted the Co Op, the Co Op you promote the farmers. So, I cannot cross that line is is gonna be a trust.” [I1]

11 Direct DT11-I1-A  
- “they're well paid to the standards of the country, you cannot pay a \$20 a  
Trade kilo, when you cannot even sell it. But on the standards of the country, they're paid and you ask the farmer, are you happy with that price? And they will tell you what I'm not I never will never be happy because they want more. So you have to have a standard, the standard price economics.” [I1]

DT11-I23-A

“The local market pays so little that it's, I mean, it's the last and worst resort for them, if they've got to sell it to, you know, in a local market.” [I23]

DT11-I6-A

‘We have an association here, I was the president, I don't charge them a penny, I don't know if they've told you, I never charge them, for nothing, for nothing, the company comes, I cover all the expenses, I do not ask them for a penny, nothing, what is my profit? That I sell my cocoa well, mine, theirs costs me, right? this one and they sell it well too’ [I6]

DT11-I3-A

‘depending on the price I can get more, that's how things have been, depending on the quality, and if the process has been followed’ [I3]

DT11-I42-A

‘For small producers, it has always been a problem to sell cacao and mainly to be paid at a good price.’ [I42]

DT11-I42-B

‘what they are doing more than all, is what we see, is exploiting the small producer’ [I42]

DT11-I14-A

‘The engineer [consolidator] knows the prices as they are, my cacao is like the scale, if it goes down one point, two points, it goes up three, four points and then it goes back down, and we poor people are obliged to sell it, right, is there anywhere else? or where to go?’ [I14]

DT11-I14-B

‘but you are familiar with it, you take your cacao and weigh it and take your money, it's not that I'm going to get paid tomorrow or the day after, take your share, and if it's not there, go to Pichincho's bank and pick up your money, that's it, quicklie, that's the way people should pay, that's the only cacao exporter of Triunfo that really pays for cacao’ [I14]

DT11-I5-A

‘and those they produce are sold to the large cooperative here but a very bad product, super cheap and Coyote buys cheap’ [I5]

12 Direct  
-  
Trade

DT12-I43-A

‘To be able to provide five hundred kilos of cacao to Japan, it took me four years. Four years, visit, visit, visit, six visits, they have made to me, until I was able to send them the five hundred kilos they asked for’ [I43PR]

DT12-I43-B

‘for us very important in which we stop always working only dry cocoa beans as raw material’ [I43CR]

DT12-I43-C

‘So we work it for now Bean to Bar [...] that is the part that we are working it that way, for the farmer's own benefit’ [I43PR]

DT12-I40-A

‘We sell it at the door, at the door of the house, I take advantage of meetings, I take advantage of and as they know me and people who come exclusively here to buy it’ [I40]

DT12-I19-A

‘they also support us a lot, any fair, anything, and they help me’. [I19]

DT12-I17-A

‘I am not saying the national cacao no no he does not buy anything but for ourselves’ [I17]

		DT12-I3-A	
		‘that’s why, is that the products are made by I19 with national cacao, and he sells CCN-51 cacao [I3]	
14	Conso lidator	CT14-I14-A	
		‘Yes, alone and in God’s will, because I can’t find a way, if I go to the bank, I go, they receive me and the bank denied me because of my pension, MAGAN [Ministry of Agriculture] promised us a replanting of the trees, that they were going to help us with a system of pumps, we all signed, but as [I13] was with that group and they already went aside, never again’ [I14]	
		CT14-I13-B	
		‘That they learn better now and with technique now, that they have knowledge both in practice and theory, and that they directly give the added value that we have not yet given.’ [I13]	
		CT14-I42-A	
		‘In our case, many people tell my husband, you’re screwed because this company is in your wife’s name. How does it occur to you? And I tell them but why? For me there is no problem, I am the legal representative, but it was because it was not because I chose it, but because between my husband and my children they chose it’ [I42]	
		CT14-I40-A	
		‘In fact, I am the [CATIE] representative of the entire northern zone’ [I40]	
		CT14-I8-A	
		‘if she tells me I need to complete the container and I keep looking for her where I myself am going to supervise so that the cacao goes, a cacao of excellence’ [I8]	
		CT14-I3-A	
		‘It is worth mentioning that the first bank was made with money from cacao and from a businessman based in Guayaquil, right? The Luzárraga house and that in 1860 it became the Luzárraga bank, right? And it was in Guayaquil, the people of Guayaquil have been pioneers in many things, we have really carried the banner of progress, we have carried the banner of development, and until now’ [I3]	
15	Non-salient	- - Derived from analysis events - -	
16	Non-salient	- - Derived from analysis events - -	
25	Non-salient	- - Derived from analysis events - -	
3	Non-salient	- - Derived from analysis events - -	

Direct DT4-I4-A

- Trade 'Of course, and they made it a monoculture, and if it produces them, then there is, but they don't disclose it, they don't sell it, so the CCN-51 did do that job well, selling their seedlings, but deceiving, telling the producer it's fine cacao too, then the farmer produces more, is more resistant to diseases, la, la, la, so the farmer then cuts down the national plantations and plant another type' [I4]

DT4-I4-B

'and we verified that the national cacao is already thousands of years old and it is here, nobody grafted it, nobody brought it, it was already here, instead the other one was introduced, because it is planted here in Ecuador, they say it is Ecuadorian cacao, it is fine cocoa, no, no, that has been put into the farmer's head, the farmer also has a lack of knowledge, he is... he lives... he lives in his world, he does not see beyond it, and he believes what the people say'. [I4]

DT4-I40-A

'National Agronomic Center, CATIE really developed a whole program where it was able to find and release six clones that were more resistant to pests and diseases, mainly monillas, so I got involved, in fact I am the representative of the entire northern zone' [I40]

DT4-I40-B

'I can make any nursery, I can upload any genetic material, I can sell the seeds and with the National Seed Office' [I40]

DT4-I5-A

'CATIE's are very resistant to diseases, they're very good too, but I don't want to say that it's bad, eh' [I5]

DT4-I5-B

'Historically, it is the most forgotten area of Costa Rica, yes, and many of your grandparents and parents were cacao farmers too, so if you are a culture that is very attached to cacao, unfortunately it was lost due to the monilla issue. And now we are trying to recover it again, yes, the quality of the cacao here is exceptional, this is the best of our cacao, they are the hybrids, right? Someone planted a seed and another seed came out of that seed, there are some things from CATIE that are also good, they are very good, those things that grandfather planted and that my father and someone else, and that is unique, and we are trying to tell our clients about that' [I5]

DT4-I23-A

'Well, you know, it's it's a there's a, an agency in Costa Rica called CATIE. It's a university. It's like a government University agr basically Research Center. And they're the ones who developed most all of the clones we have here after it was in the not sure what the years were, but

I think it probably in the 50s and 60s, there was a big outbreak of Monilla and basically wiped out the whole market in Costa Rica completely. And and CATIE got involved and started doing all these cloning for the monilla resistant species and so for the most part, I'd say 95% of the of the plantations out there are based on some type of their clones now they've got a couple hundred clones, I think.” [I23]

DT4-I21-A

‘And from then on production has dropped, productivity, it was a research center like CATIE that designed varieties, only varieties, yes, that had higher productivity and were resistant to this type of pest’ [I21]

DT4-I21-B

‘And all cacao is declared fine with aroma, from Costa Rica, however, only some varieties are more resistant to pests than the Criollo variety, that is, it obviously has a differentiation at the level of flavor basically in all that subject, but this Criollo low productivity for that matter but the CATIE clones that basically all work, it is also declared fine with aroma’ [I21]

DT4-I46-A

‘You have to leave an national legacy, because this has been for a short time..., about four years, five years, since cacao has been taken up again at the national level?’ [I46]

6 Direct  
-  
Trade

DT6-I2-A

“at small scale, is that not all of us can even import directly, right. So we almost need a collective to be able to do it anyways.” [I2]

DT6-I2-B

“it came across almost as if they felt we were trying to get the cheapest price from them, umm. But also wanting to buy everything. So like we have cacao, but are you going to buy all this too?” [I2]

DT6-I2-C

“And I don't know how much people in the middle do effectively take from the farmer, farmer him or herself. But has to be some. So our goal is really to try and be face to face, right? and understand is it money that's needed? is there farm improvements? like, I want to see firsthand what's going on, get a feel for it.” [I2]

DT6-I2-D

“And I'm sure there are people that a lot of the farms you buy from like they're not living like a grand life by any means. So I'm sure money is an incentive. But it's probably not the only incentive.” [I2]

DT6-I2-E

“why wouldn't it be important to have a relationship with someone who's growing the product that we use. It's like, that is the core

chocolate without that. And you have nothing so I find this hugely important” [I2]

DT6-I2-F

“there's another I say 20 or 30 farmers, there was applauding that we were there and super excited”; “we realized that a lot of times they are expecting that we're going to buy all of their cacao”; “And it's like, we're not going through a bunch. Right now.” [I2]

DT6-I2-G

“Yeah, so I'm definitely willing to spend more for a better product. Because it, it saves us in the end, it's smart. works for both.” [I2]

DT6-I1-A

“So they can't move forward.” [I1] such as certifications for the importing process [I1].

DT6-I23-A

“The local market pays so little that it's, I mean, it's the last and worst resort for them, if they've got to sell it to, you know, in a local market. And so giving them opportunities, like when I buy the Baba from the from the other farmers, we pay more than market rate for it,” [I23]

DT6-I25-A

“in case I need to buy more cacao to people in Upala and I already from many I know, only two that are really doing a very good job on the fermentation so I only buy to those guys.” [I25]

DT6-I3-A

‘they are sisters of the one I buy from her, she has a farm in one place, the sister has much further away, and the other has further away in the mountains’ [I3]

DT6-I23-B

“Because we don't want to you don't want a homogenous product either. You know, you want to be able to say, Hey, this is this is Juan's cacao, he really develops this, you know, really good.” [I23]

8 Direct  
-  
Trade

DT8-I2-A

“celebrating the successes of long term relationship” [I2]

DT8-I2-B

“why wouldn't it be important to have a relationship with someone who's growing the product that we use?” [I2]

DT8-I2-C

“without the success of good relationships, there won't be a success of business” [I2]

DT8-I5-A

“The starting point in the relationship because they will never understand because they are used to pay to get paid immediately by us. And the coyotes the local intermediaries Yeah, even at a very low price but immediately.” [I5]

DT8-I23-A

“relationships, relationships are really important but on an inner personal point of view, not so much. I don't I don't look at the like, you know, as each individual dealings with the different farmer. I don't see it is okay. We're trying to get everybody together to go a common direction. I just see it as an interaction with another person who's got a similar interests that I do” [I23]

17 Conso  
lidator

D-T17-I8-A

‘if she tells me until another day, bring me and that day I will bring it, and if she tells me I need to complete the container and I keep looking for her where I myself am going to supervise so that the cocoa goes, a cocoa of excellence’ [I8]

D-T17-I25-A

“I have two partners [...] separated by geographically but they are the only ones that are after visiting in my motorcycle this guy and the other guy at least those two were the selected those are in the top of the cream. And all they want is to sell their product.” [I25]

DT17-I45-A

‘Do you bring cacao there or what friend?’ [I45] ‘Not anymore, they already weighed it’

DT17-I20-A

‘because it would be good if I had someone to buy cacao from me in another country, so I would pay the farmers more here and they would sell me more’ [I20]

DT17-I19-A

‘yes, he [I20] buys fresh cacao bean’ [I19]

DT17-I40-A

‘Direct trade, yes, we call it here that we remove the intermediary’ [I40]

18 Logist  
ics

LT18-I6-A

‘because when I send the cacao truck to Guayaquil I not only pay the one hundred and twenty dollars for the truck, but I have to pay one hundred dollars for two custody persons because the vehicle is also diverted and stolen, so I have to send bodyguards.’ [I6]

LT18-I14-A

‘would take a cwt [hundredweight – US] of wet cacao to take it there, it was ten dollars that I had to pay, for freight, because you have to pay tolls, you know that the freight carrier puts up obstacles, you have to pay tolls, you know, that is forced upon one’ [I14]

LT18-I14-B

‘Well, there where Sánchez doesn't demand anything of me, how he goes and buys it, for a little bit of money, what he does is weigh, the engineer knows the prices as they are, my cocoa is like the balance, if it goes down one point, two points, it goes up three, four points and then back down, and we poor people are obliged to sell it, no where else?, or where?’ [I14]

LT18-I4-A

‘we send the trucks to Belga to the farm two three hours we do not charge the freight, that is a help but they do not value that much’ [I4]

LT18-I8-A

‘That is if since then, since I know, five years, we were already in the farm, before the mouse now the squirrel, before the mouse threw the seed to the ground, then what did we do as children, the grandparents took us to collect it. They called that chupada they called, they called it chupada because the mouse sucked it, we would collect it, the weekend would come and we would sell fifteen, twenty pounds of those chupada. Of course, we took her every day, we spread that little bit of cacao, so she told us, you take this one on Saturday and our love, they taught us how to work, so we went, managed it and had the work of laying it out and on Saturday we sold it and we were already very happy with the money’ [I8]

20 Conso - - Derived from analysis - -  
lidator

CT20-I27-A

‘It's that in reality his vocation is to trade... to trade something because he decides to sell it even if it's cheaper to buy, so that's not so general but... but from time to time the producer then decides to sell a little to Coyote’ [I27]

CT20-I28-A

‘There are many who sell to us, there are many who also sell to the Coyote’ [I28]

CT20-I28-B

‘since there are many producers who have a facility that wants to not live only from cacao when... when the producer is living only from what he has of the cocoa material, then that is what he will do, but the producer who has, let's say, other inputs, let's say he decided to work with cattle, pigs, sows one product or another, sows corn, or something



like that, then he says well, I'll sell Nahua and I spend there in Nahua and I'm going to sell the calf to pay for this electricity, this water, this month and then I say there's another balancing form in that way' [I28]

CT20-I27-B

'In fact, yes, yes, in fact, yes, sometimes on some occasions, a producer has come and told me this, look if you pay me up to fifteen days, I'll give it to you because if I don't I'm going to have to... [sell it to the coyote] they told me' [I27]

CT20-I19-A

'he takes his cocoa and the one who buys from him gives him a different price than the ones he gives to the rest.' [I19]

CT20-I16-A

'A strong relationship has, if it is enough..., it is well received. Eh... you have to be more productive to be in that relationship. In terms of quality, yes, because that is what is much better in the national [cacao] market, it is what they want more, on the other hand, there is little production, for the other thing [CCN-51] they sell a lot' [I16]

21 Non-salient - - Derived from analysis - -

22 Conso - - Merged with T7 - -

lidator CT22-I8-A

'one day we harvested on this farm and I take everything from this farm to her, the next day we harvested on another farm as well as everything from another farm' [I8PR]

CT22-I4-A

'unfortunately you can't get everything to make volume, so we try to mix some of the CCN-51 but a larger quantity of national cacao, unfortunately it is like that, you cannot complete a container two containers pure of national cacao because there isn't any, there is not' [I4CO]

CT22-I5-A

"[w]hen we send the beans to our clients yeah we have everything [to] trace back, documented, and we can say from this lot these are the farmers that's ensure that quantity included in that specific shipment, it can be one sac up to a full container" [I5CO]

24 Non-salient - - Derived from analysis - -

26 Non-salient - - Derived from analysis - -

2 Direct DT2-I23-A

- "I guess a longer term priority would be to get Upala recognized as a an origin" [I23]  
Trade

DT2-I25-A

“in my opinion are the ones that are producing better cacao or the best cacao in Upala” [I25]

DT2-I3-A

‘Guayaquil is the world capital of fine cocoa and Ecuador was and continues to be the largest producer of fine cacao in the world’ [I3]

DT2-I45-A

‘Did the lady... the lady [I43] did all those tests down there?’ [I45]

DT2-I25-B

“[I5] Not a word” [I25]

19 Conso - - Merged with T11 - -  
lidator

CT19-I5-A

‘in our case we pay three times more, no, triple, because I sell it very expensive abroad, because it is of good quality and a lot of reasons, so the issue is I always buy all the cacao at very good prices and do business wherever I can with them, that's very important’ [I5]

CT19-I6-A

‘I am telling you that the only hope is that there is a serious government, that opens the markets to the world, that does not put so many obstacles, and... we could export chocolate, they [government] gives us the run-around’ [I6]

CT19-I10-A

‘Actually, the important thing that I see is that, doing as in some countries it is done, the cacao is sent as already made chocolate, that is, to produce a chocolate of such good quality, that one already buys the chocolate already made in Ecuador.’ [I10]

CT19-I21-A

‘Yes, many qualitative factors involved but not so quantitative, because by exporting anyone exports but in the end it has to be translated into that client who has those necessary characteristics and qualities that demand that product needs but gives it meaning, that's what that we have been talking about, gives you the sense that you are going to look for that market which has been valued for what cacao itself is’ [I21]

CT19-I45-A

‘It is... it maintains, and the sacks that we use to export to the United States, and of these we use for what is Canada that we sell a little to people in Canada’ [I45]

Details of the either / or tensions are presented underneath in the table that follows. Each tension is identified by [ID], encoded with the corresponding model type, and, the informant's translated and transcribed statements between single quotes or transcribed in its original form in double quotes. Each transcribed statement includes the informant's identification placed at the end in square brackets. The reference code is for cross-referencing between the writing in the findings chapter and this appendix.

Table 2 List of Either/Or Situational Findings Encoded with Priority Categories

ID	Model	Full Transcription
28	Direct-Trade	DT28-I16-A 'No, well, national cocoa is why it has a good aroma...' [I16]
		DT28-I17-A 'We have two hectares of national cocoa,' "About one thousand five hundred [trees]' [I17]
		DT28-I20-A 'That cacao is good, because if we plant only that cacao [national], it would increase the price more but people don't, people look for more...' 'Well, here in this area more of the CCN-51 because the fine aroma cocoa I have already seen thrown away' [I20]
		DT28-I17-B 'Only I have, only we have' [I17]
		DT28-I20-B 'Some do have but there are about two hundred trees, a hundred trees' [I20]
		DT28-I20-C 'There is a man who does sell but he only sells national because he does not have CCN-51 either' [I20]
		DT28-I20-D 'In other words, there isn't any here either, but in another area you can find it there, Floriselva also has national cocoa.' [I20]
		DT28-I20-E

‘Of course there are some that have national improved cacao, they are like the CCN-51 but it is national improved cacao’ [I20]

DT28-I13-A

‘Well, they see it, that if it is profitable, yes, because there are profits because I was still thinking that if I don't spend money, I will make one hectare twenty cwt of national cacao, and I will invest ten cwt, the value of ten cwt. , just wild, there is what I harvest, harvest ten, twelve, I take that money and I do not invest more, but if I already see that it is profitable and I invest, I invest so that it gives me more than what it produces, if not I give it all that, maintenance, give it the necessary irrigation, and for irrigation of a farm there has to be foliar irrigation, sprinkler irrigation, then that is already manageable, there... there I am at that point, I have already done and my farm already has sprinklers, this irrigation, but we are going to see how we give it a higher value, if I sell a hundred dollars at this time per cwt, and I already give it an... an addition I think I can do it get two hundred, one hundred and eighty, I've already doubled, so that's what I think the big ones... farms of national cacao have to reach that point, for what reason? Because they are going to see market niches, they are going to see farms that directly produce fine aroma cacao, which has been a lifelong tradition in Ecuador, no longer... it has disappeared because cacao is becoming a point of monoculture, the CCN-51 so it is profitable, then it is invested there, it doubles the amount of production’ [I13]

29 Direct-  
Trade

DT29-I10-A

‘A good chocolate that recognizes the value of national cacao’ [I10]

DT29-I23-A

“of these farmers that we're dealing with, you know, we're We're buying I'm buying. I wrote a one farm and buy 100 kilos of Bala, which turns out to be 40 kilos of actual product.” [I23]

DT29-I5-A

“our difficulty is that we grew too fast. We move from nothing to 100 tones. So from 6, 4 tones, we were using our factory in 2014 so now in 100 tones, so the working capital is always... because we buy today from the farmers” [I5]

30 Direct-  
Trade

- - Derived from analysis - -

31 Non-  
salient

- - Derived from analysis - -

32 Direct-  
Trade

DT32-I5-A

‘So when one says, what is the product that impacts life? it is the cacao bean, not so much chocolate in our case’ [I5]

DT32-I6-A

‘I give the training it does not cost me much, that is my social value’ [I6]

DT32-I13-A

‘That they learn better now and with technique now, that they have knowledge both in practice and theory, and that they directly give the added value that we have not yet given.’ [I13]

DT32-I55-A

‘our interest is precisely to support those... each one of those small producers so that they can export directly’ [I55]. (Government agent)

Source: Own

## Appendix Q – List of Transcribed and Translated Informants' Statements

Identifier	Informant and Perspective	Original Transcribed Statement	Translated Statement	Reference Code
a	I40PR	"Si es que eso es una prioridad, digamos una prioridad involucrar, involucrar gente, no solamente porque quieran producir cacao, sino porque la producción de cacao que es tan amigable con el ambiente"	Yes that's a priority, let's say a priority is to involve, involve others, not only because they want to introduce cacao, rather because the cacao production is so friendly with the environment	al40PR
b	I19PR	"nuevo empleado yo que sé en el municipio y yo me acerco me pongo a las órdenes"	new employee in the municipality and I get closer and I make myself available	bl19PR
c	I8PR	"todos los días, me contacto con la señora [I10] patrona ¿cómo vamos con el cacao?, ¿cómo vamos con los chocolates?"	everyday, I contact madame [I10] the patroness, how are we doing with the cacao? How are we doing with the chocolates?	cl8PR
d	I6PR	"No le digo aquí lo único sería directamente, del dueño al chocolatero ahí sí, no hay problema"	I am telling you the only thing is direct from the owner to the chocolate maker, that's the way, there's no problem	dl6PR
e	I6PR	"Nada de intermediarios, aquí los intermediarios llueven"	No intermediaries, here the intermediaries rain down	el6PR
f	I20CO	"Para seguirme llevando con ellos para que me puedan seguir vendiendo, porque yo al principio yo comencé desde cero"	To maintain a good relationship with them so they can keep on selling to me, because at the start I began from zero	fl20CO
g	I13CO	"nosotros en las reuniones estamos ya enfocados en eso hablando, diciendo a los productores que si hay esperanza siempre y cuando que nosotros hilemos las cosas mejor"	in the meetings we are focused on talking and telling the producers that there is hope as long as we string things better	gl13CO

h	I4LP	“Nosotros lo hacíamos gratis, entonces si tuvimos bastantes agricultores que nos entregaban y se veía la diferencia porque entregabas en un lado y después cuando comenzaban a entregar a nosotros”	We used to do it free, so if we had lots of farmers that would deliver and you could see the difference because they delivered in one place and then they started to deliver in another and then they delivered to us	hI4LP
i	I28LP	“me ha dado la oportunidad de hacer cosas que pensaba que no podía hacer”	has provided it has given me the opportunity to do things that I thought I could not do	iI28LP
j	I3CR	“Es difícil mantener una relación estable, por eso yo no ando brincando de aquí para allá”	It is difficult to maintain a stable relationship, that is why I don't hop around	jI3CR
k	I41CR	“Y ha sido el encadenamiento para ayudar a nuestros hermanos indígenas también”	And it has been a way to help our indigenous brothers and sisters also	kI41CR
l	I6PR	“Si falta de estructura, es un país muy corrupto, las autoridades son muy corruptas, todas, de arriba para abajo”	There's lack of structure, it's a very corrupt country, the authorities are very corrupt, from top to bottom	lI6PR
m	I40CO	“entonces es difícil, no hay ayuda, no hay ayuda del gobierno”	then it's hard, there is no help, there's not help from the government	mI40CO
n	I19PR	“yo siempre voy a las reuniones en los municipios”	I always attend the meetings in the municipalities	nI19PR
o	I40PR	“porque en la agricultura debemos trabajar corto, mediano y largo plazo”	because in agriculture we should work to short, medium and long term	oI40PR
p	I40PR	“la agricultura de madera es largo plazo, la del cacao es mediano plazo y antes de los tres años, antes de los dos años, producíamos plátano y yuca dentro del cacao”	the agriculture of timber is long term, the cacao is medium term and before the three years, before the two years, we produced plantain and yuca within the cacao	pI40PR
q	I40PR	“se lo pido a los compañeros, hay que hacer esto y esto, porque hay que hacer esto así, vamos a trabajar así, entonces todos están alerta conmigo”	I ask my colleagues, we have to do this and that, because we have to do it this way, let's work like this, then they are all on alert with me	qI40PR

r	I35PR	“si nosotros cuidamos el cacao abonándolo cada veintiún día cada dos meses el cacao no se para, no se para”	if we take care of the cacao fertilizing it every twenty one days every two months the cacao does not stop, it does not stop	rl35PR
s	I40PR	“Y tenemos también sombras controladas, para el cacao, el cacao ocupa sombras, entonces la madera crece treinta metros, esos treinta metros entre los diez metros, entre los treinta metros que tengo entre una barrera con la otra barrera en la mañana me genera sombra a este lado y por la tarde me genera sombra al otro lado el otro lote, entonces no solamente es madera y no solo agricultura a largo plazo, sino que es todo... todo un esquema que nos ayuda a controlar siempre en protección del mismo cacao”	And we also have controlled shades, for the cacao, the cacao takes up shade, then the timber grows thirty meters, those thirty meters in between ten meters, in the thirty meters that I have is a barrier with the other barrier in the morning it generates shade on this side and in the afternoon it generates shade on the other side, the other lot, it's not just timber is longer term agriculture, rather is everything, it's all a schema that helps us to control in protection of the same cacao	sl40PR
t	I5CO	“porque sistema de cacao no en Costa Rica en todo el mundo, es un tema principalmente de mano de obra infantil, niños esclavos, ingresos muy bajos, zonas remotas con, sin acceso a servicios básicos, ese es el problema del cacao”	because the cacao system, not in Costa Rica, in the whole world, is a subject primarily of child labour, enslaved children, very low income, remote zones without access to basic services, that's the cacao problem	tl5CO
u	I5PR	“Siento que en el cacao esa parte ambiental la hace el mismo cacao por ser como es”	I feel that in cacao the environmental part the cacao makes it for being how it is	ul5PR
v	I13CO	“va a cambiar porque justamente este en eso estamos, las fincas en antes eran alternas, cacao, frutos tropicales, cítricos y este de todo... plátanos, esas son las fincas que ahora se están volviendo... ahí mismo esta la comida para uno”	it's going to change because that's what we are working on, before the farms where alternative, cacao, tropical fruit, citrus and everything else, banana, those are the farms that are now coming back... right there we have our food	vl13CO



w	I4LP	“va abajo en el camión va una humedad, arriba otra humedad, y tu cuando coges no puedes coger de abajo sino coge más o menos el de arriba, entonces ellos ya tienen diseñado como te ponen el cacao”	you go under the truck there is a level of humidity, on top another humidity, and when you grab you can't grab from the bottom rather you grab from about the top, so they have it designed how the cacao is placed	wI4LP
x	I43CR	“Procomer me estaba dando un gran apoyo a mí... lo que estoy haciendo yo ahorita como iniciativa de en sí, me va escuchar el gobierno de valor agregado”	Procomer has been giving me great support... what I am doing now as a self initiative, is getting the government to listen on added value	xI43CR
y	I43CR	“Yo tengo que ir conociendo primero como es la pasta de cacao, que es la pasta de cacao, que sabor tiene, que aroma tiene, cuanta temperatura, cuanto tiempo, sucesivamente”	I need to get to know first, how is the cacao paste, what is the cacao paste, what flavour it has, what aroma it has, how much temperature, how much time, and so on	yI43CR
z	I40CR	“Lo comercializamos a la puerta, a la puerta de la casa, aprovecho reuniones, aprovecho y como me conocen y gente que viene exclusivamente acá a comprarlo”	We commercialize it to the door of the house, I make use of meetings, I make use and because they know me and people come exclusively here to buy it	zI40CR
aa	I40CR	“tengo que tener bastante preparado porque todo lo que tengo preparado se lo llevan”	I have to have a lot prepared because everything I have they ready they take it	aaI40CR
ab	I6PR	“yo no soy rica tampoco pero doy la capacitación no me cuesta gran cosa, esa es mi valor social”	I am not rich either but the training does not cost me a great deal, that is my social value	abI6PR
ac	I19PR	“siempre mas que todo con el respeto que se merecen porque son gente ya con sus profesionales”	above all with the respect that they deserve because they are professionals	acI19PR
ad	I40PR	“Me ha ayudado a mi crecer, no solamente en la parte emocional, sino en la parte humana, y he tenido mejores ventas, hay más producción, más elogios hacia lo que hago, entonces es positivo, hacia lo que	It has helped me to grow, not only in the emotional part, but in the humane part, and I have had better sales, there's more production, more accolades from what I do, so it's positive, towards what I do,	adI40PR

		hago, se da, siempre lo he hecho, siempre me voy hacia los demás, aquí esta”	it happens, I always do it, I always go towards others, here it is	
ae	I40PR	“me he dado un poco a mejorar lo que es la producción Ambiental... Yo hago mis fertilizantes, y le enseño a los agricultores a hacerlo, el que quiera, no le exijo”	I have been dedicated a bit to better what is the environmental production... I make my own fertilizers, and I teach the farmers how to make it, the one that wants, I don't expect	aeI40PR
af	I5CO	“nosotros somos la alternativa a los coyotes... digamos está en nuestro control cambiarlo”	we are the alternative to the coyotes... let's say that it is in our control to change it	afI5CO
ag	I4CO	“un pequeño agricultor no es justo yo digo que le quites los robos”	for a small farmer is not fair that you take away that you rob them	agI4CO
ah	I5CO	“entonces cuando uno dice bueno ¿cual es el producto que impacta la vida? es el grano de cacao, no tanto chocolate en nuestro caso”	when one says which is the product that impacts life? it is the cacao bean, in our case not so much chocolate	ahI5CO
ai	I13CO	“Valoro la unidad... nosotros los agricultores queremos que la familia se mantenga... el núcleo familiar viene aportando con todas las ideas e inyectando nuevas ideas, nuevas formas de trabajo”	I value the unity... we the farmers want to maintain the family... the close family provides all the ideas and injects new ideas, new ways of work	aiI13CO
aj	I28LP	“lo primordial para mi es eso hacer el trabajo... hacerlo bien y ser digamos como uno tiene que ser digo yo, como un trabajador”	the primary thing for me is to do the work... do it well and be like on has to be, like a worker	ajI28LP
ak	I5CR	“Insisto, somos una empresa social, y entonces tenemos que tener algo, hacer algo ahí para el mercado, no fastidiado pero diferenciado, lo vendemos carísimo el cacao es caro”	I insist, we are a social enterprise, so then we have to do something, do something for the market, not out of annoyance but differentiated, we sell it expensive the cacao is expensive	akI5CR

al	I4LP	“pero yo también tiro más de los valores que tú sales de tu casa que te enseñan tus padres, tiene que ser correcto”	but I lean towards the values that you exit your home with that are thought by your parents	ali4LP
am	I19CR	“a seguir tal, a seguir poniendo en adelante, y para vivir uno para ayudar a la mantención y todo”	to keep moving forward, to be able to live and help with maintain everything	ami19CR
an	I42CR	“la huella que podemos dejar es compartir, es dar, y no necesariamente usted puede dar, usted da, solamente regalando, no usted con solo dando la oportunidad a esa persona”	the legacy that we can leave behind is sharing, is giving, and not necessarily you can give by gifting, no, you give by just providing an opportunity to that person	ani42CR
ao	I42CR	“es una forma de ayudar, y ganar ganar, igual a las señoras de acá de la zona que son madres de familia, que son mujeres que no tienen ningún título”	it's a way of helping, and of earning, equally to the women of this zone that are mothers of a family, that are women that don't have any degrees	aoi42CR
ap	I5CR	“si lo decimos porque si entendemos que es el triple equilibrio verdad entre sostenibilidad, es presente para nosotros, porque económico y también ambiental y ese es el mensaje que está detrás de cada barra de chocolate”	we say it because we understand the triple equilibrium that is true between sustainability, for us it is present, because economically and environmentally and it is the message that is behind each bar of chocolate	api5CR
aq	I8PR	“ella nos llama, una cosa, nos enseña, lo bueno de ella es que ella comparte lo que sabe ella con nosotros”	she calls us, one thing, she teaches us, the good thing about her is that she shares what she knows with us	aqi8PR
ar	I14PR	“En el futuro no sabemos, porque él sabe que va subiendo, y nosotros vamos bajando, ojala que él tenga buena suerte y que siga sus estudios, mas valen los estudios que el trabajo”	In the future we don't know, because he knows that he is going up and we are going down, I hope that he has luck and continues his studies, the studies are more worthwhile than the work	ari14PR
as	I20PR	“A los campesinos... enseñarles porque muchas veces ellos no conocen las enfermedades que tiene el cacao, no saben”	To the farmers... teach them because many times they don't know the disease that the cacao has, they don't know	asi20PR

at	I40PR	“Transferir lo que hemos venido haciendo, y siempre vivo inventando algo, que mezclo un corte diferente a este otro lote, para ver”	transfer what we have been doing, and I always invent something, I mix one cut that’s different to another lot, to see	atl40PR
au	I5CO	“Para mí hay dos elementos de ellos la falta de educación financiera familiar que podría está mucho mejor y dos productividad”	For me there are two elements of them the lack of family financial education that could be much better and two productivity	aul5CO
av	I42CR	“siempre he dicho que todavía nos falta más educación porque el pico todavía no está concientizado en sí de apoyar todas las pequeñas empresas y principalmente aquellas que están colaborando con medio ambiente”	I have always said that we need more education, the peak of being conscientious towards supporting small business has not been reached, in particular for those that are collaborating towards the environment	avl42CR
aw	I43PR	“las Universidades para mi han sido muy importante también porque en base a los estudiantes con sus tesis que vienen haciendo ahora me voy dando cuenta que yo soy más que una no estudiada sino más bien soy una máster en... en... en cultivos y agricultura”	the universities have been very important for me since I came to realize that while the students are doing their theses, I am not just the one being studied, I am also a master in harvest and agriculture	awl43PR
ax	I5CR	“yo no creo que el consumidor sea todavía consciente por más milenios que sean de que el tema social es grave”	I believe that the consumer should be conscious that the social subject is grave even if they are millennials	axl5CR
ay	I25PR	“Todos son criollos, aquí has seis, seis tipos de cacao”	They are all criollos, here there are six, six types of cacao	ayl25PR
az	I10CR	“Que sigan conociendo el cacao como es, original, no esos monocultivos que ahora existen”	Getting other to know the cacao how it is, original, not as a monocrop that are in existence	azl10CR
ba	I19PR	“o sea digo voy a seguir porque yo ya veo lo que ella quiere lo que quiere hacer con el mismo cacao de nosotros no quiere hacer el con el otro ese”	I am going to continue, I can see what she wants to do with our cacao not with the other	bal19PR

bb	I3CR	“yo les decía no esto es importantísimo porque aquí está la genética de los cacaos que se han perdido... yo les voy a pagar tres veces más”	I told them, no, this is very important because here we find the genetics of the lost cacao... I'm going to pay you three times more	bbI3CR
bc	I3CR	“entonces ellos van a preservarlo porque yo tengo algo especial y lo voy a cuidar, y lo voy a preservar y por este cacao me van a pagar más, o sea como que les abrí los ojos... como que de alguna manera como que les transmitió un poco mas de orgullo a lo que tenían”	then, they are going to preserve it because if I have something especial, I will take care of it, I am going to preserve it and for this cacao they are going to pay me more, it's like if I opened their eyes... in some way they felt proud of what they have	bcl3CR
bd	I3CR	“porque es un bosque de cacao, si tu cortas ese árbol vas a perder biodiversidad, vas a perder genética”	because it is a cacao forest, if you cut the tree, you will lose biodiversity, you will lose the genetics	bdI3CR
be	I43PR	“deberíamos de conseguir un mercado bastante amplio para poder colocar el producto de ellos”	We should find a market that is broad to position our product in them	beI43PR
bf	I14PR	“si yo tuviera hubiera puesto una bomba, esa era mi ilusión, pero no hubo la plata, no hubo la plata para hacer un buen pozo”	If I had I would have installed a pump, that was my hope, but there was no money, there was no money to drill a well	bfl14PR
bg	I16PR	“producir más la tierra para vivir, para el beneficio de uno, para nuestros nietos, nuestros hijos, para que ellos estén bien incentivados”	to produce more to live, for one's benefit, for our grandchildren, our children, for them to be well incentivised	bgl16PR
bh	I20CO	“porque si solo siembran algo se mantienen con eso no más, y en cambio hay distintos cultivos que pueden desarrollar”	because if they only sow something they keep themselves to that only, in contrast, there are different product they can develop	bhl20CO
bi	I13CO	“un secado uniforme, uniforme y sacar una buena calidad, eso era más o menos lo que yo veo, porque implícamente seca en carreteros hay veces en sacos o en plástico”	a drying process that is uniform, uniform and to process a good quality, that's what I see, because in practice they dry on the road sometimes in sacs or in plastic	bil13CO
bj	I19PR	“es más importante que vean la biodiversidad que	it's more important that they see the biodiversity,	bjI19PR

		hay, que conozcan la realidad de lo que es el campo”	that they get to know the reality of the countryside	
bk	I19PR	“claro que el campo es muy interesante pero también el agricultor es lo máximo porque uno trabaja y es para dar de comer al pueblo”	of course the countryside is very interesting but the farmer is the maximum because one works to feed the town	bkl19PR
bl	I3PR	“No les interesa, y creen que quedarse en el campo es retroceder y no avanzar, retroceder y no avanzar cuando realmente pueden vivir de una manera maravillosa de lo que te da la tierra, de lo que te da la naturaleza”	they are not interested, they believe that staying in the countryside is going back and not forward, back and not forward, when in reality they can live in a wonderful way from what the land gives you, from what nature gives you	bli3PR
bm	I10CR	“hay que darles identidad es lo que yo digo siempre, si tu sabes de dónde vienes, tienes... sabes a dónde vas”	I always say that they have to be given an identity, if you know where you come from, you should know where you are going	bml10CR
bn	I10CR	“si nosotros somos Montubios y ahora ser montubio es lo máximo, todo el mundo quiere ser”	if we are Montubios and now being Montubio is the maximum, everyone wants to be	bnl10CR
bo	I8PR	“no hay que mejorar nada, solo una única cosa, el precio, ya el cacao se nos mejora todo, mejorando el precio, se nos mejora todo”	we don’t need to better anything, only one thing, the price, and with the cacao everything gets better	bol8PR
bp	I8PR	“trabajamos todos, tenemos todos un buen pago y tenemos todo y la familia tiene su dinero, como dice el, el comparte con todos, o sea, el dinero es para compartirlo con la familia, el dinero del cacao, desde el que viene así hasta el más grandote”	we all work, we have a good payment and we have everything the family has money, like he says, he shares with everyone, money is to be shared with the family, the money of the cacao, from the one that is on the way to the biggest one	bpl8PR
bq	I18PR	“Ya no estamos esperando solo del cacao, ni solo de esto”	We are no longer waiting only on the cacao, or anything else	bql18PR

br	I40PR	“tengo compañeros que ya cortaron una parte del cacao para sembrarlo otra cosa, porque ya no renta, ya en este momento no renta, a mi me renta porque yo le hago un poco esto, vendo seco a chocolateras tengo tres chocolateras amigos, que yo les vendo mi producto seco”	I have colleagues that already cut part of the cacao to sow something else, because it does not yield, at this time it does not yield, for me there's yield because I do a bit of this, I sell dry to chocolate makers I have three chocolate maker friends, that I sell my product dry	brI40PR
bs	I19CR	“y si él [I20]... le paga justo entonces ya ven a quien le pagan mejor”	and yes he [I20]... he pays them justly and then they see who pays them more	bsI19CR
bt	I20CO	“hay que saberle secar el cacao, porque si se seca mucho se baja el peso”	the cacao needs to be dried properly, because if it dries too much the weight drops	btI20CO
bu	I20CO	“porque sería bueno si yo tuviera a alguien que me comprara en otro país el cacao cosa que yo pagara mas aquí a los agricultores y ellos me venderían mas e ir aumentando la producción para que me compre allá y los agricultores sería bueno porque sube el precio del cacao”	because it would be good if I had someone to buy my cacao in another country which I would pay more to the farmers here and they would sell more to me and keep increasing the production so they can buy more there and the farmers would be good because the price of the cacao increases	buI20CO
bv	I14PR	“a mi me preocupa que yo quisiera arreglar mi casita mejor pero no da, no da”	it worries me, I would like to fix my house but it is not enough, it is not enough	bvI14PR
bw	I17PR	“Cuando ya empezamos con esto, cuando yo vine acá, yo dije de aquí me voy a ponerme a trabajar con mi esposo me voy a poner a trabajar, y salir adelante”	When we started with this, when I came here, I said from here I am going to start working with my husband I am going to start working, and move forward	bwI17PR
bx	I17PR	“A trabajar, a seguir tal, a seguir poniendo en adelante, y para vivir uno para ayudar a la mantención y todo”	to work, to keep going, to keep moving forward, and for one to live and help in maintaining everything	bxI17PR
by	I35PR	“Entonces lo que quiero dar a entender con esto, que el costo de la vida en todos los sentidos, en la agricultura o lo que estamos viviendo es demasiado alto”	What I want you to understand with this, the living cost in all senses, in agriculture or what we are living is exceedingly high	byI35PR

bz	I26PR	“Entonces, ya uno le pone mas amor a esto, para que esto se levante y produzca y, y sea lo mejor, que pueda haber”	Then, one puts more love into this, so this can rise and produce, and it can be better, from what is available	bzI26PR
ca	I40PR	“porque tenemos que llegar nuevamente a la tierra, podemos vivir de la tierra, yo vivo sobrevivo de la tierra, siempre y cuando mi norte sea el mismo... siempre debemos despertar por la mañana con una actitud positiva, una actitud de norte”	because we need to get back to the land, we can live from the land, I live surviving of the land, always and when my north is the same... we always need to wake up on the morning with a positive attitude, an attitude of the north	caI40PR
cb	I10CR	“Mis prioridades es que el cacao no pierda su sabor, que haga un buen trabajo y que tenga éxito ella, porque así yo también tengo éxito”	My priorities are that the cacao does not lose its flavour, that she does a good job and has success, that way I am also successful	cbI10CR
cc	I12SM	“aquel que no conoce el pasado, está condenado a repetirlo”	He who does not know the past is condemned to repeat it	ccl12SM
cd	I3CR	vale mencionar que el primer banco se hizo con dinero del cacao y de un empresario radicado en Guayaquil ¿no verdad? La casa Luzárraga y que en 1860 pasó a ser el banco Luzárraga ¿no es verdad? Y fue en Guayaquil, los guayaquileños han sido pioneros en muchas cosas, realmente hemos llevado la bandera del progreso, hemos llevado la bandera del desarrollo, y hasta ahora	It is worth mentioning that the first bank was made with money from cocoa and a businessman based in Guayaquil, right? The Luzárraga house and that in 1860 became the Luzárraga bank, isn't it? And it was in Guayaquil, the people of Guayaquil have been pioneers in many things, we have really carried the flag of progress, we have carried the flag of development, and until now	cdI3CR
ce	I12SM	Y no solo pensando en Guayaquil, sino pensando en el resto del país, recuerden que con dinero, con plata y persona los Guayaquileños se logra la independencia	and not only thinking about Guayaquil, but also thinking about the rest of the country, remember that with money, money and people, the people from Guayaquil achieve independence	cel12SM



cf	I41PR	"el cacao lo trasladaban desde este país hacia el virreinato de Méjico a través de ríos hacia Nicaragua y puros ríos iban comunicando iban trasladando el grano de cacao eso fue el siglo XVI hasta el virreinato de Méjico que era el que reinaba todo Centro América"	the cacao was transported from Costa Rica to Mexico across many rivers through Nicaragua	cfI41PR
ci	I26PR	"hace muchos años, este pueblo en que sigue, se llamaba Yeverde. Hay empezaron once agricultores a sembrar plátano. Cuando ese plátano empezó a producir, empezaron a ver el dinero, si, once productores, agricultores. Claro que ya eran los únicos que tenían plátano entonces el plátano lo vendían a buen precio, ¿que se dice? Todo el mundo, sembró lo mismo, quebraron todo. Si nosotros no ponemos, por decir a, a sembrar cacao. Porque talvez no sola acá hay cacao. También en otros lugares tienen cacao, entonces se va a sobre poblar la producción de cacao."	Many years ago, this town where he lives was called Yeverde. There are eleven farmers to plant bananas. When that banana began to produce, they began to see the money, yes, eleven producers, farmers. Of course, they were the only ones who had bananas, so they sold bananas at a good price, what does this mean? Everyone, planted the same, they broke everything. If we do not start, say to, to sow cacao. Because maybe there is cacao not only here. In other places they also have cacao, so the cacao production will be overpopulated.	ciI26PR
cj	I3CR	"¡Es ciento por ciento el Montubio es hijo del cacao!"	It is one-hundred-percent, the Montubio is the son of the cacao!	cjI3CR

cl	I17PR	"fuimos llevando y vuelta a lo mismo las matas de cargado dice como que Dios le bendice"	we were taking again and again and the trees were [always] full [of fruit], it's like God is blessing you	clI17PR
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## Appendix R – List of A-priori Codes and Role Profiles

As discussed in the literature review, a-priori distilled core concepts provided foundational work to develop a questionnaire for the primary data collection. Core concepts are grouped by themes: a) either/or logic, b) both/and logic, c) decision-making context, d) decision pattern, e) collective problem solving, and, f) reformulation. The a-priori core concepts and fieldwork data sources (interviews; observations; notes; images) enabled new themes such as the identification of priorities and enactment along with hierarchical codes to emerge. Subsequently, data review iterations led to patterns arising from the informants' accounts.

Unique sets of roles were created for each informant grouping the information accordingly and across the various digital files as applicable (*see Appendix L – Example of NVivo™ Coding*). Digital files were made ready for the coding process in an organized, systematic and structured format.

The role profiles of consolidator, crafter, logistics provider and producer were used to output a matrix of 61 codes from template analysis, sifted and organized in the hierarchical themes of: a) priorities, b) task specific trade-based tensions, c) choice pattern, d) collective problem solving, e) decision-making context, f) reformulation, and, g) enactment. Full matrix codes available (see Table 1). The SM role provided a rich source of data for triangulation and for supporting the presentation of the findings while maintaining focus on the producer, consolidator, logistics provider and crafter.

Table 1 Matrix of Sifted Coded Frequency Corresponding to Each Role Profile

Matrix Coding	Mapped Model Code	Producer (PR)	Consolidator (CO)	Logistics Provider (LP)	Crafter (CR)
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	Codes				
21 : enacting trade-offs	F	32	17	8	22
22 : managing resources	E	28	11	5	11
26 : breaking free	J	9	4	1	7
29 : attaining economic balance	F	46	25	16	33
35 : disengaging from experience	J	26	8	6	19
32 : Building relationships	D	28	4	2	20
38 : making use of experiences	I	24	8	6	11
33 : connecting experience	I	15	4	1	16
30 : attaining environmental balance	A	15	3	0	11
37 : experimenting	I	13	10	0	2
31 : attaining social balance	C	1	9	3	10
34 : connecting with culture	A	4	0	1	16
36 : engaging marginalization	F	10	6	0	4
42 : contributing to economic exploitation	F	28	15	15	15
47 : Contributing to practice	E	28	9	2	24
52 : empowering women	G	8	7	1	24
44 : contributing to environmental protection	A	7	2	4	18
40 : being part of the community	B	7	3	0	10
53 : empowering youth	G	5	3	2	10
49 : contributing to social protection	C	7	5	0	7
41 : bringing people together	D	11	0	0	7
48 : Contributing to social exploitation	F	8	5	1	2
50 : creating awareness	H	0	2	1	12
43 : contributing to environmental exploitation	F	6	0	0	6
51 : empowering self	G	2	0	0	2
56 : affecting collective priorities	D	51	32	11	32
59 : structuring	J	21	11	4	25
57 : celebrating success	H	12	2	0	11
61 : reformulating experience	J	11	5	3	17

Source: Own

Within each hierarchical theme (e.g., Choice Pattern) the codes were re-organized by significance. The number of codes indicates the total number of coded references using template analysis across the data sources. This process served to guide the focus and sift

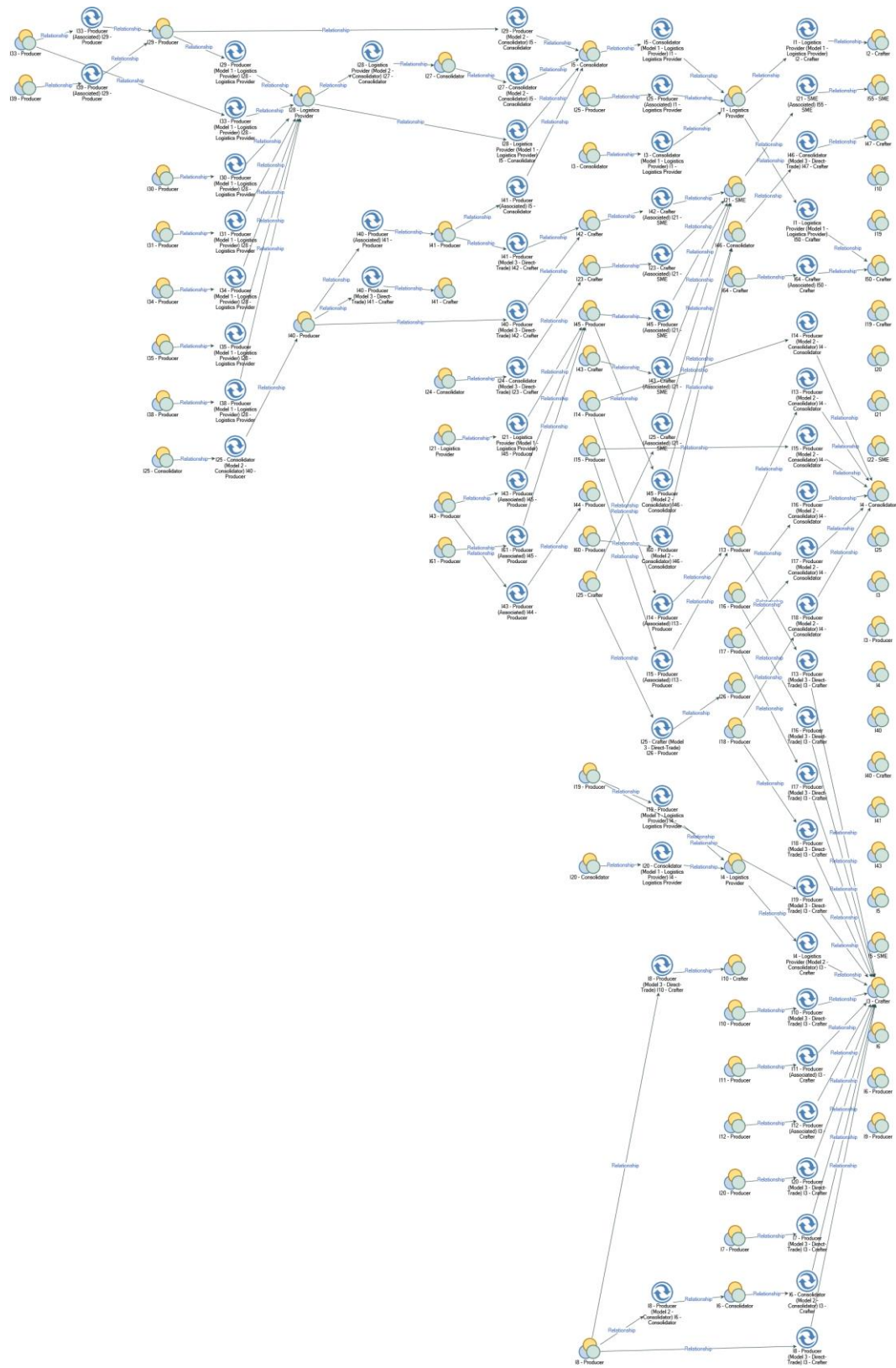
through the priorities of the informants according to their role. Priorities were thematically organized by type and informant role while triangulating the codes from template analysis.

## Appendix S – List of Informants from Fieldwork - by Role

Informant ID	Producer (PR)	Consolidator (CO)	Logistics Provider (LP)	Crafter (CR)	SME (SM)	Country	Age	Sex
I25	1	1		1		Costa Rica	49	M
I3	1	1		1		Ecuador	52	F
I20	1	1				Ecuador	20	M
I6	1	1				Ecuador	82	F
I40	1			1		Costa Rica	58	M
I41	1			1		Costa Rica	53	M
I43	1			1		Costa Rica	52	F
I10	1			1		Ecuador	46	F
I19	1			1		Ecuador	48	F
I26	1					Costa Rica	37	M
I29	1					Costa Rica	67	F
I30	1					Costa Rica	59	M
I31	1					Costa Rica	50	M
I32*	1					Costa Rica	71	M
I33	1					Costa Rica	61	M
I34	1					Costa Rica	79	M
I35	1					Costa Rica	69	M
I36*	1					Costa Rica	32	M
I37*	1					Costa Rica	49	M
I38	1					Costa Rica	33	M
I39	1					Costa Rica	18	F
I44	1					Costa Rica	27	F
I45	1					Costa Rica	50	M
I60*	1					Costa Rica	56	M
I61*	1					Costa Rica	49	M
I11	1					Ecuador	41	M
I14	1					Ecuador	77	M
I15	1					Ecuador	75	F
I16	1					Ecuador	60	M
I17	1					Ecuador	74	F
I18	1					Ecuador	86	M
I7	1					Ecuador	86	M
I8	1					Ecuador	32	F
I9	1					Ecuador	48	M
I4		1	1			Ecuador	50	M
I24		1				Costa Rica	26	M
I27		1				Costa Rica	62	M
I46		1				Costa Rica	57	M

I5		1			1	Costa Rica	52	M
I13		1				Ecuador	67	M
I2				1		Canada	42	M
I50				1		Canada	67	M
I64*				1		Canada	48	M
I23				1		Costa Rica	58	M
I42				1		Costa Rica	48	F
I47				1		Costa Rica	56	F
I1			1			Canada	51	M
I28			1			Costa Rica	59	M
I55					1	Canada	36	F
I21					1	Costa Rica	32	M
I22					1	Costa Rica	50	M
I12					1	Ecuador	48	F
* Person was present at one point in the research; person did not contribute to codes other than having informal conversations with researcher.								

## Appendix T – Informant Relationship Map





## Appendix U – Contributions to Construct from Findings

The approach enabled an informed research design. In other words, how the methods used within the case study accessed empirical data on each of the labelled constructs (*see Table 1*), and, how each role in the model (*see Table 2*) and how each informant in the model (*see Table 3*) contributed to informing theory (Stake, 1995) in a process oriented strategy (Langley, 1999).

Table 1. Construct (First Order) Contribution from Primary Methods

Construct (from Section 2.8, Table 2.1 second column)	Instances by Primary Method Contributing to Core Constructs in Data Collection	
	Interview	Observation
managing resources	49	3
enacting trade-offs	73	2
polarizing humanity livelihood	89	3
polarizing physical world well-being	14	0
achieving short over long-term goals	22	0
engaging tensions	80	5
conflicting demands between sub-systems	99	4
triggering intergenerational equality	70	3
attaining generational stability	45	3
making use of experiences	48	1
attaining environmental, social, and economic balance	158	13
contributing to economic exploitation	56	2
sensemaking between events and experiences	57	3
affecting collective and individual priorities	114	8
reformulating experience	35	0

Source: compiled by author

Table 2 Construct (First Order) Contribution to Model by Role

Construct (from Section 2.8, Table 2.1 second column)	Instances by Model Role Contributing to Core Constructs in Data Collection			
	Consolidator	Crafter	Logistics Provider	Producer
managing resources	11	11	5	28
enacting trade-offs	17	22	8	32
polarizing humanity livelihood	15	22	23	33
polarizing physical world well-being	0	5	2	7
achieving short over long term goals	3	11	6	5
engaging tensions	15	28	13	33
conflicting demands between sub-systems	26	30	19	44
triggering intergenerational equality	13	24	7	34
attaining generational stability	17	22	5	24
making use of experiences	8	11	6	24
attaining environmental, social, and economic balance	37	55	19	62
contributing to economic exploitation	15	15	15	28
sensemaking between events	6	18	9	26
affecting collective priorities	32	32	11	51
reformulating experience	5	17	3	11

Source: compiled by author

**Table 3** Construct (First Order) Contribution to Model by Informants

Construct (from Section 2.8, Table 2.1 second column)	Informants by Identification Contributing to Core Constructs in Data Collection
	Informants
managing resources	I1; I13; I14; I16; I18; I19; I2; I20; I23; I25; I26; I27; I28; I29; I3; I31; I33; I35; I4; I40; I43; I5; I8; I9;
enacting trade-offs	I1; I14; I16; I17; I19; I2; I20; I23; I25; I27; I28; I29; I3; I30; I31; I35; I4; I40; I5; I6; I8; I9;
polarizing humanity livelihood	I1; I13; I14; I16; I17; I19; I2; I23; I25; I28; I3; I30; I31; I34; I35; I4; I40; I41; I43; I5; I6; I8;
polarizing physical world well-being	I1; I10; I23; I25; I28; I29; I3; I31; I40;
achieving short over long term goals	I1; I13; I19; I23; I27; I28; I29; I3; I4; I43; I5; I8; I9;

engaging tensions	I1; I10; I14; I16; I17; I19; I2; I20; I22; I23; I25; I26; I27; I28; I29; I3; I31; I33; I35; I4; I40; I42; I43; I5; I6; I8;
conflicting demands between sub-systems	I1; I10; I13; I14; I17; I19; I19; I2; I20; I21; I23; I25; I25; I28; I28; I29; I3; I31; I34; I35; I4; I40; I43; I5; I5; I5; I5; I5; I6; I8;
triggering intergenerational equality	I1; I10; I11; I13; I14; I16; I17; I18; I19; I20; I23; I25; I26; I27; I28; I29; I3; I31; I35; I40; I41; I42; I43; I5; I6; I8;
attaining generational stability	I1; I13; I14; I16; I17; I19; I2; I20; I23; I25; I25; I25; I28; I3; I31; I33; I35; I4; I40; I41; I42; I5; I5; I5; I5; I5; I8;
making use of experiences	I1; I13; I14; I17; I19; I2; I20; I23; I25; I27; I28; I29; I3; I35; I4; I40; I43; I45; I5; I6; I8; I9;
attaining environmental, social, and economic balance	I1; I10; I11; I13; I14; I16; I17; I19; I2; I20; I23; I25; I26; I27; I28; I3; I31; I33; I35; I4; I40; I41; I42; I43; I5; I6; I8;
contributing to economic exploitation	I1; I14; I16; I17; I2; I20; I22; I25; I28; I29; I3; I31; I35; I4; I40; I42; I43; I5; I6;
sensemaking between events	I1; I10; I13; I14; I16; I17; I19; I2; I20; I21; I23; I25; I3; I31; I35; I4; I40; I43; I5; I6; I8;
affecting collective priorities	I1; I10; I11; I13; I14; I16; I17; I19; I2; I20; I21; I23; I25; I27; I3; I30; I31; I33; I35; I4; I40; I41; I42; I43; I5; I6; I8;
reformulating experience	I1; I10; I19; I2; I20; I23; I3; I30; I31; I4; I40; I43; I5; I8;

Source: compiled by author

## Appendix V – Sustainable Development Dynamics to Goals

### Reference

					Sustainable Development Dynamics		SDGs	SDGs Description
Pattern	Role and Tension Flow	Tension	Tensional Triggers	Priority Code	Supports	Hinders		
I	PR>CR	9; 12; 17; 21; 31	Financial resources; exploitation	DEFGI; DEGI; DEJ; DFI; EFH	●		1.4; 15.9; 17;	Equal rights to economic resources; Livelihood opportunities; Trade liberalisation and globalisation
I	CO<PR	19; 7; 22; 19	Livelihood; Trade	CDEFG; DEF; DF		●	15.9; 17	Livelihood opportunities; Trade liberalisation and globalisation
I	CR<PR	10	Financial resources; exploitation	DEFGI		●	1.4; 5.2;	Equal rights to economic resources; Other types of exploitation;
I	PR>CR	11	Financial resources; trade	DEFJ		●	1.4; 17;	Equal rights to economic resources; Trade liberalisation and globalisation
I	LP>PR	1	Involvement of Children	CDEF	●	●	8.7; 16.2	Child labour and child abuse/exploitation
I	PR>CR	29	Value-add processes	DEF		●	2.3	Markets and opportunities for value addition
I	CR<CO	32	Value-add products; international markets	GF	●		2.3	Markets and opportunities for value addition
II	PR><PR	16; 26	Technical education	DEI; EI		●	4.3	Equal access to quality technical education;
II	CR><PR	6; 8	Financial resources; exploitation	DEFH		●	1.4; 5.2;	Equal rights to economic resources; Other types of exploitation;

II	PR><PR	15	Financial resources	DEI		●	1.4	Equal rights to economic resources;
II	PR><PR	30	Financial resources	DEI	●		1.4; 2.3; 5.5; 8.3;	Microfinance opportunities; Incomes of small-scale food producers; Ensure women's full and effective economic life; Promote development-oriented policies
II	PR><CO	18	Production capacity	DEI		●	2.3	Increase productive resources and inputs
II	CO><PR	20	Regulation	DFG		●	10.5	Improve regulation and strengthen the implementation
II	PR><PR	24	Regulation	EFI		●	10.5	Improve regulation and strengthen the implementation
II	CR><PR	2	Product origin	AE		●	17.2	Rules of origin applicable to imports from least developed countries
III	PR<CR	4; 3; 28	Bio-diversity; ancestry	ABDEF; AEI; AEF	●		15.2; 2.5	Restore degraded forests and increase afforestation and reforestation; maintain the genetic diversity of cultivated plants
III	PR<>PR	25	Technical education	EGI	●		4.3;	Equal access to quality technical education;

SDG	Description	Most Related	Indirectly Related	Least Related
1	No Poverty	●		
2	Zero Hunger	●		
3	Good Health and Well-being		●	
4	Quality Education	●		
5	Gender Equality	●		
6	Clean Water and Sanitation		●	
7	Affordable and Clean Energy		●	

8	Decent Work and Economic Growth	●		
9	Industry, Innovation and Infrastructure		●	
10	Reduced Inequality	●		
11	Sustainable Cities and Communities		●	
12	Responsible Consumption and Production		●	
13	Climate Action		●	
14	Life Below Water			●
15	Life on Land	●		
16	Peace and Justice Strong Institutions	●		
17	Partnerships to achieve the Goal	●		